Occupational Stress and Well-being of Professional Classical Musicians and Conservatoire Music Students

Simone Willis

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Director of Studies: Dr. David Wasley

Supervisors: Dr. Mikel Mellick, Professor Rich Neil

This research was undertaken under the auspices of Cardiff Metropolitan University

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DECLARATION

This Work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed....S. Watts............(candidate)

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This thesis is the result of my own investigations, except where otherwise stated.Where correction services have been used, the extent and nature of the correction is clearly marked in a footnote(s).

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This thesis is dedicated to my mum,

Donna Elaine Willis

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Willis, S., Neil, R., Mellick, M. C., & Wasley, D. (2018a, April 19). *The relationship between stress and well-being of performing artists* [Poster presentation]. Breaking Boundaries Interdisciplinary Conference for Humanities, Arts, and Social Science, Cardiff University, Cardiff, UK.

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Abstract

Classical musicians experience a range of demands within their occupational environment, which if not coped with effectively, can cause stress and negatively impact well-being. This research examined the stress and well-being process in professional classical musicians and conservatoire music students. Three studies were conducted using a multi-method research design. Study 1 was a mixed-methods systematic review, which evaluated and synthesised the literature on the relationship between demands and well-being of performing artists. Twenty studies were analysed revealing differing levels of quality and a wide range of stress and well-being frameworks underpinning the research. However, the frameworks used did not help researchers capture all the demands experienced by performing artists, consider stress appraisal, or adequately integrate well-being outcomes. Therefore, the Demands-Resources-Individual Effects (DRIVE) model, a more integrated model, was adopted to underpin the remainder of the research. For Studies 2 and 3, an explanatory sequential design was used and quantitative findings were explored through qualitative follow-up. Study 2 was a cross-sectional survey that assessed occupational characteristics, personal characteristics, perceived stress, and well-being. Structural equation modelling was used and results partially supported predictions of the DRIVE model. The main finding was that occupational and personal characteristics had a direct effect on perceived stress and well-being. However, perceived stress did not contribute to well-being. This could be due to differential effects of stress appraisal, which was examined in Study 3 through an interpretative phenomenological approach. Underpinned also by Cognitive-Motivational-Relational Theory, Study 3 interpreted the lived experiences of occupational stress and well-being of musicians. A key finding was that musicians most often appraised occupational demands as a threat due to underlying properties of stress appraisal including preparation, comparison with others, and uncertainty. Additionally, well-being outcomes were related to stress appraisals. Following from these findings, a series of organisational and personal level interventions are recommended.

Abbreviations

AIC	Akaike Information Criterion
CBT	Cognitive behavioural therapy
CFA	Confirmatory factor analysis
CFI	Comparative Fit Index
CMRT	Cognitive-Motivational-Relational Theory
COPSOQ	Copenhagen Psychosocial Questionnaire
df	Degrees of freedom
DRIVE	Demands-Resources-Individual Effects
ERI	Effort-Reward Imbalance
EWWS	Eudaimonic Workplace Well-being Scale
FS	Flourishing Scale
GDP	Gross domestic product
I-PANAS-SF	International Positive and Negative Affect Schedule Short Form
IPA	Interpretative Phenomenological Analysis
JDC	Job Demand-Control
JDCS	Job Demand-Control-Support
JD-R	Job Demands-Resources
MHC	Mental Health Continuum
MMAT	Mixed-Methods Appraisal Tool
MPA	Music Performance Anxiety
PANAS	Positive and Negative Affect Schedule
PERMA	Positive emotion, Engagement, Relationships, Meaning, Accomplishment
PRISMA	Preferred Reporting Items for Systematic Review and Meta-Analyses

PWB	Psychological Well-being Scales	
RMSEA	Root Mean Square Error of Approximation	
SDT	Self-Determination Theory	
SE	Standard error	
SEM	Structural Equation Modelling	
SWLS	Satisfaction with Life Scale	
TLI	Tucker-Lewis Index	
WPQ	Well-being Process Questionnaire	

Chapter 1

Introduction

1.1. Introduction

In this chapter, I discuss the context for conducting the research presented in this thesis, briefly considering well-being from international and national policy perspectives before focusing on stress and well-being of musicians. I then discuss my own experience of being a musician, considering my early experiences, conservatoire study, and work as a professional musician. Following this, I consider the purpose of the research and outline the structure of the thesis. This is followed by a brief description of the implications of conducting the research presented within this thesis during the COVID-19 pandemic.

1.2. Research context

The importance of well-being for individuals and society has been recognised at a global level. The promotion of well-being is incorporated into the United Nations' Sustainable Development Goals and the World Health Organization's current programme of work (United Nations, n.d.; World Health Organization, 2019). Additionally, the World Health Organization created the Geneva Charter for Well-being (2021), which aims to foster "well-being societies" and drive governments to create and implement policies that enhance well-being. Accordingly, the well-being of nations is being measured by institutions such as the Organisation for Economic Co-operation and Development (OECD) and the Sustainable Development Solutions Network (Helliwell et al., 2023; OECD, 2020).

In the UK, the former Prime Minister, David Cameron, launched the National Wellbeing Programme in 2010 (UK Government, 2010, 2013). This programme acknowledged the limitations of gross domestic product (GDP) and aimed to incorporate measures of subjective well-being into population-level assessments. In 2012, the Office for National Statistics published the first annual report on well-being in the UK (2012) and data continues to be collected in the Annual Population Survey. To further the work on well-being, the UK Government announced the establishment of a new evidence centre in 2014, the What Works Centre for Wellbeing (2014). The Centre aims to promote well-being and reduce well-being inequalities through the creation of evidence and engagement with policymakers, business

leaders, and communities (What Works Centre for Wellbeing, n.d.). The Centre has several strands of work including loneliness, mental and physical health, places and community, and workplace well-being. Within the theme of workplace well-being, the Centre provides evidence and resources on job quality, job security, progression, retirement, and unemployment amongst other topics. The Centre also produces and disseminates evidence on the mental health and well-being of higher education students.

The majority of adults in the UK spend a large proportion of time at work and research on how workplaces can contribute to the well-being of individuals is growing (Jambrino-Maldonado et al., 2022). At an organisational level, links have been made between workplace well-being and organisational outcomes such as productivity and turnover (e.g., DiMaria et al., 2020; Wright & Bonett, 2007). However, experiencing stress in the workplace is a threat to the well-being of individuals and this effect has been observed across a variety of occupations (Mensah, 2021). In the UK, workplace health and safety are regulated by the Health and Safety Executive, which considers six factors that may contribute to the experience of workplace stress: demands, control, support, relationships, role, and change (n.d.).

Turning to the cultural sector, it is estimated that arts and culture annually contribute £10.8bn to the UK economy and support around 140,000 jobs (Cebr, 2019). The role of the arts in contributing to the nation's health and well-being is a topic considered by the All-Party Parliamentary Group on Arts, Health and Well-being and their report on the topic (2017) led to the establishment of the National Centre for Creative Health. The importance of the arts for health and well-being is also outlined in the current Arts Council England Strategy (2020). Supporting the health and well-being of creative practitioners is considered essential to fulfilling the aims set out in the strategy (Arts Council England, 2022).

It is estimated that there are 37,000 musicians working in the UK (Help Musicians, 2023) with around 14,000 working for orchestras (Association of British Orchestras, 2019). Of these, around 2,000 are employed, with the remaining 12,000 working in a freelance capacity (Association of British Orchestras, 2019). Freelance musicians may be self-employed, work on short-term contracts, and have irregular work patterns. Working in a self-employed capacity

requires freelance musicians to demonstrate business acumen and establish relationships with stakeholders such as orchestral fixers (Coulson, 2012; Kubacki, 2008). Further, concerts often take place during evenings and weekends meaning it may be difficult for musicians to establish an appropriate balance between work and other aspects of their lives (Vaag et al., 2014). Additionally, musicians work in a performance environment that demands technical mastery and emotional expressivity (Williamon, 2004). Together, these factors suggest that professional orchestral musicians are exposed to a number of occupational demands within the psychosocial work environment. These demands may give rise to the experience of occupational stress and negatively impact the well-being of professional classical musicians. Despite this, professional classical musicians have reported positive well-being outcomes from engaging in music-making (Ascenso et al., 2017).

Students training to enter the classical music industry may also be exposed to similar demands. A traditional path to working in classical music is through study at a conservatoire or specialist music college. Such programmes focus on developing the instrumental skills of students, which is achieved through one-to-one tuition and performance opportunities that emulate a professional environment (e.g., orchestral rehearsals and performances, solo performances). In addition, the interpersonal relationship between students and their one-to-one teacher can be intense (Gaunt, 2008). Consequently, the well-being of conservatoire music students may also be affected by occupational demands.

1.3. Background of the researcher

In the following section, I discuss my own experiences of music in relation to my introduction to music, learning the violin, conservatoire study, and working as a music teacher and freelance performer. Within my reflection, I discuss significant events within the occupational environment that affected my well-being and mental health as well as my perception of occupational stress and musicians. This section was guided by the work of Dallos and Vetere (2005), who provided questions for researchers to reflect on and consider how personal experiences may shape research interests.

My experience as a musician has been full of highs and lows in terms of experiences and associated well-being outcomes. I started playing the violin at the age of five after going to a children's music class. I had weekly group lessons, which were fun as they involved lots of games with the other children, singing, and a chime bar on the note D. However, in these early stages, I resented the practice that was necessary ahead of each week's lesson. One day, after being told off again by my mum about practice, I angrily threw my violin on the floor, immediately shocked and regretful of my actions. It wasn't until much later that I started to enjoy practising and seeing the improvements I could make on the violin.

I felt nervous about performing from the beginning—worried about making a mistake and what the other children, my teacher, and parents would think of me. Exams made me anxious due to the fear of failure and I was concerned about the many concepts I did not understand—sharps, flats, intonation, and scales. Around age 12 and about to enter a Grade 5 exam, my teacher asked how I felt. "I don't feel ready," I answered. Despite reassurance from the teacher that I was ready, I failed the exam. "I told you I wasn't ready," I said to my mum through tears alongside thoughts of giving up. However, my mum found me a new teacher, who was a better fit, and the violin became fun again.

As well as private lessons, I enjoyed attending local youth orchestras. The weekly rehearsals were challenging and I enjoyed learning different repertoire and performing alongside friends. At senior school, I led the orchestra each week and on summer music tours in Ypres, Vienna, and Budapest. I was given opportunities to perform solos and I started having flute and piano lessons, progressing to Grade 6 on both instruments. I won several prizes for music and was awarded a music scholarship for sixth form. Alongside the local youth orchestra, I attended the City of Birmingham Symphony Orchestra (CBSO) Youth Orchestra. After one week of intense rehearsals, we would perform in Symphony Hall. Performing Stravinsky's Firebird Suite with the CBSO's principal conductor was an absolute joy and remains one of the highlights of my musical experience.

Around the age of 14, I decided I would put more effort into learning the violin and I started attending a junior conservatoire every Saturday. This was an intense experience, which

involved my one-to-one violin lessons, jazz piano lessons, chamber music coaching, chamber orchestra, symphony orchestra, general musicianship class, chamber choir, performances, auditions, and competitions. My junior conservatoire experience was also my first encounter with children and young people who were at an advanced level on their instruments. Whilst I was working towards my Grade 7, many of the children had been attending the junior conservatoire from a very young age and had completed Grade 8 or even Diploma level qualifications. Seeing other children and young people excel was an inspiration and made me want to practise more. I also had an exceptional teacher, who was the first person to explain technique and musical concepts in a way I understood. Under his guidance, I corrected numerous technical issues and began to take the violin more seriously. Whilst I enjoyed attending the junior conservatoire, I often felt inadequate in comparison to the other children—I was terrified one day when the orchestra conductor asked everyone in the violin section to play a passage individually. Despite practising, I knew I couldn't play it and was totally humiliated in front of the rest of the orchestra.

Not knowing what to study at university, I took my mum's advice, "Do something you love," and decided on music. Following a gap year, I started a Bachelor of Music at a conservatoire. Initially, I enjoyed the challenge of learning new repertoire and having the time to practise. However, I found performing in front of my peers, auditioning for ensembles, and performance exams daunting, often experiencing performance anxiety for weeks at a time. Early in the first year, we were briefly introduced to music performance psychology and I started reading about techniques to manage my own performance anxiety. As I read more, I started to develop an academic interest in the topic and when it came to my final year dissertation, I chose to complete a literature review on psychological performance skills.

I also found interpersonal relationships with staff difficult—a mismatch of teaching and learning styles led to arguments with my one-to-one teacher and I ended up changing teachers twice; some off-hand comments from a senior member of staff led to a formal complaint. These events were very stressful and I contemplated dropping out numerous times. I also found the politics difficult to manage at the conservatoire—students were constantly jostling for position, keen to know what marks others had received, and compare where they were sitting

in orchestra. While it seemed like some students could do no wrong and were awarded prizes and external performance opportunities, I felt like I was on the periphery, just there to make up the numbers.

Not only did I find the conservatoire experience difficult, but I watched friends and peers struggle. They too had difficulties with performance anxiety, worried about being embarrassed during performance class, and constantly compared themselves to other students. I had friends who experienced injuries but were unwilling to disclose them to staff, concerned they would need to rest and lose valuable practice and performance opportunities. These issues were widespread and I found it odd that they were not more formally acknowledged in classes and modules throughout the degree, each individual being left to find their own solution with varying degrees of success. This was part of the hidden curriculum and I learned that it wasn't acceptable to discuss these issues publicly and they needed to be a private matter.

It was around this time that a wider discourse on well-being was taking place in the UK, with the then Prime Minister, David Cameron, announcing that the Office for National Statistics would begin measuring well-being at a national level (UK Government, 2010). Alongside GDP, well-being was to be considered a measure of success for the country. Although I didn't engage with this news in any depth, I started to consider the value and meaning of well-being at individual and population levels. Additionally, I noticed a change in my own social circle and the media. Several of my friends disclosed mental health issues they were experiencing and discussed how they were coping. I also noticed more people and organisations discussing mental health and well-being on social media, sharing personal experiences, and making efforts to reduce stigma around mental health. I contrasted this wider discourse on mental health and well-being with my experiences of conservatoire study, where disclosing any form of mental or physical issue was perceived as a weakness.

In my final year, I decided to seek out coaching from a professional performance psychologist. I had some great feedback from both staff and other students that my performances had turned a corner and greatly improved. It, therefore, came as a shock when I failed my final

performance exam. It was ironic that whilst I couldn't graduate with my peers, I had received an award from the conservatoire for Music in the Community. I was disappointed and ended up submitting another formal complaint. The complaints process was difficult to navigate with staff telling me things "off the record." I was provided with some counselling and additional performance support but my mental health and well-being took a significant hit. I dragged myself to the performance only to fail again. I was offered the opportunity to take a further resit but declined, recognising that the situation was having a significantly negative effect on my mental health. At this point, I was ready to give up on getting my degree qualification from the conservatoire and explored options for transferring to another university. With the assistance of my counsellor, parents, and academic registry, I was offered an alternative assessment (a lecture recital), which I eventually passed. I was relieved that my conservatoire experience was over, never wanted to see the violin again, and was totally disillusioned with music. I did not attend graduation and hoped that I would never need to engage with the conservatoire again.

Although I wasn't enjoying music at this point, I needed a job and successfully applied to be a peripatetic music teacher at a music hub prior to completing my degree. I combined this with teaching privately and some occasional freelance work. I taught the violin, flute, and fife across primary and secondary schools in one-to-one, small group, whole class, and ensemble settings as well as teaching adults. Having had mixed experiences with my own music teachers, I was keen to make sure that my pupils enjoyed their lessons, had the technical information they needed to practise, and had a choice about whether to take exams. Watching others discover and enjoy music was also a positive experience for me, offsetting some of the negative experiences I had had during my undergraduate degree. I also sought out positive musical experiences by joining a chamber music group and performing at summer music festivals.

Whilst I sometimes enjoyed teaching, I found working as a peripatetic teacher tiring and often unsatisfactory: I worked in a different county, which required driving over an hour before the teaching day started and then driving to multiple schools within the same day. In some instances, I was teaching two, three, or four children in a lesson for only 15 minutes, which

meant I couldn't give them the attention they needed; and I saw little opportunity for career or salary progression. I experienced a shift in priorities: previously, working in music had been my main goal as I enjoyed playing the violin and believed it would be an interesting job. However, around 2014, I realised that working as a music teacher was detracting from my well-being. I, therefore, made the decision to seek out a job that would contribute to my well-being, rather than detract from it, even if that meant not working in music.

Starting a PhD had previously been suggested to me in 2013 by a member of academic staff at the university due to my interest in performance psychology skills for musicians but for personal reasons, it had not been the right time. After reading *What color is your parachute?* (Bolles, 2009) and working through the exercises, I decided that a career in research was the right decision and to pursue doing a PhD (knowing that if I didn't enjoy doing a PhD, I could always leave and do something else). I thought that doing a PhD could facilitate a career transition with several possible outcomes—I could move into academia on a research or teaching pathway or look to research positions in the public or private sector. I understood that the PhD would be a challenging process given that my undergraduate degree was focused on music performance and I had had little opportunity to develop my research skills. Having specialised in the violin, I reasoned that gaining a breadth of skills would be the best approach to take in my research programme as this would give me numerous career options for the future. As such, I set out to develop skills in both quantitative and qualitative research methods and learn about the culture of academia along the way.

In terms of choosing a topic for my research, I thought back to my undergraduate dissertation on psychological skills for musicians, which I had enjoyed. This interest was combined with my conservatoire experience and discussions with friends who were working in music, which led me to the broader topic of mental health and well-being for musicians. I was also interested in individual differences in the stress process—whilst studying, I wondered why I perceived performances as stressful whilst others thrived on the stage. Further, I was interested in how other students and musicians coped with the demands of the conservatoire and the profession. These early ideas formed the basis for my thesis and the concepts I wanted to explore further. I also wanted to contribute something positive to musicians' well-being.

During my PhD, I transitioned from being a music teacher to an academic role (see Chapter 8). I have not played the violin or any other instrument since 2019. I do not miss it. Playing the violin is tied to my experiences—many of which were negative and I'd rather not be reminded of them. Reflecting on my experiences of conservatoire study, I think it is sad that choosing to do something I loved, turned into such a negative experience and had a detrimental effect on my mental health and well-being and broader engagement with music.

1.4. Purpose of the thesis

The programme of research presented in this thesis examined the occupational stress and well-being process in professional classical musicians and conservatoire music students. This was achieved using a multi-method research design and included three studies.

1.4.1. Structure of the thesis

Following this introductory chapter, a literature review is presented in Chapter 2. In the literature review, I discuss theories, models, and concepts related to occupational stress and well-being. I then critique the literature on occupational stress and well-being of performing artists, focusing on professional classical musicians and conservatoire music students. The literature review informed the research design through a critique of existing research in the field and identifying gaps in the literature, which led to the refinement of the aims and objectives of the thesis.

In Chapter 3, I state my philosophical position and discuss how this underpinned the research design. I consider my ontological and epistemological beliefs and discuss how they contributed to methodological decisions for the research programme. I also consider how my philosophical position aligned with decisions on data collection and analysis.

In Chapter 4 (Study 1), I present a mixed-methods systematic review that evaluated and synthesised the literature on the relationship between occupational demands and well-being of performing artists. The systematic review was published in the peer-reviewed journal, *Frontiers in Psychology*, and is, therefore, presented as it appeared in the journal with correction

of minor typographical errors. This publication includes myself as first author and my supervisors as authors given their contribution to and supervision of the research. For clarity, I was responsible for designing and conducting the research, analysing the results, and writing up the publication. Given that this chapter was published in a peer-reviewed journal, it includes a brief review of occupational stress and well-being in the performing arts. The results of the systematic review informed my approach to the subsequent studies presented in the thesis and provided a further rationale for the adoption of a multi-method research design.

In Chapter 5 (Study 2), I report a quantitative assessment of occupational stress and well-being in professional classical musicians and conservatoire music students. This was a cross-sectional study, informed by the Demands-Resources-Individual Effects (DRIVE) model (Mark & Smith, 2008). Through the use of Structural Equation Modelling (SEM), I assessed the contribution of occupational and individual characteristics to both perceived stress and well-being.

In Chapter 6 (Study 3), I present a qualitative exploration of the lived experiences of occupational stress and well-being of professional classical musicians and conservatoire music students. This was a qualitative follow-up study which included participants from Study 2 and used Interpretative Phenomenological Analysis (IPA). This study examined occupational stress and well-being in depth and was informed by Lazarus' (1999) Cognitive-Motivational-Relational Theory (CMRT).

In Chapter 7, General discussion, I consider the overall findings of each study and the contribution to current research in occupational stress and well-being of professional classical musicians and conservatoire music students. I consider the theoretical, conceptual, and practical implications of the research programme as well as outlining strengths, limitations, and future directions for research.

In the final chapter, Chapter 8, I offer a reflexive and reflective account of my doctoral journey. Specifically, I consider my academic and personal development as well as my experiences of

occupational stress and well-being whilst balancing the demands of part-time doctoral study and working in academia.

1.4.2.   COVID-19

Data collection for the studies presented in this thesis was disrupted by the global COVID-19 pandemic. Data collection for Study 2 (see Chapter 5) took place prior to the pandemic while data collection for Study 3 (see Chapter 6) took place during the pandemic. I had originally planned for Study 2 to be a longitudinal study of occupational stress and well-being in musicians, with a further phase of data collection planned for May 2020. Ultimately, this subsequent data collection was not able to take place due to the pandemic and the resulting restrictions and lockdowns imposed by the UK Government. However, this decision did not limit my ability to address the aim and objectives for the research programme.

Lockdowns and social distancing rules significantly affected the occupational environment of both professional classical musicians and conservatoire music students (Brooks & Patel, 2022). The work of professional musicians was significantly disrupted as performing arts venues were closed and live performances cancelled (Cohen & Ginsborg, 2021; Spiro et al., 2021). Freelance musicians, in particular, were exposed to great financial uncertainty and some sought employment in sectors outside of music and the creative industries (Cohen & Ginsborg, 2022). Although some digital performances and events took place during the pandemic, in the UK, indoor performing arts venues were not permitted to reopen until May 2021 (Institute for Government, 2022). There was also uncertainty for those studying at conservatoires and music colleges as teaching and assessments were moved online and institutions moved to a blended approach to teaching and learning (Martínez-Hernández, 2022; Ritchie & Sharpe, 2021).

Initially, I decided to postpone the subsequent phase of data collection for Study 2. However, as the lockdowns and restrictions continued it became necessary to adapt the research programme to accommodate the realities of completing data collection whilst the pandemic was ongoing. I, therefore, decided to bring forward data collection for Study 3, collecting data during the pandemic. With regards to Study 2, the significant impact on the occupational

environment of musicians and the resulting loss of work meant it was inappropriate to ask musicians questions relating to occupational stress and well-being. As the pandemic continued, it became evident that even if restrictions were lifted, it would take some time for the occupational environment to return to "normal." This would mean further delaying subsequent data collection to obtain a data set that could be meaningfully compared with data collected in 2019. Given that I was able to address the research aim and objectives using cross-sectional data, I decided not to collect subsequent data for Study 2, which is presented as a cross-sectional study in this thesis.

Chapter 2

Literature review

2.1. Introduction

In this chapter, I present a literature review which is structured in two parts: firstly, I examine theories, models, and concepts that relate to occupational stress and well-being; secondly, I assess research on occupational stress and well-being within the performing arts focusing on professional classical musicians and conservatoire music students. In Section 2.2, I consider the most influential theories and models of occupational stress alongside their strengths and limitations. Following this, I discuss the two main conceptualisations of well-being: hedonic well-being and eudaimonic well-being (see Section 2.3).

I then discuss relevant literature within the performing arts context in Section 2.4 and 2.5. While the focus is on professional classical musicians and conservatoire music students, similar occupational environments such as dance and theatre are considered to provide additional context on the experience of performing artists. I examine literature that considers the types of occupational demands and resources encountered by professional and student performing artists in Section 2.4. This is followed by a review of literature that addresses occupational characteristics in relation to well-being of performing artists in Section 2.5. Finally, I consider some of the limitations of the research (see Section 2.6) and outline the rationale and purpose of the thesis (see Section 2.7).

2.2. Theories and models of occupational stress

In this section, I consider models of occupational stress and provide a critical review of their strengths and limitations. Firstly, I present interactional models and theories of occupational stress including the Job Demand-Control-(Support) models (Johnson & Hall, 1988; Karasek, 1979), the Effort-Reward Imbalance model (Siegrist, 1996), and Job Demands-Resources theory (Bakker & Demerouti, 2014). Secondly, I present a transactional theory and model of occupational stress: Cognitive-Motivational-Relational Theory (Lazarus, 1999) and the Demands-Resources-Individual Effects model (Mark & Smith, 2008).

2.2.1. Interactional theories and models of occupational stress

In early theories of occupational stress (e.g., General Adaptation Syndrome; Selye, 1946), researchers conceptualised stress as a stimulus-response relationship (Cox & Griffiths, 2010). Researchers considered stress as something that happened to individuals as a result of adverse external demands rather than taking place within individuals. These theories were criticised for omitting the role of the individual and as a result, interactional theories of occupational stress were developed. These interactional theories considered the overall structure of the stress process and are also known as structural theories of stress (Cox & Griffiths, 2010). In these theories, the interaction between contextual factors at work (e.g., demands and control) and the individual is considered. In interactional theories, stress is conceptualised as a negative experience that takes place within an individual when they experience unfavourable work conditions. The main interactional models of stress are discussed in Sections 2.2.1.1–2.2.1.3.

2.2.1.1. Job demand-control(-support) model

The Job Demand-Control model (JDC; Karasek, 1979) is one of the most widely used interactional models within occupational stress research (e.g., Häusser et al., 2010; Van der Doef & Maes, 1999). The JDC model indicates that job demands and job control affect whether an individual experiences strain. Within this model, job demands are described as elements of the work environment that are potential sources of stress and job control, sometimes referred to as job decision latitude, relates to the degree of control an individual has over their work tasks (Karasek, 1979). Job control is made up of two sub-factors: decision authority and skill discretion. Decision authority is defined as the control an individual has over work tasks and skill discretion refers to the variety of skills an employee uses (Mark & Smith, 2008). Strain is an individual's response to demands and Karasek (1979) proposed an interaction effect: individuals experience higher levels of strain in jobs where occupational demands are high and control is low (see Figure 2.1). This hypothesis was supported by Karasek's (1979) finding that individuals who reported higher levels of job demands and lower levels of decision latitude experienced greater exhaustion, depression, job dissatisfaction, and absenteeism.

Karasek also found that individuals who reported high job demands alongside high decision latitude experienced the greatest level of life satisfaction, thus demonstrating the possibility for decision latitude to moderate the relationship between job demands and strain.

Figure 2.1

Job Demand-Control Model (adapted from Karasek, 1979, p.288)
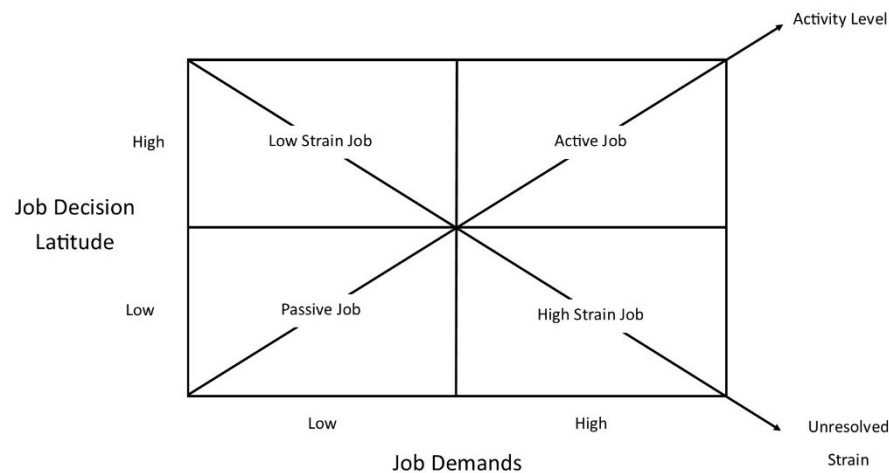
Further research suggested that social support at work could moderate the relationship between occupational demands and stress outcomes (e.g., Karasek et al., 1982; LaRocco et al., 1980). This led to an extension of the JDC model, known as the Job Demand-Control-Support model (JDCS; Johnson & Hall, 1988; see Figure 2.2). Johnson and Hall (1988) reported that individuals who had lower social support from co-workers experienced higher levels of occupational stress and were at an increased risk of cardiovascular disease.

The simplicity of the JDC(S) model is a strength, making it useful for primary research. This has led to a large volume of publications using the JDC(S) model with a variety of populations including teachers, nurses, soldiers, and university lecturers (Häusser et al., 2010). The practical applicability of the model is further demonstrated through its use with samples across Europe, the United States of America, and Asia (e.g., Häusser et al., 2010). Whilst support exists for the effects of job demands on health outcomes (e.g., Kuper & Marmot, 2003),

the support for the suggested interaction effect of job demands and job control is mixed (de Lange et al., 2003; Van der Doef & Maes, 1999). Häusser et al. (2010) conducted a systematic review of studies using the JDC(S) model and although support was found for the additive effects of job demands and job control on well-being outcomes, only partial support was found for a moderating effect of job control on the relationship between job demands and well-being outcomes.

Figure 2.2

Job Demand-Control-Support Model (adapted from Johnson & Hall, 1988, p. 1336)
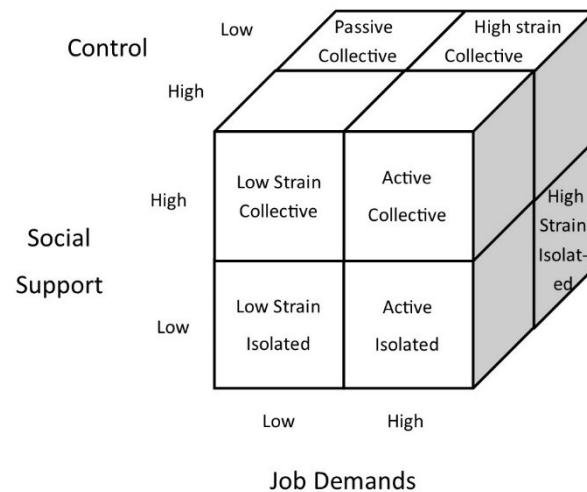
The simplicity of the JDC(S) model can also be considered a weakness due to the exclusion of variables that are relevant to the experience of occupational stress (de Jonge & Kompier, 1997). The narrow focus on job control and social support within the JDC(S) model is a limitation due to the exclusion of additional occupational demands or resources that may impact well-being outcomes. Bakker and Demerouti (2014) argued that the JDC(S) model is oversimplified and that occupational stress is a complex issue that needs to incorporate a wider range of variables.

Furthermore, the JDC(S) model does not consider the role of individual differences that contribute to the stress process. A review of the JDC model suggested that individual

differences such as personality characteristics and experience of negative affect may contribute to occupational stress outcomes (de Jonge & Kompier, 1997). This lack of consideration of individual differences means there is no explanation for differences in well-being outcomes when individuals experience the same level of job demands and job control (Siegrist, 1996).

2.2.1.2. Effort-reward imbalance model

The Effort-Reward Imbalance (ERI) model was proposed by Siegrist (1996) and focuses on the reciprocal relationship between effort and reward (see Figure 2.3). Effort is comprised of two dimensions: extrinsic effort and intrinsic effort. Extrinsic effort relates to job demands whilst intrinsic effort refers to an individual's motivations towards completing job tasks. The reward component of the model is made up of salary, esteem, and career opportunities, which includes job security (Peter & Siegrist, 1999). The ERI model indicates that an interaction effect exists between effort and reward and occupational circumstances that involve high effort and low reward lead to the experience of higher occupational stress (Siegrist & Li, 2016). Further, Siegrist and Li (2016) hypothesised that intrinsic effort moderates the relationship between effort/reward and health outcomes. Several studies have provided support for this model and researchers have reported that the combination of high effort and low rewards results in an increased risk of both cardiovascular disease and depressive disorders (Kuper et al., 2002; Siegrist, 2008; Tsutsumi & Kawakami, 2004). Additionally, the results of studies involving employees across a variety of sectors suggest that the experience of high effort and low reward is related to higher job dissatisfaction (de Jonge et al., 2000; van Vegchel et al., 2001).

Through developing the ERI model, Siegrist (1996) acknowledged the importance of individual differences within the stress process by including intrinsic effort. This is a significant development from the JDC(S) model and begins to explain differences in occupational stress outcomes at the individual level. Whilst support has been found for the direct relationship between intrinsic effort and health outcomes, the moderation effect of intrinsic effort is less clear (Siegrist & Li 2016). The results of a systematic review of studies using the ERI model suggested that support for the moderation relationship was mixed as the

majority of included studies found that the relationship was not statistically significant (Siegrist & Li, 2016).

Figure 2.3

Effort-Reward Imbalance Model (adapted from Siegrist, 1996, p. 444)
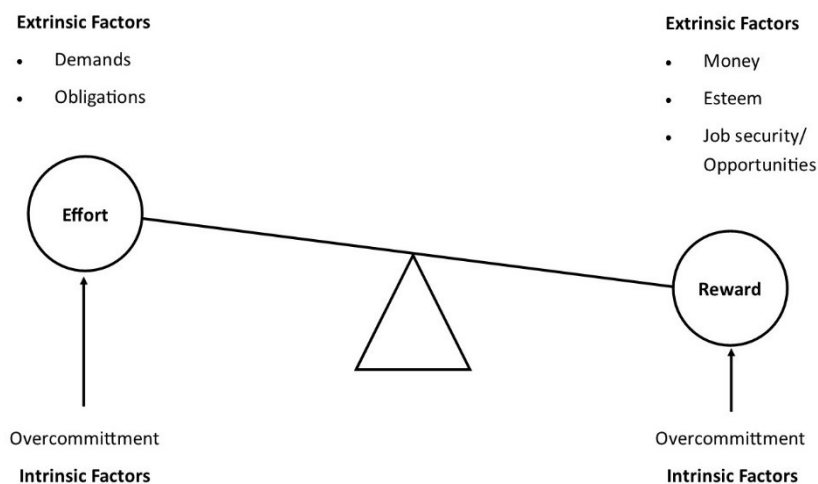
Researchers have compared the ERI and JDC(S) models and suggested that the two models are independently related to occupational stress outcomes (e.g., Bosma et al., 1998; de Jonge et al., 2000; Peter et al., 2002). For example, Ostry et al. (2003) suggested that integrating aspects of the JDCS and ERI models could contribute to greater predictive validity. Additionally, Griep et al. (2010) reported that absenteeism was best predicted by either the JDCS model or by a model that combined aspects of the JDCS and ERI models (job demands, control, effort, and reward).

Similar to the JDC(S) model, a limitation of the ERI model is the relatively small number of variables that are included. Peter and Siegrist (1999) suggested that the ERI model focused on traditional occupational demands such as noise and shift work, and a broader approach which includes psychosocial demands would benefit the development of the model. The ERI model also fails to include personal and occupational resources that individuals may use when encountering occupational demands. Bakker and Demerouti (2014) argued that models of occupational stress should be inclusive of factors such as emotional demands, autonomy, and interpersonal relationships with colleagues in order to represent the complexity of the stress process.

2.2.1.3. Job demands-resources theory

Bakker and Demerouti (2014) argued that research on occupational stress should be synthesised with that of job motivation and called for greater rationale for the selection of job demands, which led to the development of Job Demands-Resources (JD-R) theory (see Figure 2.4). Within JD-R theory, aspects of the occupational environment are categorised as either occupational demands or occupational resources. Bakker and Demerouti (2014) argued that researchers should select the most salient occupational demands for the population under study. Occupational demands are defined as, "physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs" (Demerouti et al., 2001; p. 501). Such demands may include interpersonal relationships or the physical working environment. Occupational resources are defined as "physical, psychological, social, or organizational aspects of the job that either/or (1) reduce job demands and the associated physiological and psychological costs; (2) are functional in achieving work goals; (3) stimulate personal growth, learning and development" (Schaufeli & Bakker, 2004, p. 296).

Figure 2.4

Job Demands-Resources Theory (adapted from Bakker & Demerouti, 2017, p. 275)
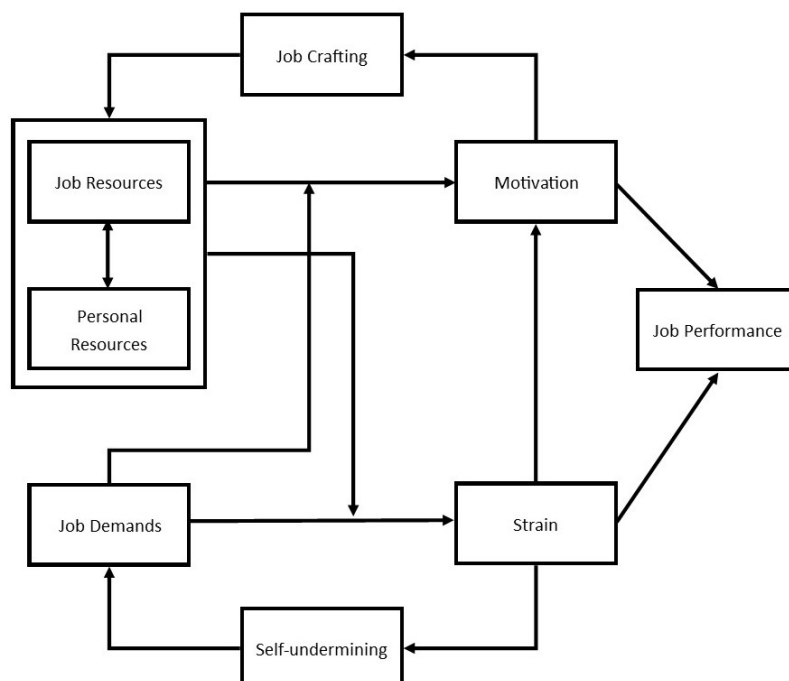
Bakker and Demerouti (2014) proposed that occupational demands and resources lead to different outcomes. They suggested that demands may lead to problems such as burnout and physical health issues, whereas resources are related to motivation and engagement at work. Authors using JD-R theory have suggested that occupational outcomes of the stress process at the individual level (e.g., engagement, burnout) may, in turn, influence wider organisational outcomes such as performance, organisational commitment, and absenteeism (e.g., Bakker et al., 2003; Hakanen et al., 2006).

Support has also been found for interaction effects of occupational demands and resources within JD-R theory. Occupational resources may moderate the relationship between occupational demands and stress. In other words, the presence of resources at work may diminish the impact of demands on stress outcomes (Bakker et al., 2005). Occupational resources have been shown to have the largest effect on engagement at work when individuals experience high job demands (Bakker & Demerouti, 2014). Alongside occupational resources, personal resources are indicated within JD-R theory. Personal resources are associated with resilience and an individual's assessment of their ability to successfully exert influence on their environment (Hobfoll et al., 2003). Examples of personal resources include optimism, self-efficacy, and a feeling of mastery. Research using this model has also shown support for the influence of occupational demands on personal resources, and for personal resources to influence occupational demands and work engagement (Xanthopoulou et al., 2009). Several other factors have been considered in relation to JD-R theory such as job crafting and self-undermining. For a review of these factors and a discussion of the development of JD-R theory, see Bakker and Demerouti (2017).

A criticism of JD-R theory is the omission of psychological mechanisms that explain the relationships in the model (Schaufeli & Taris, 2014). Whilst the model suggests that job demands relate to strain and that job resources relate to motivation, the reasons for these relationships are not addressed in the model. Bakker and Demerouti (2017) argued that additional theories are required to explain the underlying psychological mechanisms within JD-R theory, which could include Self-Determination Theory (SDT; Deci & Ryan, 2000). As such, this makes JD-R theory incomplete for explaining the occupational stress process.

A key relationship in JD-R theory is the association between job resources and motivation. Indeed, Schaufeli and Bakker (2004) suggested that job resources alone predict work engagement. However, this approach has been criticised as researchers have argued that job demands may also relate to motivation if they are considered as positive by the individual (Crawford et al., 2010). One suggested approach to resolving this issue is to consider whether individuals percieve job demands as a challenge or hindrance. In their meta-analysis, Crawford et al. (2010) suggested that this approach more accurately explained the relationship between job demands and engagement. They reported that challenge demands were positively associated with engagement whereas hindrance demands were negatively associated with engagement. This approach partially integrates the transactional theory of Lazarus (1999), which is discussed in Section 2.2.2.1.

2.2.2. Transactional theories and models of occupational stress

A criticism of interactional theories of stress is that they do not account for the process of how stress occurs within the individual. As such, transactional theories of stress were developed to better represent the stress process. Transactional theories of stress indicate that stress is an ongoing transaction between the individual and their environment (Cox & Griffiths, 2010). As well as incorporating the work characteristics identified in interactional approaches to stress (e.g., demands, control, and social support), transactional theories include individual cognitive appraisals and coping. As such, transactional approaches to stress better account for the role of the individual within the stress process. One transactional theory, Cognitive-Motivational-Relational Theory, which was developed by Lazarus (1999), is discussed next (see Section 2.2.2.1). This is followed by consideration of a contemporary model of occupational stress, the Demands-Resources-Individual Effects model (Mark & Smith, 2008; see Section 2.2.2.2).

2.2.2.1. Cognitive-motivational-relational theory

One of the most influential theories of stress is Lazarus' (1999) Cognitive-Motivational-Relational Theory (CMRT; see Figure 2.5). CMRT is a transactional theory of stress, which

reflects the ongoing relationship between an individual and their environment (Cooper et al., 2001). CMRT extends previous stress models by including appraisal and addressing the importance of the personal meaning a situation has for an individual.

Regarding the individual, beliefs, goals, and values are taken into account, and considered to relate to the demands in the environment. The individual then appraises the situation and the demands they experience. Appraisal is a cognitive task, where an individual makes a judgement about a specific situation. Within CMRT, there are two types of appraisal: primary appraisal and secondary appraisal. Primary appraisal involves an individual evaluating a situation and considering whether there are any implications for their personal goals or values. Where a situation is viewed as irrelevant, stress will not be experienced. If the individual thinks the situation is relevant to their goals, then the demand will be appraised as a threat, challenge, benefit, harm, or loss (Lazarus, 1999). Lazarus and Folkman (1984) suggested that a situation must include one of eight dimensions for an individual to appraise a situation as stressful. These eight dimensions are called underlying properties of stress appraisal and are novelty, predictability, event uncertainty, imminence, duration, temporal uncertainty, ambiguity, and the timing of stressful events in relation to the life cycle. This work was extended by Thatcher and Day (2008) who added two further dimensions: inadequate preparation and "self and other comparison." Turning to secondary appraisal, an individual assesses the coping options available and the appropriate resource(s) to use to cope with the demand. Secondary appraisal is, therefore, different to the act of coping. The combination of the relationship between the individual and the environment alongside primary and secondary appraisal determines the relational meaning of a demand.

Following appraisal, coping takes place and an individual mobilises their chosen resources to manage the demand. Within CMRT, coping is, therefore, included within the stress process. Lazarus and Folkman (1984, p. 141) defined coping as "the constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person." In other words, coping is the steps or actions an individual uses to manage the demands they experience. Lazarus (1999) suggested two distinct factors of coping: problem-focused and emotion-focused. Problem-focused coping

refers to taking action and using strategies that change the relationship between the person and the environment, which could be through planning or problem-solving activities. Emotion-focused coping describes efforts to regulate an emotional response through strategies such as venting about a situation to friends or avoiding engaging with a demand. Other researchers who have studied coping have suggested alternative or additional factors such as disengaged coping, active coping, and social support coping (Solberg et al., 2022).

Within CMRT, the result of the stress process includes emotional and health outcomes. Considering emotions, Lazarus (1999) suggested that an individual could experience one of 15 emotions as a result of the stress process including anger, anxiety, sadness, and happiness. The experience of such emotions is proposed as an immediate outcome of the stress process. Lazarus also suggested that there could be long-term outcomes from the stress process including broader well-being outcomes and chronic illness. This suggests that CMRT incorporates both hedonic well-being (i.e., acute emotional experiences) and eudaimonic well-being (i.e., long-term well-being outcomes), concepts which are discussed in Section 2.3. Specifically, threat appraisals may lead to negative emotions such as anxiety, and challenge appraisals may lead to positive emotions such as happiness. Therefore, both threat and challenge appraisals may impact the affective dimension of hedonic well-being. Additionally, harm and/or loss appraisals may lead to experiencing dissatisfaction, demonstrating a link between the stress process and the cognitive dimension of hedonic well-being. Further, an appraisal of benefit may be linked to experiencing eudaimonic well-being outcomes such as increased environmental mastery or improved relationships with others. Through including stress appraisal within CMRT, Lazarus (1999) demonstrates a mechanism that explains the relationship between demands and well-being outcomes.

A strength of CMRT is the inclusion of the subjective element of appraisal, which acknowledges individual differences within the stress process. This can account for individuals having different experiences of stress despite being exposed to the same demands. A further strength is the integration of acute emotional outcomes and long-term outcomes related to health and well-being. This model better represents the complexities of the stress process; however, the complexity poses a challenge for researchers in developing appropriate

study designs and selecting measures which accurately assess the stress processes (Cox & Griffiths, 2010). In particular, the assessment of primary and secondary appraisal is a challenge for researchers, given that this is a cognitive process that involves evaluation at the individual level. Whilst qualitative researchers are able to prompt individuals to reflect on their experiences to allow for rich explorations of this cognitive process, researchers conducting quantitative studies with large samples may need to make pragmatic decisions in their approach to assessing appraisal.

Figure 2.5

Cognitive-Motivational-Relational Theory (adapted from Lazarus, 1999, p. 198)
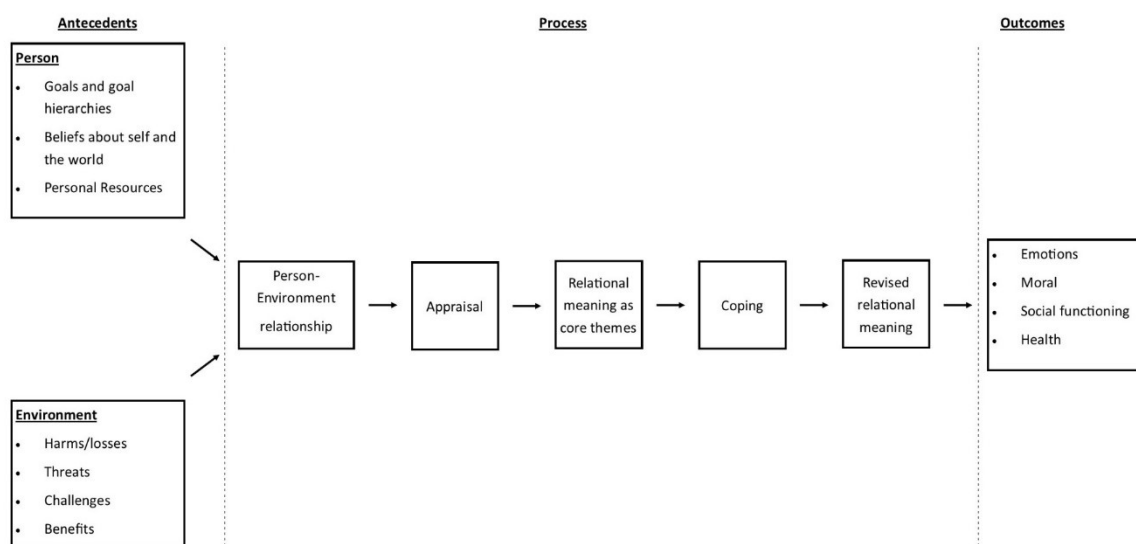
2.2.2.2.   Demands-resources-individual effects model

Whilst occupational demands, appraisal, coping, and well-being are all acknowledged to be part of the stress process and are incorporated within CMRT, this level of detail makes it difficult to conduct research with large populations. Taking this into account, Mark and Smith (2008) proposed the Demands-Resources-Individual Effects (DRIVE) model (see Figure 2.6). This model is rooted in transactional theories of stress and, therefore, accounts for the role of the individual within the stress process. Additionally, the DRIVE model provides a simplified

representation of the transactional stress process, which makes it useful for underpinning a nomothetic approach.

Mark and Smith (2008) hypothesised that occupational demands and resources have a direct effect on health and well-being outcomes, and this relationship may be mediated by individual appraisal. In addition, individual differences such as coping (i.e., personal demands and resources) are incorporated into the model and are suggested to have direct and indirect effects on well-being outcomes. Within the DRIVE model, primary appraisal is represented by perceived job stress and secondary appraisal is represented by occupational resources as well as personal demands and resources. Mark and Smith (2008) suggested twelve predictions that can be tested with the DRIVE model (see Figure 2.6):

1. Occupational characteristics (demands and resources) will significantly relate to well-being outcomes.

2. Occupational characteristics will significantly relate to perceived job stress.

3. Perceived job stress will significantly relate to well-being outcomes.

4. Perceived job stress will significantly mediate the relationship between occupational characteristics (demands and resources) and outcomes.

5. Occupational resources will significantly moderate the effect of occupational demands in the prediction of perceived job stress.

6. Occupational resources will significantly moderate the effect of occupational demands in the prediction of well-being outcomes.

7. Occupational resources will significantly moderate the effect of perceived job stress in the prediction of well-being outcomes.

8. Individual characteristics (personal demands and resources) will be significantly related to perceived job stress.

9. Individual characteristics will be significantly related to well-being outcomes.

10. Individual differences will moderate the effect of occupational demands on perceived job stress.

11. Individual differences will moderate the effect of occupational demands on well-being outcomes.

12. Individual differences will moderate the effect of perceived job stress on well-being outcomes.

Figure 2.6

Demand-Resources-Individual Effects Model (adapted from Mark & Smith, 2008, p. 134)
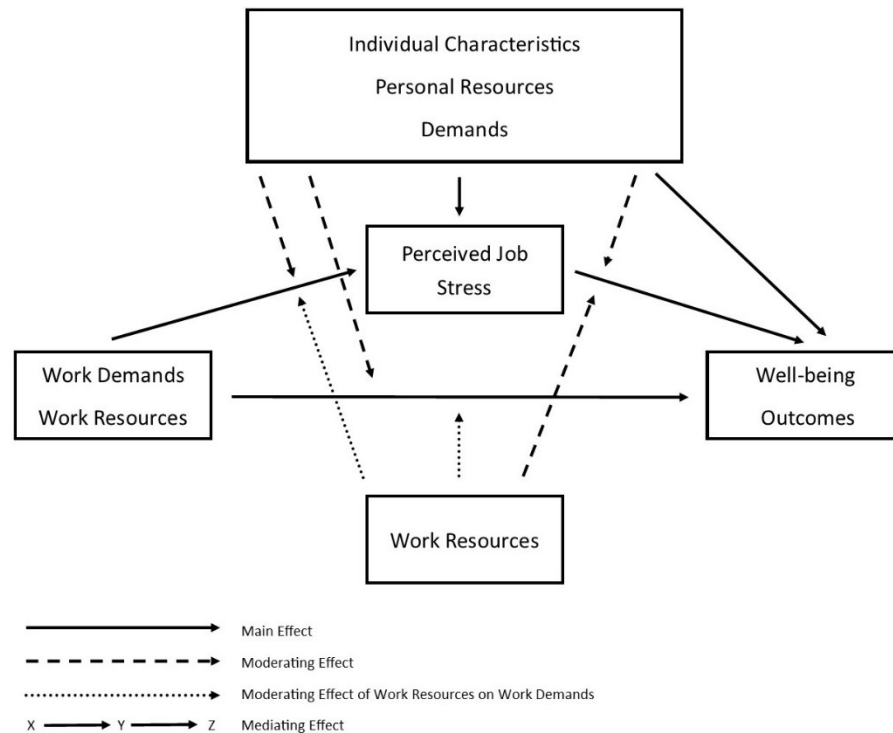
A criticism of interactional models is that they do not include the most relevant demands for a specific occupational group. Influenced by JD-R theory, Mark and Smith (2008) suggested that a wider number of occupational demands and resources should be included in occupational stress research. The DRIVE model is, therefore, flexible and the most salient demands and resources for a specific occupational group can be incorporated. For example, research with musicians could include occupational demands such as job insecurity and emotional demands.

Empirical research using the DRIVE model has been conducted with large occupational and student samples. This includes undergraduate students (Williams, Pendlebury, et al., 2017), university employees (Mark & Smith, 2012a), nurses (Mark & Smith, 2012b), and police

officers (Oliver et al., 2022). Considering university employees, Mark and Smith (2012a) reported that occupational demands were significantly related to negative affective outcomes such as anxiety and depression, whilst social support and skill discretion were correlated with lower anxiety and depression scores. Additionally, social support, skill discretion, and intrinsic reward were significantly related to higher levels of job satisfaction. Similar results were reported from the sample of nurses (Mark & Smith, 2012b). For a discussion of research using the DRIVE model see Margrove and Smith (2022).

2.3. Well-being

Researchers studying well-being at work have conceptualised well-being in a number of ways (Fisher, 2014). In this section, I present the two main conceptualisations: hedonic well-being and eudaimonic well-being. I then consider the strengths and limitations of these conceptualisations of well-being.

2.3.1. Hedonic well-being

Hedonic well-being (sometimes referred to as subjective well-being) is concerned with the subjective experience of the individual and features affective and cognitive dimensions (Diener et al., 1999). Early research suggested that positive and negative affect were independent dimensions, rather than opposite ends of a continuum (Bradburn, 1969; Bradburn & Caplovitz, 1965). Support for this finding has been upheld, although a moderate inverse correlation has been demonstrated (Lucas et al., 1996). Therefore, positive and negative affect are measured independently within the affective dimension of hedonic well-being. Positive affect relates to the experience of positive emotions (e.g., happiness), whereas negative affect relates to the experience of negative emotions (e.g., sadness, anxiousness). The cognitive dimension of well-being is life satisfaction (Diener et al., 1999), which is a global evaluative judgement of well-being. The cognitive dimension of well-being demonstrates independence from the affective dimensions (Lucas et al., 1996). For a full review of the significant body of research on subjective well-being and its correlates see Diener et al. (1999).

An important aspect of hedonic well-being is the subjective element, where well-being is judged from the perspective of the individual, not from a set of external standards (Diener et al., 1998). This allows an individual to define well-being for themselves and consider aspects of their life accordingly. Despite this work focusing on subjective well-being, Ryff (1989b) had criticised the concept of hedonic well-being due to the lack of theory-based research guiding the construct and suggested that important aspects of experiencing a fulfilling life are omitted.

2.3.2. Eudaimonic well-being

The eudaimonic perspective has its roots in Aristotelean writings and the Greek term "eudaimonia" can be translated as "happiness", "fulfilment" or "flourishing" (Brown, 2009). Researchers taking a eudaimonic perspective of well-being assume a holistic approach, viewing well-being in terms of the fulfilment of human potential (Ryff & Singer, 2008). The conceptualisation of eudaimonic well-being developed by Ryff (1989b) consists of six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Ryff's work was grounded in existing theories of psychology and human functioning including areas such as personal development, maturity, self-actualisation, and mental health (Allport, 1961; Erikson, 1959; Jahoda, 1958; Maslow, 1968). These dimensions suggest that well-being is more than the experience of emotions or satisfaction. Instead, Ryff (2014) argued that eudaimonic well-being is about optimal human functioning or self-actualisation. Therefore, eudaimonic well-being is a process of becoming.

Diener et al. (1998) criticised this conceptualisation of eudaimonic well-being, as individuals must conform to an expert's judgement of what constitutes well-being rather than coming to their own conclusion. Some researchers have questioned the distinction between hedonic and eudaimonic well-being due to similarities in the concepts (Kashdan et al., 2008). However, Bartels et al. (2019) argued that hedonic and eudaimonic well-being are distinct despite being highly correlated. Additionally, researchers have used confirmatory factor analyses to demonstrate that although correlated, hedonic and eudaimonic well-being are distinct factors (Keyes et al., 2002). Further, Keyes et al. (2002) highlighted the importance of measuring both

hedonic and eudaimonic well-being as their study found that 45% of their sample of American adults reported a discrepancy in hedonic and eudaimonic well-being (e.g., higher hedonic well-being combined with lower eudaimonic well-being or lower hedonic well-being combined with higher eudaimonic). The authors suggested that when both aspects of well-being were aligned, individuals experience self-congruence. However, when there is a discrepancy, there could be a compensatory effect between hedonic and eudaimonic well-being. Therefore, hedonic and eudaimonic well-being can be considered complementary (Huta & Waterman, 2014; Waterman, 2008). Despite this distinction between hedonic and eudaimonic well-being, research conducted within an occupational context has often failed to consider eudaimonic well-being (Bartels et al., 2019). As such, it is important to consider both hedonic and eudaimonic well-being and VanderWeele et al. (2020) suggested that studies of psychological well-being include measures for both concepts.

2.4. Occupational demands and resources in the performing arts

In this section, I outline the occupational demands experienced by professional classical musicians, conservatoire music students, and performing artists more broadly. I then present the occupational resources, and personal demands and resources (i.e., coping strategies) used by these groups to manage the occupational demands they experience. Performing artists in similar occupations (i.e., actors, dancers, circus artists) are considered to provide additional context about the occupational environment of professional classical musicians and conservatoire music students. Researchers have suggested that the employment structures of many fields in the performing arts are similar to that of classical musicians including aspects such as public performance, operating as a small business, incorporating technological developments into their practice, and supplementing performance income with teaching work (Bennett, 2009).

2.4.1. Occupational demands in the performing arts

2.4.1.1. Occupational demands on professional classical musicians

Researchers have reported that professional classical musicians are exposed to a wide range of occupational demands. Early research with orchestral musicians was exploratory and sought to ascertain the different types of demands experienced in the occupational environment (Middlestadt & Fishbein, 1988; Piperek, 1981; Steptoe, 1989). Piperek (1981) identified a total of 108 sources of stress, which included performance demands, technical issues related to repertoire, music performance anxiety (MPA), emotional demands, interpersonal relationships with colleagues and the conductor, role specific demands (e.g., for section principals), scheduling difficulties, and environmental demands. Steptoe (1989) reported that the demands that caused the most stress for professional orchestral musicians were separation from family, irregular working hours, monotony of rehearsals, and travel. Findings from a large-scale cross-sectional study of orchestral musicians suggested that those who performed solos perceived higher levels of stress as did those musicians who worked in orchestras that had larger budgets and longer performance seasons (Middlestadt & Fishbein, 1988). Additionally, Breda and Kulesa (1999) examined demands such as meeting personal expectations, scheduling, and job insecurity. In a systematic review of occupational stressors experienced by classical orchestral musicians, Vervainioti and Alexopoulos (2015) categorised these occupational demands into the following domains: public exposure, personal hazards, repertoire, competition, job context, injury and illness, and criticism. Some of the most salient of these domains are further elaborated on in the remainder of this section, including performance demands, the occupational context, organisational demands, and interpersonal relationships.

Considering performance demands, Vervainioti and Alexopoulos (2015) suggested that repertoire is a significant demand for musicians due to task difficulty, potential for errors, and technical challenges. Professional classical musicians are required to demonstrate a high level of artistic excellence (Williamon, 2004) and being able to meet the technical demands of

performance is considered a prerequisite for entry into the profession (Clark & Lisboa, 2013). Professional musicians are required to perform throughout their careers, meaning they are continually exposed to performance demands and need to maintain their technical abilities. Music performance also requires musicians to be expressive and communicate the emotional meaning of music to audiences, which may lead to the experience of emotional demands (Ascenso et al., 2017; Brodsky, 2006). Indeed, Holst et al. (2012) suggested that professional orchestral musicians experience greater emotional demands than the general population. Further, performances are public, meaning that classical musicians may experience exposure, which was another domain identified by Vervainioti and Alexopoulos (2015). Such exposure accompanied by concerns about not being good enough or making a mistake may lead musicians to experience anxiety about performance in the form of MPA. For a discussion of the significant body of literature on MPA see Kenny (2011).

Professional classical musicians also experience contextual demands such as job insecurity and financial insecurity (Vervainioti & Alexopoulos, 2015), which may be due to the competitive labour market (Parker et al., 2019; Umney & Kretsos, 2015). In the UK, there are a limited number of full-time orchestral positions and, therefore, the majority of professional orchestral musicians work in a freelance capacity (Association of British Orchestras, 2019). This means that musicians may experience precarity in terms of uncertainty over employment and financial insecurity (Chafe & Kaida, 2019; Umney & Kretsos, 2015). Early career musicians could be particularly vulnerable to job insecurity as they may lack a network of contacts who can provide work (Dobson, 2010a). Consequently, musicians may take on multiple roles, establishing portfolio careers that encompass performance, teaching, and music-related roles (Bennett, 2009).

Professional classical musicians also experience demands due to working unsociable hours and touring. Orchestral performances often take place during evenings and weekends meaning that musicians may experience conflict between their work and personal lives (Cooper & Wills, 1989; Vaag et al., 2014). Touring may exacerbate the conflict between work and personal commitments as professional musicians may be required to work away from family and friends for weeks or months at a time. In a study of touring professionals in the

music industry, Zendel (2021) suggested that touring is associated with long periods of travel, working away from home, unpredictable schedules, and may also intensify interpersonal demands when musicians are required to spend extended amounts of time with colleagues.

Interpersonal relationships can pose a demand for professional classical musicians and Vervainioti and Alexopoulos (2015) identified the domain of colleague interaction in their systematic review. This is a particularly important demand given that many classical musicians work alongside others in orchestral and chamber music ensembles. Dobson and Gaunt (2015) reported that a high level of interpersonal and communication skills are required by orchestral musicians. Interpersonal skills are relevant not only for the experience of positive relationships with colleagues but also for the artistic product (Lim, 2014). As such, musicians have highlighted the demand of continually listening to their colleagues' performances and adjusting their own musical interpretation as a consequence (Dobson & Gaunt, 2015). Alongside the communication of musical ideas, participants highlighted the need for individuals to fit into the orchestra on a social level, which could be particularly difficult for musicians performing with an orchestra on a trial basis. Musicians have also reported the demands of navigating interpersonal relationships where power dynamics exist, which could include interactions with those in management positions (Ascenso et al., 2017). Further, D. T. Kenny et al. (2016) reported that 25% of orchestral musicians have experienced bullying in the workplace.

2.4.1.2. Occupational demands on conservatoire music students

Many of the demands which professional orchestral musicians experience are also experienced by music students due to the vocational nature of studying at a conservatoire. This includes performance demands (and the associated exposure and emotional demands) and interpersonal demands. Music students may also be aware of the competition for work in the classical music industry and be concerned about the possibility of job insecurity in the future (Creech et al., 2008). In addition, music students are exposed to demands that are specific to the conservatoire environment, which are discussed in this section. Conservatoire

music students may also experience similar demands to higher education students at non-specialist institutions such as concern over finances and managing paid employment whilst studying, which will also be considered in the present section.

Students entering a conservatoire have attained a high level of musical achievement with audition requirements frequently stipulating that students should have reached Grade 8 standard according to a recognised exam board. Much of the conservatoire experience is dedicated to improving students' technical and musical proficiency through one-to-one lessons and performance opportunities (Perkins, 2013b). This environment gives rise to specific demands experienced by conservatoire music students. For instance, conservatoire music students have reported long hours of individual practice, which are associated with feelings of isolation and the need for continued self-reflection (Dobson, 2010a). Further, Dobson (2010b) reported that conservatoire students encounter criticism from peers due to a competitive learning culture. Similarly, music students at both conservatoires and universities have reported concerns regarding their standard of performance in comparison to their peers (Burland & Pitts, 2007; Burt & Mills, 2006). Additionally, conservatoire music students may face interpersonal issues with the one-to-one teacher including harassment and an abuse of power (Pecen et al., 2018).

Conservatoire music students often begin higher education at the age of 18, meaning they may experience demands that are similar to the wider population of university students. For instance, the transition to higher education exposes students to novel demands such as living independently and forming new friendship groups (Robotham, 2008). Similarly, music students at conservatoires and universities encounter novel demands and their experiences have been explored in several studies (Burland & Pitts, 2007; Burt & Mills, 2006). The results of these studies suggested that music students experience academic demands, concerns around managing workload, issues with assessment, and interpersonal demands. Similar to students studying other subjects at university, conservatoire music students may also be working alongside their studies due to financial insecurity, which may be experienced as a demand. Robotham (2012) suggested that the number of higher education students engaging in part-time work and full-time study is increasing. Accordingly, Palmer and Baker (2021)

suggested conservatoire students may experience a conflict between their role as music student and taking on part-time work.

2.4.1.3.   Occupational demands in related performing arts occupations

Similar to musicians, dancers, circus artists, actors, and comedians may experience comparable occupational demands. This includes performance demands, interpersonal demands, and demands related to the occupational context. In terms of performance, dancers and circus artists experience physical demands due to rehearsing and performing (e.g., Moita et al., 2017; van Rens & Heritage, 2021; Wolfenden & Angioi, 2017). Whilst similarities exist in terms of performing complex motor tasks and the requirement for a mastery over technique, the physical demands of dancers and circus artists may be greater than musicians due to the need for extreme ranges of motion and muscle strength. Alongside these performance demands, dancers and actors also experience emotional demands due to the aesthetic element of their work and communicating with audiences (Balk et al., 2018; Maxwell et al., 2015).

Performing artists in similar fields also face demands due to the occupational context such as precarious employment conditions, financial insecurity, and conflict between work and family life. Hopper et al. (2020) suggested that dancers may experience precarity in the form of periods of unemployment and low wages. Actors also face financial insecurity and Maxwell et al. (2015) found that 83% of a sample of Australian actors experienced financial stress. As a result, many professional actors were observed to supplement their income through non-acting work, which demonstrates individuals adopting portfolio careers out of necessity. Professional dancers have also described portfolio careers combining performance work, dance-related activities, and non-dance related work (Bennett, 2009; Bennett & Bridgstock, 2015). Additionally, performing artists may experience demands caused by conflict between their careers and personal lives. Accordingly, actors have reported that touring is a demand due to working away from friends and family for prolonged periods (Maxwell et al., 2015).

Interpersonal demands are also a concern for professionals in related performing arts occupations. For instance, interviews with full-time stand-up comedians revealed

interpersonal demands in the relationship with promoters due to a power imbalance (Butler & Stoyanova Russell, 2018). In particular, comedians reported issues with promoters in relation to remuneration and the timescale for receiving payments. Promoters frequently asked comedians to perform for little or no money, taking advantage of the precarious employment conditions. Dancers have also reported interpersonal demands in their relationships with company directors and colleagues (Noh et al., 2009). Considering the relationship with the director, dancers reported being publicly criticised or humiliated in front of their colleagues and experienced difficulties in the relationship due to the power dynamics (Blevins et al., 2020; Noh et al., 2009). Further, dancers have reported competition among colleagues both in their professional careers and training experiences (Blevins et al., 2020; Noh et al., 2009).

2.4.2. Resources in the performing arts

2.4.2.1. Resources used by professional classical musicians

Studies have considered a range of occupational and personal resources within the occupational environment of professional classical musicians. For instance, Breda and Kulesa (1999) found that orchestral musicians used a variety of coping methods such as participating in physical activity, deep breathing, and focusing techniques. Additionally, James (2000) reported that orchestral musicians used relaxation techniques and consulted medical professionals such as doctors, physiotherapists, and psychologists.

Considering occupational resources, job control is indicated within the JDC(S) model and may be an important resource for professional musicians. Dobson (2010b) reported that musicians enjoyed having greater autonomy over their work in solo and chamber music settings. However, the authors reported that orchestral musicians may experience limited autonomy within their occupational environments, as decisions over repertoire and musical style may be made by the conductor or director of the ensemble. Rickert et al. (2013) identified a lack of autonomy within the orchestral environment due to scheduling, repertoire choice, and rehearsals. Further, Ascenso et al. (2017) reported that musicians sought out opportunities to

exercise autonomy by learning new repertoire and taking on additional roles outside their main employment, which indicates that some musical roles lack opportunities to exercise autonomy.

Social support is indicated within the JDCS model and is an important resource within the occupational environment of musicians. Following interviews with professional classical musicians, Brodsky (2006) suggested that teamwork, a sense of community amongst colleagues, and collaborative working were important aspects of the orchestral environment. Additionally, Ascenso et al. (2017) described the creation of music as a shared space between musicians, noting that participants often referred to their orchestra as a "family" or "society". Researchers have suggested that social support from colleagues can help manage demands such as career insecurity and emotional demands (Parker et al., 2019; Pihl-Thingvad et al., 2022). Alongside social support from colleagues, social support from family and friends is also considered an important resource for professional musicians (Pecen et al., 2018; Vaag et al., 2014). Vaag et al. (2014) reported that musicians working across a variety of genres received both financial and emotional support from their families.

Musicians have described active coping skills such as planning, problem-solving, consulting medical professionals, learning to handle disappointments, and maintaining good physical health to manage the occupational demands they experience (Burland & Davidson, 2002; Pecen et al., 2018; Sandgren, 2002). Appropriate development and use of resources was perceived as an important factor for a successful transition into a music performance career (Burland & Davidson, 2002). In terms of their instrumental skills, musicians may engage in planning and problem-solving during their routine practice. Practice is embedded in the education of musicians and facilitates the development of technical and musical skills. A significant body of literature exists on the topic of deliberate practice and the specific types of activities musicians engage in during practice (e.g., Bonneville-Roussy & Bouffard, 2014; Hambrick, et al., 2014; How et al., 2021; Kegelaers et al., 2022; Sloboda et al., 1996). Musicians may also use psychological skills to manage the performance demands they experience. For example, musicians have been reported to use goal setting, cognitive restructuring, and focusing techniques to enhance performance and reduce MPA (Pecen et al., 2018; Sandgren,

2002). For a wider discussion of the use of psychological skills for professional musicians see reviews by Ford and Arvinen-Barrow (2019) and Osborne (2016).

Professional musicians may also use maladaptive coping strategies to manage the demands they experience such as substance use and behavioural strategies. Considering behavioural strategies, Sandgren (2002) reported that due to a concern for illness to affect performance, opera singers frequently tested the voice and practised technical exercises throughout the day. Further, singers used behavioural strategies to avoid potential harms such as avoiding smoke and allergens as well as avoiding public transport and public places (Sandgren, 2002). Consequently, these opera singers restricted their involvement in social and recreational activities. Additionally, musicians have reported using substances to cope with the demands they encounter (Pecen et al., 2018). For instance, between 20% and 31% of musicians have reported taking beta blockers to manage MPA (James, 2000; Kenny et al., 2014). However, in the study by Kenny et al. (2014), only 4% of orchestral musicians reported seeking medical advice from a doctor, suggesting that musicians may be taking beta blockers without medical supervision. Further, Kenny et al. (2014) found that musicians also used alcohol, anxiolytics, and antidepressants to manage MPA.

2.4.2.2.   Resources used by conservatoire music students

Social support has also been reported as an important resource for music students. Dews and Williams (1989) suggested that students were most likely to seek support from friends followed by teachers and family. Staff members have been suggested to be a particularly important source of social support for conservatoire music students, especially the one-to-one teacher (Pecen et al., 2018; Williamon & Thompson, 2006). Williamon and Thompson (2006) reported that first year conservatoire students were most likely to seek social support from their one-to-one teacher for both physical and psychological issues. Students have also identified one-to-one teachers as a source of support regarding health and well-being (Perkins et al., 2017). Whilst principal study teachers may be well-informed, the necessity to provide advice to students on issues outside of their professional specialism is an issue that must be carefully managed within the conservatoire environment.

Music students have also been reported to use active coping skills, which includes the use of proactive coping, reflection, planning, seeking social support, and seeking emotional support (Jääskeläinen, López-Íñiguez, & Lehikoinen, 2022). Additionally, conservatoire music students report seeking psychological support to manage demands, in the form of attending counselling sessions (Matei & Ginsborg, 2023). Matei and Ginsborg (2023) examined data on students attending counselling at a UK conservatoire and suggested that between 13% and 17% of students attended counselling in 2012-2016. Students attended counselling to manage both personal demands and demands related to their conservatoire study.

Considering maladaptive resources, music students have reported using substances and avoiding issues (Jääskeläinen, López-Íñiguez, & Lehikoinen, 2022; Orejudo Hernández et al., 2018). Orejudo Hernández et al. (2018) reported that 33% of conservatoire music students used substances to manage MPA, which included the use of prescription drugs such as beta blockers as well as alcohol and herbal treatments (Orejudo Hernández et al., 2018).

2.4.2.3. Resources used in related performing arts occupations

Individuals in other performing arts occupations may use similar resources to professional classical musicians and conservatoire music students. For example, professional dancers have reported using a wide range of active coping strategies to manage the demands they experience such as planning, effort, seeking social and emotional support, self blame, venting, behavioural disengagement, and denial (Barrell & Terry, 2003). Similarly, actors have reported engaging with a range of coping strategies including using relaxation techniques, exercise, meditation, talking to family and friends, distraction, and substance use (Maxwell et al., 2015). These studies demonstrate that individuals may engage in either adaptive or maladaptive coping strategies to manage the occupational demands they experience.

Considering adaptive coping strategies, Noh et al. (2009) examined resources used by ballet dancers. The authors found that dancers engaged in physical relaxation through activities such as attending saunas and used psychological coping strategies such as positive thinking. They also found that dancers used social support from colleagues, family, and friends.

Additionally, some dancers engaged in leisure activities or alternative dance genres to relieve stress. Dancers have also reported that consultations with a performance psychologist are beneficial for managing the performance demands they experience (Hopper et al., 2020).

Performing artists may also engage in maladaptive coping behaviours, which has been reported in dancers, actors, and comedians (Butler & Stoyanova Russell, 2018; Maxwell et al., 2015; Noh et al., 2009). For instance, dancers have reported alcohol consumption, disordered eating, and increased hours of practice (Noh et al., 2009). High levels of alcohol use have also been observed in actors (Maxwell et al., 2015). Additionally, comedians have reported suppressing negative emotions, such as anxiety, in order to cope with the occupational insecurity they experience (Butler & Stoyanova Russell, 2018).

2.5. Occupational stress and well-being in the performing arts

Considering CMRT, Lazarus (1999) suggested that individuals may experience health and well-being outcomes as a result of the stress process. Regarding the research on performing artists, a significant body of literature exists on the relationship between occupational stress and physical health outcomes of performing artists (e.g., Baadjou et al., 2016; Jacukowicz, 2016). A large body of research also exists in relation to MPA (e.g., Kenny, 2011). However, fewer studies have addressed well-being as an outcome of the occupational stress process. Those who experience low well-being may experience loss of motivation and consider leaving the performing arts. Indeed, Help Musicians and the Musicians' Union (2023) reported that professional musicians who experienced lower well-being were more likely to leave the profession. Consequently, it is important to consider the relationship between occupational stress and well-being for performing artists.

Studies that have evaluated the relationship between aspects of the occupational stress process (e.g., demands, resources) and well-being are discussed in this section. Firstly, I examine studies that have included professional classical musicians and conservatoire music students. Secondly, I consider studies that have explored the topic with professionals in related performing arts occupations.

2.5.1. Occupational stress and well-being of professional classical musicians and conservatoire music students

In examining occupational stress and well-being of musicians, researchers have conceptualised and, as a result, operationalised well-being in different ways. Some researchers have used composite measures to assess well-being broadly, whilst others have considered the affective or cognitive dimensions of hedonic well-being. Furthermore, some authors have taken a eudaimonic perspective when considering the well-being of professional classical musicians and conservatoire music students. These perspectives are considered in turn in the present section.

Studies that have assessed well-being in a broad sense include those by Johansson and Theorell (2003) and Antonini Philippe et al. (2019). Johansson and Theorell (2003) conducted a cross-sectional survey of orchestral musicians in Sweden and assessed occupational characteristics including work content, social support, trust in the orchestra's potential, influence, and orchestra status. The findings suggested that higher well-being was predicted by greater satisfaction with the work content, higher social support, and orchestra status with those in elite orchestras experiencing lower well-being. Antonini Philippe et al. (2019) also reported that social support contributed to higher well-being for students at conservatoires.

Studies with musicians have also considered the relationship between occupational characteristics and experiences of the affective dimension of hedonic well-being. In terms of negative affect, Dobson (2010b) interviewed professional and conservatoire string players on their experiences of demands and autonomy. Musicians discussed the demand of performing with a high level of accuracy and had high personal performance standards. When these standards were not met, musicians experienced negative affect in the form of emotions such as shame and guilt. Music students have also discussed experiencing negative affect due to competition and comparison with peers within the conservatoire environment (Dobson, 2010a; Perkins et al., 2017). Although these studies indicate occupational characteristics that relate to negative affect, researchers have also suggested that professional and student musicians may experience positive affect due to the occupational environment. Ascenso et al.

(2017) collected qualitative data on the well-being experiences of professional classical musicians through interviews and self-report diaries. The findings suggested that positive emotions were strongly related to participants' experience of music-making. Similarly, Perkins et al. (2017) reported that conservatoire music students experienced positive emotions due to performance.

Researchers have also considered satisfaction, the cognitive dimension of hedonic well-being, in studies with musicians. Kivimäki and Jokinen (1994) surveyed orchestral musicians on job perceptions and well-being and reported that 90% had high job satisfaction. Additionally, the authors found higher job satisfaction correlated with higher autonomy at work and higher skill variety. These findings were supported by Breda and Kulesa (1999), who suggested that musicians were mostly satisfied with their careers due to a sense of accomplishment and opportunities for personal development. However, Allmendinger et al. (1996) found that orchestral musicians reported lower job satisfaction when compared to prison guards and flight attendants. Furthermore, considering specific aspects of the occupational environment Allmendinger et al. (1996) suggested that musicians experienced low satisfaction with pay and relationships with management. In addition, Parasuraman and Purohit (2000) conducted a cross-sectional survey with 63 orchestral musicians and evaluated the relationships between occupational demands, stress, and job dissatisfaction. The results suggested that demands such as lack of artistic integrity and higher task difficulty were associated with higher levels of psychological distress, boredom stress, and job dissatisfaction. Whilst the results of some of these studies suggest that musicians experience high levels of job satisfaction, others report low levels of job satisfaction for musicians making it difficult to draw conclusions.

A eudaimonic approach to well-being has also been taken in research with professional orchestral musicians. Ascenso et al. (2017, 2018) investigated the experiences of professional classical musicians through quantitative and qualitative methods using Seligman's (2011) PERMA model of well-being. In the qualitative study, relationships with others emerged as a key factor for well-being and the shared nature of music-making with colleagues and audiences contributed to well-being (Ascenso et al., 2017). Similarly, in the cross-sectional survey, musicians reported a high level of satisfaction with relationships (Ascenso et al., 2018).

Additionally, music was perceived as meaningful to musicians, which represents another dimension of eudaimonic well-being (Ascenso et al., 2017). Musicians discussed meaning due to giving music to audiences and peak performance experiences. Portía et al. (2021) also conducted a study that took a eudaimonic approach to assessing the well-being of professional musicians. The authors used Ryff's (1989a) Psychological Well-being Scale and found that well-being was not predicted by demands but was predicted by the resources of control and reward.

2.5.2. Occupational stress and well-being of related performing arts occupations

Tuisku et al. (2016) assessed the relationship between occupational characteristics and stress in arts professionals in Finland. The study involved a cross-sectional survey of professionals across various occupations including actors, writers, visual artists, light and sound designers, and directors. The authors reported that perceived stress was negatively related to coping and control. Further, in a study of professional actors, participants reported that occupational stress affected their well-being (Maxwell et al., 2015).

Considering hedonic well-being, affective and cognitive dimensions have been considered in performing artists. In terms of affective outcomes, depressed mood has been associated with occupational characteristics such as irregular work hours and control at work (Tuisku et al., 2016). Research with dance students has also assessed the relationship between demands and positive affect (Balk et al., 2018). The authors found that emotional demands, such as dealing with the negative emotions of others, were negatively related to positive affect. However, cognitive demands, which included performing with a high level of accuracy, were not related to positive affect. Turning to job satisfaction, Cahalan and O'Sullivan (2013) investigated the experiences of professional and retired Irish dancers. Ninety-four per cent of 155 participants reported that they would recommend a career in Irish dancing and many positive aspects of the career were noted, such as the opportunity to travel, developing friendships, pursuing a hobby as a career, and personal development opportunities. Some participants also

acknowledged negative aspects of their careers as Irish dancers, which included job insecurity, susceptibility to injury, and psychological challenges.

The well-being of actors has also been explored using a eudaimonic conceptualisation of well-being (Robb et al., 2018). Robb et al. (2018) conducted interviews with actors and suggested that well-being was supported by opportunities for personal growth and a sense of purpose derived from their occupation. However, actors also reported occupational experiences that related to poorer well-being including lack of autonomy, financial issues, relationship difficulties, and perfectionistic tendencies.

2.6. Limitations of the research

In this section, I discuss the limitations of the research presented in this chapter on professional classical musicians, conservatoire music students, and those in related performing arts fields. I particularly focus on studies that have examined the relationship between occupational stress and well-being.

A number of studies have identified the demands experienced by musicians and performing artists and the resources they use to manage these demands (see Sections 2.4.1 and 2.4.2). Some of the occupational characteristics such as performance demands are broadly relevant to professional classical musicians, conservatoire music students, and professionals in related fields. Other occupational characteristics are specific to the context, such as the relationship between conservatoire music students and their one-to-one teacher. Studies of the relationship between these occupational characteristics and well-being have often examined a limited number of occupational demands and resources. However, authors have failed to provide justification for the selection of demands and resources they have chosen to examine. This is a limitation of the current evidence base as researchers may not have considered the most relevant occupational characteristics for the context. Considering resources, researchers have assessed both occupational resources such as control in the workplace and personal resources such as seeking social support. Additionally, musicians and performing artists have been shown to use both adaptive and maladaptive personal resources (i.e., personal resources and personal demands). Occupational resources, personal demands, and personal resources are

all relevant to musicians, however, researchers are yet to systematically evaluate how they relate to well-being.

In addition, well-being has been conceptualised in different ways. Whilst some authors have explicitly taken hedonic or eudaimonic perspectives, others have not reported the conceptual basis for well-being. Studies assessing the impact on affective well-being outcomes have looked at limited aspects of the occupational environment considering performance experiences, performance standards, and competition. However, further occupational characteristics may also be relevant for affective outcomes for professional classical musicians and conservatoire music students. Additionally, studies considering occupational characteristics and affective well-being outcomes in musicians have used qualitative research methods. Studies using quantitative methods could add further insight into this aspect of well-being by assessing the relationship between specific occupational characteristics and affective well-being outcomes (e.g., positive and negative affect). With regard to studies that have investigated job satisfaction, the results are equivocal with some authors suggesting that musicians experience high job satisfaction whilst others have reported that musicians experience low job satisfaction. Considering the most salient occupational characteristics for musicians may help to clarify this relationship. Additionally, studies with professional and student musicians are yet to consider all dimensions of eudaimonic well-being as defined by Ryff (2014).

Considering study design, some of the quantitative studies with performing artists have used small sample sizes (e.g., Balk et al., 2018; Parasuraman & Purohit, 2000). Additionally, some authors have reported data based on single sites (e.g., Piperek, 1981). Both small sample sizes and research based on single sites can limit the generalisability of results to wider populations. Further, researchers conducting quantitative studies have reported using author-developed questionnaires on several occasions to assess occupational demands and resources (Allmendinger et al., 1996; Dews & Williams, 1989; Johansson & Theorell, 2003; Steptoe, 1989). Standardised measures exist for occupational demands, resources, and well-being within the occupational literature and the use of such measures would enhance the validity and reliability of results. With regard to the qualitative studies, in some cases, researchers were

well known to the participants, which has implications for researcher reflexivity in terms of the role of the researcher and the type of information that participants are willing to disclose (Dobson & Gaunt, 2015; Piperek, 1981). Additionally, the research reported by Sandgren (2002) is limited by the lack of detail provided on data analysis and participant quotes are used sparsely.

2.7. Rationale and purpose of thesis

Within this literature review, I have examined theories, models, and concepts related to occupational stress and well-being. I critiqued interactional theories of occupational stress and suggested that they did not adequately account for the role of the individual within the stress process. I then considered a transactional theory of occupational stress and presented a contemporary model that incorporates occupational demands and resources, personal characteristics, appraisal, and well-being outcomes. I also considered how well-being has been conceptualised in the literature and presented research that suggests that both hedonic and eudaimonic well-being are complementary and should be assessed simultaneously.

When not effectively managed, occupational stress may contribute to low well-being for individuals. This can impact organisational outcomes including turnover as individuals decide to leave the profession. However, the literature on occupational stress and well-being in the performing arts demonstrates a disparate focus. While some studies consider occupational demands, others address occupational demands and resources. In addition to this, further studies examine occupational demands in relation to well-being, whilst others assess occupational demands and stress. The findings of the literature demonstrate a mixed picture in relation to the effect of occupational demands on well-being: researchers have suggested that occupational demands may have both positive and negative effects on the well-being of professional and student performing artists. In addition, the issues surrounding the theoretical underpinnings of this literature lead to questions on the quality of the research and the utility of the findings. Consequently, further research is needed to clarify how occupational demands relate to the well-being of professional classical musicians and conservatoire music students.

2.7.1. Aim and objectives

The aim of this research programme is to examine the occupational stress process and well-being of professional classical musicians and conservatoire music students. This will be achieved using a multi-method research design and ensuring that the research is underpinned by relevant, contemporary conceptualisations of occupational stress and well-being. The main objectives of the research are as follows:

1. To systematically evaluate and synthesise the literature on the relationship between occupational demands and well-being in performing artists.
2. To assess, quantitatively, the relationships between occupational demands, appraisal, resources, and perceptions of well-being among professional classical musicians and conservatoire music students.
3. To explore, qualitatively, professional classical musicians and conservatoire music students' views and opinions on the relationships between occupational demands, appraisal, resources, and well-being.
4. To compare differences in the experience of occupational stress and well-being outcomes as reported by professional classical musicians and conservatoire music students.

To address the first objective, a systematic review will be conducted to capture all relevant research to date and critically appraise the literature on the relationship between occupation demands and well-being of performing artists. The systematic review will form the first part of the thesis and provide direction for further research. Following the systematic review, some of the methodological issues within the literature will be addressed by conducting research using a multi-method approach. This research will be underpinned by a transactional approach to occupational stress and well-being and, therefore, account for the role of the individual within the stress process. The stress process and well-being outcomes of professional classical musicians and conservatoire music students will be explored from a multi-method standpoint using both quantitative and qualitative methods.

Chapter 3

Methodology

3.1. Introduction

In the following chapter, I consider my philosophical positioning and how this influenced my methodological decisions for the research programme. Detailed descriptions of the methods used for each study are provided in Chapters 4–6.

3.2. Philosophical position

The actions of researchers are guided by their beliefs about reality and knowledge or their philosophical position (Guba, 1990). This means that beliefs influence research questions, decisions on the appropriate methodological approach, and the specific methods chosen for data analysis. It is, therefore, important for researchers to make their philosophical position clear and describe the influence on decisions made within a research project. A philosophical position or paradigm includes ontology, epistemology, and methodology (Denzin & Lincoln, 2008). Ontology considers the nature of reality and epistemology relates to the study of knowledge (Lincoln & Guba, 2013). Researchers address their ontological position, by considering what can be known (Guba & Lincoln, 1994). This influences the epistemological position of the researcher and leads them to reflect on their relationship to what can be known. Together, ontology and epistemology influence the methodology chosen (i.e., how knowledge is obtained) and the subsequent methods. For example, in a positivist paradigm, researchers believe that a single, measurable reality exists (i.e., *Ontology:* naïve realism) and knowledge about the world is gained objectively (i.e., *Epistemology:* objectivism), often through quantitative methods such as experimental designs (Guba & Lincoln, 1994; Park et al., 2020). In a constructivist paradigm, researchers believe that reality is created at the individual level (i.e., *Ontology:* relativism) and knowledge about the world is gained through subjective study (i.e., *Epistemology:* subjectivism), which may lead to the use of qualitative methods such as interviews (Guba & Lincoln, 1994).

I believe that an objective reality exists independently of me and that reality is open to multiple subjective interpretations. This is a belief I have held for a long time: for instance, when doing exams at school, I would observe that some people interpreted them as a stressful

experience whilst others found them enjoyable and still others were disinterested. Whilst we were all sitting the same exam, there were multiple ways that people interpreted the experience. This suggests that my ontological and epistemological beliefs are encapsulated by *critical realism*. Critical realism integrates a realist ontology with a constructivist epistemology (Maxwell & Mittapalli, 2010) and has been suggested as an appropriate philosophical position for conducting mixed- or multi-methods research (Mukumbang, 2023).

3.2.1. Critical realism

Critical realism is a philosophical position based on the work of Bhaskar (e.g., 1975/2008). Within critical realism, aspects of positivism and constructivism are combined and the difference between the two philosophical positions is considered to be a fallacy (O'Mahoney & Vincent, 2014). Positivists and critical realists share the belief that an independent reality exists "out there" (O'Mahoney & Vincent, 2014). However, whilst positivists believe that reality can be accurately observed, controlled, and measured, critical realists accept that their perception of reality may be incomplete leading to a partial understanding (Guba & Lincoln, 1994; Maxwell & Mittapalli, 2010). On the other hand, constructivists believe that multiple realities exist, with reality being constructed at the individual level (Sobh & Perry, 2006). Whilst critical realists acknowledge subjectivity in how individuals perceive reality, they reject the notion of multiple realities (Fleetwood, 2014).

Bhaskar (1975/2008) proposed that reality is multi-layered and made of three ontological domains: the empirical, the actual, and the real. The domain of the empirical includes individuals' (direct and indirect) experiences and perceptions of events; the domain of the actual includes events and actions that actually take place; the domain of the real includes everything that exists in the natural and social world, such as structures, power, institutions, rules, and mechanisms (Bergin et al., 2008; Fleetwood, 2014). These domains overlap, so that the domain of the real encompasses both the domains of the actual and empirical, and the domain of the actual encompasses the domain of the empirical (Mukumbang et al., 2020). These layers of reality act together and considering this can facilitate a better understanding of a topic (O'Mahoney & Vincent, 2014). For instance, researchers may perceive particular

events (i.e., domain of the empirical), which actually take place (i.e., domain of the actual). These events may be triggered by specific causal mechanisms such as social structures or power relationships (i.e., domain of the real), which cannot be directly perceived by individuals. Considering why these events take place may allow us to propose appropriate causal mechanisms, therefore, providing insight into the domain of the real. Thus, the concept of a stratified reality provides an explanation for why critical realists consider their perception of reality to be incomplete, given that individuals cannot directly access information in the real and actual domains. Additionally, critical realists believe that reality is a complex open system, which may change over time and place (O'Mahoney & Vincent, 2014). An open system can be defined as a system that is governed by the tendencies of causal mechanisms (Fleetwood, 2017). Within an open system, tendencies refer to the idea that whilst specific causal mechanisms tend to lead to particular effects, this is not always the case (Fleetwood, 2014). For an in-depth discussion of open and closed systems from a critical realist perspective, see Fleetwood (2017).

Considering epistemology, critical realists emphasise causality or causal mechanisms to understand the domain of the real (Wiltshire, 2018). Whilst these causal mechanisms cannot be directly observed due to existing in the domain of the real, they can be implied through developing theories and empirical study (McEvoy & Richards, 2006). In this way, critical realists are interested in the processes that lead to a particular outcome. This view of causality is different to both positivists and constructivists. From a positivist perspective, regularity is emphasised when considering causality (Maxwell & Mittapalli, 2010). Consequently, positivist researchers are interested in the relationship between variables, seeking generalisability and replicable statistical associations. Considering the constructivist perspective, causality is often not addressed (Wiltshire, 2018), which is due to the belief that reality is constructed at the level of the individual. Alongside causality, critical realists argue that context is relevant to understanding the domain of the real as it can give insight into causal mechanisms that exist within an open system (Wiltshire, 2018). For critical realists, context refers to the specific setting or circumstances of the phenomena being researched (Pawson et al., 2005). Relevant contextual factors may include social or organisational attributes of the phenomena under study (Clark et al., 2007).

For critical realists, the goal of research is to further understanding through generating more informed explanations of phenomena (McEvoy & Richards, 2006). Given the focus on causal mechanisms, critical realists take a different approach to inference or reasoning in comparison to positivists and constructivists (Zachariadis et al., 2013). This is chiefly achieved through retroduction, a mode of inference that aims to identify causal mechanisms (Danermark et al., 2019). Retroduction involves moving from empirical observations of phenomena to generating explanations for the causal mechanisms that allow such phenomena to occur within specific contexts (Mukumbang, 2023). Retroduction can be achieved through counterfactual thinking and abstraction (Danermark et al., 2019). Counterfactual thinking involves considering something with regard to its opposite and abstraction requires researchers to link phenomena to abstract ideas and generalisable theories. Induction, deduction, and abduction are also considered to be complementary modes of inference for critical realists (Danermark et al., 2019; McEvoy & Richards, 2003). In research, inductive reasoning involves logically moving from specific observations of phenomena to generalisations or laws (Danermark et al., 2019). When using deductive reasoning, researchers logically move from generalisations or laws to specific observations (for instance, in testing hypotheses). Abduction involves observing specific phenomena and then relating the phenomena to existing rules or theories. This can lead to new insights about the observed phenomena. For a comparison and discussion of these different modes of inference, see Danermark et al. (2019).

Both quantitative and qualitative methods are considered congruent with a critical realist position and retroduction (e.g., McEvoy & Richards, 2003; Zachariadis et al., 2013). Indeed, the integration of quantitative and qualitative methods in the form of mixed- or multi-methods research has been advocated by critical realists (McEvoy & Richards, 2006; Mukumbang, 2023). Following from the ontological belief that our perception of reality is incomplete, Zachariadis et al. (2013) suggested that using multiple methods allows phenomena to be perceived from different perspectives. In this sense, the use of multiple methods is considered complementary (complementarity) and creates a more detailed understanding of phenomena (completeness). The authors also suggested that quantitative methods can first be used to establish patterns in the data, followed by qualitative methods

which take a more in-depth approach to identifying causal mechanisms (expansion). Furthermore, McEvoy and Richards (2006) suggested that quantitative methods can facilitate comparisons, provide reliable descriptions of phenomena, and allow for new causal mechanisms to be explored. They highlighted that qualitative methods facilitate the exploration of phenomena within a complex system through the collection of rich data and allowing concepts to emerge during the research process. This differs from the pragmatic approach to multi-methods research. Pragmatists have argued for several reasons to adopt multi-methods research designs, which includes using the best method(s) available to address the research question and ignoring debates about paradigms (a-paradigmatic), adopting different paradigms according to different methods (multiple paradigmatic), or using a combination of both quantitative and qualitative methods to offset the weaknesses of each (Teddlie & Tashakkori, 2009). For instance, a multiple paradigmatic approach could be taken through combining positivist and constructivist paradigms in a multi-method study including a quantitative survey and qualitative interviews. Turning back to critical realism, a multi-method approach is ontologically and epistemologically aligned, which allows critical realists to acknowledge their paradigmatic position in the methods they choose.

Researchers have suggested that critical realism is an appropriate philosophical position for conducting management and organisation studies (Fleetwood, 2005; Frederiksen & Kringelum, 2021). Taking a critical realist position, Snell et al. (2015) examined occupational stress in relation to job losses for workers in the power generation industry. Their findings suggested that context in terms of the organisational structure was an important factor for understanding the occupational stress process of workers. In relation to the current research programme, the context is considered in terms of the demands and resources that exist in the occupational environment of professional classical musicians and conservatoire music students. Moreover, Ford et al. (2018) suggested that context could be experienced at the level of the individual. This is encapsulated in the consideration of individual coping in this thesis. In terms of the components of well-being, critical realists include both affective experiences (i.e., emotions) and cognitions (e.g., evaluations of satisfaction) within the domain of the real (Maxwell & Mittapalli, 2010). A critical realist philosophical position, therefore, allows me to incorporate the exploration of occupational stress processes and well-being outcomes, with

consideration of the DRIVE model (Mark & Smith, 2008) and CMRT (Lazarus, 1999). Furthermore, a critical realist approach will allow me to better understand the relationship between occupational characteristics and well-being by exploring potential causal mechanisms that link these phenomena.

3.2.2. Methodological approach

Aligned with a critical realist philosophical position, a multi-method approach was used to address the aims and objectives of the thesis. This included a mixed-methods systematic review, followed by quantitative and qualitative studies. In this section, I discuss the alignment between critical realism, the study designs used in the research programme, and the methods of analysis. Specific details on the methods used for each study are provided in Chapters 4–6.

Mixed-methods systematic reviews integrate the findings from quantitative, qualitative, and mixed-methods primary research studies (Sandelowski et al., 2012), which can facilitate a more complete understanding of particular phenomena (Stern et al., 2021). This integration of findings was necessary, as from the literature review it was identified that the research on occupational stress and well-being in the arts exhibited a disparate focus as well as equivocal findings. From a philosophical perspective, Sandelowski et al. (2012) argued that the logical frameworks underpinning analysis in mixed-methods systematic reviews (i.e., aggregation and configuration) are linked to a realist philosophy. Aggregation involves perceiving the relationships or associations addressed in primary quantitative and qualitative studies as the same, which implies a level of interpretation on the part of the researcher. Configuration requires the researcher to link findings from primary studies that may contradict or explain each other into a clear model or theory, such as the methods used in realist synthesis. Underpinning both aggregation and configuration is the concept that the primary studies relate to real phenomena which were studied outside of the researcher's perception and that those phenomena were interpreted by the researcher (Sandelowski et al., 2012). Additionally, Sobh and Perry (2006) advised that researchers taking a critical realist position should become familiar with existing theories in the discipline to inform their research. Therefore, conducting

a systematic review allowed for consideration of relevant theories on occupational stress and well-being in relation to musicians.

Considering the quantitative and qualitative studies in this thesis, an explanatory sequential design was chosen to address the aim and remaining research objectives. Within an explanatory sequential design, quantitative research is first conducted and analysed, followed by qualitative research (Creswell & Clark, 2018). This allows the quantitative results to be explained through qualitative follow-up and may include consideration of significant or nonsignificant results as well as differences between groups. Further, qualitative research can be used to explore the causal mechanisms that underpin relationships identified in a quantitative study, which aligns with a critical realist position. In the present research programme, this was achieved through a cross-sectional quantitative study using Structural Equation Modelling (SEM) and qualitative follow-up using interpretative phenomenological analysis (IPA). The alignment between critical realism and both quantitative and qualitative research has been addressed in the previous section. Next, the use of SEM and IPA is considered.

Brown et al. (2021) suggested that SEM may align well with a critical realist position. SEM includes measured variables, which can be observed, and latent variables, which are hidden and underpin the measured variables. Thus, implied within SEM is the ontological belief that there is a reality (i.e., latent variables) but our access to this is imperfect (i.e., measured variables; Brown et al., 2021). This is similar to the domains of the empirical and the real as proposed by Bhaskar (1975/2008). Further, from an epistemological perspective, SEM tests theoretical models, which may include causal mechanisms (e.g., mediator variables; Brown et al., 2021). SEM has been used to explore contextual factors, causal mechanisms, and outcomes in healthcare from a realist position (e.g., Ford et al., 2018). Considering occupational stress and well-being, organisational context (i.e., occupational characteristics), causal mechanisms (i.e., individual stress appraisal), and outcomes (i.e., well-being) can be considered when using SEM. Additionally, researchers have suggested that SEM can be complementary to qualitative methods and used in a variety of multi-method designs (Brown et al., 2021; Ford et al., 2018).

Interpretative phenomenological analysis (IPA) was chosen as an appropriate methodological approach for the qualitative follow-up study. Researchers choosing IPA are concerned with exploring individuals' subjective experiences and take an idiographic approach to analysis (Smith et al., 2022), which is consistent with the objective of the study. Reid et al. (2005) suggested that IPA is underpinned by a realist ontology and examples of IPA studies conducted from a critical realist position can be found in the fields of education, health, and social care (e.g., Hood, 2016; Jeong & Othman, 2016; Shallcross et al., 2019). As previously discussed, critical realists believe that the domain of the real includes mental phenomena as well as physical objects (Maxwell & Mittapalli, 2010). In order to study the meaning ascribed to these mental phenomena, critical realists have advocated for adopting a constructivist or interpretivist epistemological approach (Maxwell & Mittapalli, 2010), therefore making IPA an appropriate choice. With regard to the explanatory sequential approach, IPA was considered appropriate to explore the causal mechanisms involved in the occupational stress process in more depth than in the quantitative study. In particular, this involved exploring appraisal within the occupational stress process.

Chapter 4

Study 1

The relationship between occupational demands and well-being of performing artists: A systematic review

4.1. Introduction

Performing artists span a range of disciplines and performance environments and are required to possess a diverse skill set to develop and maintain successful careers. They are expected to display technical mastery, portray expressive qualities, acquire business acumen and interact with the public and other stakeholders (Vaag et al., 2014; Williamon, 2004). Research on musicians and dancers report similarities in the environment experienced in their careers: both often carry out a range of roles including performing, teaching, and working in a self-employed capacity (Bennett, 2009). Additionally, performing artists such as actors, comedians and circus artists work in similar environments and often hold multiple occupational roles (Throsby & Zednik, 2011). Whilst some performing artists may be affiliated to a particular organisation, many work in a freelance capacity holding concurrent contracts (Mills, 2004).

This multifaceted professional identity exposes performing artists to a variety of occupational demands categorised under organisational, interpersonal and intrapersonal domains. Occupational demands refer to aspects of the working environment that may impact an individual either physically or psychologically. A systematic review of the literature that focused only on the occupational demands experienced by musicians identified seven categories: public exposure, personal hazards, repertoire, competition, job context, injury and illness, and criticism (Vervainioti & Alexopoulos, 2015). Equally, dancers experienced pressure to conform to a prescribed body type, endure heavy rehearsal schedules and were required to navigate multiple interpersonal relationships within their respective dance company (Noh et al., 2009).

The impact of physical demands on the physical health of performing artists has received significant attention in the literature and been explored in musicians (Gembris et al., 2018; Kok et al., 2016; Williamon & Thompson, 2006; Zaza, 1998), dancers (Jacobs et al., 2012; S. J. Kenny et al., 2016) and circus artists (Shrier et al., 2009; Wolfenden & Angioi, 2017). Playing-related musculoskeletal disorders have been evidenced to have significant implications for performing artists such as impacting on performance quality and leading to absence from

work (Ackermann et al., 2012). In addition to the physical demand of playing an instrument, Rickert et al. (2013) found that organisational demands such as heavy schedules and technically demanding repertoire were associated with increased risk for injury in orchestral musicians.

Performing artists are also exposed to a number of interpersonal demands and are required to maintain a multiplicity of relationships, including those with colleagues, peers, management and audiences, who may have different and conflicting agendas. Researchers have reported that positive interpersonal relationships with colleagues are necessary for a harmonious working environment and also affect the quality of the artistic product (Dobson & Gaunt, 2015; Lim, 2014). Interpersonal skills are particularly tested when performing artists are transitioning into the profession and seeking new employment opportunities, particularly when in a freelance capacity (Dobson, 2010a). This is due to the need to work within an already established team and respond to interpersonal cues (Dobson & Gaunt, 2015). Additionally, this period may be accompanied by demands such as financial insecurity and competition with peers (Creech et al., 2008). The transition into the profession is often not linear and may occur whilst individuals are enrolled on performing arts awards at higher education institutions, meaning they must cope with both educational and professional demands concurrently.

Intrapersonal demands, such as perfectionistic strivings, may also impact on performing artists through the occupational setting (Kenny et al., 2004). Within music, intrapersonal demands have frequently been explored in relation to music performance anxiety (MPA; e.g., Kenny, 2011). In a study by Pecen et al. (2018), professional musicians recognised experiencing psychological challenges related to coping with affective experiences connected with expressive performance and managing personal expectations. Further, research with dancers (Mainwaring & Finney, 2017) and circus artists (Shrier & Hallé, 2011) has highlighted the potential negative effect of intrapersonal demands and their relation to injury.

Research from the occupational stress literature with university staff (Mark & Smith, 2012a) and nurses (Mark & Smith, 2012b) suggests that occupational demands may negatively impact

on both cognitive and affective well-being outcomes (Lazarus, 1999). Whilst some facets of the occupational environment of performing artists may have a negative impact on well-being, other aspects may provide enabling conditions which facilitate well-being. Many performing artists are self-employed and research with creative professionals suggests that self-employed workers have greater opportunities for autonomy, creativity and learning experiences (Bujacz et al., 2017). Within the literature, self-employment has been found to relate to higher job satisfaction (Andersson, 2008; Warr, 2018) and life satisfaction (Binder & Coad, 2016) when compared to employment. However, self-employment has also been found to relate to short-term psychological distress (Reid et al., 2018) and individuals may experience job insecurity, which may have a negative impact on well-being (de Witte et al., 2016).

4.1.1. Conceptualisations of occupational stress

Within the literature on performing artists, researchers have drawn on a range of conceptual frameworks to inform their explorations into occupational demands and well-being outcome. These include the Job Demand-Control(-Support) model (Johnson & Hall, 1988; Karasek, 1979), the Effort-Reward Imbalance model (Siegrist, 1996), the Job Demands-Resources model (Bakker & Demerouti, 2014) and psychosocial models of occupational stress. This section explores research in this area on performing artists alongside prominent frameworks in the occupational stress and well-being literature.

Research, which draws on the Job Demand-Control model (JDC; Karasek, 1979), found that musicians experience demands such as irregular working hours, repetitive work and competition amongst colleagues (Steptoe, 1989). In a study with conservatoire musicians, Akel and Düger (2007) found that older students experienced higher levels of psychological job demands and greater job insecurity. However, the authors do not report on the specific job demands that musicians faced and further studies which test associations between the variables of the JDC model are required. The JDC model (Karasek, 1979) suggests an interaction effect, proposing that individuals exposed to high job demands and low job control may experience a negative impact on well-being. Within the model, job control is composed of two dimensions: decision authority, which relates to the control an individual has over their

work, and skill discretion, which refers to the variety of skills an employee uses (Mark & Smith, 2008). This model has been developed to include social support as a potential moderator of the relationship between occupational demands and outcomes of the stress process (Johnson & Hall, 1988). Within the Job Demand-Control-Support model (JDCS), Johnson and Hall (1988) found that individuals who had lower support from co-workers experienced higher levels of occupational stress. These models have had a significant impact on the occupational stress literature with numerous studies assessing the relationships between the dimensions (Häusser et al., 2010).

Whilst rarely applied in the performance artist literature, the Effort-Reward Imbalance model (ERI; Siegrist, 1996) has also informed much of the occupational stress literature and suggests a reciprocal relationship between effort and reward. Effort relates to both extrinsic factors, such as occupational demands, and intrinsic factors, such as motivation. The reward dimension comprises the components salary, esteem, career opportunities and job security (Peter & Siegrist, 1999). Exposure to situations which comprise high effort and low reward may have a negative impact on well-being (van Vegchel et al., 2002).

A criticism of the JDCS and ERI models is the lack of inclusion of the individual in the stress process. Lazarus' Cognitive-Motivational-Relational Theory is a transactional approach and considers the role of individual appraisal in the stress process (Lazarus, 1999). Lazarus suggested that there are two stages of appraisal: primary and secondary. Primary appraisal involves the individual assessing whether a potential demand has implications for their personal goals and values. Where there are implications for the individual, the demand will be evaluated in terms of harm, threat, loss or challenge. This leads to secondary appraisal, which is the assessment of coping options (Lazarus, 1999). This model represents the complexities of the stress process, however, there are difficulties in applying it to empirical research due to the complexity of assessing individual appraisal.

Another influential framework within the occupational stress literature is the Job Demands-Resources model (Bakker & Demerouti, 2014). The authors suggested that occupational stress models should allow for the incorporation of the most salient job demands dependent on the

specific occupation under study and a wider range of factors, such as emotional demands and performance feedback, should be considered (Bakker & Demerouti, 2007). Aspects of the occupational environment are categorised as either job demands or job resources. Job demands can be defined as "physical, social, or organizational aspects of the job that require sustained physical or mental effort [to manage]" (Demerouti et al., 2001, p.501). Job resources are aspects of an occupation that may support the completion of work tasks, reduce occupational demands and any related physical or psychological outcome and/or facilitate the personal development of employees (Schaufeli & Bakker, 2004). Considering the literature on performing artists, Vaag et al. (2014) used the JD-R model to guide qualitative research with freelance musicians. This research found that both demands and resources were important aspects of the occupational environment for freelance musicians, who highlighted the importance of social support from their personal and professional networks alongside personal resources such as developing resilience and maintaining a passion for music.

4.1.2.   Conceptualisations of well-being

Several studies have examined well-being outcomes in the workplace of performing artists drawing on frameworks such as self-determination theory (Ryan & Deci, 2001), hedonic well-being (Diener et al., 1999) and eudaimonic well-being (Ryff, 2014). Considering the impact of occupational demands on the well-being of professionals in artistic roles, Tuisku et al. (2016) found that employment type (e.g., full-time) and stability were related to well-being outcomes: individuals who were in full-time stable roles reported higher levels of cognitive and affective well-being compared to those with irregular working hours. This study conceptualised well-being holistically as including hedonic, eudaimonic and social well-being dimensions (Fisher, 2014). Within the literature, a consensus on the definition of well-being has not yet been reached. The difficulties of defining well-being are discussed by Dodge et al. (2012) and within the psychology literature well-being has traditionally been defined from two perspectives: hedonic and eudaimonic (Biswas-Diener et al., 2009; Waterman, 2008).

Hedonic well-being, sometimes called subjective well-being, encompasses affective and cognitive dimensions (Diener et al., 1999). The affective dimensions of hedonic well-being are

positive and negative affect, which are measured independently, and the cognitive dimension is life satisfaction. Early research on emotions found that positive and negative emotions were not opposite ends of a continuum but rather independent dimensions (Bradburn, 1969; Bradburn & Caplovitz, 1965). Whilst these dimensions have shown moderate inverse correlation, they demonstrate distinct constructs (Diener et al., 1995). This led to the inclusion of two affective dimensions within hedonic well-being: positive affect and negative affect. The third dimension of subjective well-being, life satisfaction, is considered to be a global evaluative judgement of an individual's well-being, which demonstrates independence from the affective dimensions (Lucas et al., 1996). Assessing both the cognitive and affective dimensions of hedonic well-being allows for a holistic evaluation of subjective well-being (Diener & Seligman, 2004), as individuals may include judgements not related to affective states when reporting life satisfaction. For example, individuals may include areas such as success when reporting life satisfaction, which may not be reflected in reports of affect (Pavot & Diener, 2008).

The hedonic conceptualisation of well-being is centred on the subjective perspective of the individual, allowing individuals rather than researchers to decide on the factors that contribute to their well-being (Diener et al., 1998). Criticisms of the hedonic approach include the lack of theory-based research guiding the conceptualisation and the omission of important aspects of experiencing a fulfilling life (Ryff, 1989b). In an attempt to address this, Ryff developed a six-factor model of well-being, referred to as eudaimonic well-being (Ryff, 1989b), which features objective dimensions of well-being. The term eudaimonia has its roots in Aristotle's consideration of a virtuous life and has been translated as 'happiness', 'fulfilment' and 'flourishing' (Brown, 2009). In accord with this, eudaimonic well-being takes a wider perspective and researchers in this tradition are concerned with the fulfilment of human potential and the flourishing of the individual. Ryff (2014) suggests that eudaimonic well-being is made up of six factors: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. These six dimensions represent cognitive evaluations on aspects of an individual's life.

The distinction between hedonic and eudaimonic well-being has been questioned in the literature, with researchers suggesting theoretical similarities in conceptualisations (Kashdan et al., 2008) and the potential for the perspectives to complement each other (Huta & Waterman, 2014; Waterman, 2008). For instance, Kashdan et al. (2008) suggest similarities in the life satisfaction dimension of subjective well-being and the purpose in life dimension of eudaimonic well-being. Additionally, empirical research suggests correlations between dimensions of hedonic and eudaimonic well-being (Keyes et al., 2002).

Within the occupational literature, well-being has been operationalised in a variety of ways. Considering hedonic well-being, life satisfaction is frequently operationalised as job satisfaction (Fisher, 2010). One example of this within the performing arts is a study by Cahalan and O'Sullivan (2013), who found that Irish dancers reported a high level of job satisfaction citing reasons such as opportunity to travel and being remunerated for a career they were passionate about. The disagreements on the conceptualisation of well-being have led to a plethora of further operationalisations, which include engagement, organisational commitment, momentary affect and vigour (Fisher, 2010). The operationalisation of well-being for the purpose of this systematic review incorporates both hedonic and eudaimonic well-being domains; psychological functioning of the individual represented by only cognitive evaluations relating to the quality of life, or cognitive evaluations and affective outcomes combined relating to the quality of life. In other words, to meet the inclusion criteria for the review, articles must use a holistic operationalisation of hedonic well-being or a dimension of eudaimonic well-being.

4.1.3. Rationale

Whilst an extensive body of literature over the past 30 years has been developed around the impact of occupational demands, the focus has been on outcomes such as health, injury and MPA. Lewchuk (2017) suggested that negative affect experienced by individuals due to precarious employment had an adverse impact on their relationships inside and outside the occupational environment. Given the nature of work carried out by performing artists, organisational, interpersonal and intrapersonal occupational demands such as these may

negatively impact on their well-being. Synthesising the literature on this topic will allow for an unbiased evaluation and, as a result, identification of a direction for future research, which will enable the development of evidence-based interventions to support performing artists.

4.1.4. Aim and objectives

The aim of this systematic review was to evaluate and synthesise the literature that has focused on the relationship between occupational demands and well-being in performing artists. The objectives of this systematic review were to critically appraise the quality of the literature, synthesise the findings of previous research on this topic and identify future research foci on the well-being of performing artists, particularly that of musicians and dancers, in order to provide an explicit foundation for evidence-based support programmes and interventions.

4.2. Method

4.2.1. Study design

A mixed-methods systematic review was chosen to assess the full extent of literature on the topic. Mixed-methods systematic reviews integrate the results of primary research studies that use quantitative, qualitative or mixed-methods approaches (Sandelowski et al., 2012). This allows for the best use of the available research to create evidence summaries which are able to inform decision-makers about appropriate interventions and directions for future research (Pearson et al., 2014). The integration of different research methods allows for the synthesis of research which is able to provide statistically meaningful results with insight into the experiences of those concerned.

The inclusion criteria was developed using the SPIDER search tool (Cooke et al., 2012). The SPIDER tool is a method for defining the sample, phenomenon of interest, research design, evaluation and research type (methodology) to be studied. Defining these parameters is relevant for identifying research which is quantitative, qualitative and mixed-methods in design, meaning the tool is applicable for conducting a mixed-methods systematic review.

Specifically, identifying the areas of phenomenon of interest and evaluation are appropriate for undertaking a systematic review with a broad question, which does not seek to evaluate the effectiveness of interventions. The systematic review was conducted following guidance from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement (Moher et al., 2009), which provides guidance on the process of conducting a systematic review and an appropriate reporting standards (Liberati et al., 2009).

Critical appraisal of study quality was conducted using the Mixed-Methods Appraisal Tool (MMAT; Pluye et al., 2011), which is designed to facilitate concurrent critical appraisal of quantitative, qualitative and mixed-methods primary research in mixed-method systematic reviews (Pace et al., 2012). The ability to critically appraise all research designs with one tool facilitates a standardised approach which allows comparison to be made between studies of different methodologies (Crowe & Sheppard, 2011). Additionally, the MMAT shows good reliability and efficiency when used independently by multiple reviewers (Souto et al., 2015) and has been used in systematic reviews on a wide range of topics (Hong et al., 2018). The MMAT allows for the use of a different set of criteria for the appraisal of five different study designs: qualitative, randomised control trials, non-randomised quantitative, observational descriptive and mixed-methods (Pace et al., 2012). Further details of the MMAT criteria for qualitative, observational descriptive and mixed-methods studies is provided, as these were used in this systematic review. The qualitative criteria used in the MMAT includes four areas: (1) appropriateness of participants and sampling procedure; (2) data analysis process including method of data collection, data format and data analysis; (3) consideration of the influence of setting for data collection; and (4) consideration of the influence of the researchers' prior ontological and epistemological beliefs (see Table 4.3, 1.1-1.4). Criteria for assessing observational descriptive studies includes: (1) sample source and size; (2) whether the sample was representative of the population (3) suitability of the measures; and (4) response rate (see Table 4.3, 4.1-4.4). The critical appraisal of mixed-methods included the qualitative and quantitative descriptive criteria above along with criteria specific to mixed-methods studies. These included the following three areas: (1) relevance of mixed-methods design; (2) synthesis of data; and (3) consideration of limitations of the methodology (see Table 4.3, 5.1-5.3).

As the review included a range of study designs, a narrative synthesis approach was considered suitable for reporting the results. Narrative synthesis is appropriate for integrating research from diverse methodologies due to the possibility of considering a variety of research designs in juxtaposition (Dixon-Woods et al., 2005). This systematic review used an integrated design for the analysis and synthesis of included data, meaning that data for all studies was pooled and analysed concurrently (Sandelowski et al., 2006). Integrated designs for systematic reviews can be considered applicable when the analysis of studies using different methodologies are interpreted in consideration of the same research question and the data can be meaningfully presented in the same way (Sandelowski et al., 2006). In this instance, a preliminary synthesis was developed from the extracted data by clustering data, vote counting and tabulation, whilst conceptual ideas webbing was used to abstract data into higher order concepts (Popay et al., 2006).

4.2.2.   Participants, exposure, outcome

The search strategy included professional performing artists in the fields of music, dance, acting, circus performance and comedy. Due to the crossover between student and professional status, it was deemed appropriate to include both professional performing artists and individuals studying arts awards at educational institutions in this systematic review. The phenomenon of interest explored in the systematic review was the relationship between occupational demands and well-being. The inclusion criteria encompassed all study designs in order to capture the full range of literature on the topic to date. Studies were included where the impact of occupational demands on well-being was explored and well-being was operationalised as above. Where studies adopted a partial operationalisation of hedonic well-being and measured only affective outcomes (e.g., positive affect) they were not included.

4.2.3.   Systematic review protocol

No protocol previously existed for the conduct of a systematic review on the topic. Therefore, a protocol was developed in line with Moher et al. (2015), which included the review question, search strategy, inclusion and exclusion criteria and details of the choice of tool for quality

assessment. The protocol also included details on the process for the production of a narrative synthesis. A copy of the protocol is available from the lead author on request.

4.2.4. Search strategy

An electronic search strategy was employed using the following databases: (i) EBSCOhost (including Art Full Text, SPORTDiscus, EBSCOhost, Education Research Complete, GREENfile, Hospitality and Tourism Complete, Library, Information Science and Technology Abstracts, MEDLINE, Regional Business News, Business Source Premier); (ii) OvidSP (including PsycArticles, PsycINFO, EMBASE and MEDLINE (including MEDLINE ePub and In-Process)); (iii) Scopus. These databases were selected due to their relevance to the topic, which would ensure that all appropriate material was found. The following keywords were included in the search strategy; *musician, artist, dancer, "performing art", well-being, wellbeing*, and *satisfaction*. Inverted commas were used around the term "performing art" to ensure searches returned articles related to performing art as opposed to returning articles related to performing and art. Boolean logic operators and truncation were used to combine keywords in the search strategy for each database. When conducting the search, filter boxes were used for "peer-reviewed" articles and "English language". No date filters were used in the search strategy. In addition to an electronic search, the two journals Medical Problems of Performing Artists and Psychology of Music were handsearched. These journals were selected due to their contextual relevance and to ensure the completeness of the search strategy (Hopewell et al., 2007). Once appropriate studies were identified for inclusion, the reference lists of each study were checked for any additional studies that were relevant to the systematic review.

4.2.5. Data sources, study selection and data extraction

All databases were searched from their inception until the date of the final search (i.e., 13 October 2017). Where handsearches were conducted, these were also carried out from the journals' first published issue.

The following inclusion criteria was applied for articles to be included in the systematic review: (i) peer-reviewed journal articles; (ii) articles published in the English language until

the date searched (i.e., 13 October 2017); (iii) articles that focused on professional performing artists, or focused on performing artists studying performing arts awards in educational settings; (iv) articles included adults aged 18 years old or above as participants; (v) articles that measured the relationship between occupational demands and well-being. The following exclusion criteria was applied to articles to ensure that only relevant articles were retained for the systematic review: (i) non peer-reviewed journal articles; (ii) articles that did not include professional performing artists or performing artists studying for performing arts awards in educational settings; (iii) articles that included children or individuals under the age of 18 years old; (iv) articles that did not assess the relationship between occupational demands and well-being; (v) editorials and forewords; (vi) book chapters, book reviews and book synopses; (vii) conference proceedings and conference abstracts; (viii) unpublished theses. See Appendix A for full details of inclusion and exclusion criteria. Where an article included the eligible population as a subset, they were included if the data for the subset could be extracted from the main data set.

In accordance with the PRISMA statement (Moher et al., 2009) citations were screened and duplicates removed. Following this, titles and abstracts were screened against the inclusion and exclusion criteria. Remaining articles were screened at full-text against the inclusion and exclusion criteria. This process was conducted by the first author (SW) and checked by the fourth author (DW). All authors discussed and agreed on the final list of studies to be included in the review.

A data extraction form (Appendix B) was created and the first (SW) and fourth (DW) authors achieved consensus on the data to be extracted. The data extraction form was piloted on a subset of four studies (representing 20% of the included studies). Data extracted included: reason for inclusion in the review, author(s), year of publication, study location, participant characteristics (e.g., occupation, age), context (e.g., symphony orchestra, conservatoire), sampling method, response rate, aims, study design, conceptual framework, variables, themes explored, outcome measures, validity or credibility, method of analysis, results summary, author identified limitations, additional limitations, implications for future

research, and funding body or sponsor. Data extraction was completed by the first author (SW) and checked by the second author (RN).

4.2.6. Data analysis

The Mixed Methods Appraisal Tool (MMAT; Pluye et al., 2011) was used to assess the methodological quality of studies in the systematic review. This tool was selected as it can be used with quantitative, qualitative and mixed-methods studies and to ensure standardisation of assessment across studies. The validity and reliability of the MMAT have been assessed (Pace et al., 2012; Souto et al., 2015) and the tool found to be appropriate for the appraisal of studies in mixed-method systematic reviews. Quality appraisal of a subset of four studies (representing 20% of those included) was conducted by the first and fourth authors independently (SW and DW). Inter-rater reliability was calculated by means of Cohen's kappa (Cohen, 1960) using the software package SPSS (V. 23.0.0.3) and found to be 0.736, which represents substantial agreement (Landis & Koch, 1977). Disagreements on study quality were resolved by discussion between the first and fourth authors. Following this, quality assessment using the MMAT was conducted by the first author for the remaining studies.

Due to the diverse range of methodologies and heterogeneity in the included studies, a narrative synthesis was deemed appropriate for presenting the results of the systematic review (Dixon-Woods et al., 2005). Guidance from Popay et al. (2006) was followed on the development of narrative synthesis and extracted data were visualised using tabulation, clustering and vote counting. Textual descriptions and ideas webbing were used to explore relationships between occupational demands and cognitive and affective well-being domains. Themes for the discussion were developed deductively considering conceptualisations of both occupational stress and well-being. Dimensions of the JDC(S) model (Johnson & Hall, 1988; Karasek, 1979), ERI model (Siegrist, 1996) and JD-R theory (Bakker & Demerouti, 2014) were considered alongside those of hedonic (Diener et al., 1999) and eudaimonic (Ryff, 2014) well-being frameworks.

4.3. Results

4.3.1. Study selection and characteristics

A total of 336 articles were identified from database searches, handsearches, and reference list checking. After 106 duplicates were removed, 230 titles and abstracts were screened against the inclusion and exclusion criteria. This led to the exclusion of 152 articles. The full-text of the 78 articles which remained were obtained and screened for eligibility, which led to the exclusion of a further 58 articles. All articles excluded at full-text are listed in Appendix C alongside reasons for exclusion. In total, 20 articles were retained for inclusion in the systematic review and a summary is presented in Table 4.1.

Table 4.1

Summary of included studies

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Abeles et al. (2014)	Symphony orchestra musicians	47	USA F16 M31	Qualitative: Semi-structured interview	Explore motivations of musicians to contribute to school education programmes and assess how such participation affects career perceptions	Motivations for participation Programme experiences	Delivering the programme was experienced as an opportunity for professional development and led to positive relationships with the community, autonomy, self-expression and positive affect.
Allmendinger et al. (1996)	Symphony orchestra musicians	1,123	UK, USA, Germany	Mixed-methods: Interview Observation Questionnaire Archival documents	Explore differences in orchestras and musicians' career profiles from the UK, USA and Germany	Operational information Orchestra integrity Player involvement Resources Player recognition Recruitment procedures Satisfaction Career mobility Gender representation Perceptions on gender representation	Musicians were satisfied with relationships with colleagues, though scored low for satisfaction with pay and management.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Ascenso et al. (2017)	Classical musicians	6	Germany, Portugal, Spain, UK F3 M3 Age range 32-52 ($M = 43.17$)	Qualitative: Interview Diary	Understand the well-being of professional musicians	Developed from PERMA profiler	Musicians had high well-being. Factors contributing to well-being included understanding identity, making music and relationships. Challenges to well-being included relationships with management, monotony in rehearsals and transition into the profession.
Bodner et al. (2008)	Band musicians	38	Israel F8 M30 Age range 22-45 ($M = 28.82$)	Quantitative; 2x2 (condition x time) mixed model MANOVA	Assess the adjustment of solo singers after performance and explore mental health	Affect Self-esteem Purpose in life Mental Health	Singers scored higher on purpose in life, negative affect and positive affect before performance compared to after. Higher well-being and lower distress were related to higher purpose in life after performance.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Brodsky (2006)	Symphony orchestra musicians	54	UK Age range 22-55 (M = 35.5)	Qualitative: Semi-structured interview	Explore the occupational experiences of orchestral musicians	Gains, risks and costs of orchestral career	Factors contributing to well-being included relationships with colleagues, emotional satisfaction, sharing performances, task variety, learning, feelings of accomplishment. Challenges to well-being included maintaining relationships, cognitive effort required for performance, maladaptive coping, low autonomy and limited career progression.
Burgoyne et al. (1999)	University student actors	15	USA	Qualitative: Interview	Understand the impact of acting on student actors	N/A (Grounded theory approach)	Contributors to well-being included development of empathetic and relationship skills and experiencing meaning. Challenges to well-being included relationships with directors, distressing content and maintaining personality characteristics.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Cooper et al. (1989)	Popular musicians	70	UK M70 Age range 22-62 (M = 40)	Mixed-method: In-depth interview Questionnaire	Assess the major sources of stress experienced by popular musicians	Stress Personality	Low job satisfaction was related to working with groups that lacked personal and professional cohesion.
Dobson (2010b)	Classical and jazz musicians	18	UK F7 M11 Age range 21-34 (M = 24.6)	Qualitative: Semi-structured interview	Explore the occupational demands placed on classical and jazz musicians and explore differences in experiences of autonomy	Creativity Work Control Demands Lifestyle Well-being	Identity, emotional investment and autonomy related to well-being. Musicians highly identified with their profession and experienced guilt after mistakes. Jazz players experienced greater autonomy compared to orchestral musicians.
Draugelis et al. (2014)	University dance students	182	USA F157 M25 Age range 18-43 (M = 20.4)	Quantitative: Cross-sectional questionnaire	Assess the contributions of motivational climate, dance performance anxiety and dance self-concept to well-being	Motivational Climate Dance self-Concept Dance Anxiety Well-being	Motivational climate and dance self-concept significantly related to well-being of dancers.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Johansson et al. (2003)	Orchestra musicians	250	Sweden F93 M155 Mean age = 39	Quantitative: Cross-sectional questionnaire	Identify factors determining well-functioning groups and issues for orchestral musicians	Orchestra status Job security Quality of work tasks Psychosocial factors Health	Quality of work tasks, psychosocial factors and social support significantly correlated with well-being. Musicians in elite orchestras and those with lower support reported lower well-being.
Kenny et al. (2016)	Orchestra musicians	Survey n = 380 Physical examination n = 407	Australia F206 M198 Mean age = 42.1	Quantitative: Cross-sectional questionnaire Physical examination	Explore factors impacting on health	Performance-related musculoskeletal pain disorders (PRMD) Music performance anxiety Practice and organisational factors Prevalence of bullying Occupational satisfaction	Job satisfaction was consistent across orchestra types. Musicians in stage orchestras were more satisfied with their workplace, employers, relationships with management, colleagues, pay and career progression.
Kivimaki et al. (1994)	Orchestral musicians	93	Finland F28 M65	Quantitative: Cross-sectional questionnaire	Assess job perceptions and well-being among musicians and compare results to other occupational groups	Job perceptions Well-being Performance anxiety	High job satisfaction was reported by 90% of musicians, which was significantly higher than other occupational groups. High job satisfaction correlated with high levels of skill variety and autonomy, and with fewer conflicts in interpersonal relationships.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Kubacki (2008)	Jazz musicians	16	UK, Poland F2 M14 Age range approx. 26-65	Qualitative: In-depth biographical interview	Explore experiences of the creation of live performance	Career experiences	Organising function engagements was associated with negative affect. Participants reported both negative and positive relationships of the audience.
Mogelof et al. (2005)	Symphony orchestra musicians	Survey $n = 66$ Interview $n = 22$	USA F27 M39 Age range 23-74 (mean age = 45.94)	Mixed-method case study: Cross-sectional questionnaire Interviews	Explore how musicians cope with career frustrations and disappointments	Job satisfaction Tenure Organisational status Coping behaviours	Orchestral status was an important factor relating to well-being. Elite orchestral musicians were more satisfied although job satisfaction decreased over time. Non-elite orchestral musicians were more satisfied with contribution to governance, though were less satisfied with job security and pay.
Parasuraman et al. (2000)	Symphony orchestra musicians	63	USA F37 M26 Age range 22-63 ($M = 33.5$)	Quantitative: Cross-sectional questionnaire	Assess the effects of organisational demands on psychological health and well-being	Stressors Psychological distress Boredom stress Job dissatisfaction Job involvement Instrument group	Occupational demands of task difficulty, performance anxiety, social tension, lack of artistic integrity and work environment correlated with job dissatisfaction.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Perkins et al. (2017)	Current and graduated conservatoire music students	20	UK F15 M5 Age range 18-24	Qualitative; Semi-structured interviews	Explore enablers and barriers to health and well-being in the conservatoire environment	Attitudes to health and well-being Enablers and barriers to health and well-being	Challenges to well-being included irregular schedules, time management, financial difficulties, teacher/pupil relationship, performance goals, comparison with peers, performance evaluation. Contributors to well-being included successful performance and relationships.
Quested et al. (2013)	Dance conservatoire students	55	Hong Kong F41 M9 Mean age = 20.58	Quantitative: Diary methodology	Assess relationships between autonomy support, basic psychological need satisfaction and changes in affective states across different dance situations	Dance genre Perceived autonomy support Basic psychological need satisfaction Well-being	Perceived autonomy support significantly predicted basic psychological need satisfaction. Basic psychological need satisfaction contributed to changes in affect.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Robb et al. (2016)	Actors	20	Australia F10 M10 Age range 22-66	Qualitative: Semi-structured interviews	Explore factors that impact the psychological well-being of actors	Well-being Acting Demands Personal characteristics	Challenges to well-being for actors included job insecurity, financial insecurity, maladaptive alcohol consumption, perfectionistic tendencies and distressing content. Contributors to well-being included career engagement, relationships with audiences, creative expression and personal growth. Relationships with colleagues were experienced as both contributing to and detracting from well-being.
Sandgren (2002)	Opera singers	Interview *n* = 15 Survey *n* = 49	Sweden Qual: F8 M7 Age range 27-65 Quant: F25 M24 Age range 21-65	Mixed-methods: Semi-structured interviews Cross-sectional questionnaire	Explore problems, coping strategies and motivation of opera singers and how these aspects relate to mental and physical health	Demands Coping Motivational factors Somatic problems Depressive tendencies Addictive behaviour Worry Performance anxiety	Inability to sing related to negative affect. Job insecurity, rehearsal schedules and avoidance of social environments impacted on personal relationships. Performance related to positive affect and mastery.

Main author (Year)	Context	Number of participants	Participant characteristics	Study design	Aim(s)	Variables / Themes	Results
Smith (1989)	Retired symphony orchestra musicians	14	USA M14 Age range 57-90	Qualitative: Semi-structured interview	Explore career experiences, medical problems and career perceptions	Medical problems Career	Job satisfaction related to being part of a successful team. Job dissatisfaction was related to relationships with colleagues, managing schedules and lack of recognition.

Figure 4.1 provides details of the searches conducted and articles excluded at each stage of the review process.

Figure 4.1

Flow Diagram for study Inclusion adapted from Moher et al., 2009
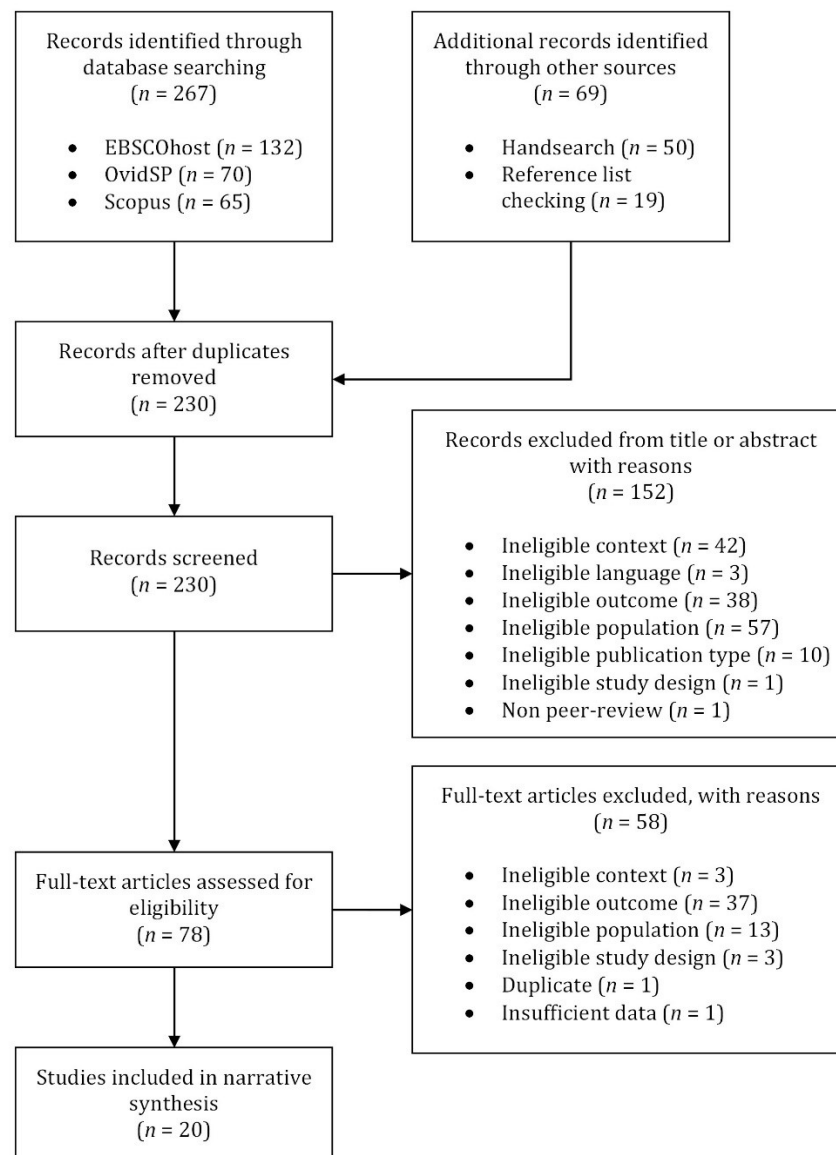
4.3.2.   Quality assessment

An overall quality score was assigned to each study using the MMAT scoring system (Pluye et al., 2011). Studies could be awarded a score of unclassified, 25%, 50%, 75% or 100%. Within this systematic review three studies were unclassified, eight studies were rated 25%, five

studies were rated 50%, three studies were rated 75% and only one study was rated 100% (see Table 4.2). See Table 4.3 for details of quality assessment for each study.

Table 4.2

Total MMAT Scores

MMAT Criteria	No. Studies
Unclassified	3
25%	8
50%	5
75%	3
100%	1

Within the included studies, sampling concerns were identified across many quantitative and qualitative papers, which failed to include reasons for non-participation in the relevant research project. Of the studies employing quantitative methodologies, six studies did not report establishing an appropriate sampling strategy to achieve statistical power and nine studies failed to ensure their sample was representative of the population under study. The validity of measures used in the research was not considered in five of the included studies using quantitative methodologies and response rates were often not reported. Considering those studies that used qualitative methodologies, all but one study failed to identify the potential influence of the researchers' epistemological perspective on the study design and the reporting of participants' experiences. Twelve of the studies using qualitative methodologies did not account for the influence of the context of data collection. In the quality assessment of the four mixed-method studies, only two studies reported an appropriate rationale for the combination of methods and no studies considered the potential limitations of the integration of different methods. This demonstrates the overall low quality of studies conducted on the relationship between occupational demands and well-being in performing artists according to the MMAT criteria.

Table 4.3

Quality assessment scores using MMAT (Pluye et al., 2011)

Main Author (Year)	1. Qualitative				4. Quantitative descriptive				5. Mixed Methods			Overall Quality Score
	1.1	1.2	1.3	1.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	
Abeles et al. (2014)	No	Yes	No	No								*
Allmendinger et al. (1996)	No	No	No	No	No	No	No	Can't tell	No	Yes	No	U
Ascenso et al. (2017)	Yes	Yes	No	No								* *
Bodner et al. (2008)					No	No	Yes	Yes				* *
Brodsky (2006)	Yes	Yes	Yes	No								* * *
Burgoyne et al. (2009)	No	Yes	No	No								*
Cooper et al. (1989)	No	Can't tell	No	No	No	No	No	Can't tell	No	No	No	U
Dobson (2010b)	No	No	No	No								U
Draugelis et al. (2014)					Can't tell	Can't tell	Yes	Can't tell				*

Main Author (Year)	1. Qualitative				4. Quantitative descriptive				5. Mixed Methods			Overall Quality Score
	1.1	1.2	1.3	1.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	
Johansson et al. (2003)					Yes	Yes	No	Yes				* * *
Kenny et al. (2016)					Yes	Yes	Yes	Yes				* * * *
Kivimaki et al. (1994)					Yes	No	Yes	No				* *
Kubacki (2008)	No	Yes	No	No								*
Mogelof et al. (2005)	Can't tell	Yes	No	No	Yes	No	Yes	No	Yes	Yes	No	*
Parasuraman et al. (2000)					No	No	No	Yes				*
Perkins et al. (2017)	Yes	Yes	No	Yes								* * *
Quested et al. (2013)					Yes	No	Yes	Can't tell				* *
Robb et al. (2016)	Yes	Yes	No	No								* *
Sandgren (2002)	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	*
Smith (1989)	Yes	No	No	No								*

Note. Numbered criteria 1.1-4, 4.1-4, and 5.1-3 are detailed in Section 4.2.1.

4.4. Summary of studies

A total of 20 studies were included in the systematic review (see Table 4.1). Of those, seven studies were quantitative, nine qualitative and four mixed methods. The majority of quantitative studies (n = 5) used cross-sectional surveys to collect data. The most frequently used method for qualitative data collection was semi-structured interviews (n = 7). Within the mixed-methods studies a combination of surveys and interviews were used most frequently (Cooper & Wills, 1989; Mogelof & Rohrer, 2005; Sandgren, 2002). In addition to survey and interview methods, Allmendinger et al. (1996) used observational methods and analysed archived company documents. The majority of studies were conducted with musicians (n = 17) and, of those, 13 studies were conducted with classical musicians. Classical musicians were situated most frequently in an orchestral context, though studies also included musicians in freelance (Dobson, 2010b), solo, chamber (Ascenso et al., 2017) and choral (Sandgren, 2002) settings. Non-classical musicians included those in jazz (Kubacki, 2008), popular (Cooper & Wills, 1989), and rock (Bodner & Bensimon, 2008) settings. Studies were also conducted with dancers (n = 2) and actors (n = 2).

Data were collected from professional performing artists in the majority of studies (n = 15). Only four studies included participants studying in higher education contexts at conservatoires (Perkins et al., 2017; Quested et al., 2013) and universities (Burgoyne et al., 1999; Draugelis et al., 2014). Their subjects spanned the performing arts and included music (Perkins et al., 2017), dance (Draugelis et al., 2014; Quested et al., 2013) and acting (Burgoyne et al., 1999).

Exactly half of studies were conducted in Europe (n = 10) and of those, seven studies were conducted in the UK. Studies were also conducted in Sweden (Johansson & Theorell, 2003; Sandgren, 2002) and Finland (Kivimäki & Jokinen, 1994). Outside Europe, studies were conducted in the USA (n = 7) and Australia (n = 2). Further, Bodner and Bensimon (2008) collected data from participants in Israel, while data was collected in Hong Kong by Quested et al. (2013). Two studies were conducted with multi-national samples; Allmendinger et al. (1996) collected data from participants in the UK, Germany and the USA and Kubacki (2008)

collected data from participants in the UK and Poland. Within the quantitative studies sample size ranged from 38 (Bodner & Bensimon, 2008) to 407 (D. T. Kenny et al., 2016). The sample size for qualitative studies was between six (Ascenso et al., 2017) and 47 (Abeles & Hafeli, 2014).

Studies contextualised their research within a variety of conceptual frameworks, most frequently aligning with well-being ($n = 4$) or occupational stress ($n = 3$). Within those studies drawing on well-being frameworks, Robb et al. (2018) used a eudaimonic conceptualisation of well-being (Ryff, 2014), Ascenso and Perkins (2013) drew on Seligman's PERMA framework (Seligman, 2011), and Quested et al. (2013) aligned with both self-determination theory (Deci & Ryan, 1985, 2000) and basic needs theory (Deci & Ryan, 2000). Of those studies aligned with the occupational literature, a variety of concepts were considered. Johansson and Theorell (2003) discussed several models including the Job Demand-Control(-Support) model (Karasek & Thoerell, 1990; Karasek, 1979), and the Effort-Reward Imbalance model (Siegrist, 1996). Cooper and Wills (1989) drew on Selye's model of stress (1946) whilst Kivimäki and Jokinen (1994) cited occupational stress models by Hackman and Oldham (1976) and the job characteristics model (Fried & Ferris, 1987). Two studies utilised health conceptualisations; Perkins et al. (2017) used a health promotion framework and Sandgren (2002) took a psychosomatic perspective. A wide variety of concepts were cited in the remainder of studies; for example, Draugelis et al. (2014) used both achievement goal theory (Roberts, 2001) and self-concept theory (Vispoel, 1993, 1995).

Reflecting the diversity of conceptual approaches, a wide variety of measures was used to assess both occupational demands and well-being in those studies that used survey methods for data collection. Well-being was assessed using 16 different measures and occupational stress was represented by no fewer than five measures. Whilst some authors stated the validity and reliability of the questionnaires used, several authors used self-developed questionnaires where validity was not established (Allmendinger et al., 1996; Johansson & Theorell, 2003; Parasuraman & Purohit, 2000; Sandgren, 2002).

4.4.1. Relationship between occupational demands and well-being

The next section considers the relationship between occupational demands and well-being. In order to bring the literature together, the included studies will be discussed in light of the main occupational stress and well-being conceptualisations outlined in the introduction.

4.4.1.1. Job demand-control(-support) model

Several studies explored the areas of occupational demands, autonomy and social support. Cross-sectional studies suggested that occupational demands are related to well-being in symphony orchestra musicians (Johansson & Theorell, 2003; D. T. Kenny et al., 2016; Kivimäki & Jokinen, 1994; Parasuraman & Purohit, 2000; Quested et al., 2013). Kivimäki and Jokinen (1994) found that high autonomy, high skill variety and good interpersonal relationships at work correlated with high job satisfaction in orchestral musicians. The study also found that 90% of musicians reported high job satisfaction. Multiple linear regression was used to assess the contribution of several occupational demands to well-being in a population of symphony orchestra musicians (Johansson & Theorell, 2003). Occupational demands (assessed with questions related to the quality of conductor, repertoire and rehearsals) and social support were important factors in predicting the well-being of musicians. However, contrary to the JDC model, control was not a significant factor in predicting well-being in musicians (Johansson & Theorell, 2003). Parasuraman and Purohit (2000) also assessed the contribution of occupational stressors to well-being (measured as job satisfaction), and found that lack of autonomy and low levels of social support were the biggest predictors.

Qualitative studies also reported on the dimensions of the JDC(S) model and the implications for the well-being of performing artists. Musicians discussed experiencing high levels of organisational demands, including areas such as task difficulty, heavy scheduling and time management issues, which negatively impacted on well-being (Ascenso et al., 2017; Brodsky, 2006; Cooper & Wills, 1989; Dobson, 2010b; Kubacki, 2008; Perkins et al., 2017; Sandgren, 2002; Smith, 1989). Organisation issues were discussed specifically by jazz musicians, who reported that organising function engagements could be challenging and led to the experience of

negative emotions such as humiliation (Kubacki, 2008). Considering the autonomy dimension of the JDC model, orchestral musicians reported experiencing a low level of independence, which was related to lower levels of well-being in terms of job satisfaction and negative affect (Brodsky, 2006; Dobson, 2010b). However, jazz musicians and those working in freelance settings discussed opportunities to input into creative and management decisions as positive contributors to well-being (Cooper & Wills, 1989; Dobson, 2010b). Performing artists reflected on the importance of social support for their well-being, identifying the positive benefits of working alongside individuals with a shared interest (Robb et al., 2018; Smith, 1989).

4.4.1.2.   Effort-reward imbalance model

Extrinsic factors of the reward dimensions of the ERI model (remuneration, job security, career opportunities and esteem) are particularly relevant to performing artists (Abeles & Hafeli, 2014; Allmendinger et al., 1996; Ascenso et al., 2017; Brodsky, 2006; Cooper & Wills, 1989; Hackman & Oldham, 1976; D. T. Kenny et al., 2016; Mogelof & Rohrer, 2005; Robb et al., 2018; Sandgren, 2002). Questionnaire research suggests that performing artists reported low satisfaction with remuneration (Allmendinger et al., 1996; D. T. Kenny et al., 2016), however qualitative reports recognised that some performing artists were satisfied with being remunerated for a job they valued (Brodsky, 2006). Performing artists also reported low satisfaction with job security (Robb et al., 2018). Further, the lack of job security was related to experiencing financial issues and actors reported not being able to achieve financial milestones relevant to their age (Robb et al., 2018). Symphony orchestra musicians discussed limited opportunities for career progression, which was related to lower job satisfaction (Brodsky, 2006). However, qualitative data from musicians working in a regional orchestra found that participants appreciated opportunities to contribute to governance decisions (Mogelof & Rohrer, 2005). This was reported alongside quantitative data from the same participants which found their job satisfaction increased over time. The lack of opportunities for career progression within orchestral careers may have led to musicians seeking out opportunities to develop new skills outside their principal role in areas such as teaching curriculum-based music lessons (Abeles & Hafeli, 2014), learning a new instrument and familial responsibilities (Ascenso et al., 2017).

The ERI model also considers the impact of the intrinsic factor of over-commitment. This may be particularly relevant to actors, who reported a high level of identification and passion for their careers (Burgoyne et al., 1999; Robb et al., 2018). While these high levels of commitment could contribute positively to well-being for some individuals, the reported levels of identification had a negative impact on well-being outcomes during difficult times, such as periods of unemployment (Robb et al., 2018). Further complexity regarding identity was experienced by actors, who discussed the blurred boundaries between their personal identity and that of the characters they portrayed (Burgoyne et al., 1999; Robb et al., 2018). Immersion in the role being performed meant individuals were unable to re-establish their own personalities following performances and led to some actors losing control on-stage with incidents of unintended violence (Burgoyne et al., 1999).

4.4.1.3.   Job demands-resources model

Inclusion of the most salient occupational demands, as suggested in the JD-R model allows for a wider exploration of the demands that musicians face. Whilst the positive impact of social support on well-being is discussed above, the frequent need to work as part of a large team exposes performing artists to interpersonal demands, which may have a negative impact on well-being (Allmendinger et al., 1996; Ascenso et al., 2017; Burgoyne et al., 1999; Cooper & Wills, 1989; D. T. Kenny et al., 2016; Mogelof & Rohrer, 2005; Parasuraman & Purohit, 2000; Robb et al., 2018). Performing artists reported low satisfaction with management (Allmendinger et al., 1996), with musicians working in pits reporting lower satisfaction than those working in stage orchestras (D. T. Kenny et al., 2016). Mogelof and Rohrer (2005) suggested that satisfaction with management was related to the status of the orchestra and musicians employed by lower status orchestras reported significantly less satisfaction with management. Satisfaction with management was also explored qualitatively (Ascenso et al., 2017; Burgoyne et al., 1999). Musicians highlighted tension between their goals as musicians and those of management (Ascenso et al., 2017), whilst actors discussed the negative impact that a director's working style could have on well-being outcomes (Burgoyne et al., 1999).

Interpersonal relationships with colleagues also had the potential to impact negatively on the well-being of performing artists (Ascenso et al., 2017; Cooper & Wills, 1989; D. T. Kenny et al., 2016; Robb et al., 2018; Smith, 1989). This was through experiences of performing in groups that were mixed in technical ability (Cooper & Wills, 1989; Smith, 1989), incidents of bullying (D. T. Kenny et al., 2016; Robb et al., 2018), temporary relationships with colleagues due to transient organisational affiliation (Robb et al., 2018) and competition amongst peers (Perkins et al., 2017).

Bakker and Demerouti (2007) suggested that both emotional demands and performance feedback could be considered in models of occupational stress. The nature of performing artists' roles requires individuals to portray a wide range of emotions through expressive mediums. Actors reported that performing scenes of a traumatic nature was associated with low well-being (Burgoyne et al., 1999; Robb et al., 2018) and actors reported imaging distressing personal situations to emotionally connect with characters, which had a negative impact on well-being (Burgoyne et al., 1999). Due to the public nature of performance settings, performing artists recognised that they were open to external criticism (Ascenso et al., 2017; Brodsky, 2006; Cooper & Wills, 1989; Perkins et al., 2017; Sandgren, 2002; Smith, 1989). Performance feedback perceived as criticism had a negative impact on performing artists well-being (Sandgren, 2002) and a perceived lack of recognition for their work was related to lower job satisfaction for orchestra musicians (Smith, 1989).

The inclusion of resources in the JD-R model is also advantageous when assessing the relationship between occupational demands and well-being of performing artists. Resources may buffer the impact of occupational demands on well-being and facilitate personal development (Schaufeli & Bakker, 2004). Whilst it was not the intention of this systematic review to provide a comprehensive report of occupational resources and their impact on well-being, pertinent findings from the included studies are discussed. Musicians viewed music-making as an activity that they enjoyed in and of itself, which positively impacted on well-being by increasing job satisfaction (Ascenso et al., 2017; Brodsky, 2006). Further, making music in a performance setting contributed positively to well-being and positive performance experiences were related to positive affective outcomes and satisfaction (Ascenso et al., 2017;

Perkins et al., 2017; Sandgren, 2002). Performance was related to the experience of heightened emotional responses for musicians and participants discussed experiencing 'peak' performance states (Ascenso et al., 2017; Brodsky, 2006; Perkins et al., 2017). However, whilst these heightened affective states were perceived positively by participants, they were also seen as a challenge to the well-being of some musicians, who experienced difficulty in regulating their emotions following performances (Bodner & Bensimon, 2008; Brodsky, 2006).

Social aspects of performing artists' occupations may also be considered as resources. In addition to the role of social support of colleagues, interpersonal relationships with audiences contributed positively to well-being. Sharing performances with the audience was seen to contribute to positive affect (Brodsky, 2006; Robb et al., 2018; Sandgren, 2002). Additionally, the role of task-climate may be viewed as a resource, which forms part of the social environment of performing artists and has the potential to impact on well-being (Draugelis et al., 2014). A task-climate is present when individuals are rewarded for personal effort, perceive errors as opportunities for improvement and participate in learning decisions (Ntoumanis & Biddle, 1999). The perception of the climate may be influenced by those in leadership positions, such as managers and teachers, and others within the social environment. In a study with dancers, Draugelis et al. (2014) suggested that positive perceptions of task-climate were an important factor in predicting well-being with higher perceptions of task-climate associated with higher well-being. In a separate study with dancers, Quested et al. (2013) assessed the relationship between the social environment and well-being. The authors examined the concept of relatedness, which is a construct taken from self-determination theory (Deci & Ryan, 2000), and found that it was an important predictor of well-being.

4.5. Discussion

4.5.1. Summary of main findings

A total of 20 articles met the inclusion criteria for the systematic review, of which only four studies met the MMAT quality assessment score of 75% or above. This suggests a lack of high

quality research in this area meaning the synthesis of results for this systematic review should be interpreted with caution. Classical musicians were the most frequent participants, although there is scope within this field to conduct further high-quality research. Only two studies were conducted with dancers (Draugelis et al., 2014; Quested et al., 2013) and a further two with actors (Burgoyne et al., 1999; Robb et al., 2018). No studies were identified for this systematic review that assessed the occupational demands and well-being in either circus artists or comedians. A wide variety of conceptual frameworks from occupational stress and well-being were used and this was reflected in the range of measures. Whilst theoretical frameworks were considered, few quantitative studies included measures that were aligned with those frameworks (Draugelis et al., 2014; Kivimäki & Jokinen, 1994; Quested et al., 2013). The lack of a firm theoretical basis in many studies, precludes the testing of appropriate models of occupational stress and well-being. Additionally, the use of measures that did not have established validity or reliability and sampling issues hampers the progress that can be made in this field. Furthermore, the lack of identification of epistemological beliefs from qualitative researchers is an issue for research in this field.

The studies presented in this review suggest that several frameworks of occupational stress and well-being may be appropriate for exploring the relationship between occupational demands and well-being in performing artists. Studies conducted with musicians, suggest that the JDC(S) model may be suitable as organisational demands, autonomy and social support were all seen to contribute to well-being (Johansson & Theorell, 2003; Kivimäki & Jokinen, 1994; Parasuraman & Purohit, 2000). The importance of these areas for the well-being of performing artists was confirmed in qualitative research reports (e.g., Dobson, 2010b; Kubacki, 2008; Perkins et al., 2017). Considering the ERI model, performing artists reported low levels of occupational rewards in the form of remuneration, job security and career progression (e.g., Abeles & Hafeli, 2014; Allmendinger et al., 1996; Mogelof & Rohrer, 2005). Taking this into account alongside the high number of occupational demands described above, this leaves performing artists vulnerable to experiencing occupational stress due to the imbalance between effort and reward. Furthermore, the ERI model suggests that over-commitment may play a role in the experience of occupational stress. Actors, in particular,

displayed a significant commitment to their work (Burgoyne et al., 1999; Robb et al., 2018), which may contribute to the imbalance of high effort and low reward.

However, the JDC(S) and ERI models do not take into account all the occupational demands experienced by performing artists. Conceptualisations of stress that allow for a broader inclusion of occupational demands may be better suited to exploring the working environment of performing artists, due to the inclusion of areas such as interpersonal demands, emotional demands and performance feedback. The requirement to work with large groups of people and respond effectively to interpersonal cues means that performing artists are exposed to high level of interpersonal demands (e.g., Burgoyne et al., 1999; Cooper & Wills, 1989; D. T. Kenny et al., 2016; Parasuraman & Purohit, 2000). Emotional demands and performance feedback are also inherent within performing arts careers and were discussed frequently in qualitative reports (e.g., Ascenso et al., 2017; Brodsky, 2006; Sandgren, 2002).

It is also necessary to consider the most applicable conceptualisation of well-being for performing artists. Performing artists reported well-being outcomes related to a hedonic conceptualisation of well-being and explored affective and cognitive well-being outcomes. Job satisfaction (Kivimäki & Jokinen, 1994; Parasuraman & Purohit, 2000) and satisfaction with specific aspects of performing arts careers (e.g., pay, job security; Allmendinger et al., 1996; D. T. Kenny et al., 2016) were assessed and meaningful data were reported. Additionally, both positive and negative affective responses were discussed in relation to performing. In particular, musicians reported experiencing guilt as a result of making mistakes during performance (Dobson, 2010b; Perkins et al., 2017; Sandgren, 2002). Jazz musicians also reported feeling shame when organising their own function engagements (Kubacki, 2008). An eudaimonic conceptualisation of well-being may also be a suitable perspective to view the well-being of performing artists. Both Robb et al. (2018) and Ascenso et al. (2017) used a eudaimonic framework to guide qualitative explorations of well-being of performing artists. Specifically, performing artists highlighted the meaning they derived from their careers and their commitment to their chosen art form (Ascenso et al., 2017; Burgoyne et al., 1999; Robb et al., 2018). This framework seems relevant for understanding the well-being experiences of

performing artists and quantitative research using this framework would illuminate the applicability of this construct.

4.5.2.   Limitations

Various limitations exist within this field. One limitation within the studies included in this systematic review is the sensitive nature of the topic and potential unwillingness of participants to openly report their experiences of occupational stress and well-being, particularly in an environment where they experience a lack of perceived or actual job security. A study with orchestral musicians suggested that organisational norms led musicians to conceal health issues due to the potential repercussions on relationships with colleagues and management (Rickert et al., 2014). Further, the potential influence of external factors (e.g., socioeconomic, health, lifestyle) are not systematically explored in the included studies and may also impact on the well-being of performing artists. Socioeconomic factors and coping behaviours may moderate the relationship between occupational demands and well-being (Vaag et al., 2014).

The lack of theoretically informed study designs, as highlighted in the synthesis of this systematic review, is a significant issue in this field. Furthermore, few studies have been conducted using contemporary conceptualisations of occupational stress and well-being such as the Demands-Resources-Individual Effects model (DRIVE; Mark & Smith, 2008) or eudaimonic well-being (Ryff, 2014). The absence of theory-driven research limits the progress that can be made in this field and the development of evidence-based interventions.

One limitation of this systematic review concerns the potential for incomplete retrieval of studies on the topic due to the restriction of the search to articles published in the English language (Grégoire et al., 1995). This decision was taken due to the availability of resources for the study. Study publication bias and outcome bias are also potential limitations of individual studies in this systematic review (Dwan et al., 2013). The low MMAT scores attributed to the majority of studies means that the findings of this review should be interpreted with caution. Specifically, the issues with sampling across studies identified in the MMAT limit the generalisability of the quantitative findings. In terms of qualitative research

findings, the lack of acknowledgement of researchers' epistemological views is an issue for the current evidence base, due to the potential to impact on the interpretation of research findings.

4.5.3. Conclusions

4.5.3.1. Implications for future research

This systematic review highlights the paucity of high quality research that has been conducted on the relationship between occupational demands and well-being in performing artists. Further exploration of this issue from both quantitative and qualitative perspectives would enhance our knowledge of this field and the following observations are made to guide future research foci. Firstly, the wide variety of conceptual frameworks of both occupational stress and well-being in the included studies highlights the lack of agreement in the literature; an issue previously explored by Dodge et al. (2012). A holistic approach, which considers occupational demands, mediating factors and well-being outcomes could be achieved through adopting contemporary approaches to researching occupational stress. This would allow for a greater understanding of the impact of occupational demands on well-being whilst facilitating accuracy and consistency within the literature.

Secondly, future research should seek to employ methodologically robust study designs. This should encompass the use of sampling procedures that justify the choice of participants and use power calculations to ensure adequate numbers of participants are recruited for statistical tests. Further, the choice of measures needs more in-depth consideration. The included studies in this systematic review used a wide variety of measures, which in some cases did not align with the theoretical positioning of the research. Measures should align with the relevant theoretical frameworks and demonstrate reliability and validity in order to provide meaningful results. Due to the lack of measures available specifically for musicians, several authors developed their own questionnaires. However, these have not been subject to rigorous testing to demonstrate adequate validity. Future research should seek to provide a questionnaire which is specific to the occupational demands that musicians experience. Using

such a measure would allow comparisons across research studies and progress understanding in this field. One avenue for such exploration is the Psychological Risks Questionnaire for Musicians developed by Jacukowicz and Wezyk (2018).

Thirdly, using a broader range of study designs would enable developments in this field. The majority of quantitative studies carried out on this topic have been cross-sectional, meaning that causation cannot be implied. Longitudinal studies are needed to allow a greater exploration of the causal effects of occupational stress on well-being over longer periods of time. The study by Mogelof and Rohrer (2005) considered in this review suggested that satisfaction decreased over time for those in elite orchestras, but increased over time for those in regional orchestras. Further research is necessary to explore this issue. A considered approach to study design will allow for the use of more advanced statistical tests, such as structural equation modelling and path analysis. This will provide a multivariate perspective of well-being in performing artists. Systematically exploring the contribution of occupational stress variables to well-being will also illuminate the differential effects of individual experiences. Further, study designs with control groups that develop evidence-based interventions are needed for this population in order to facilitate the development of resources to cope with the occupational demands inherent in performing arts careers.

Considering the whole stress process including the role of resources and appraisals will aid developments in this field. Few studies in this systematic review considered the potential role resources may have on the relationship between occupational demands and well-being. Transactional models of stress, such as the Cognitive-Motivational-Relational Theory (Lazarus, 1999), suggest that the relationship between occupational demands and well-being may be affected by an individual's appraisal of occupational demands. To date, no studies have explored the effect of appraisal on the relationship between demands and resources in performing artists. Future research should extend the understanding of the role of coping on the relationship between occupational demands and well-being. Such research would help to illuminate the reasons for inter- and intra-individual differences in well-being outcomes when similar occupational demands are present. Exploring the effectiveness and impact of coping

strategies on well-being would facilitate the development of evidence-based interventions for this population.

Whilst the quality assessment conducted using the MMAT suggests that much of the research in this area is not of high quality, a significant issue was the reporting standards of many studies. Researchers should follow reporting guidelines to ensure the completeness of the dissemination of research findings. This is important both for transparency and the production of high quality research that offers more accurate insights.

4.5.3.2.   Conclusion

This systematic review highlights the need for more high quality research on the relationship between occupational stress and well-being. One of the main findings of this review was the lack of theoretical basis for work conducted in this area and the resulting asynchronism of measures. Frameworks which offer a holistic perspective of the relationship between occupational demands and well-being, such as the DRIVE model (Mark & Smith, 2008), may be appropriate for exploring the relationship between occupational stress and well-being. Further consideration of the role of appraisal would add greater depth to the understanding of the occupational stress process in performing artists. In terms of well-being, both hedonic and eudaimonic perspectives of well-being are relevant to musicians.

Performing artists are exposed to a range of organisational, social and emotional demands, which impact negatively on well-being. These include touring, scheduling, interpersonal relationships with colleagues, performance and feedback. They also face low rewards, in the form of remuneration, job security and opportunities for career progression. Resources such as music-making, performance and interactions with the audience had a positive impact on the well-being of performing artists. Further exploration of the stress and well-being process will facilitate the understanding of occupational demands and well-being within this population and assist with the development of evidence-based interventions for performing artists. Such interventions could include involvement in education programmes (Abeles & Hafeli, 2014), community engagement (Ascenso, 2016; Preti & Welch, 2013) and chamber music performances (Parasuraman & Purohit, 2000). This would allow performing artists to

acquire appropriate skills to cope with the inevitable occupational demands they face and to continue working in careers they remain passionate about.

Chapter 5

Study 2

A quantitative assessment of occupational demands, appraisal, resources, and well-being of professional and conservatoire musicians

5.1. Introduction

In Chapter 4 (Study 1), I presented a systematic review on the relationship between occupational demands and well-being of performing artists (Willis et al., 2019). The analysis highlighted the variety of occupational stress theories and models that have been used in the performing arts literature and considered their applicability to performing artists. I found that interactional models of stress, such as the JDC(S) and ERI models, do not fully capture the occupational stress process and well-being outcomes as relevant to performing artists. Therefore, a holistic approach to measuring occupational stress and well-being of musicians is needed—specifically, one that is transactional, includes the breadth of occupational demands experienced by musicians and integrates well-being outcomes. Such an approach should encompass occupational demands, occupational resources, appraisal, coping, and well-being outcomes in order to provide greater understanding of the topic. Consequently, I used the DRIVE model in this study (Mark & Smith, 2008), which is a contemporary model of stress that includes all the variables mentioned above and was introduced in Chapter 2 (see Section 2.2.2.2). In the following section, I briefly consider literature related to occupational and student groups in relation to the DRIVE model. I provide a rationale for the study presented in this chapter and then discuss the DRIVE model in relation to the variables included in this study.

5.1.1. Rationale

The DRIVE model allows for the assessment of multiple relationships between occupational characteristics (i.e., occupational demands, occupational resources), perceived occupational stress, individual characteristics, personal demands, personal resources, and well-being outcomes. Mark and Smith (2008) proposed 12 relationships within the DRIVE model (see Figure 5.1 and Section 2.2.2.2). The authors suggested that occupational demands and resources can be incorporated into the DRIVE model as fits the context of the research, making it appropriate for any population.

Figure 5.1

Adapted DRIVE model with study variables
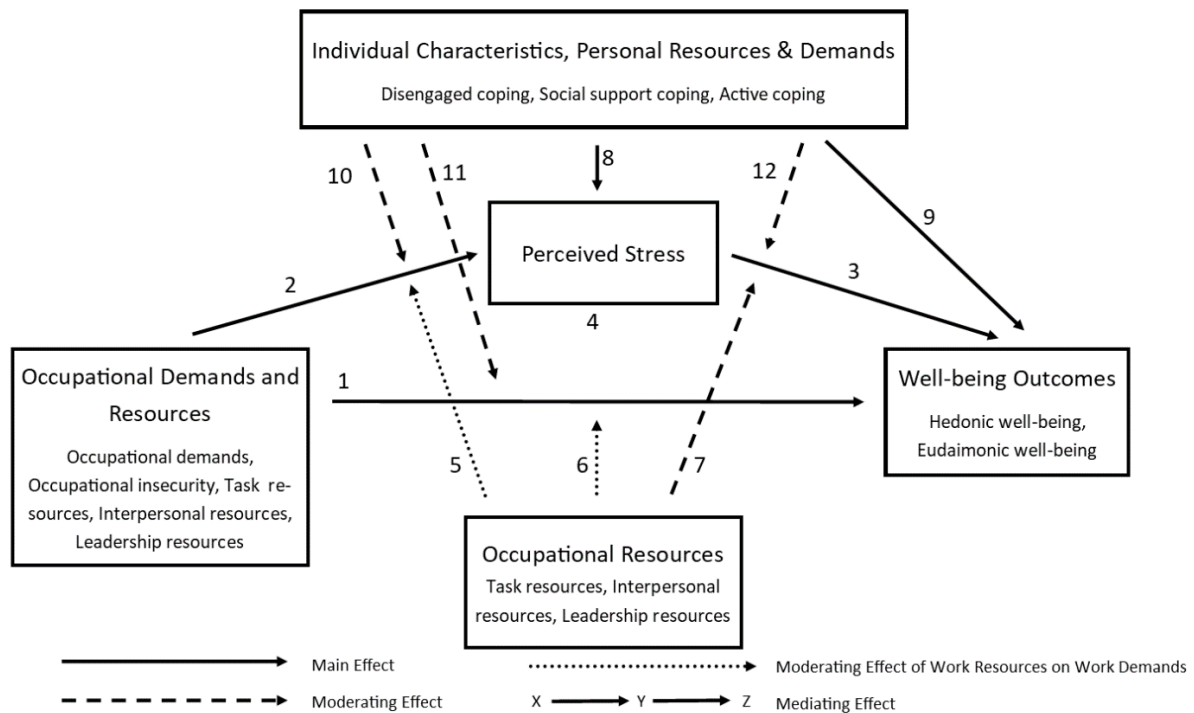
The extant literature suggests that the DRIVE model is appropriate to use in research with both individuals in professional settings and those studying in higher education. However, to date, research using the DRIVE model has not been conducted with performing artists or those studying within a conservatoire setting. Research using the DRIVE model has been conducted with a range of occupational groups including university employees (Mark & Smith, 2012a), teachers (Smith & James, 2021), office workers (Smith & Smith, 2017), nurses (Mark & Smith, 2012b; Williams et al., 2021; Zurlo et al., 2018), and police officers (Nelson & Smith, 2016; Oliver et al., 2022).

Alongside occupational groups, the DRIVE model has been used in research with university students across a range of subjects (Woolridge, 2022), and students enrolled in specific programmes such as healthcare subjects and psychology (Galvin, 2016; Omosehin & Smith, 2019; Williams, Pendlebury, et al., 2017). Higher education within a conservatoire setting

frequently recreates the occupational environment of professional musicians through holding auditions, rehearsing in chamber and orchestral ensembles, and providing opportunities for public performance. As such, conservatoire student musicians experience many of the same demands as professional musicians. However, there may be differences in demands due to the educational context of a conservatoire, which could lead to a difference in perceived stress and well-being outcomes between professional musicians and conservatoire music students. Resources available within the professional environment may also differ from those available to conservatoire students. Previous research studies of occupational stress and well-being of musicians have sometimes included both professionals and conservatoire music students within their sample (e.g., Dobson, 2010a, 2010b; Perkins et al., 2017). It is, therefore, important to understand whether there are any differences between the experiences of occupational stress and well-being for professional classical musicians and conservatoire music students. Consequently, one aim of this study was to identify differences between professional classical musicians and conservatoire music students in terms of the reported demands, resources, perceived stress, and well-being outcomes.

Studies using the DRIVE model have indicated support for the direct relationships in the model. The mediating role of appraisal on the relationship between workplace characteristics and well-being outcomes is incorporated into the DRIVE model, therefore acknowledging the role of the individual within the stress process. Some studies have reported findings that support the mediating role of appraisal (Galvin, 2016; Nelson & Smith, 2016; Oliver et al., 2022; Woolridge, 2022). However, studies testing the moderation relationships proposed in the DRIVE model have reported only partial support (Galvin, 2016; Oliver et al., 2022; Woolridge, 2022). For a full review of research on the DRIVE model, see Margrove and Smith (2022).

To date, researchers have tested the direct relationships in the DRIVE model using regression analyses (e.g., Oliver et al., 2022; Smith & James, 2021). Where explored, separate statistical analyses have been conducted to examine mediation and moderation effects. Given that the DRIVE model represents a holistic approach to assessing the occupational stress process and well-being outcomes, studies are yet to test the model in an integrated way. As such, this study will use Structural Equation Modelling (SEM) to provide a holistic examination of the

direct and mediating relationships in the DRIVE model. This will allow for the simultaneous examination of variables in the DRIVE model and contribute to understanding the complexities of the occupational stress process and well-being outcomes. Another advantage of using SEM is that it will allow for the assessment of the proposed latent factors in the DRIVE model and the relationships between these latent factors, which cannot be assessed using regression analyses.

5.1.2.   Theoretical framework and study variables

The variables used in this study are shown in Figure 5.1 and are discussed in this section. Demands included the variables *Occupational demands* and *Occupational insecurity.* Occupational resources included the variables *Task resources*, *Interpersonal resources*, and *Leadership resources*, which were considered salient based on the findings of the systematic review. Regarding demands, one finding from the systematic review was that musicians experienced high occupational demands such as work pace and emotional demands (Willis et al., 2019, see Section 4.5.1), which were captured in the variable *Occupational demands*. Additionally, role conflict was included in *Occupational demands*, as musicians frequently hold multiple occupational roles (Bennett, 2009), which may lead to the experience of role conflict. *Occupational insecurity* was considered a key variable given that many musicians work in a freelance capacity and experience precarious employment conditions (e.g., Dobson, 2010a). Considering resources, the results of the systematic review suggested that some musicians experience dissatisfaction with management and tension in interpersonal relationships with managers (Willis et al., 2019, see Section 4.4.1.3). Therefore, *Leadership resources* were considered important to measure. *Task resources* incorporated aspects of the occupational environment such as opportunities for development, variation at work, and influence at work. Regarding opportunities for development, the systematic review suggested that orchestral musicians may lack opportunities for development (Brodsky, 2006) and providing such opportunities could relate to positive well-being outcomes for performing artists (e.g., Abeles & Hafeli, 2014; Brodsky, 2006). Additionally, orchestral musicians may have little autonomy in terms of repertoire and artistic decision-making (Brodsky, 2006; Dobson, 2010b). Research with performing artists has also suggested that *Interpersonal resources* are related to the stress

process, with positive experiences of working with colleagues contributing to positive well-being outcomes (e.g., Robb et al., 2018).

Personal demands and resources are also incorporated into the DRIVE model and research suggests that these are important factors in the experience of occupational stress and well-being (Galvin, 2016; Oliver et al., 2022). Studies using the DRIVE model have measured personal demands and resources using items for positive and negative coping (Smith & James, 2021) (e.g., Smith & James, 2021; Williams, Pendlebury, et al., 2017). In this study, personal resources were measured by *Social support coping* and *Active coping*, with personal demands measured by *Disengaged coping.* In the literature review (see Section 2.4.2), I identified a variety of coping strategies used by musicians to manage the occupational demands they experience. I found that musicians use both adaptive and maladaptive coping strategies: adaptive coping strategies include relaxation, help-seeking from health professionals, problem-solving, preparation, and cognitive reframing; maladaptive coping strategies include substance use and avoidance. Despite the existence of research on the types of coping strategies used by musicians, the relationship between coping and well-being in this population remains underexplored. Within the studies included in the systematic review, few considered the role that coping may play when addressing the relationship between occupational demands and well-being and those that did failed to examine the relationship with a systematic approach (Willis et al., 2019). To address this gap, coping was considered an important variable to include in this study. The variable *Active coping* was included to assess adaptive coping behaviours including planning and positive reframing. The variable *Disengaged coping* assessed maladaptive coping behaviours such as substance abuse and behavioural disengagement. Considering *Social support coping*, few studies have assessed musicians' abilities to seek and access social support from others despite the existence of literature that suggests receiving social support is an important predictor for musicians' well-being (Willis et al., 2019). Raeburn (1987) reported that rock musicians sought social support in the majority of stressful situations. Additionally, university music students have reported the importance of seeking social support from peers in the management of MPA (Huang & Song, 2021). *Social support coping* was, therefore, included to assess musicians' engagement with social support

seeking to manage occupational demands. *Social support coping* was conceptualised as seeking social support from others and, therefore, distinct from *Interpersonal resources.*

A range of well-being outcomes have been assessed using the DRIVE model (e.g., Smith & Smith, 2017; Williams et al., 2021). In the present study, hedonic and eudaimonic well-being outcomes were assessed as both demonstrated relevance for the occupational experience of musicians in the systematic review (Willis et al., 2019). Further, Bartels et al. (2019) highlighted the importance of assessing both hedonic and eudaimonic well-being in occupational contexts. Musicians have reported positive and negative affective outcomes due to performance and the cognitive dimension of job satisfaction is also salient (e.g., Abeles & Hafeli, 2014; D. T. Kenny et al., 2016; Parasuraman & Purohit, 2000). In the present study, *Hedonic well-being outcomes* included positive affect, negative affect, life satisfaction, and job satisfaction. Further, Ascenso et al. (2017) used a eudaimonic well-being framework to guide research with professional classical musicians, with participants discussing the importance of factors such as positive relationships with others, meaning, and accomplishment. Therefore, the variable *Eudaimonic well-being outcomes* was included in the present study and operationalised with measures for flourishing and meaning of work.

Further, in the systematic review, I highlighted the lack of studies to incorporate appraisal and account for the role of the individual in the stress process (Willis et al., 2019). In the present study, appraisal is measured with the variable *Perceived stress*. The inclusion of this variable aligns with a transactional approach to assessing occupational stress and well-being. Additionally, it acknowledges that whilst individuals may experience the same or similar occupational demands, their perception of those demands may differ.

5.2. Aim and objectives

The aim of this study was to quantitatively assess the relationships between demands, appraisal, resources, and perceptions of well-being among professional classical musicians and conservatoire music students. The objectives of this study were to:

- identify differences in occupational demands, occupational resources, personal demands, personal resources, perceived occupational stress, and well-being outcomes reported by professional classical musicians and conservatoire music students (H1);

- assess the contribution of occupational demands, occupational resources, personal demands, personal resources, and perceived occupational stress to well-being outcomes in professional classical musicians and conservatoire music students (DRIVE model direct relationships 1, 2, 3, 8, 9; H2, H3, H4, H6, H7);

- assess whether perceived occupational stress mediates the relationship between occupational characteristics (i.e., occupational demands, occupational resources) and well-being outcomes in professional classical musicians and conservatoire music students (DRIVE model mediation relationship 4; H5).

The hypotheses for this study were as follows:

1. Professional classical musicians and conservatoire music students will significantly differ on measures of occupational demands, occupational resources, personal demands, personal resources, perceived occupational stress, and well-being.

2. Occupational demands and resources will significantly relate to hedonic and eudaimonic well-being outcomes.

3. Occupational demands and resources will significantly relate to perceived job stress.

4. Perceived job stress will significantly relate to hedonic and eudaimonic well-being outcomes.

5. Perceived job stress will significantly mediate the relationship between occupational demands and resources, and hedonic and eudaimonic well-being outcomes.

6. Personal demands and resources will significantly relate to perceived job stress.

7. Personal demands and resources will significantly relate to hedonic and eudaimonic well-being outcomes.

5.3. Method

This study used a cross-sectional survey design. A battery of questionnaires was used to collect data on perceived occupational demands, occupational resources, personal demands, personal resources, perceived occupational stress, and perceptions of well-being of professional classical musicians and conservatoire music students. This study is reported in accordance with the journal article reporting standards for quantitative research and Structural Equation Modelling (Appelbaum et al., 2018).

5.3.1. Measures

The measures chosen for this Study were informed by the findings of Study 1 (see Chapter 4) with particular reference to quality assessment. Included studies in Study 1 were limited due to a number of issues with the measures used: a) the use of measures that did not align with the theoretical concepts being studied; b) the use of author-developed questionnaires that had not been validated; c) assessing a limited number of demands and/or resources with lack of justification for those examined. Therefore, in this study, these issues were addressed by choosing measures that a) aligned with the concepts depicted in the DRIVE model, which is underpinned by CMRT; b) had been validated; c) comprehensively assessed the demands and resources experienced by professional classical musicians and conservatoire music students. Additionally, within Study 1, the lack of measures that have been specifically developed and validated for this occupational group was acknowledged (see Section 4.5.3.1). Therefore, in this study, measures were chosen that are suitable to multiple occupational groups including professional classical musicians and conservatoire music students.

5.3.1.1. Demographic variables

Demographic data were collected from participants including age, gender, current role (conservatoire music student/professional musician), current employment status (employed/self-employed, full-time/part-time), and length of time in career/performing on principal instrument.

5.3.1.2. Occupational demands

The *Copenhagen Psychosocial Questionnaire III* (COPSOQ III; Burr et al., 2019; see Appendix D) was used as it was the only measure that captured a number of concepts aligned to the theoretical framework of the study (i.e., occupational demands, occupational resources, well-being) and could comprehensively assess the demands and resources relevant to the occupational context of musicians. The original COPSOQ I questionnaire was created to assess psychosocial factors in the workplace and was designed to be applicable to multiple occupational settings (Kristensen et al., 2005). The updated version of the questionnaire formed the basis from which domains were obtained for use in this study (COPSOQ III). The COPSOQ III questionnaire is made up of 148 items which make up 45 dimensions. These dimensions are further categorised into 8 domains: demands at work, work organisation and job contents, interpersonal relations and leadership, work individual interface, social capital, conflicts and offensive behaviour, health and well-being, and personality (see Appendix D). The structure of the COPSOQ III questionnaire can be adapted and there are three versions available: short (32-items), middle (additional 61-items), and long (additional 93-itemes; Llorens et al., 2019). All items in the short version are core items which are mandatory. Questions in the middle and long versions may be added as relevant to the population under study. The present study incorporated all core items alongside seven items from the middle version and four items from the long version that were applicable to musicians (see Appendix D). To measure occupational demands in the present study, items from three domains were used: demands at work, interpersonal relations and leadership, and work individual interface. Specifically, seven dimensions were measured: quantitative demands, work pace, emotional demands, role conflicts, insecurity over employment, insecurity over working conditions, work life conflict. These dimensions were chosen to provide a detailed examination of the occupational demands experienced by professional classical musicians and conservatoire music students. For some questions, wording was adapted for students to ensure relevance to the educational context (see Appendix D).

The COPSOQ III can be aligned with multiple theoretical frameworks related to occupational stress (Kristensen et al., 2005; Lincke et al., 2021), making it suitable to use with the DRIVE

model. The COPSOQ II questionnaire has been used with orchestral musicians in Denmark (Holst et al., 2012), which demonstrates ecological validity. Considering reliability, the majority of multi-item dimensions on the COPSOQ III, have demonstrated acceptable to good internal consistency (Burr et al., 2019; Lincke et al., 2021). Additionally, the COPSOQ III is reported to have good content validity (Lincke et al., 2021). In order to enhance rigour, guidelines for using the COPSOQ III (Llorens et al., 2019) were followed throughout the research in terms of the structure of the questionnaire, wording, anonymity, and confidentiality.

5.3.1.3.   Occupational resources

Occupational resources were measured using the COPSOQ III, which was discussed in Section 5.3.1.2. Dimensions from the following three domains were used to assess occupational resources: work organisation and job contents, interpersonal relationships and leadership, and social capital. The following 14 dimensions were assessed: influence at work, possibilities for development, variation at work, control over working time, predictability, recognition, role clarity, quality of leadership, social support from supervisor, social support from colleagues, sense of community at work, quality of work, vertical trust, and organisational justice. Regarding questions relating to supervisors and colleagues, participants were provided the option to answer, "I do not have colleagues/a supervisor." These items were scored 0. These dimensions were chosen to provide a detailed examination of the occupational resources experienced by professional classical musicians and conservatoire music students.

5.3.1.4.   Appraisal

Appraisal of occupational stress was measured using a single item from the *Well-being Process Questionnaire* (WPQ; Williams, Thomas, et al., 2017; see Appendix E). The WPQ was designed as a brief measure to assess the stress process from a transactional perspective and consists of single-item measures (Williams and Smith, 2018). Appraisal of occupational stress was measured using the single item (*In general, how stressful do you find your job?)*, rated on a 5-

point scale from 1 (not at all stressful) to 5 (extremely stressful; Williams et al., 2017). For students, the wording was adapted to reflect the study environment (*In general, how stressful do you find your student experience?*). This single-item measure of stress was chosen because it has been used in previous studies that have employed the DRIVE model and with a variety of occupational samples including university staff and nurses (Mark & Smith, 2012a, 2012b; Smith et al., 2011). Additionally, the single item has been used extensively in research on occupational stress (Smith et al., 2011). Research using the WPQ has demonstrated that the single-item measures are able to provide adequate reliability and validity (Williams & Smith, 2012; Williams, Thomas, et al., 2017; Williams & Smith, 2016). Given the length of the other measures used in the questionnaire (particularly the COPSOQ III), a single item was chosen to measure stress appraisal in order to minimise participant burden when completing the questionnaire and contribute to retention of participants in the study.

5.3.1.5.   Personal demands and resources

Personal demands and resources were measured using the *Brief COPE* (Carver, 1997; see Appendix F), which was developed as an alternative to the *COPE* (Carver et al., 1989). The Brief COPE is a 28-item measure with 14 sub-scales: active coping, planning, positive reframing, acceptance, humour, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioural disengagement, and self blame. Each sub-scale consists of two items and has demonstrated acceptable reliability (α = .50 – .90; Carver, 1997). Statements were scored by participants on a 4-point scale between 0 (*I haven't been doing this at all*) and 3 (*I've been doing this a lot*). Statement wording was adapted for students to reflect the educational context (see Appendix F). The Brief COPE was chosen over a longer measure for personal demands and resources (e.g. COPE) to reduce participant burden when completing the questionnaire. Additionally, the questions on the Brief COPE demonstrate relevance to both professional classical musicians and conservatoire music students.

5.3.1.6.   Well-being

Regarding well-being, measures were chosen to reflect the cognitive and affective dimensions of hedonic well-being as well as eudaimonic well-being. The *Satisfaction with Life Scale* (SWLS; Diener et al., 1985; see Appendix G) was chosen as it is the measure that best represents the cognitive dimension of subjective well-being. This self-report measure was designed as a global assessment of an individual's life satisfaction, which is separate to affect (Pavot & Diener, 1993). The SWLS consists of five items that are rated on a 7-point Likert-style scale (strongly disagree–strongly agree). The measure was developed to be suitable for people spanning a range of ages (Diener et al., 1985) and normative data is available (Pavot & Diener, 1993; Pavot & Diener, 2008). The psychometric properties of the SWLS have been assessed and the results of principal factor analysis suggested that all items load onto a single factor (Diener et al., 1985; Pavot et al., 1991). The SWLS has also demonstrated high internal consistency (α = .79 − .89) and adequate construct validity (Pavot & Diener, 1993).

The *International Positive and Negative Affect Schedule Short Form* (I-PANAS-SF; Thompson, 2007; see Appendix H) was used to assess the affective dimension of well-being. The 10-item I-PANAS-SF is based on the 20-item *Positive and Negative Affect Schedule* (PANAS) developed by Watson et al. (1988). Individuals rate the frequency of experiencing different affective states (*upset, hostile, alert, ashamed, inspired, nervous, determined, attentive, afraid, and active*) on a 5-point scale from 1 (never) to 5 (always). Exploratory and confirmatory factor analyses have been used to demonstrate a two-factor structure: positive affect and negative affect (Thompson, 2007). Additionally, the scales in the I-PANAS-SF have demonstrated good internal consistency (α = .72 − .78). The I-PANAS-SF was chosen over the longer PANAS, as a study exploring the validity of the PANAS suggested item redundancy (Thompson, 2007). Further, the I-PANAS-SF was chosen as it ideally represents the affective dimension of hedonic well-being when compared to other measures.

The *Flourishing Scale* (FS) developed by Diener et al. (2010) was used to measure psychological well-being (see Appendix I). Keyes (2016) defined flourishing as peak mental health, including the experience of both positive emotions and positive psychosocial functioning. As

described above, the I-PANAS-SF was used to measure the affective dimension of well-being. The FS was used to measure the presence of positive functioning. The FS is a self-report measure, which was designed to complement existing measures of hedonic well-being and the authors drew on broad conceptualisations of well-being such as those of Ryff (1989b), Deci and Ryan (2000), and Seligman (2002). As such, the FS measures psychological and social well-being and includes items on purpose and meaning, relationships with others, competence, and self-respect (Diener et al., 2010), which align with Ryff's (2014) conceptualisation of eudaimonic well-being. The FS is an 8-item measure and statements are rated on a scale of 1–7 (strongly disagree–strongly agree). The FS was selected as it has high internal consistency (α = .91; Hone et al., 2014). Exploratory and confirmatory factor analyses have demonstrated that one strong factor exists (Diener et al., 2010; Hone et al., 2014). Given the inclusion of the other measures in the questionnaire and length of time required for participants to answer all items, the FS was chosen to assess eudaimonic well-being as it is a brief, validated measure.

Additionally, four scales from the *COPSOQ III* (Burr et al., 2019) were used to measure well-being in the workplace: job satisfaction, meaning of work, stress, and self-rated health. A total of seven items from these sub-scales were used in the present study. These were included due to being core items and relevance to the research question.

5.3.1.7. Pilot questionnaire

The questionnaire was piloted with 13 musicians (*n* = 12 professional classical musicians; *n* = 1 conservatoire music student). Piloting was conducted using convenience sampling with participants from my professional network. Participants involved in the pilot varied in employment experience, instrument, gender, age, and years working in music (see Appendix J). Following the questionnaire, participants were asked for feedback and perceived that questions were clear and relevant to their experiences as professional classical musicians and conservatoire music students. No issues of relevance were reported.

5.3.2. Participants

5.3.2.1. Eligibility

To be eligible for the study, participants needed to be either professional classical musicians or conservatoire music students. Professional classical musicians were defined as those earning the majority of their salary through performance and music-related activities (e.g., teaching). All instrumental and vocal categories were eligible for the study. Conservatoire music students were required to be studying at a conservatoire or music college at undergraduate or postgraduate level at time of survey receipt. Students could be enrolled on any instrumental or vocal pathway. All participants were required to be aged 18 or above to take part in the study. Participants of any nationality or country of residence were eligible to take part. Participants were excluded if they were amateur musicians or mostly performed music of a different genre (e.g., popular music). Music students who were not studying at a specialist institution were also excluded from this study.

5.3.2.2. Recruitment

Professional orchestras, conservatoires, and music colleges were asked to circulate information about the study to employees and music students via email, posters, and flyers. Given that the survey was conducted in the English language, this included organisations from the UK, Ireland, USA, Canada, Australia, and New Zealand. Additionally, professional orchestral musicians at three UK-based orchestras were informed in person through a presentation and distribution flyers. Participants were also recruited through my professional network and social media posts (i.e., Twitter, Facebook, LinkedIn; see Appendix K), and asked to share information about the study with their own professional networks (i.e., snowball sampling). Given the reliance on convenience and snowball sampling, the rates of non-respondence were unknown.

Researchers have suggested a minimum sample size of 200 is required for SEM (Garver & Mentzer, 1999). According to power estimates by MacCallum et al. (1996), for the test of close fit a sample size of $N = 300$, 100 degrees of freedom (df), and $\alpha = .05$ power, exceeds .99.

5.3.2.3.   Participant characteristics

A total of 445 participants started the questionnaire. The pattern of missing data was visually inspected, and where missing, it was missing completely at random. In some instances, participants had failed to complete the questionnaire towards the end of the survey, while others had missed individual items. A comparison of demographics between completers and non-completers demonstrated no significant differences between groups in terms of gender, instrument category, role, or country. Missing data was handled using listwise deletion, which resulted in 327 complete cases. Participants included professional classical musicians (n = 245; 74.9%) and conservatoire music students (n = 82; 25.1%). Participants identified as female (n = 212; 64.8%), male (n = 110; 33.6%), nonbinary (n = 2; 0.6%), and other (n = 2; 0.6%). Strings were the biggest instrument category (n = 141; 43.1%), followed by voice (n = 61; 18.7%), woodwind (n = 55; 16.8%), brass (n = 35; 10.7%), keyboard (n = 25; 7.7%), percussion (n = 7, 2.1%), and others including conductors and composers (n = 3; 0.9%). The mean age of the total sample was 36.33 years (SD = 13.50, median = 33.00). Tables 5.1, 5.2, and 5.3 provide demographic characteristics of the sample.

To consider whether the sample was representative of the wider population of professional classical musicians and conservatoire music students, participant characteristics were considered alongside existing demographic data. With regard to gender, the sample of professional musicians in the present study has a higher proportion of female musicians when compared to demographic data from the UK, where the majority of orchestral players are male (56%; Sergeant & Himonides, 2019). This aligns with research on survey participation, where it has been reported that response rates from women are higher than men for online surveys (Becker, 2022). For conservatoire students, the sample is in line with data for UK conservatoires, where 53–57% of accepted students were female in 2013–2020 (UCAS Conservatoires, 2022). Considering orchestral instrument groups, the proportions in the present sample are comparable with those from the UK, USA, and Europe (Sergeant & Himonides, 2019). For students, the sample in the present study had a slightly higher number of string and woodwind players, and a lower number of voice and keyboard musicians when compared to acceptance data for UK conservatoires (UCAS Conservatoires, 2022).

Table 5.1

Participant demographics

	Total (*N* = 327)		Professionals (*n* = 245)		Students (*n* = 82)	
	n	%	*n*	%	*n*	%
Gender						
Female	212	64.8	157	64.1	55	67.1
Male	110	33.6	86	35.1	24	29.3
Nonbinary	2	0.6	1	0.4	1	1.2
Other	2	0.6	–	–	2	2.4
Prefer not to say	1	0.3	1	0.4	–	–
Instrument Category						
Strings	141	43.1	107	43.7	34	41.5
Woodwind	55	16.8	38	15.5	17	20.7
Brass	35	10.7	26	10.6	9	11.0
Percussion	7	2.1	4	1.6	3	3.7
Keyboard	25	7.7	16	6.5	9	11.0
Voice	61	18.7	52	21.2	9	11.0
Other (Conductor, composer)	3	0.9	2	0.8	1	1.2
Country*						
Australia	27	8.3	11	4.5	16	19.5
Austria	1	0.3	1	0.4	–	–
Canada	22	6.7	22	9.0	–	–
Czech Republic	1	0.3	1	0.4	–	–
Denmark	1	0.3	1	0.4	–	–
Finland	1	0.3	1	0.4	–	–
France	3	0.9	3	1.2	–	–
Germany	4	1.2	4	1.6	–	–
Ireland	8	2.5	8	3.3	–	–
Netherlands	2	0.6	2	0.8	–	–
Portugal	2	0.6	2	0.8	–	–
Sweden	2	0.6	2	0.8	–	–
Switzerland	1	0.3	1	0.4	–	–
Turkey	1	0.3	1	0.4	–	–
UK	237	72.5	176	71.8	61	74.4
USA	11	3.4	8	3.3	3	3.7

Note. * *n* = 3 missing data.

Table 5.2

Professional characteristics

Professional characteristics	
Mean age (*SD*)	40.84 (12.27)
Median age	39.50
Employment Status	
Employed full-time	53
Employed part-time	24
Self-employed full-time	137
Self-employed part-time	31
Years Working	
Mean (*SD*)	17.98 (12.25)
Median	16

Table 5.3

Student characteristics

Student characteristics	
Mean age (*SD*)	22.93 (6.07)
Median age	22.00
Student Enrolment Status	
Undergraduate full-time	51
Undergraduate part-time	2
Postgraduate full-time	26
Postgraduate part-time	3

5.4.   Procedure

5.4.1.   Ethics

Before commencement, ethical approval was sought from the Cardiff School of Sport and Health Sciences Ethics Committee at Cardiff Metropolitan University. Appropriate ethics standards were adhered to from the Cardiff School of Sport and Health Sciences Ethics Framework (2018) and the British Psychological Society Code of Human Research Ethics (2014). These ethics standards provide guidance on participants' autonomy, privacy, and potential harm arising from research and were appropriate for the context of the research.

Prior to completing the survey, participants were provided with online information sheets which gave details of the background of the research, research aims, the procedure, reasons for participant selection, and use of data (see Appendix L). Participants were informed that the research was voluntary and they could withdraw their consent at any time during the

study prior to write up of the research. Participants were required to provide informed consent before commencement of the study via an online consent form (see Appendix L). At the end of the survey, participants were taken to an online message which signposted appropriate organisations (e.g., NHS Services, Samaritans, British Association of Performing Arts Medicine; see Appendix M) should they experience a significant reaction to the survey resulting in a high level of stress and impact on their well-being. Participants were also asked to provide a contact email address if they wished to be invited to participate in future research on musicians' well-being (Study 3). Email addresses and unique IDs (see below) were stored separately from the data collected from the questionnaire. All data was stored on a secure cloud-based service.

5.4.2. Data collection

Participants completed a battery of questionnaires using the online platform Qualtrics (2005), which could be accessed through an email link using desktop, tablet, or mobile devices. Participants could complete the survey in their own time and from a comfortable location. With regard to the COPSOQ III, Brief Cope, and I-PANAS-SF, participants were asked to consider the 4-week period prior to completing the questionnaire. This was not necessary for the SWLS, WPQ, and FS as the questions in these measures relate to a broader time period. Data collection took place between October–December 2019. In order to match participants' data for Study 3, participants were required to create a unique ID code, which could be re-entered in follow-up studies (see Appendix N).

5.5. Data analysis

Descriptive statistics were analysed using IBM SPSS (Version 29; 2022). Structural Equation Modelling (SEM) was conducted using SPSS AMOS (Version 29; 2022). The normality, linearity, and homoscedasticity of the data were visually inspected using histograms and scatter plots. Univariate normality was confirmed using the Shapiro-Wilk test. Tolerance and variance inflation indicators were assessed to check for multicollinearity. Multivariate

normality was assessed using Mardia's test for multivariate kurtosis and Mahalanobis distance was calculated to assess whether multivariate outliers were present.

Descriptive statistics were calculated including averages, standard deviations, medians, and interquartile ranges. Cronbach's alphas for multi-item scales were assessed, and floor and ceiling effects were examined (Terwee et al., 2007). Bivariate relationships were assessed using Spearman's rank correlation coefficient. Comparisons between professional musicians and conservatoire music students were assessed using Mann Whitney U test and effect sizes (*r*) were calculated. The Mann Whitney U test is used when data are not normally distributed and can be used on either ordinal or continuous data (Sedgwick, 2015). Effect sizes were considered in line with a review of organisational attitude research in psychology (small = 0.10 , medium = 0.18, large = 0.40; Bosco et al., 2015).

Before the full structural equation model was assessed, three confirmatory factor analyses (CFA) were conducted to test the factorial validity in line with Byrne (2016). CFA was conducted for: a) occupational demands and resources; b) personal demands and resources; c) well-being. Where the results of the CFA suggested that models presented inadequate fit, post-hoc modifications were made. This was done by inspecting modification indices and residual covariances. Indicator variables with high covariances or regression weights below .35 were considered for removal from the model. This cut-off was chosen in accordance with literature on exploratory factor analysis: Gunzler and Morris (2015) suggested that indicators <.40 should be removed; Tavakol and Wetzel (2020) suggested a regression weight >.30 as acceptable. The full path diagram was revised in accordance with the results of the CFA.

For both CFA and SEM, maximum likelihood estimation was used. Assumptions for the use of maximum likelihood were met except for normality (Kline, 2015). As the data were multivariate nonnormal, bootstrapping procedures were used with 5000 cases and 95% bias-corrected confidence intervals. Regarding the structural model, post-hoc modifications were made and nonsignificant direct relationships were removed in a stepwise fashion to create a more parsimonious model as suggested by Byrne (2016). Statistical significance of all direct relationships was considered at each step.

5.5.1. Evaluation of fit

For CFA and SEM, several indices of fit were used to evaluate the hypothesised and alternative models. Absolute fit was measured using χ^2 test. Comparative fit was assessed using Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Akaike Information Criterion (AIC). Additionally, Root Mean Square Error of Approximation (RMSEA) was assessed. For the CFI and TLI, values over .90 or .95 are suggestive of good fit (Bentler, 1992; Hu & Bentler, 1999). For the RMSEA, good fit is indicated by values <.05, adequate fit is indicated by values between .06–.08, mediocre fit is indicated by values between .08–.10, and values >.10 indicate poor fit (Browne & Cudeck, 1993; Hu & Bentler, 1999; MacCallum et al., 1996). The AIC was used to evaluate model comparison, with lower numbers indicating better model fit (Akaike, 1987; Schreiber et al., 2006).

5.5.2. Model specification

5.5.2.1. Structural model

Conceptual diagrams for the partially latent structural model are presented in Figures 5.2 and 5.3. All models are partially mediated and show observed variables and latent variables. Observed variables are those that are measured directly. Latent variables are related to theoretical concepts and, therefore, cannot be directly measured (Byrne, 2016). Consequently, latent variables are measured indirectly via observed variables.

Model A contains nine latent factors: a) Occupational demands; b) Occupational insecurity; c) Task resources; d) Interpersonal resources; e) Leadership resources; f) Disengaged coping; g) Social support coping; h) Active coping; i) Hedonic well-being. The path diagram also shows Perceived stress, which was an observed variable. Positive and negative relationships between variables are indicated in accordance with the DRIVE model (Mark & Smith, 2008). *Occupational demands* and *Occupational insecurity* are hypothesised to relate positively to *Perceived stress* and negatively to *Hedonic well-being. Task resources*, *Interpersonal resources*, and *Leadership resources* are hypothesised to negatively relate to *Perceived stress* and positively to *Hedonic well-being. Disengaged coping* is hypothesised to positively relate to *Perceived stress* and

to negatively relate to *Hedonic well-being. Approach coping* and *Social support coping* are hypothesised to negatively relate to *Perceived stress* and positively relate to *Hedonic well-being.* Model B differs from Model A in terms of the outcome *Eudaimonic well-being.*

Full path diagrams are presented for each model in Figures 5.4 and 5.5. Indicator variables are described in full in Sections 5.5.2.2–5.5.2.4. The path diagram for Model A (see Figure 5.4) shows nine latent variables, 39 observed variables, and 40 error variances. There are 49 fixed parameters including error parameters (fixed at 1) with 107 free parameters to be estimated, and 673 *df*. The path diagram for Model B (see Figure 5.5) shows nine latent variables, 37 observed variables, and 38 error variances. There are 47 fixed parameters including error parameters (fixed at 1) with 103 free parameters to be estimated and 600 *df*. Both models are overidentified, given that they are recursive, the number of observations exceeds the number of free parameters to be estimated, and one factor loading is fixed at 1 for each latent variable (Kline, 2015).

Figure 5.2

Model A: Structural model for hedonic well-being
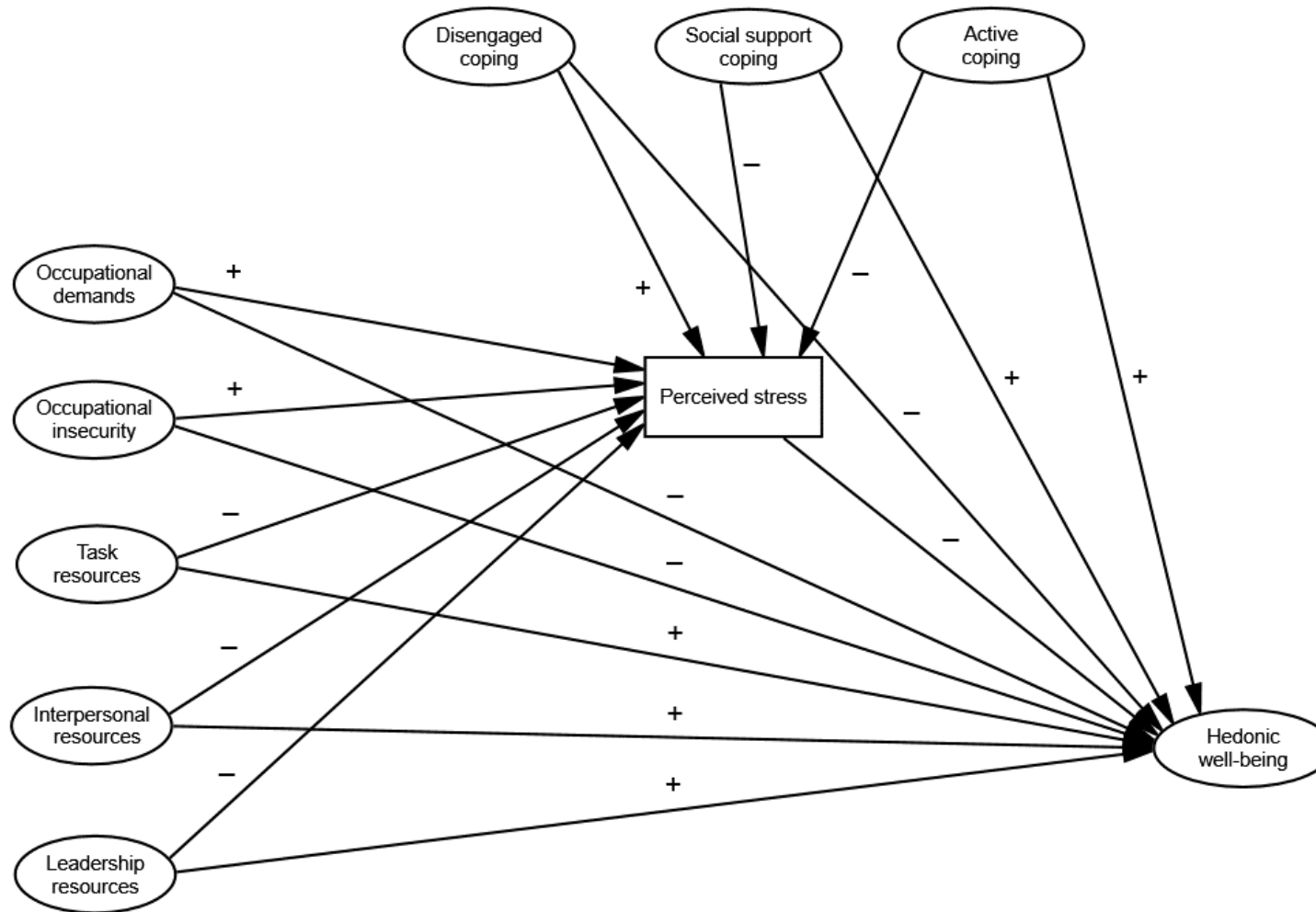
Figure 5.3

Model B: Structural model for eudaimonic well-being
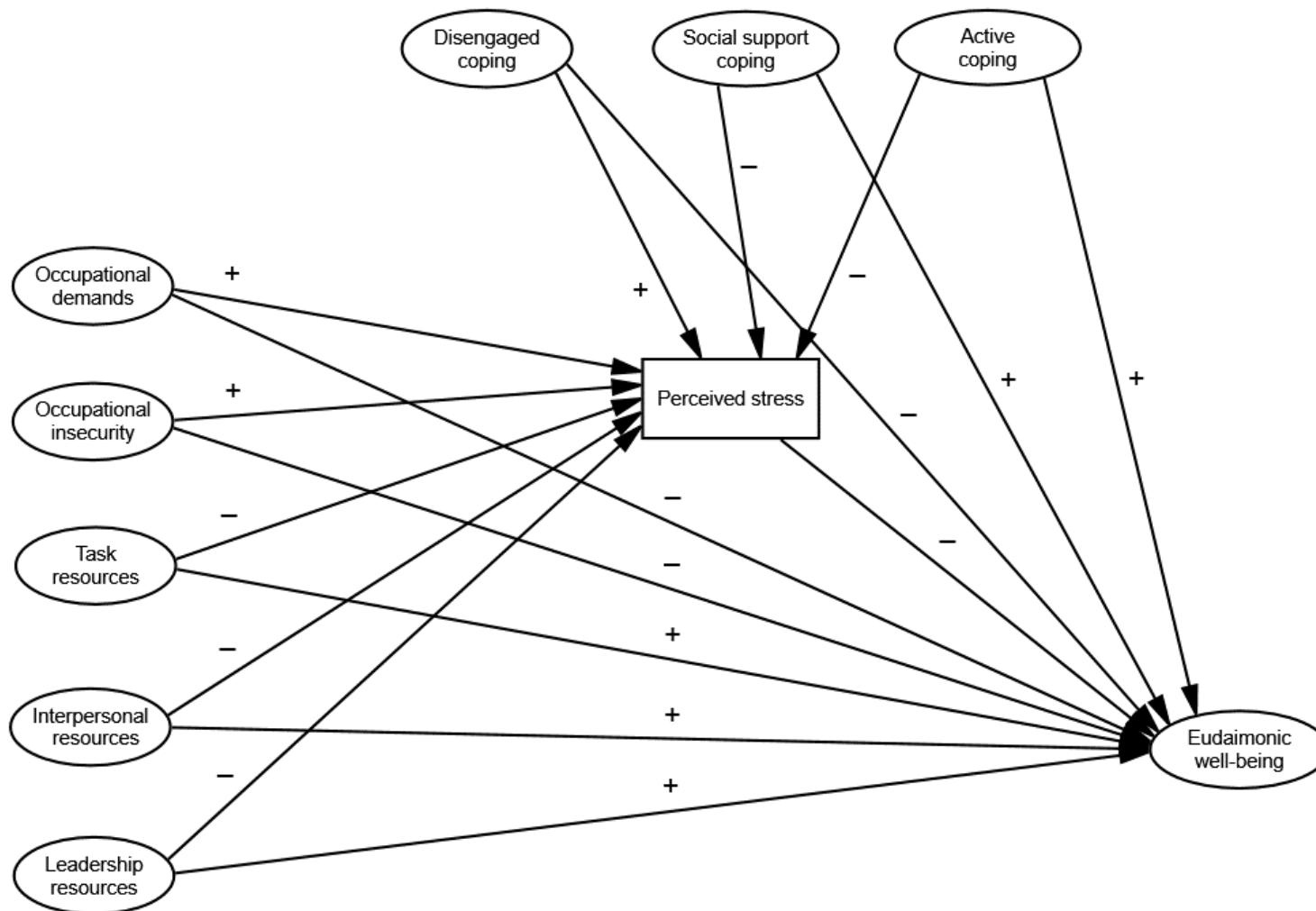
Figure 5.4

Model A: Path diagram for hedonic well-being
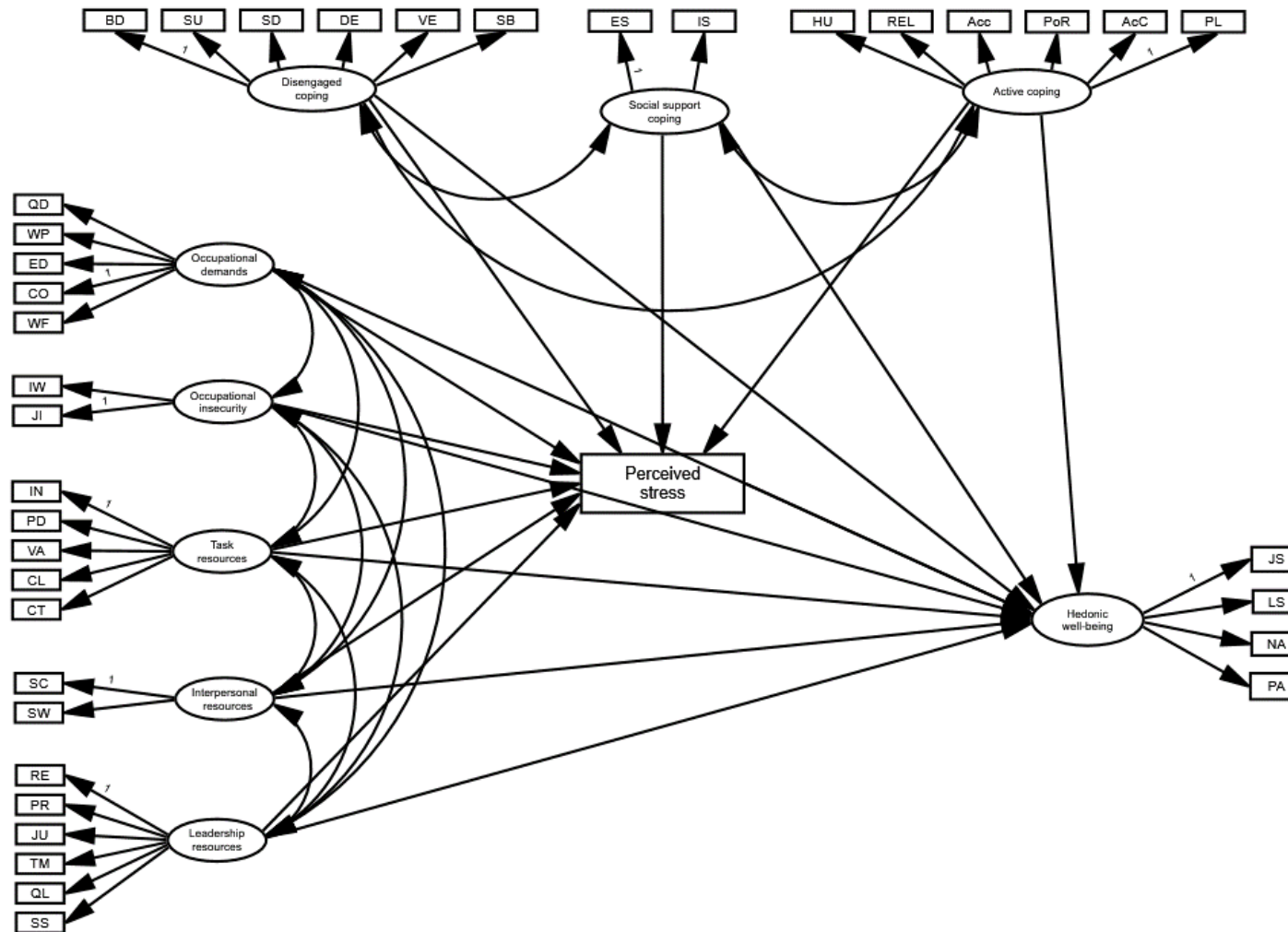
Figure 5.5

Model B: Path diagram for eudaimonic well-being
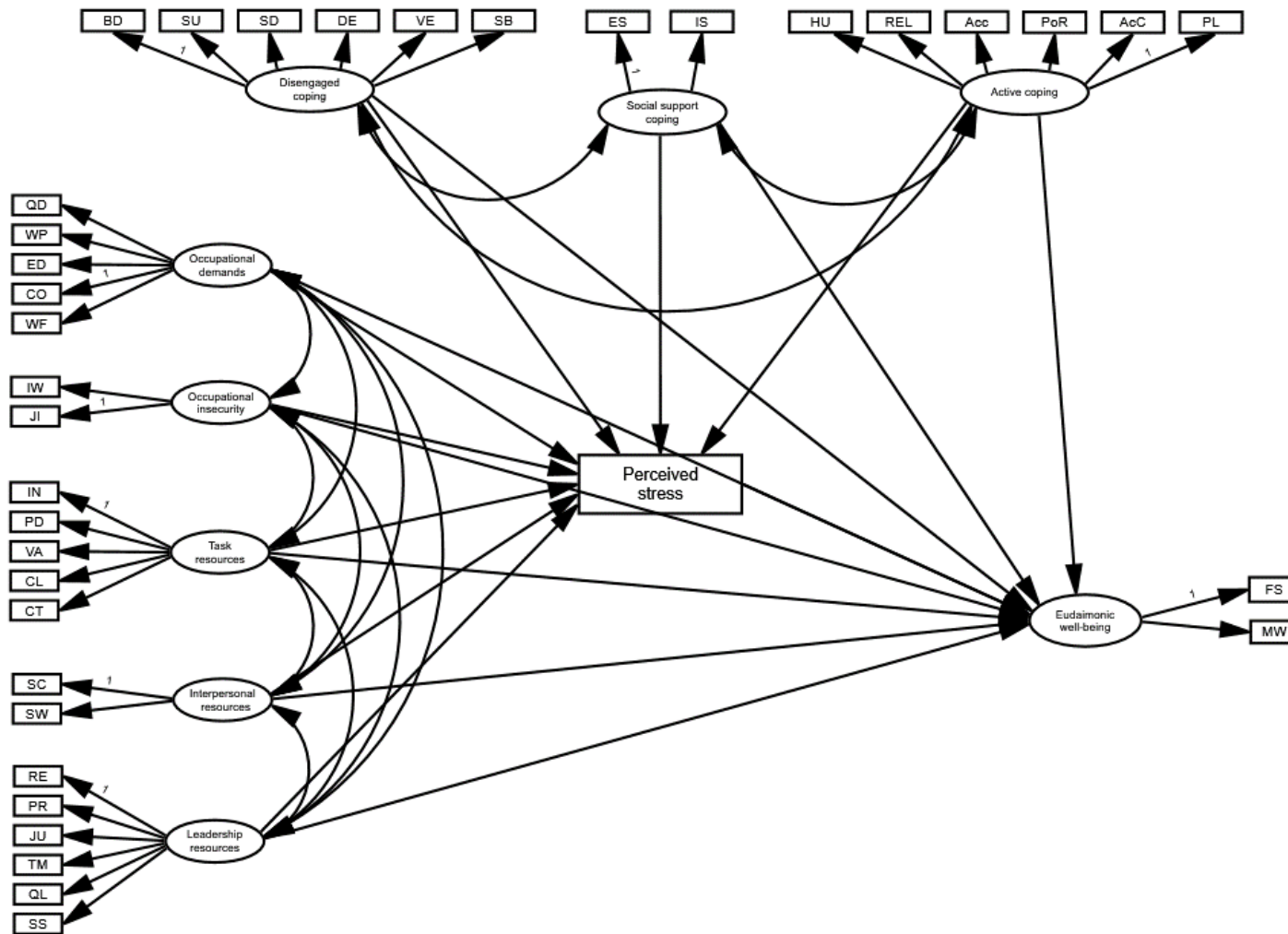
5.5.2.2. CFA: Occupational demands and resources

Occupational demands and resources were hypothesised to be represented by five latent variables. There were two latent factors that represented demands: a) Occupational demands; b) Occupational insecurity; and three latent factors that represented occupational resources: a) Task resources; b) Interpersonal resources; c) Leadership resources. All factors were measured by the COPSOQ III. The factors *Occupational demands*, *Task resources*, *Interpersonal resources*, and *Leadership resources* were derived from Berthelsen et al. (2018), who assessed the application of the COPSOQ III to the JD-R model. An additional variable, *Control over work time*, was measured in this study and included as an indicator for *Task resources.* Further, the latent variable *Occupational insecurity* was added, which was a factor proposed by Useche et al. (2019) through exploratory factor analyses of the COPSOQ III. The path diagram for the CFA of occupational demands and resources is presented in Figure 5.6. This shows the five latent variables, 20 indicator variables from the COPSOQ III, and 20 error variances. There are 25 fixed parameters (fixed at 1) with 50 free parameters to be estimated, and 160 *df*. Covariances between the factors were assessed for discriminant and convergent validity.

5.5.2.3. CFA: Personal demands and resources

Personal demands and resources were assessed using the Brief COPE. Although fourteen factors were initially proposed for the Brief COPE, a systematic review of the factor structure suggested that a reduced number of factors may be appropriate (Solberg et al., 2022). Indicators were categorised in alignment with Peters et al. (2020), who assessed the factor structure of the Brief COPE and found that a three-factor model was appropriate. Latent factors included: a) Disengaged coping; b) Social support coping; c) Active coping. The path diagram for the hypothesised model of coping is shown in Figure 5.7. The diagram shows the three latent variables, 14 indicator variables from the Brief COPE, and 14 error variances. There are 17 fixed parameters (fixed at 1) with 31 free parameters to be estimated and 74 *df*. Covariances between the factors were assessed for discriminant and convergent validity.

Figure 5.6

Path diagram for confirmatory factor analysis of occupational demands and resources
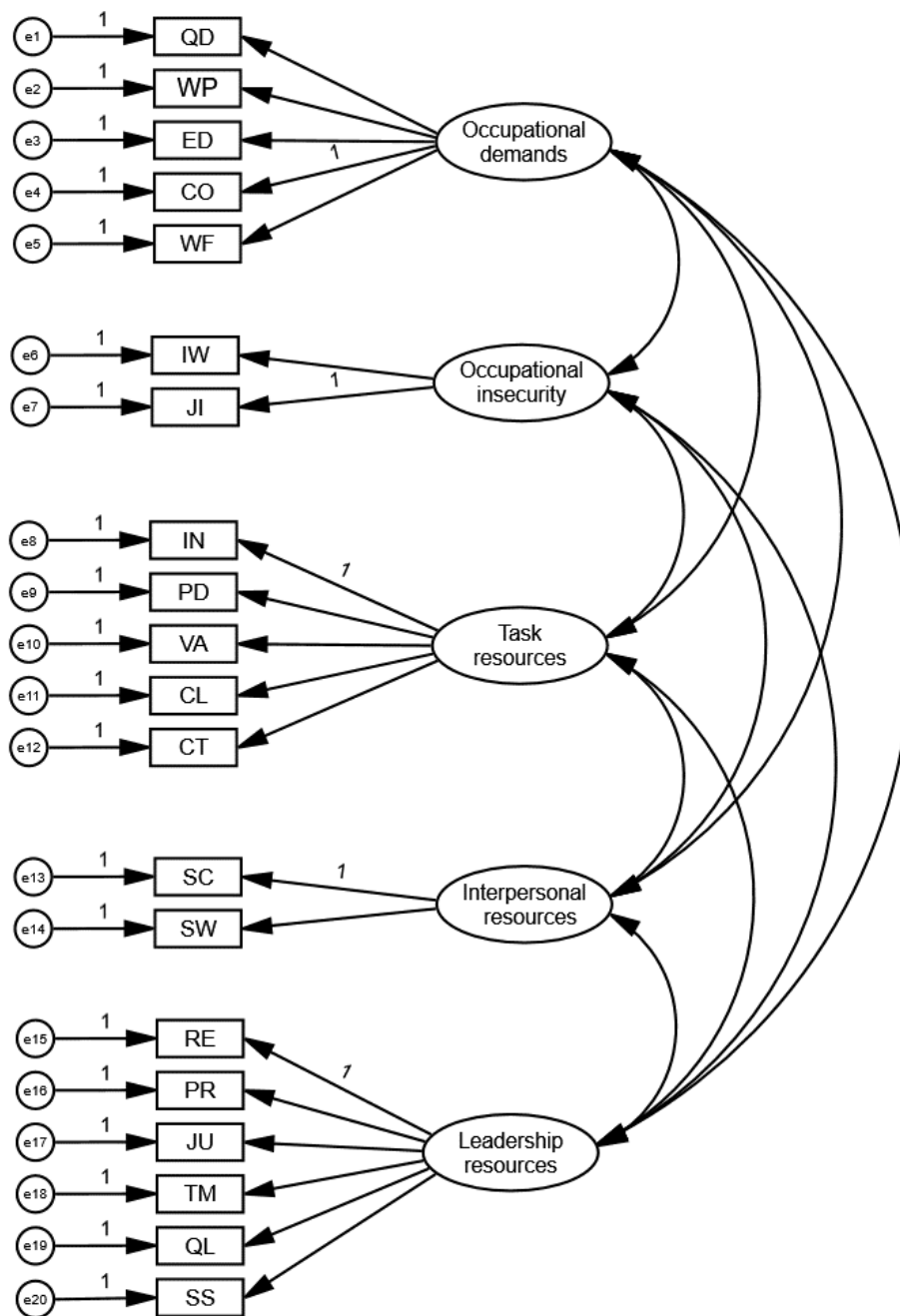
Note. QD = Quantitative demands; WP = Work pace; ED = Emotional demands; CO = Role conflicts; WF = Work life conflict; IW = Insecurity of working conditions; JI = Job insecurity; IN = Influence at work; PD = Possibilities for development; VA = Variation at work; CL = Role clarity; CT = Control over work time; SC = Social support from colleagues; SW = Sense of community at work; RE = Recognition; PR = Predictability; JU = Organisational justice; TM = Vertical trust; QL = Quality of leadership; SS = Social support from supervisor.

Figure 5.7

Path diagram for confirmatory factor analysis of personal demands and resources
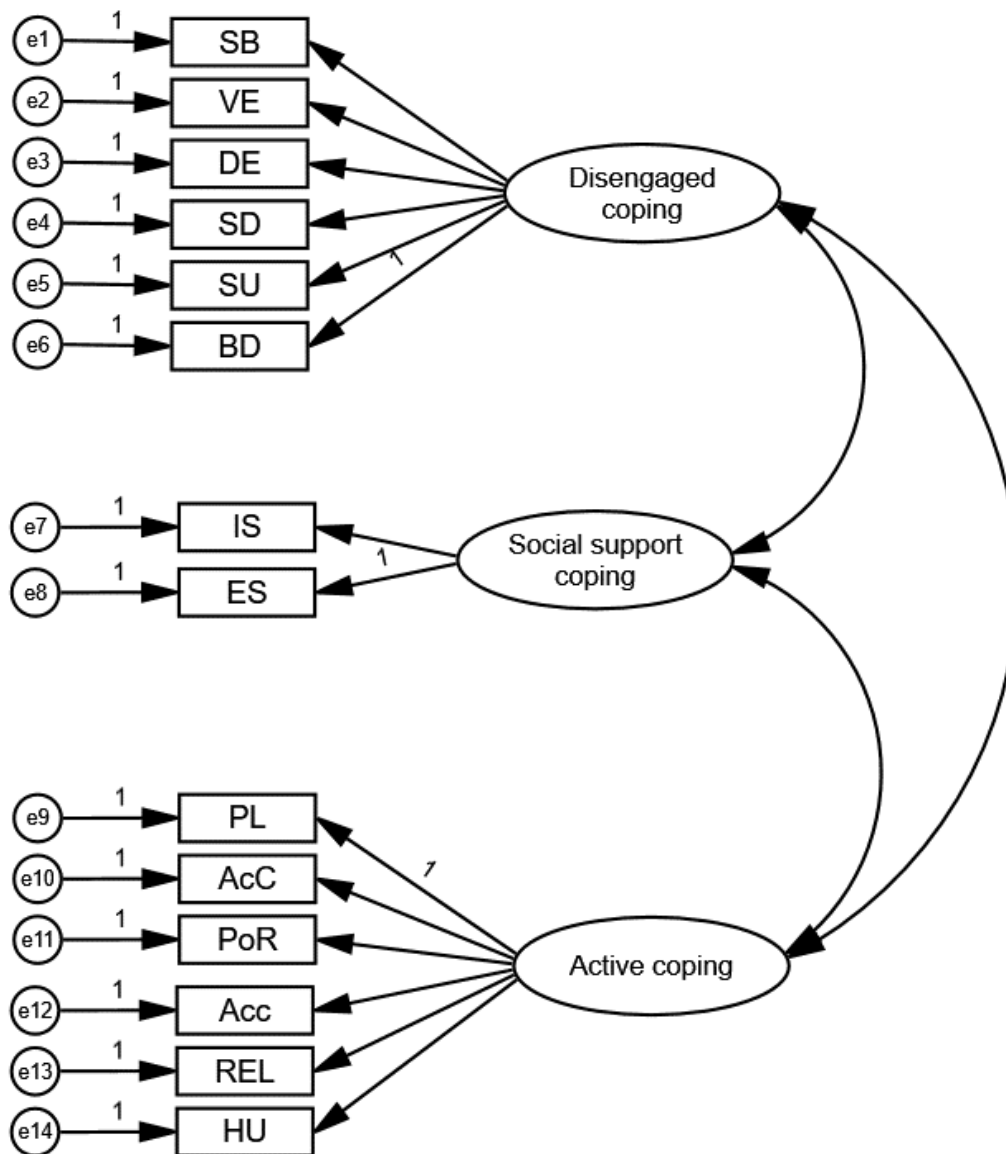
Note. BD = SB = Self blame; VE = Venting; DE = Denial; SD = Self distraction; SU = Substance use; Behavioural disengagement; IS = Instrumental support; ES = Emotional support; PL = Planning; AcC = Active coping; PoR = Positive reframing; Acc = Acceptance; REL = Religion; HU = Humour.

5.5.2.4.   CFA: Well-being

Two latent factors were proposed for well-being: a) Hedonic well-being; b) Eudaimonic well-being. Hedonic well-being was assessed with the I-PANAS-SF, SWLS, and the *Job satisfaction* scale from the COPSOQ III. Eudaimonic well-being was assessed with FS and the *Meaning of work* item from the COPSOQ III. The path diagram for the CFA of well-being is presented in Figure 5.8. This shows the two latent variables, six indicator variables, and six error variances. There are eight fixed parameters (fixed at 1) with 13 free parameters to be estimated and eight *df*. Covariance between the two latent factors was also specified and assessed for discriminant and convergent validity.

Figure 5.8

Path diagram for confirmatory factor analysis of hedonic and eudaimonic well-being
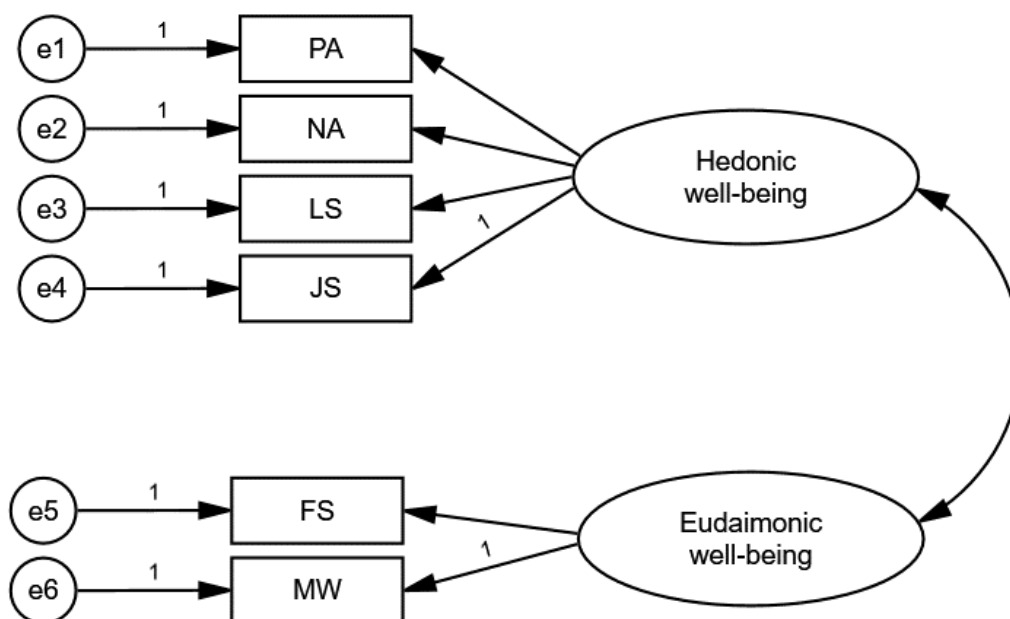
Note. PA = Positive affect; NA = Negative affect; LS = Life satisfaction; JS = Job satisfaction; FS = Flourishing; MW = Meaning of work.

5.6. Results

In the next section, the results of preliminary data analysis are provided, followed by scale characteristics and descriptive statistics for the whole sample of professional classical musicians and conservatoire music students. Then, results of comparisons between professional classical musicians and conservatoire music students are presented to address the following objective:

- identify differences in occupational demands, occupational resources, personal demands, personal resources, perceived occupational stress, and well-being outcomes reported by professional classical musicians and conservatoire music students.

Results of the CFA are given for hypothesised and alternative models. Following this, results are presented for the full SEM. Results for direct relationships and mediation relationships are presented to address the remaining two objectives:

- assess the contribution of occupational demands, occupational resources, personal demands, personal resources, and perceived occupational stress to well-being outcomes in professional classical musicians and conservatoire music students (direct relationships);
- assess whether perceived occupational stress mediates the relationship between occupational characteristics (i.e., occupational demands, occupational resources) and well-being outcomes in professional classical musicians and conservatoire music students (mediation relationship).

5.6.1. Preliminary data analysis

Visual inspection suggested that several of the variables were univariate nonnormal, and this was confirmed using Shapiro-Wilk test. No issues were found relating to linearity or homoscedasticity. Multicollinearity was not detected through assessments of tolerance and variance inflation indicators. Mardia's test for multivariate kurtosis suggested that the data

were multivariate nonnormal (see Appendix O) though no multivariate outliers were detected.

5.6.1.1.   Scale characteristics

In the following section, scale characteristics and correlations are provided. Scale characteristics for all measures are presented in Tables 5.4, 5.5, and 5.6. Internal consistency for the COPSOQ III scales ranged from .35 to .88. For the Brief COPE scales, internal consistencies were between .35–.96. Internal consistency for well-being measures was acceptable to good (I-PANAS-SF α = .74, SWLS α = .86, FS α = .86). Several scales had high ceiling or floor effects. On the COPSOQ III, scales for *Possibilities for development*, *Role clarity*, *Social support from colleagues*, *Sense of community at work*, and *Meaning of work* had high ceiling effects (18.4%–33.6%). The scale *Planning* on the Brief COPE also had a high ceiling effect (16.2%). Five scales from the COPSOQ III had high floor effects: *Insecurity over working conditions*, *Job insecurity*, *Control over working time*, *Quality of leadership*, and *Social support from supervisor* (15.9%–43.1%). On the Brief COPE, the scales *Behaviour disengagement*, *Substance use*, *Denial*, *Humour*, and *Religion* all had high floor effects (25.7%–71.9%). Correlations for occupational demands and resources are given in Table 5.5, and correlations for coping and well-being are presented in Table 5.6.

Table 5.4

Psychometric characteristics of scales and hypothesised latent factors

Hypothesised factor (measure)	Scale (number of items)	Mean	SD	Floor (%)	Ceiling (%)	Cron-bach's alpha
Occupational demands (COPSOQ III)	Quantitative demands (2)*	49.31	24.23	6.1	4.0	.62
	Work pace (2)*	66.36	21.11	0.0	10.4	.61
	Emotional demands (2)*	59.56	20.69	0.3	4.0	.38
	Role conflicts (2)*	42.58	24.35	7.3	1.5	.76
	Work life conflict (2)*	46.29	31.41	14.1	10.1	.88
Occupational insecurity (COPSOQ III)	Insecurity over working conditions (2)*	18.58	22.22	43.1	0.6	.52
	Job insecurity (2)*	45.37	32.00	15.9	10.1	.74
Task resources (COPSOQ III)	Influence at work (3)*	58.23	23.90	2.8	7.0	.81
	Possibilities for development (2)*	76.95	19.27	0.3	22.0	.46
	Variation at work (2)*	57.34	18.46	0.0	1.2	.45
	Role clarity (1)*	68.27	23.43	1.8	19.3	–
	Control over working time (2)*	37.92	26.98	16.2	3.7	.57
Interpersonal resources (COPSOQ III)	Social support from colleagues (1)*	65.52	25.19	4.0	18.4	–
	Sense of community at work (1)*	77.06	20.76	1.5	31.8	–
Leadership resources (COPSOQ III)	Quality of leadership (2)*	47.59	32.64	21.7	6.7	.88
	Social support from supervisor (1)*	50.31	34.08	23.2	13.5	–
	Recognition (1)*	56.50	28.07	9.5	12.5	–
	Predictability (2)*	53.44	21.84	2.5	3.7	.69
	Organisational justice (2)*	55.62	22.74	2.8	3.7	.69
	Vertical trust (2)*	65.60	21.46	1.5	9.2	.70
Disengaged coping (Brief COPE)	Behaviour disengagement (2)**	0.91	1.24	53.5	0.6	.72
	Substance use (2)**	1.11	1.72	61.8	4.0	.96
	Self distraction (2)**	2.85	1.60	7.7	6.7	.35
	Denial (2)**	0.50	0.97	71.9	0.3	.46
	Venting (2)**	2.32	1.38	8.9	3.1	.47
	Self blame (2)**	2.92	1.91	11.3	12.8	.77
Social support coping (Brief COPE)	Emotional support (2)**	3.18	1.71	8.3	11.9	.79
	Instrumental support (2)**	2.70	1.79	14.7	9.8	.86
Active coping (Brief COPE)	Planning (2)**	3.49	1.75	5.5	16.2	.80
	Active coping (2)**	3.37	1.63	4.0	13.2	.74
	Positive reframing (2)**	2.87	1.57	7.7	5.5	.64
	Humour (2)**	2.14	1.90	25.7	8.3	.88
	Acceptance (2)**	3.36	1.52	3.4	9.8	.55
	Religion (2)**	1.06	1.52	55.4	2.5	.74
Well-being (I-PANAS-SF, SWLS, FS, COPSOQ III)	Positive affect (5)***	18.55	2.79	0.0	0.6	.74
	Negative affect (5)***	12.99	3.26	0.0	0.0	.74
	Life satisfaction (5)****	23.98	6.26	0.0	1.8	.86
	Job satisfaction (3)*	60.10	20.17	0.9	2.8	.74
	Flourishing (8)*****	44.78	6.70	0.0	1.5	.86
	Meaning of work (1)*	74.92	23.37	1.5	33.6	–
Stress	Perceived job stress (1)******	3.19	0.93	2.1	9.5	–

Note. * COPSOQ scales (range 0-100); ** Brief COPE scales (range 0-6); *** I-PANAS-SF scales (range 5-25); **** SWLS (range 5-35); ***** FS scales (range 8-56); ****** WPQ single-item (range 1-5).

Table 5.5

Correlation between occupational demands and resources variables

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Quantitative demands	–																			
2	Work pace	.29**	–																		
3	Emotional demands	.10	.43**	–																	
4	Role conflicts	.21**	.27**	.36**	–																
5	Work life conflict	.14*	.30**	.31**	.29**	–															
6	Insecurity of working conditions	.08	.17**	.20**	.24**	.26**	–														
7	Job insecurity	.18**	.05	.07	.11*	.11	.32**	–													
8	Influence at work	.13*	.06	.08	.03	-.05	-.07	-.19**	–												
9	Possibilities for development	.09	.12*	.07	-.04	-.11	-.20**	-.12*	.38**	–											
10	Variation at work	.10	.00	-.09	-.13*	-.21**	-.27**	-.03	.23**	.30**	–										
11	Role clarity	-.07	.04	-.04	-.25**	-.18**	-.24**	-.05	.21**	.31**	.23**	–									
12	Control over work time	.05	-.11	-.24**	-.20**	-.27**	-.15**	-.17**	.41**	.24**	.21**	.16**	–								
13	Social support from colleagues	-.03	.04	.02	.00	.00	-.05	-.05	.12*	.22**	.15**	.21**	.08	–							
14	Sense of community at work	-.10	.07	-.11*	-.11	-.10	-.09	-.07	.17**	.23**	.22**	.26**	.10	.51**	–						
15	Quality of leadership	-.02	.05	.07	-.12*	-.01	.05	-.04	.16**	.16**	.02	.23**	.03	.28**	.26**	–					
16	Social support from supervisor	-.06	.04	.09	.01	.02	.07	-.08	.18**	.17**	.01	.16**	.00	.34**	.27**	.72**	–				
17	Recognition	.01	.02	-.07	-.22**	-.16**	-.20**	-.13*	.46**	.43**	.26**	.42**	.36**	.28**	.27**	.32**	.23**	–			
18	Predictability	-.07	-.04	-.07	-.24**	-.09	-.16**	-.25**	.39**	.27**	.13*	.36**	.24**	.09	.17**	.29**	.24**	.48**	–		
19	Organisational justice	.01	-.08	-.12*	-.31**	-.18**	-.11*	-.07	.30**	.30**	.11*	.29**	.26**	.19**	.24**	.35**	.21**	.54**	.46**	–	
20	Vertical trust	-.05	-.02	-.08	-.25**	-.16**	-.11*	-.09	.38**	.35**	.23**	.35**	.27**	.22**	.29**	.37**	.24**	.62**	.41**	.61**	–

Note. * $p < 0.05$; ** $p < 0.01$ level.

Table 5.6

Correlations between personal demands and resources, well-being, and perceived stress variables

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Behavioural disengagement	–																				
2	Substance use	.17**	–																			
3	Self distraction	.18**	.13*	–																		
4	Denial	.28**	.20**	.08	–																	
5	Venting	.23**	.17**	.29**	.16**	–																
6	Self blame	.39**	.24**	.27**	.18**	.32**	–															
7	Planning	-.05	-.06	.14*	.06	.23**	.12*	–														
8	Active coping	-.20**	-.02	.10	.07	.21**	.03	.67**	–													
9	Positive reframing	-.16**	.02	.12*	.02	.12*	.05	.36**	.34**	–												
10	Emotional support	.05	.05	.14*	.11*	.32**	.23**	.29**	.27**	.20**	–											
11	Humour	.11	.32**	.12*	.11	.11*	.20**	.01	.07	.15**	.10	–										
12	Acceptance	-.04	-.02	.12*	-.04	.14*	-.03	.34**	.26**	.34**	.10	.06	–									
13	Religion	-.06	.00	.06	.03	.11*	-.02	.19**	.18**	.20**	.15**	-.07	.09	–								
14	Instrumental support	.02**	.02	.22**	.07	.37**	.18**	.42**	.34**	.21**	.71**	.06	.16**	.18**	–							
15	Positive affect	-.28**	.00	-.17**	.00	-.11	-.19**	.14*	.14*	.11	.06	-.08	.12*	.11*	.01	–						
16	Negative affect	.40**	.29**	.27**	.17**	.36**	.51**	.10	.11*	-.02	.20**	.14*	-.11*	.05	.24**	-.18**	–					
17	Life satisfaction	-.39**	-.18**	-.23**	-.21**	-.11*	-.29**	-.04	.08	.17**	.06	-.02	.06	.08	-.01	.33**	-.38**	–				
18	Job satisfaction	-.25**	-.02	-.14*	-.04	-.14*	-.15*	-.06	.01	.08	.05	.03	.16**	.05	.03	.20**	-.19**	.46**	–			
19	Flourishing	-.40**	-.07	-.11	-.14*	-.05	-.31**	.12*	.23*	.24**	.17**	-.02	.12*	.10	.07	.46**	-.37**	.55**	.33**	–		
20	Meaning of work	-.24**	-.12*	-.04	-.11	-.02	-.11*	.08	.07	.12*	.09	-.10	.15**	.05	.09	.27**	-.07	.22**	.39**	.36**	–	
21	Perceived Stress	.20**	.28**	.12*	.03	.14**	.36**	.03	.08	.02	.10	.08	-.02	-.04	.11*	.02	.42**	-.19**	-.12*	-.15**	-.02	–

Note. * $p < 0.05$; ** $p < 0.01$ level.

5.6.2. Professional and student musician comparisons

Comparisons between professionals and students were conducted using Mann Whitney U tests and the results are presented in Table 5.7. This indicated significant differences between groups at p <.001 level for several occupational characteristics. Professional classical musicians scored higher on *Job insecurity* (W = 10752.50, p = <.001, ES = -.203), *Variation at work* (W = 9368.50, p = <.001, ES = -.311), and *Role clarity* (W = 11105.00, p = .001, ES = -.187). Conservatoire music students scored higher on *Insecurity over working conditions* (W = 37213.00, p = <.001, ES = -.232). Significant differences were found between groups for personal demands with students scoring higher on *Behaviour disengagement* (W = 37345.50, p = <.001, ES = -.232) and *Self blame* (W = 36343.50, p = <.001, ES = -.289). Students also scored higher than professional classical musicians on the personal resource *Humour* (W = 37669.50, p = .001, ES = -.191). Differences between groups at p < .001 level were also found for positive and negative well-being outcomes. Professional classical musicians scored higher on *Self-rated health* (W = 10736.00, p = <.001, ES = -.214) and *Flourishing* (W = 10659.00, p = <.001, ES = -.209). Students scored higher on the ill-being outcomes of *Perceived stress* (W = 36904.00, p = <.001, ES = -.259), *Stress* (W = 36448.00, p = <.001, ES = -.283), and *Negative affect* (W = 36211.00, p = <.001, ES = -.297).

Table 5.7

Descriptive statistics and Mann Whitney U test scores for differences by role status

Scale	Professional (*n* = 245)			Student (*n* = 82)			*W*	*Z*	*p*		ES
	Mean	Mdn	IQR	Mean	Mdn	IQR					
Quantitative demands	51.07	50.00	25.00	44.05	50.00	37.50	11837.50	-2.20	.028	*	-.122
Work pace	66.73	75.00	37.50	65.24	62.50	25.00	12806.50	-0.88	.379		-.049
Emotional demands	58.37	62.50	37.50	63.11	62.50	25.00	38967.00	-1.66	.096		-.092
Role conflicts	42.55	37.50	37.50	42.68	50.00	37.50	40082.50	-0.13	.894		-.007
Work life conflict	44.23	37.50	50.00	52.44	50.00	50.00	38654.50	-2.08	.038	*	-.115
Insecurity over working conditions	15.87	12.50	25.00	26.68	25.00	40.63	37213.00	-4.20	<.001	***	-.232
Job insecurity	49.18	50.00	50.00	33.99	37.50	37.50	10752.50	-3.67	<.001	***	-.203
Influence at work	57.21	58.33	33.33	61.28	58.33	25.00	39541.00	-0.87	.386		-.048
Possibilities for development	76.07	75.00	25.00	79.57	81.25	28.13	39221.50	-1.32	.186		-.073
Variation at work	60.46	62.50	25.00	48.02	50.00	25.00	9368.50	-5.63	<.001	***	-.311
Role clarity	70.51	75.00	25.00	61.59	75.00	25.00	11105.00	-3.38	.001	***	-.187
Control over working time	36.94	37.50	50.00	40.85	37.50	28.13	39168.50	-1.38	.168		-.076
Social support from colleagues	65.51	75.00	25.00	65.55	75.00	31.25	40024.50	-0.22	.825		-.012
Sense of community at work	77.65	75.00	25.00	75.30	75.00	50.00	13115.50	-0.49	.624		-.027
Quality of leadership	44.90	50.00	68.75	55.64	62.50	37.50	38344.50	-2.51	.012	*	-.139
Social support from supervisor	46.84	50.00	75.00	60.67	75.00	25.00	37855.50	-3.23	.001	**	-.179
Recognition	56.02	50.00	25.00	57.93	50.00	25.00	40098.50	-0.11	.909		-.006
Predictability	53.16	50.00	25.00	54.27	50.00	28.13	39960.50	-0.30	.763		-.017
Organisational justice	54.03	50.00	37.50	60.37	62.50	25.00	38622.50	-2.14	.033	*	-.118
Vertical trust	63.93	62.50	25.00	70.58	75.00	25.00	38651.00	-2.11	.035	*	-.116
Behaviour disengagement	0.76	0.00	1.00	1.35	1.00	2.00	37345.50	-4.19	<.001	***	-.232
Substance use	1.02	0.00	2.00	1.38	0.00	2.00	39259.50	-1.42	.154		-.079
Self distraction	2.78	3.00	2.00	3.06	3.00	2.00	39147.00	-1.42	.156		-.078

Table 5.7

Descriptive statistics and Mann Whitney U test scores for differences by role status (continued)

Scale	Professional (*n* = 245)			Student (*n* = 82)			*W*	*Z*	*p*		ES
	Mean	Mdn	IQR	Mean	Mdn	IQR					
Denial	0.42	0.00	1.00	0.76	0.00	1.00	39101.00	-1.84	.066		-.102
Venting	2.25	2.00	2.00	2.52	2.00	2.25	39135.00	-1.45	.147		-.080
Self blame	2.60	2.00	3.00	3.89	4.00	3.00	36343.50	-5.23	<.001	***	-.289
Planning	3.47	4.00	3.00	3.56	4.00	3.00	39979.00	-0.28	.783		-.015
Active coping	3.31	3.00	2.00	3.55	4.00	2.00	39236.00	-1.30	.195		-.072
Positive reframing	2.84	3.00	2.00	2.96	3.00	2.00	39784.50	-0.54	.587		-.030
Emotional support	3.12	3.00	2.00	3.37	3.50	2.25	39334.00	-1.16	.246		-.064
Humour	1.92	2.00	3.00	2.79	2.50	4.00	37669.50	-3.45	.001	***	-.191
Acceptance	3.35	3.00	2.00	3.39	3.00	2.25	40104.50	-0.10	.917		-.006
Religion	1.04	0.00	2.00	1.10	0.00	2.00	40137.00	-0.06	.949		-.004
Instrumental support	2.58	2.00	3.00	3.04	3.00	2.00	38712.50	-2.01	.044	*	-.111
Positive affect	18.71	19.00	3.00	18.10	18.00	4.00	11922.00	-2.07	.038	*	-.115
Negative affect	12.42	12.00	4.00	14.67	15.00	4.00	36211.00	-5.38	<.001	***	-.297
Life satisfaction	24.44	26.00	9.00	22.62	23.00	9.00	11591.00	-2.51	.012	*	-.139
Job satisfaction	59.66	58.33	25.00	61.43	62.50	25.00	39792.00	-0.53	.598		-.029
Flourishing	45.55	46.00	7.00	42.48	43.00	10.25	10659.00	-3.77	<.001	***	-.209
Meaning of work	76.53	75.00	25.00	70.12	75.00	50.00	12097.50	-1.93	.053		-.107
Perceived job stress	3.05	3.00	2.00	3.61	4.00	1.00	36904.00	-4.69	<.001	***	-.259
Self-rated health	59.90	50.00	25.00	47.56	50.00	50.00	10736.00	-3.87	<.001	***	-.214
Stress	55.77	50.00	37.50	70.43	75.00	37.50	36448.00	-5.11	<.001	***	-.283

Note. P values: * = *p* < .05, ** = *p* < .01, *** = *p* < .001.

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5.6.3. Confirmatory factor analysis

In the next section, the results of the three confirmatory factor analyses are presented. Firstly, for occupational demands and resources, secondly for personal demands and resources, and thirdly for well-being. Results for the hypothesised and alternative models are presented.

5.6.3.1. CFA: Occupational demands and resources

Unstandardised and standardised regression weights, covariances, and correlations of the CFA for the hypothesised model for occupational demands and resources are presented in Appendix P. The results of the CFA suggested that the model inadequately fitted the data (χ^2 = 633.99, CFI = .74, TLI = .69, RMSEA = .095, AIC = 733.99) and therefore, the model was respecified with indicators removed in a stepwise manner. *Social support from supervisors (SS)* was removed due to high covariance with *quality of leadership (QL)* and low factor loading on the latent variable *Leadership resources*. The indicator *control over working time (CT)* was removed due to high covariance with *work life conflict (WF)* and conceptual overlap between the two indicators: *Control over working time* included the item "*Can you take holidays more or less when you wish?*", which overlapped with items for *work life conflict*. *Work life conflict* included questions regarding conflict between an individuals' work commitments and private life. Additionally, *quantitative demands (QD)* was removed due to low factor loading on the latent factor *Occupational demands* (B = .59, β = .33).

Standardised estimates for the respecified model for occupational demands and resources are shown in Figure 5.9 and unstandardised estimates are provided in Table 5.8. Results of the CFA suggested that the respecified model represented an adequate fit (χ^2 = 254.15, *df* = 109, CFI = .90, TLI = .87, RMSEA = .064, AIC = 342.15).

Figure 5.9

Standardised estimates for confirmatory factor analysis of occupational demands and resources
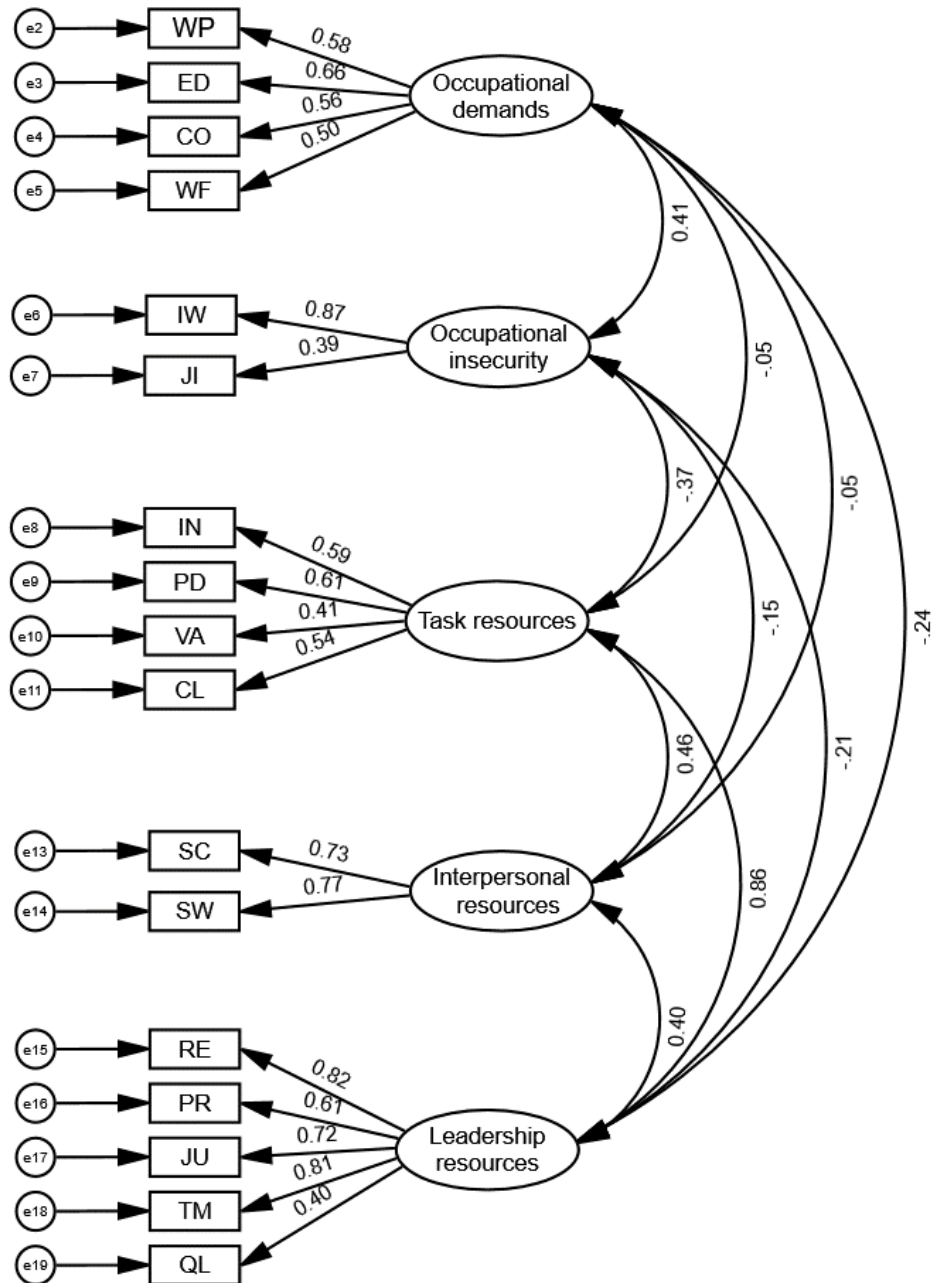
Note. QD = Quantitative demands; WP = Work pace; ED = Emotional demands; CO = Role conflicts; WF = Work life conflict; IW = Insecurity of working conditions; JI = Job insecurity; IN = Influence at work; PD = Possibilities for development; VA = Variation at work; CL = Role clarity; SC = Social support from colleagues; SW = Sense of community at work; RE = Recognition; PR = Predictability; JU = Organisational justice; TM = Vertical trust; QL = Quality of leadership.

Table 5.8

Unstandardised regression weights for confirmatory factor analysis of occupational demands and resources

Variable	Factor B (*SE* B)				
	Occupational demands	Occupational insecurity	Task resources	Interpersonal resources	Leadership resources
Work pace	0.91 (0.20)*				
Emotional demands	1.01 (0.20)*				
Role conflict	1.00 –				
Work life conflict	1.15 (0.20)*				
Insecurity over working conditions		1.56 (0.96)			
Job insecurity		1.00 –			
Influence at work			1.00 –		
Possibilities for development			0.84 (0.12)		
Variation at work			0.54 (0.11)		
Role clarity			0.91 (0.18)		
Social support from colleagues				1.00 –	
Sense of community at work				0.87 (0.25)	
Quality of leadership					0.57 (0.09)
Recognition					1.00 –
Predictability					0.58 (0.06)*
Organisational justice					0.71 (0.06)*
Vertical trust					0.76 (0.06)*

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error. All regression weights significant at *p* < .001. * = Appear equal due to rounding.

5.6.3.2.   CFA: Personal demands and resources

Unstandardised and standardised regression weights, covariances, and correlations for the CFA for the hypothesised three-factor model of coping are shown in Appendix P. The results suggested that the model was an inadequate fit (χ^2 = 206.11, CFI = .86, TLI = .83, RMSEA = .07, AIC = 268.11). The model was respecified to improve the fit and indicators were removed in a stepwise manner. *Humour (HU)* and *religion (REL)* were removed due to low factor loading on the latent variable *Active coping* (HU B = .05, β = .04; REL B = .25, β = .25). Modification indices were inspected and *behavioural disengagement (BD)* was removed due to high covariance with *instrumental support (IS)*, *planning (PL)*, *active coping (AcC)*, and *positive reframing (PoR)*.

Standardised estimates for the respecified model for personal demands and resources are shown in Figure 5.10 and unstandardised estimates are provided in **Error! Reference source not found.**. Results of the CFA suggested that the respecified model represented a good fit (χ^2 = 79.79, *df* = 41, CFI = .95, TLI = .93, RMSEA = .054, AIC = 129.79).

Figure 5.10

Standardised estimates for confirmatory factor analysis of personal demands and resources
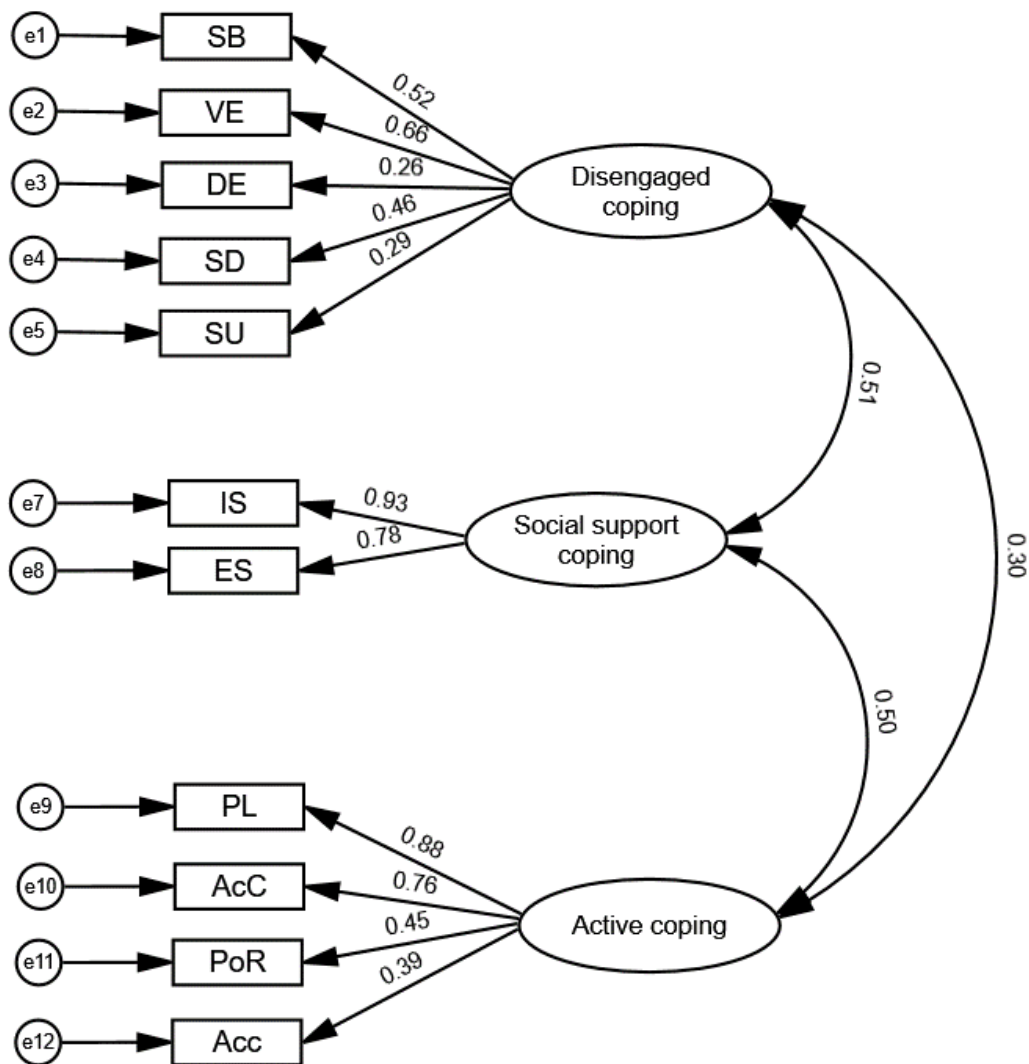
Note. SB = Self blame; VE = Venting; DE = Denial; SD = Self distraction; SU = Substance use; IS = Instrumental support; ES = Emotional support; PL = Planning; AcC = Active coping; PoR = Positive reframing; Acc = Acceptance.

Table 5.9

Unstandardised regression weights for confirmatory factor analysis of personal demands and resources

Variable	Disengaged coping		Social support coping		Active coping	
			B (*SE* B)			
Self blame	1.00	–				
Venting	0.93	(0.27)				
Denial	0.26	(0.07)				
Self distraction	0.75	(0.17)				
Substance use	0.51	(0.16)				
Instrumental support			1.25	(0.12)		
Emotional support			1.00	–		
Planning					1.00	–
Active coping					0.81	(0.07)
Positive reframing					0.46	(0.07)
Acceptance					0.39	(0.06)

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error. All regression weights significant at *p* < .001.

5.6.3.3. CFA: Well-being

Unstandardised and standardised regression weights, covariances, and correlations for the CFA for the hypothesised two-factor model of well-being are shown in Appendix P. The results suggested that the model was an inadequate fit (χ^2 = 67.71, CFI = .87, TLI = .75, RMSEA = .15, AIC = 93.71. Therefore, a single factor which included only the observed variables for *Hedonic well-being* was examined. This ensured that the latent factor was conceptually aligned with hedonic well-being and avoided conflating different well-being concepts (i.e., avoiding combining indicators for hedonic and eudaimonic well-being into a single latent factor). Both *flourishing* and *meaning of work* were removed from the model and the results are presented next.

Standardised regression weights are presented in Figure 5.11. Unstandardised regression weights are presented in Table 5.10. The results of the CFA suggested that the model for hedonic well-being was a good fit (χ^2 = 1.33, CFI = 1.00, TLI = 1.01, RMSEA = .00, AIC = 17.33).

Therefore, the latent factor *Hedonic well-being* was assessed going forward and *Eudaimonic well-being* was not included in the SEM.

Figure 5.11

Standardised estimates for confirmatory factor analysis of hedonic well-being
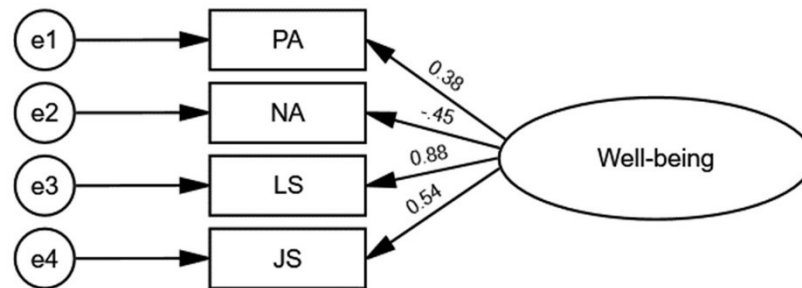
Note. PA = Positive affect; NA = Negative affect; LS = Life satisfaction; JS = Job satisfaction.

Table 5.10

Unstandardised regression weights for confirmatory factor analysis of hedonic well-being

Variable	Hedonic Well-being B (*SE* B)	
Positive affect	0.10	(0.02)
Negative affect	-0.14	(0.02)
Life satisfaction	0.51	(0.10)
Job satisfaction	1.00	–

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error. All regression weights significant at $p < .001$.

5.6.4.   Structural equation modelling results

In the following section, results of the SEM are presented. Firstly, a revised model is presented which takes account of changes following the CFA. Secondly, the results for the full model are presented and direct relationships are considered.

Following the CFA, only Model A (see Figure 5.2) was analysed as *Eudaimonic well-being* could not be assessed as a latent variable. The full path diagram was revised in accordance with the results of the CFA and the indicators *social support from supervisor*, *control over work time*, *quantitative demands*, *religion*, *humour*, *behavioural disengagement*, *meaning of work*, and *flourishing* were removed. The revised path diagram is shown in Figure 5.12 and shows nine latent variables, 33 observed variables, and 34 error variances. There are 43 fixed parameters including error parameters (fixed at 1), 95 free parameters to be estimated, and 466 *df*. The sample covariance matrix is presented in Appendix Q.

Results for the model are presented next. Standardised regression weights are presented in Figure 5.13. Unstandardised regression weights are presented in Appendix P. The fit indices for evaluating the model were as follows: χ^2 = 988.597, CFI = .80, TLI = .77, RMSEA = .066, AIC = 1170.60. The RMSEA suggested the model was an adequate fit, however, the CFI and TLI suggested the model fit was inadequate.

Considering the direct relationships, three were statistically significant: *Occupational demands* was a significant predictor of *Perceived stress* (β = .63, *p* = .001); *Disengaged coping* was a significant predictor of *Perceived stress* (β = .34, *p* = .004); *Disengaged coping* was a significant negative predictor of *Hedonic well-being* (β = -.761, *p* = .002).

Figure 5.12

Revised path diagram for model of occupational stress
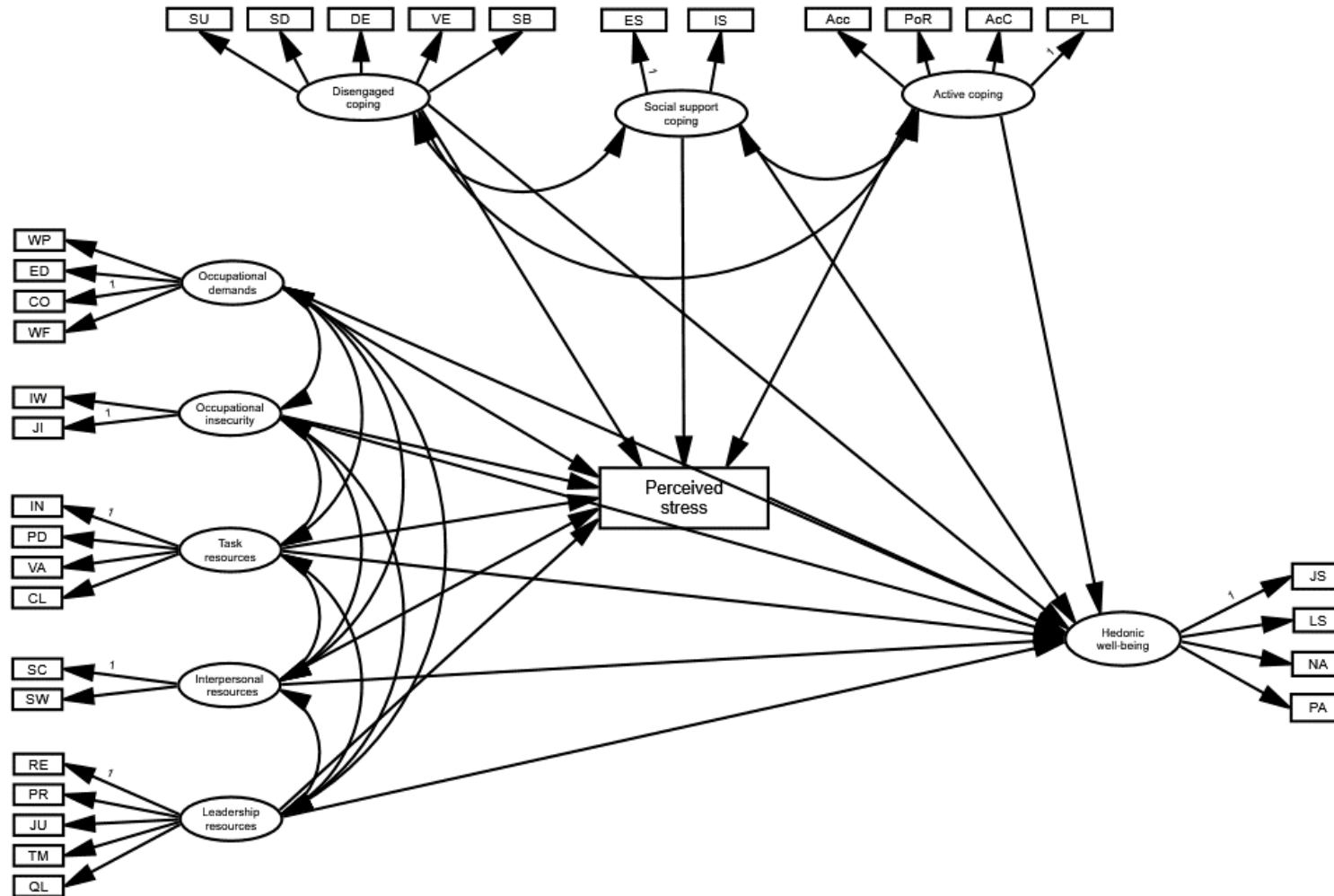
Figure 5.13

Standardised estimates for model of occupational demands and resources, personal demands and resources, perceived stress, and well-being
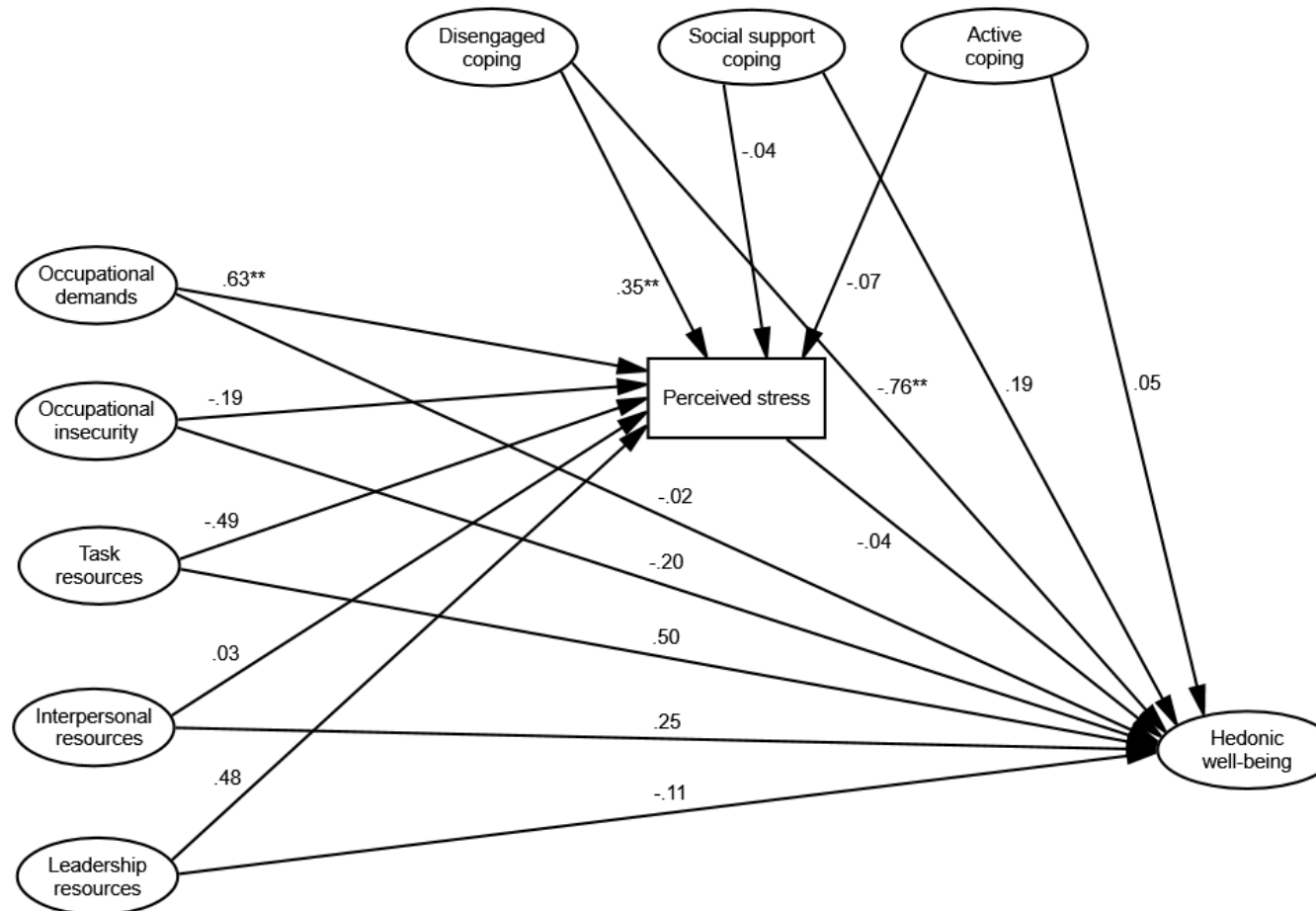
Notes. * = p < .05, ** = p < .01, *** = p < .001

5.6.4.1. Model modifications

Although the RMSEA indicated the model was a good fit, many of the direct relationships were not statistically significant and, therefore, were considered for removal. Although not statistically significant, the relationship between *Perceived stress* and *Hedonic well-being* was retained, as this is a central part of the DRIVE model.

The resulting model addresses the aim of assessing the contribution of occupational demands, occupational resources, personal demands, personal resources, and perceived occupational stress to well-being outcomes in professional classical musicians and conservatoire music students. The final model contains six latent variables, 22 observed variables, and 23 error variances. There are 29 fixed parameters including error parameters (fixed at 1), 54 free parameters to be estimated, and 199 *df*. The results of the model are shown in Figure 5.14 with standardised regression weights and squared multiple correlations (r^2). The fit indices for the model were as follows: χ^2 = 548.484, CFI = .78, TLI = .75, RMSEA = .073, AIC = 656.484. Unstandardised regression weights are presented in Table 5.11.

Table 5.11

Unstandardised regression weights for latent factors and perceived stress

Variable	Hedonic well-being	(*SE* B)	Perceived stress	(*SE* B)
Occupational demands	–	–	0.04	(0.01)
Task resources	0.39	(0.15)	–	–
Interpersonal resources	0.15	(0.06)	–	–
Disengaged coping	-7.68	(1.89)	0.22	(0.05)
Social support coping	1.79	(1.05)	–	–
Perceived stress	-1.18	(0.95)	–	–

This study also aimed to assess whether perceived occupational stress mediates the relationship between occupational characteristics (i.e., occupational demands, occupational resources) and well-being outcomes. Only one indirect effect was assessed in the respecified model, which was the indirect effect of *Occupational demands* on *Hedonic well-being* (B = -.04, β = .04, SE .04, CI = -.12–.03, *p* = .038).

Figure 5.14

Model of occupational stress process for professional and conservatoire musicians
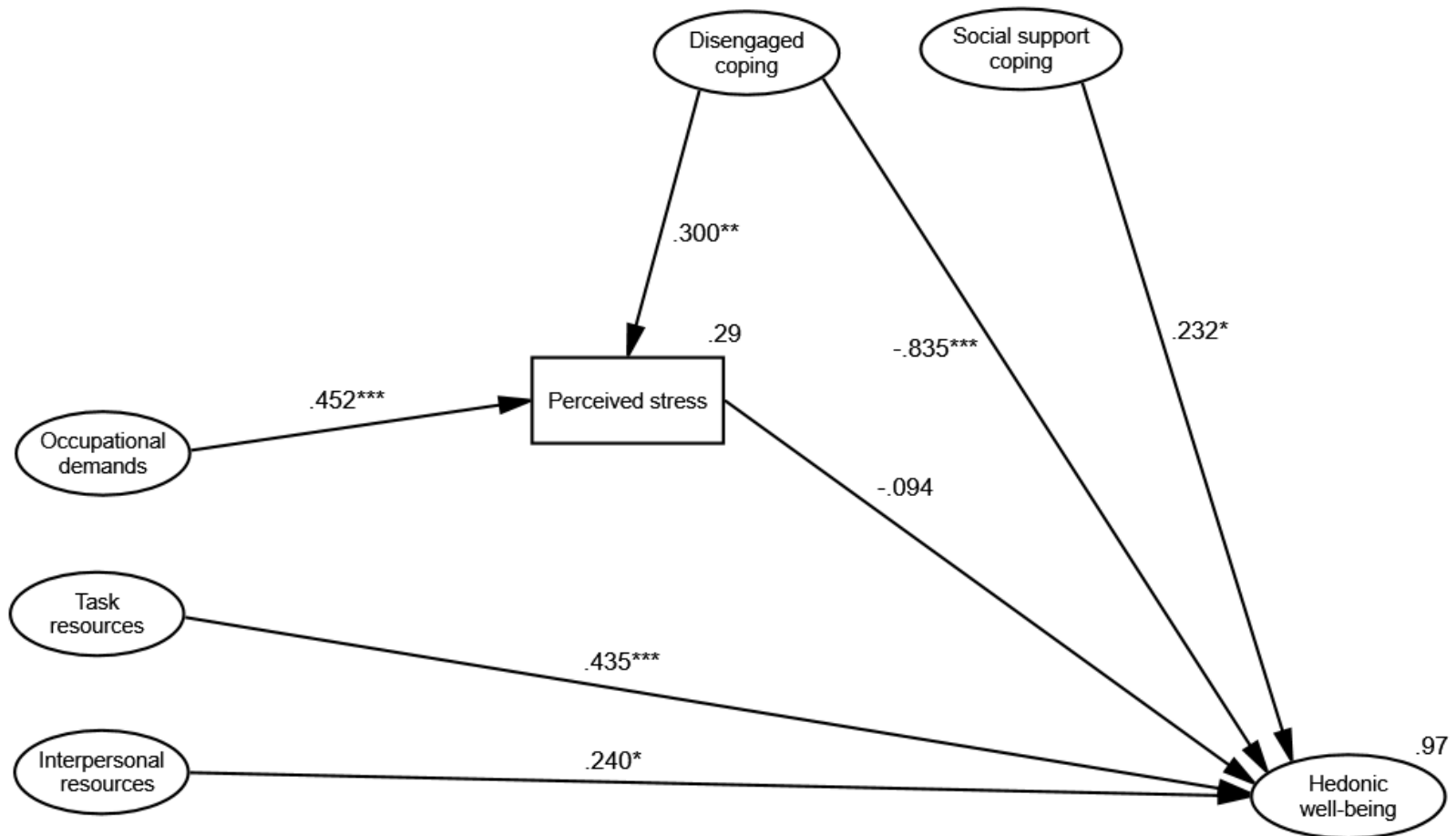
Notes. * = *p* < .05, ** = *p* < .01, *** = *p* < .001

5.7. Discussion

In the following section, the results are considered alongside existing research to contextualise the findings. Firstly, the descriptive statistics are briefly discussed in relation to occupational characteristics, personal demands and resources, and well-being of professional and student musicians. Secondly, comparisons are discussed in relation to the objective:

- identify differences in occupational demands, occupational resources, personal demands, personal resources, perceived occupational stress, and well-being outcomes reported by professional classical musicians and conservatoire music students.

Thirdly, the results of the SEM are considered in relation to the objectives relating to the direct and mediation relationships:

- assess the contribution of occupational demands, occupational resources, personal demands, personal resources, and perceived occupational stress to well-being outcomes in professional classical musicians and conservatoire music students (direct relationships);
- assess whether perceived occupational stress mediates the relationship between occupational characteristics (i.e., occupational demands, occupational resources) and well-being outcomes in professional classical musicians and conservatoire music students (mediation relationship).

5.7.1. Professional and student musician comparisons

First, this section briefly contextualises the descriptive statistics in relation to other research examining occupational stress and well-being. Second, comparisons between professional classical musicians and conservatoire music students are discussed.

Considering the COPSOQ III, the results for professional musicians are somewhat higher in the sample in the present study for *quantitative demands*, *work pace*, *emotional demands*, *influence at work*, and *possibilities for development* when compared to a sample of Danish orchestral

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musicians (Holst et al., 2012). Comparatively, professional musicians reported lower *role conflicts* and *insecurity at work* in the present study. These differences may partly be explained by the high number of self-employed musicians in the present study, which could lead to greater opportunities for influencing decision making but also increase the demands experienced by musicians due to needing to operate as a small business.

Turning to comparisons between professional musicians and conservatoire music students in the experience of occupational demands, professionals reported experiencing *higher insecurity over working conditions* and *job insecurity* (measured in relation to study in students). To a lesser extent, professionals also reported experiencing higher *quantitative demands* and *work life conflict*. The findings regarding occupational demands may be expected due to the work environment that professionals operate in and the frequency with which they take on multiple roles (Thomson, 2013). Additionally, the majority of the professionals in the sample were self-employed, which may explain why they reported higher job insecurity. Differences in *work life conflict* may be explained by the need for professionals to work evenings and weekends as this is often when performances take place. Comparatively, classes and lectures for conservatoire students are more likely to take place within the traditional working day.

With regard to occupational resources, the present study found that professionals reported higher *variation at work* and *role clarity* compared to students. Students reported higher *quality of leadership*, *social support from their supervisor*, *organisational justice*, and *vertical trust* when compared to professionals, although these had smaller effect sizes. One explanation for the higher variation at work reported by professionals could be due to the multiple roles professional classical musicians may hold. For instance, many musicians teach alongside performing, as well as being required to use entrepreneurial skills (Bennett, 2009). Whilst some students may take on professional work, conservatoires offer vocational programmes centred on the development of performance skills. The one-to-one relationship students have with teachers may also explain why they perceived higher social support from their supervisor and quality of leadership. Students may have lessons with their one-to-one teacher up to three times a week, with teachers responsible for a small number of students (Gaunt,

2010). In contrast, employed professional musicians may not engage with their line manager as frequently.

In terms of personal demands and resources, the results were compared to those of nurses (Welbourne et al., 2007) as no other studies with musicians were found. Results for *Social support coping* and *Active coping* were broadly in line with nurses, however, musicians reported using fewer *Avoidance coping* strategies. Comparing the groups in the present study, students reported higher levels of *behaviour disengagement*, *self blame*, and *humour*. Students also reported seeking *instrumental support* more than professionals, however, this had a small effect size. A possible explanation for why students reported higher levels of behaviour disengagement and self blame may be due to their developmental stage. Arnett (2000) suggested that emerging adulthood is a distinct developmental stage between the ages of 18–25. Whitty (2003) reported that emerging adults used avoidance coping more frequently when compared to adults in middle age. Further, the use of avoidance coping has been seen to decrease through the period of emergent adulthood (Jenzer et al., 2019). Specifically considering self blame in musicians, student and early professional string players have reported feeling guilty for not doing enough practice and making mistakes in performance (Dobson, 2010b). Additionally, emerging adults may feel pressured to conform to perceived norms in music and early-career musicians have reported drinking alcohol with colleagues in order to appear sociable and facilitate career opportunities (Dobson, 2010a). Considering *instrumental support*, the higher score for students may be explained by the frequency with which students have one-to-one lessons meaning they are more likely to seek instrumental support from a teacher. Williamon and Thompson (2006) reported that music students often turned to their teachers not only for advice on musical issues but also for physical and mental health issues.

Regarding well-being, musicians reported scores similar to adults in the UK and USA for *positive affect*, although scores for *negative affect* were slightly higher for musicians (Thompson, 2007). The mean score for *life satisfaction* indicated that professional and student musicians were generally satisfied (Diener, 2006), which aligns with data from studies that have used the SWLS with professional and student musicians (Ascenso, 2022; Demirbatir et al., 2013;

Habe et al., 2021). Additionally, musicians scored slightly above the mid-point for *perceived stress*, which indicated that they were somewhat stressed. This finding is in line with research from other occupational groups and student samples where the WPQ has been used (Oliver et al., 2022; Woolridge, 2022).

The present study found differences in the experience of well-being outcomes between professional and student musicians. Professionals reported higher levels of positive well-being outcomes including *positive affect*, *life satisfaction*, and *flourishing*, whereas students reported higher levels of *negative affect*, *stress*, and *perceived stress*. This finding contradicts research on well-being across the lifespan, where it has been reported that well-being follows a U-shaped curve with individuals experiencing the lowest well-being during middle age (e.g., Blanchflower & Oswald, 2008). The mean age for professional classical musicians in this study was 40.8, which can be considered middle age and, therefore, it might have been expected that they would report lower well-being compared to students. However, this was not found and one possible explanation could be due to the effect of survivor bias: conservatoire music students who experience higher levels of ill-being may decide not to pursue careers in music. Additionally, those professional musicians in the sample have achieved some level of success, represented by the fact that many are employed full-time, which may contribute to higher levels of well-being. In a study that assessed mental health and well-being of professional and student classical musicians, Ascenso (2022) similarly reported that professional musicians scored higher for positive affect in comparison to students. Further, Ascenso (2022) found that students reported higher ill-being with students reporting higher levels of languishing and psychological distress when compared to professionals.

5.7.2.   Structural equation modelling discussion

In the next section, the results of the SEM are discussed. This study used the DRIVE model to assess the contribution of occupational demands, occupational resources, personal demands, personal resources, and perceived occupational stress to well-being outcomes in professional classical musicians and conservatoire music students (direct relationships). The study also

assessed whether perceived occupational stress mediated the relationship between occupational characteristics (i.e., occupational demands, occupational resources) and well-being outcomes in professional classical musicians and conservatoire music students (mediation relationship). Some direct relationships were supported, however, the mediation relationship was not supported (see Table 5.12).

Table 5.12

Summary of findings in relation to DRIVE model relationships

	DRIVE model relationship	Summary
1	Occupational characteristics relate to hedonic well-being.	Task resources and interpersonal resources significantly predicted hedonic well-being.
2	Occupational characteristics relate to perceived stress.	Occupational demands predicted perceived stress.
3	Perceived stress relates to hedonic well-being.	Not supported.
4	Perceived stress mediates the relationship between occupational characteristics and hedonic well-being.	Not supported.
8	Personal demands and resources relate to perceived stress.	Disengaged coping predicted perceived stress.
9	Personal demands and resources relate to hedonic well-being.	Disengaged coping and social support coping predicted hedonic well-being.

This study is the first to use the DRIVE model with professional classical musicians and conservatoire music students. The direction of the relationships in the final model are all in the direction hypothesised in Figure 5.2. The final model accounted for 97% of the variance in *Hedonic well-being* and 29% of the variance in *Perceived stress.* Considering well-being, *Disengaged coping* accounted for a significant proportion of the variance alongside *Task resources*, *Interpersonal resources*, and *Social support coping*. The variables *Occupational demands* and *Disengaged coping* significantly contributed to *Perceived stress*. This suggests that for professional and conservatoire musicians, the DRIVE model is appropriate to use to guide the assessment of *Hedonic well-being*. However, there may be additional factors that contribute to *Perceived stress*, which were not considered in this study.

This study is also the first to examine the direct and mediation relationships in the DRIVE model simultaneously, which was achieved through SEM. The model fit indices were contradictory, with the RMSEA indicating the model was of adequate fit, however, the CFI and TLI suggested inadequate fit. It should be noted that cut-offs do not exist for either the CFI or TLI regarding adequate fit and that RMSEA and CFI assess model fit from different perspectives (Lai & Green, 2016). Model fit indices may have been improved by removing the relationship between *Perceived stress* and *Hedonic well-being*. However, this relationship was retained in the model as it is an important aspect of the DRIVE model and is further discussed below in Section 5.7.2.4.

5.7.2.1.   Disengaged coping, active coping, well-being, and perceived stress

Disengaged coping accounted for a large amount of the variance in *Hedonic well-being* (relationship 9) and was a significant predictor of *Perceived stress* (relationship 8). This study is the first to examine the role of disengaged coping for the well-being of professional classical musicians or conservatoire music students. In the wider literature, negative coping strategies have been reported to adversely affect well-being in the general population and those with specific health conditions (e.g., Meng & D'Arcy, 2016; Smedema et al., 2010). Regarding professional and student musicians, studies suggest there is a high prevalence of substance use including beta-blockers and alcohol use (Kenny et al., 2014; Orejudo Hernández et al., 2018). Kegelaers, Jessen, et al. (2022) reported that 55% of electronic music artists used alcohol or drugs as a coping strategy. Additionally, professional musicians have reported drinking alcohol due to workplace culture and to facilitate career opportunities (Dobson, 2010a), which suggests that such practices are normalised in classical music. Regarding the role of disengaged coping for perceived stress, Jääskeläinen, López-Íñiguez and Lehikoinen (2022) reported that avoidance coping did not significantly contribute to stress in music students. However, this study measured avoidance coping with three items, whereas in the present study, a more comprehensive measure of disengaged coping was used. Consequently, the study presented in this chapter extends the literature by considering a broader range of avoidance-related strategies. Taken together, the results of the final model and the large

number of musicians reported to use maladaptive coping strategies emphasise the negative impact of disengaged coping on musicians' well-being and perceived stress.

The results suggest that *Active coping* was not a significant predictor of *Hedonic well-being* or *Perceived stress*. However, some small, statistically significant correlations did exist between the indicators of active coping and those of hedonic well-being. This suggests that although *Active coping* is not a significant predictor of *Hedonic well-being* or *Perceived* stress, it does have some relevance for musicians. In the wider literature, *Active coping* has been positively related to positive well-being outcomes and workplace quality of life in health and social care workers (McFadden et al., 2021). However, similar to the present study, MacIntyre et al. (2020) found that active coping styles did not significantly predict emotional well-being outcomes or stress in teachers, whereas avoidant coping did. Considering professional musicians, active coping strategies like planning may have limited effect on demands such as occupational insecurity, as these conditions stem from sector-wide practices and the individual is limited in their ability to change these practices. Addressing such demands would require collective action and cooperation from stakeholders across the sector as opposed to being managed at an individual level. Contrary to the findings of this study, Jääskeläinen, López-Íñiguez and Lehikoinen (2022) assessed factors that contributed to stress in music students and found that proactive coping and strategic planning were linked to lower levels of stress.

5.7.2.2. Social support, task resources, and well-being

Considering the direct relationship between occupational characteristics and hedonic well-being, occupational resources significantly contributed to well-being (relationship 1). *Task resources* and *Interpersonal resources* were both important for *Hedonic well-being*, whereas *Leadership resources* did not contribute significantly. Additionally, *Social support coping* significantly contributed to *Hedonic well-being* (relationship 9).

In this study, *Social support coping* was conceptualised as seeking social support from others, whereas *Interpersonal resources* were conceptualised as receiving support from colleagues or peers. *Social support coping* and *Interpersonal resources* are discussed together under the term "social support" in this section. One possible theory that explains why social support directly

affects well-being is SDT (Deci & Ryan, 2000). Deci and Ryan (2000) suggested that fulfilment of three basic psychological needs—autonomy, competence, and relatedness—positively impacts well-being. Social support may contribute to the fulfilment of basic psychological needs and, therefore, contribute to well-being. A meta-analysis of occupational demands and resources across various organisations suggested that social support was related to all three basic psychological needs (Van den Broeck et al., 2016). Music is often a collective endeavour meaning that positive relationships and social support may be particularly important and musicians have discussed the importance of positive relationships with colleagues for well-being (Ascenso et al., 2017; Dobson & Gaunt, 2015). Additionally, several cross-sectional studies have assessed the contribution of social support to the well-being of musicians. The results of these studies suggested that social support was a significant contributor to the well-being of professional orchestral musicians, music teachers, and music students (Antonini Philippe et al., 2019; Johansson & Theorell, 2003; Kang & Yoo, 2019). As such, the findings of the present study echo the results of quantitative and qualitative research on musicians as well as the wider occupational literature.

Task resources may also contribute to the fulfilment of basic psychological needs and, therefore, contribute to well-being. For instance, resources such as influence at work and role clarity could contribute to the satisfaction of autonomy; variety at work could contribute to competence. Within the literature, *Task resources* such as influence at work, variation, and role clarity have been assessed in professional classical musicians and the findings are similar to those presented in this study. For example, Portía et al. (2021) reported that control and reward significantly contributed to well-being of musicians performing at a professional level. Researchers have also examined the relationship between task resources and job satisfaction in musicians: higher levels of autonomy and skill variety correlated with higher job satisfaction (Kivimäki & Jokinen, 1994), whereas a lack of artistic integrity significantly contributed to job dissatisfaction (Parasuraman & Purohit, 2000). Further, findings from qualitative research suggest that opportunities to develop new skills and creative autonomy are perceived as contributing to the well-being of professional musicians (Abeles & Hafeli, 2014; Ascenso, 2016; Dobson, 2010b). Taken together, the results of the final model and the literature on musicians suggest that task resources are particularly important for well-being.

Although the DRIVE model predicts that all occupational characteristics will relate to well-being outcomes, the present study found that *Occupational demands*, *Occupational insecurity*, and *Leadership resources* did not significantly contribute to *Hedonic well-being* (relationship 1). The literature on the relationship between occupational demands and well-being in musicians is equivocal. Portía et al. (2021) conducted hierarchical regression analysis and reported that demands did not significantly predict well-being in musicians. A study with dance students found that emotional demands, but not cognitive demands, contributed to positive affect (Balk et al., 2018). However, in terms of symptoms of anxiety and depression, Aalberg et al. (2019) suggested that occupational demands were a significant contributor. A possible explanation for the lack of relationship between demands and hedonic well-being in the present study relates to the sample and the inclusion of employed and self-employed musicians. For those who are employed, an increase in work demands could contribute to strain and experiences of negative well-being experiences. However, for those who are self-employed, an increase in work and, therefore, demands may indicate success and contribute to positive hedonic well-being experiences. The potential difference in how demands are experienced for employed and self-employed musicians could obscure the relationship between demands and well-being. Parker et al. (2019) examined career insecurity in musicians and suggested that those with higher levels of resources could not only cope well with high career insecurity but thrive on it. Given that the majority of the sample in this study were self-employed, this could also explain why *leadership resources* did not significantly contribute to *hedonic well-being* or *perceived stress* as such resources may not have been perceived as relevant to their work context.

5.7.2.3.   Occupational characteristics and perceived stress

In terms of occupational characteristics, *Occupational demands* significantly contributed to *Perceived stress*, although occupational resources (*Leadership*, *Task*, and *Interpersonal resources*) were not significantly related to *Perceived stress* (relationship 2). Similarly, Holst et al. (2012) used the COPSOQ II to examine occupational stress in professional orchestral musicians and reported that work demands contributed significantly to both emotional and cognitive stress. However, the authors found that variables equated with interpersonal resources, leadership

resources, and task resources were also significant contributors to emotional and cognitive stress. Consistent with the present study, emotional demands, task difficulty, and the work environment have been reported to be significant predictors of stress in orchestral musicians (Parasuraman & Purohit, 2000; Pihl-Thingvad et al., 2022). With regard to music students, workload has also been reported to significantly predict perceived stress (Jääskeläinen, López-Íñiguez, & Lehikoinen, 2022).

With regard to occupational resources, a lack of options for career progression has been perceived as a source of stress for military musicians (Davison, 2022). Few studies have assessed the relationship between interpersonal resources and perceived stress. In the study by Holst et al. (2012), a sense of community at work was reported to negatively contribute to emotional and cognitive stress, whereas social support was not a significant predictor. Considering music students, Jääskeläinen, López-Íñiguez and Lehikoinen (2022) assessed factors that contributed to stress and found that social support seeking was not a significant contributor, which is consistent with the present study.

5.7.2.4. Perceived stress and well-being

The relationship between *Perceived stress* and *Hedonic well-being* was not found to be significant (relationship 3). Similarly, Kegelaers, Jessen, et al. (2022) reported that occupational stress was not a significant predictor of well-being for electronic music artists. However, Miksza et al. (2021) suggested that there was a negative relationship between stress and subjective vitality in music students, and the authors suggested that subjective vitality can be considered an aspect of well-being. A possible explanation for the lack of statistical significance in the relationship between *Perceived stress* and *Hedonic well-being* in the present study could be due to individual differences in appraisal and the effect on well-being outcomes. For instance, appraising a demand as a challenge could be more likely to lead to positive affect and satisfaction, whereas appraising a demand as a threat might lead to negative affect and dissatisfaction. Whilst individuals in both situations could report a high level of perceived stress, the relationship with well-being could be obfuscated. As the measure for *Perceived stress* was a single item, any difference in appraisal would not be captured in the present study and,

accordingly, any difference in how such appraisals relate to well-being would also not be identified. Given that the direct relationship between *Perceived stress* and *Hedonic well-being* was not significant, the mediation relationships in the model were also not supported (relationship 4).

Chapter 6

Study 3

"I feel like a fish out of water": Exploring occupational demands, appraisal, resources, and well-being of classical musicians' lived experiences: An IPA approach

6.1. Introduction

In Chapter 5 (Study 2), I presented a quantitative study which explored the relationships between occupational characteristics, appraisal, personal demands and resources, and perceptions of well-being. The study took a nomothetic approach to explore the topic and collected data from a large sample of professional classical musicians and conservatoire music students. In order to collect data from a large sample, a questionnaire was used, which allowed for breadth in Study 2. In the study that follows, there is a more in-depth look at the occupational stress process and well-being outcomes. As such, Study 3 takes an idiographic approach and uses Interpretative Phenomenological Analysis (IPA).

The DRIVE model (Mark & Smith, 2008) was used in Study 2, as it is an appropriate model to support the examination of the occupational stress process and well-being outcomes when taking a nomothetic approach. An idiographic approach allows for a more nuanced examination of the topic and consideration of specific demanding situations. Lazarus' (1999) CMRT was chosen as an appropriate framework for examining the topic with an idiographic approach. This was due to the inclusion of different types of appraisal that are specified in CMRT (e.g., challenge, threat), whereas in the DRIVE model, appraisal is operationalised as perceived stress. In Study 2, the relationship between perceived stress and hedonic well-being was found to be nonsignificant. However, this may be due to individual differences in stress appraisals (see Section 5.7.2.4). Using CMRT in Study 3 will allow for any differences in stress appraisals to be explored in further detail. Additionally, CMRT includes underlying properties of stress appraisal, allowing the reason for particular appraisals to be considered. Further, in the systematic review (see Chapter 4), I suggested that holistic approaches to assessing occupational stress and well-being in musicians should be taken. Similar to the DRIVE model, CMRT is a transactional approach and allows for the exploration of the whole process of occupational stress and well-being outcomes. In the following section, I discuss CMRT in more detail to provide context for Study 3. I then briefly consider research with occupational groups that has used CMRT and provide a rationale for this study.

6.1.1. Cognitive-motivational-relational theory

Lazarus' (1999) CMRT incorporates demands, primary appraisal, secondary appraisal, coping, and emotional and well-being outcomes. Within this theory, stress is viewed as transactional, incorporating the relationship between the individual and their environment. Lazarus (1999) suggested that demands encompass external and internal sources of stress, which may arise from a variety of contexts such as the workplace, family, or wider cultural expectations. For an individual to view a demand as stressful, the demand must first be relevant to their personal goals or motivations. When a demand is considered to affect a goal of particular importance, there is the potential for the individual to experience stress. The combination of the transactional approach, the personal relevance of the demand, and the "appraisal" of the significance and potential impact of the demand on a goal is considered as a "relational" approach to stress (Lazarus, 1999).

The relational meaning of a demand is based on appraisal, which is a cognitive process. Primary appraisal refers to an individual considering whether a demand has personal relevance for them, and if so, a stress appraisal will be made of threat, challenge, benefit, harm, or loss (Lazarus, 1999). Threat and challenge appraisals are oriented towards the future. When threat appraisals are made individuals are concerned with the possibility of harm or loss occurring in the future. Challenge appraisals are more positively interpreted with individuals believing they can take on demands due to possessing adequate resources. Additionally, challenge appraisals include the opportunity for the individual to benefit from the situation in terms of their goals. Harm and loss appraisals are oriented towards the past, with harm or loss having already occurred due to a perceived demand. Benefit is also oriented towards the past, where individuals have experienced positive outcomes from demands. Secondary appraisal involves the individual evaluating what resources they have available to cope with the demand, which Lazarus (1999) differentiates from the act of coping.

Within CMRT, Lazarus (1999) suggested that appraisals can be carefully considered or happen almost instantly without conscious awareness of the cognitive process at the time. With growing experience, individuals are more likely to make appraisals using unconscious

schema, which means they can be difficult to access. This makes the specific appraisal process difficult to examine using a nomothetic approach so an idiographic approach is more suitable. In idiographic approaches, individuals can be prompted to consider and reflect on their cognitive processes through appropriate questioning and allowing adequate time for in-depth answers.

Focusing more closely on the appraisal stage of the transactional process, Lazarus and Folkman (1984) suggested that at least one of eight properties is required for an individual to make a stress appraisal. These include novelty, predictability, event uncertainty, imminence, duration, temporal uncertainty, ambiguity, and the timing of stressful events in relation to the life cycle (Lazarus & Folkman, 1984). Thatcher and Day (2008) extended this work and examined the underlying properties of stress appraisal in a sports context. Based on their findings, they expanded the factors of underlying stress appraisal to include "self and other comparison", and "inadequate preparation." Definitions for each underlying property of stress appraisal are provided in Table 6.1 alongside an example of how this could translate to a musical context.

Dependent on whether individuals appraise they have the resources to cope, they may attempt to use cognitive, emotional, or behavioural coping strategies. Lazarus and Folkman (1984, p. 141) argued that coping is a process and defined it as "constantly changing cognitive or behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person." Within CMRT, Lazarus (1999) discussed problem-focused and emotion-focused coping strategies (see Section 2.2.2.1). Research on the resources individuals use to cope with demands has been extended by the JD-R theory, which includes occupational resources and personal resources (see Section 2.2.1.3; Bakker & Demerouti, 2014).

Through CMRT, Lazarus (1999) suggested that appraisals will influence the emotions experienced. For example, threat may cause anxiety and challenge may lead to excitement. Such emotional experiences may be conceptualised as the affective dimension of hedonic well-being. Additionally, the reciprocal nature of the stress and emotion experience, as depicted in

CMRT, can give rise to longer-term well-being responses such as satisfaction. For instance, a harm appraisal may give rise to dissatisfaction. Satisfaction represents the cognitive dimension of hedonic well-being and it has been suggested that both affective and cognitive dimensions of well-being can be considered specifically in relation to the workplace (Diener et al., 1999). Another well-being concept considered in the literature is eudaimonia (Ryff, 2014). Eudaimonic well-being outcomes may also be influenced by appraisals. For example, an appraisal of benefit may be associated with increased environmental mastery. Given that hedonic and eudaimonic well-being are relevant outcomes of the occupational stress process as underpinned by CMRT, both will be considered in Study 3. For a detailed discussion of hedonic and eudaimonic well-being, see Section 2.3.

Table 6.1

Definitions of underlying properties of stress appraisal (Lazarus & Folkman, 1984; adapted from Thatcher & Day, 2008)

Underlying property of stress appraisal	Definition	Example
Novelty	Situations that the person has not previously experienced. Previous experience may include both experiencing a similar situation and information that can be read, heard or inferred	First audition at a conservatoire
Predictability	When established expectancies are no longer met the situation becomes unpredictable	A change in rehearsal or performance schedule compared to usual
Event uncertainty	The likelihood or probability of an event's occurrence. These can be subjective or objective probabilities although subjective estimates do not necessarily match objective ones	Subjective probability: The likelihood of performing correctly
		Objective probability: The likelihood of a performance taking place
Imminence	The period of anticipation before an event occurs	Anticipation while travelling to a performance.
Duration	The length of an event. Events of a long duration will be deemed more stressful than those of a short duration	Tours taking place over several months
Temporal uncertainty	The individual knows that an event will definitely happen but is unsure of the precise timing	Waiting to be called into an audition
Ambiguity	When the information needed for appraisal is unclear or insufficient resulting from a lack of situational clarity	An unknown conductor leading a performance
Timing of events in relation to life cycle	Events occurring at the same time as other stressful events in the individual's life cycle may be appraised in relation to these other events	Performances taking place during a period of increased caring responsibilities
Self and other comparison	Comparing any physiological, psychological, or social aspect of performance or the associated environment with that of another individual	Comparing personal performance of a piece of music to a colleague's performance
Inadequate preparation	The individual does not feel well prepared for performance	Poor practice prior to a performance

6.1.2. Rationale

Considering the literature on musicians, few studies have explored appraisal. Osborne and McPherson (2018) assessed music students' appraisals of a performance exam. The authors reported that more students appraised the exam as a challenge rather than a threat immediately before the exam when compared to the beginning of the semester. Additionally, the study suggested that those students who appraised the exam as a challenge reported lower levels of anxiety.

In the wider literature, CMRT has been used to explore the occupational stress process and well-being outcomes in athletes and sports coaches (e.g., Baldock et al., 2021; Neil et al., 2016). Alongside the demands experienced, research in this field has examined appraisals and reappraisals (e.g., Hanton et al., 2012; Neil et al., 2011), underlying properties of stress (e.g., Didymus, 2017; Didymus & Fletcher, 2012), and coping strategies and their effectiveness (e.g., Didymus & Fletcher, 2014). Studies have reported that sports coaches and athletes appraise many of the demands they experience negatively and frequently report threat and harm appraisals (Baldock et al., 2021; Hanton et al., 2012). Additionally, it has been demonstrated that these appraisals are underpinned by underlying properties of stress appraisal in sports coaches (Baldock et al., 2021; Didymus, 2017; Didymus & Fletcher, 2012). Further, Neil et al. (2016) linked appraisal to the emotional experiences of cricket players. In response to the demands experienced, a range of coping strategies have been reported by those working in a sports context (e.g., Didymus, 2017).

Similar to athletes and sports coaches, musicians work in situations with high performance demands. As such, the potential exists for comparable experiences of occupational stress and well-being. However, as identified in the systematic review (Willis et al., 2019), no studies have yet considered the stress process and well-being outcomes in classical musicians from the perspective of CMRT. Given that this theory with the inclusion of appraisal and associated underlying properties of stress appraisal has demonstrated relevance for well-being outcomes in individuals working in demanding environments, this study sought to explore these concepts in professional classical musicians and conservatoire music students.

6.2. Aim and objectives

The aim of this study was to interpret the lived experiences of occupational stress and well-being of professional classical musicians and conservatoire music students through understanding the demands faced, appraisals made, resources used, and the perceived influence on self-reported well-being. Therefore, the objectives were to:

- identify the occupational demands, appraisals, occupational resources, personal resources, and well-being outcomes of professional classical musicians and conservatoire music students;
- collect interview data from musicians currently embedded within a professional classical music environment and those studying at a conservatoire;
- formulate a comparative analysis between professional classical musicians and conservatoire music students.

6.2.1. Research questions

This study aimed to address the following research questions:

RQ1a. What are the perceived demands associated with the lived experiences of professional classical musicians?

RQ1b. What are the perceived demands associated with the lived experiences of conservatoire music students?

RQ1c. How do perceived demands differ between professional classical musicians and conservatoire music students?

RQ2a. What primary appraisals do professional classical musicians report when experiencing occupational demands?

RQ2b. What primary appraisals do conservatoire music students report when experiencing occupational demands?

RQ2c. How do the primary appraisals of occupational demands differ between professional classical musicians and conservatoire music students?

RQ3a. What occupational and personal resources do professional classical musicians use to cope with the occupational demands they experience?

RQ3b. What study and personal resources do conservatoire music students use to cope with the occupational demands they experience?

RQ3c. How does the use of resources differ between professional classical musicians and conservatoire music students?

RQ4a. What well-being experiences do professional classical musicians report when encountering occupational demands?

RQ4b. What well-being experiences do conservatoire music students report when encountering occupational demand?

RQ4c. How do well-being experiences differ between professional classical musicians and conservatoire music students?

RQ5. How can the perceived connections between occupational demands, primary appraisal, occupational and study resources, personal resources, and perceived well-being outcomes be interpreted?

6.3. Method

This study is reported in accordance with the journal article reporting standards for qualitative research (Levitt et al., 2018).

6.3.1. Qualitative approach

This study used Interpretative Phenomenological Analysis (IPA; Smith et al., 2022; Smith & Nizza, 2022), which is a method of qualitative inquiry used to explore the lived experiences

of participants. IPA considers participants' experiences alongside their actions, thoughts, and feelings (Smith & Nizza, 2022). The theory of IPA is drawn from the areas of phenomenology, hermeneutics, and idiography, which are discussed in this section.

The phenomenological aspect of IPA is derived from the philosophical approach to examining the human experience (Smith et al., 2022). As such, IPA relates to understanding individuals' lived experiences in the world and their relationship to the world. This is not limited to the phenomenon the individual experiences but also includes an individual's subjective experience of thoughts and emotions relating to a particular phenomenon (Smith et al., 2022; Smith & Nizza, 2022).

The consideration of hermeneutics is related to the interpretative aspect of IPA and is derived from Heidegger's work on hermeneutic phenomenology (1962/1996). Heidegger's work on hermeneutics examined the need for phenomena to be interpreted in order to be understood. IPA is interpretative on two levels: firstly, the participant interprets and makes sense of their own experiences and secondly, the researcher is involved in interpreting the participants' sense-making (Smith & Shinebourne, 2012). This process is sometimes referred to as a "double hermeneutic" (Smith & Osborn, 2003). The interpretative function of the researcher is central to IPA, however, it is acknowledged that the researcher does not have direct access to the participants' experiences and the phenomenon is viewed through the descriptions and details provided by the participant (Smith et al., 2022). In order to interpret the participants' lived experiences, the researcher needs to closely engage with the text, which requires the researcher to put aside or "bracket off" their initial ideas and preconceptions about a topic (Pietkiewicz & Smith, 2012; Smith et al., 2022). This bracketing off is not only necessary prior to conducting interviews but is a continual process throughout the research, given that one may not be aware of all preconceptions in advance (Smith et al., 2022). Within the present study, details of how this was conducted are provided in Section 6.3.2. Additionally, Smith et al. (2022) refer to the "hermeneutic circle": the idea that the part is understood within the context of the whole and the whole is understood within the context of the parts. Considering data analysis within an IPA study, this translates to an iterative approach, where instead of a linear process, analysis shifts between interpreting the text at different levels (i.e., the

researcher moves between considering the body of text, individual interviews, and parts of interviews).

The idiographic aspect of IPA relates to a focus on depth at the level of inquiry (Smith et al., 2022; Smith & Nizza, 2022). In IPA, the methods used for data collection and analysis are focused on drawing out the specific qualities of each participant's experience. Only after each individual case has been analysed in depth, are themes developed across participants (Smith et al., 2022). As IPA is concerned with exploring the details of each case, a small homogeneous sample is required in order to achieve the depth of inquiry necessary for this method.

Regarding the present study, IPA was considered an appropriate method from a phenomenological standpoint as the study aimed to explore the phenomenon of occupational stress as it relates to associated thoughts (i.e., primary appraisal, cognitive well-being outcomes), actions (i.e., use of personal, occupational, and study resources), and feelings (i.e., affective well-being outcomes).

The idiographic approach of IPA was considered pertinent to explore both appraisals and perceived well-being as these are subjective. Further, appraisals are often made using unconscious schema, meaning it can be difficult to gain access to these cognitive processes using nomothetic approaches. An idiographic approach is more appropriate as it involves considered questioning and allows individuals adequate time for reflection in order to provide detailed accounts of their personal experiences regarding their thoughts and feelings when encountering occupational demands. As such, IPA is an appropriate method to address the research aims and objectives. Additionally, the close engagement with the text during the analysis stage (i.e., making detailed commentary on transcripts before moving to the development of themes) will allow these thoughts and feelings to be appropriately interpreted.

Given the depth of analysis required to examine participants' subjective experiences in relation to demands, appraisals, resources, and perceived well-being outcomes, homogeneity of participants is required. In the present study, this was achieved through the examination of two distinct groups, (a) professional classical musicians and (b) conservatoire music

students. These groups are considered distinct due to the different roles they perform within the occupational environment and the associated demands they encounter.

6.3.2.   Researcher characteristics and reflexivity

I completed an undergraduate music degree at a UK Conservatoire (2009 – 2014) and previously worked as a musician. This work mostly involved peripatetic teaching and included a small number of freelance performances within orchestral and chamber music settings. In this way, I was familiar with both professional classical musicians and conservatoire music students as communities of practice. However, at the time the interviews were conducted, I was no longer engaged in any professional activities within music. My knowledge of the UK classical music industry supported the understanding of specialised terminology and the context that participants discussed in interviews.

Within IPA the researcher is considered to be interpreting the participants' experiences, which requires the bracketing off of preconceptions (Smith et al., 2022). Prior to undertaking the research, my positionality and relationship to the research topic were considered (see Section 1.3). Additionally, to encourage reflexivity during the study, a research journal was kept throughout the process of data collection and analysis. Journal entries included initial thoughts on the process of interviewing, thoughts and feelings about interviews in relation to prior experience, progress notes, conceptual notes, ideas relating to existing literature, and notes on the development and refinement of experiential statements and superordinate themes within and across cases. Further, members of the supervisory team critically challenged my views throughout the process of data analysis and synthesis as themes were developed. This was done through regular meetings with the supervisory team discussing experiential statements and superordinate themes as they were developed and further refined.

6.3.3.   Sampling and participants

6.3.3.1.   Sampling strategy and recruitment

This was a follow-up study, and professional classical musicians and conservatoire music students were recruited from participants who completed the questionnaire in Study 2 (see Chapter 4). The eligibility criteria for Study 2 can be read in Section 5.3.2.1. Participants who had taken part in the questionnaire study were eligible to participate in this qualitative follow-up, which included professional classical musicians and conservatoire music students. Given that Study 2 included questions regarding demands, stress, personal and occupational resources, and well-being, it was perceived that this sample had the experiences necessary to explore the occupational stress process and perceived well-being outcomes in relation to the research questions of the present study. Participants who had not completed the full questionnaire were not eligible to participate in this qualitative follow-up study.

The sample was considered in terms of homogeneity amongst participants in order to answer the research questions. Additionally, considering the sample according to homogeneity is consistent with IPA and important given the depth required for analysing each case and the level of interpretation required of the research (Smith et al., 2022). Participants were divided into two groups according to their roles: (a) Professional classical musicians; (b) Conservatoire music students. This was on the basis that these groups experience distinct occupational demands. To reflect the idiographic approach of IPA, a small sample size of professional musicians and conservatoire music students was recruited, with six in each group. Purposive sampling was implemented to assign participants to the appropriate group.

Recruitment was carried out between January–July 2021. Participants from the questionnaire study were contacted via email and invited to participate. Participants were requested to provide their unique ID codes, which were generated in T1 of the questionnaire study (see Section 5.4.2), in order to assess eligibility. Eligible participants were contacted via email to organise interviews at suitable times. Of the 50 individuals who volunteered for the study, 22 were eligible to participate. This included 16 professional musicians and six conservatoire

music students. Five professional musicians from outside the UK volunteered to participate. To reflect the desire for a homogeneous sample, these five participants from outside the UK were excluded. All six professional musicians who were approached agreed to be interviewed. All six students who volunteered were contacted and five agreed to be interviewed. One student declined due to other commitments. As a result, one student who had previously been excluded due to not fully completing the questionnaire was invited to take part in the interviews.

6.3.3.2. Participants

A total of 12 musicians participated in the research, with six professional classical musicians and six conservatoire music students (see Table 6.2). Of the professionals, two were employed and four were self-employed. Of the conservatoire music students, two were postgraduate students and four were undergraduate students. Participants included six males and six females and ranged in age between 20 and 54. Professional musicians were between the ages 29–54, and students were between the ages 20–28. Four participants played string instruments, two played woodwind instruments, two played brass instruments, three were vocal performers, and one participant was a string player and conductor.

6.3.4. Instrumentation

An interview schedule was developed to guide the discussion with participants and included questions which would allow participants to provide a "rich" account of their experiences in regard to the occupational stress process. Questions were designed to be open-ended and focused on the types of occupational demands experienced, appraisal of those demands, resources, and perceived well-being outcomes (see Appendix R). Participants were asked to provide examples of specific situations in which they had encountered an occupational demand and explored their experiences, actions, thoughts, and feelings. Given that interviews took place during the COVID-19 pandemic, some participants in the study were working under exceptional circumstances or had minimal employment within the classical music sector at the time of interview. To enhance the relevance of the research to professional and

conservatoire musicians, participants were asked to discuss events that had occurred prior to COVID-19 or those that were minimally impacted by COVID-19. Interviews were audio recorded using a digital audio recorder and notes were made following interviews.

Table 6.2

Participant demographics

Name	Gender	Age	Instrument	Role	Employment
Adam	Male	43	Woodwind	Professional	Employed
Ben	Male	29	Brass	Professional	Self-employed
Charlotte	Female	48	Woodwind	Professional	Self-employed
Daniel	Male	52	Brass	Professional	Employed
Eva	Female	49	Strings	Professional	Self-employed
Kieran	Male	54	Conductor/Strings	Professional	Self-employed
Laura	Female	28	Voice	PG Student	-
Hannah	Female	24	Voice	PG Student	-
Georgina	Female	20	Voice	UG Student	-
Jennifer	Female	20	Strings	UG Student	-
Mark	Male	23	Strings	UG Student	-
Nicholas	Male	24	Strings	UG Student	-

6.3.4.1. Pilot interviews

Pilot interviews were carried out to refine the interview schedule and procedure. Recruitment for pilot interviews was carried out between September–December 2020 and pilot interviews took place between October–December 2020. Pilot interviews involved professional classical musicians within my professional network. The interview schedule was piloted with two professional classical musicians, who had a various range of occupational experiences (including freelance, permanent employment, and chamber music work). Following the pilot interviews, participants were asked to provide feedback about the participant information sheet, consent form, online set-up, and suitability of the questions. Participants reported that the interview process was appropriate in terms of the participant information sheet, consent form, and online set-up and no changes were made. Minor changes were made to the interview schedule to refine the clarity of questions, use of prompts, and usability of the interview guide.

6.3.5. Procedure

6.3.5.1. Ethics

Before commencement, ethical approval was provided by the Cardiff School of Sport and Health Sciences Ethics Committee at Cardiff Metropolitan University. Appropriate ethics standards from the British Psychological Society Code of Human Research Ethics (2014) were adhered to and considered in relation to principles of respect for participants' autonomy, privacy, dignity, research integrity, the social responsibility of the researcher, and reducing the potential harm to participants. The Code of Human Research Ethics (The British Psychological Society, 2014) also provides guidance on participant consent and confidentiality which were considered during the research.

Participants were provided with information sheets prior to interview, which explained the procedure, purpose of the interview, reasons for participant selection, and use of data (see Appendix S). Informed consent was required before interviews and provided via an online consent form. Participants were reminded at the beginning of the interview about the

voluntary nature of the research and that they could stop the interview at any time. Should participants wish to withdraw prior to write up they were able to complete a Participant Withdrawal Form. As a safeguarding consideration, participants were asked to use a location away from others to help safeguard the anonymity of anyone discussed during the interview and maintain confidentiality of the interview content. After completion of the interview, participants were signposted to appropriate organisations (e.g., NHS Services, British Association of Performing Arts Medicine, Help Musicians UK) should they experience a significant reaction to the interview resulting in a high level of stress and impact on well-being. These organisations were detailed in the information sheet provided prior to interview.

During transcription, identifiable information (e.g., names of participants, organisations) was removed and all names were replaced with pseudonyms. Transcripts, audio recordings, and relevant data were stored on a secure cloud-based network in protected files. Participants were given the opportunity to check transcripts to ensure that pseudonyms provided sufficient confidentiality and that they were in agreement that the narrative account was a "true" reflection of the interview (i.e., member checks). Some participants chose to make minor clarifications about the meaning of phrases at this stage. All data relating to the interviews was stored separately from data analysis for the questionnaire study to minimise any risk of participants being identified.

6.3.5.2. Data collection

Due to the COVID-19 pandemic and the necessity to maintain social distancing measures laid out by the Welsh and UK Governments, all interviews were conducted via an online video conference platform (Zoom; https://zoom.us/). Participants were able to choose their own location for the interview, allowing them to feel comfortable. Using video conferencing via Zoom allows both researchers and participants to observe nonverbal cues, which can result in the collection of rich data (Archibald et al., 2019).

Twelve semi-structured interviews lasting 49–126 minutes (M = 79 minutes) were conducted with individual participants. Interviews with professional and student musicians were conducted between February–July 2021.

6.3.6. Data analysis

Data analysis took place between September 2021–September 2022. Interviews were transcribed using an automatic online transcription software, Transcribe (https://transcribe.wreally.com/). I then reviewed and manually edited transcripts and pseudonymised transcripts were imported into the software programme NVivo 1.3 (2020) for analysis. Guidance on IPA, which incorporated recent publications, was followed throughout the data analysis process (Smith et al., 2009; Smith et al., 2022; Smith & Nizza, 2022). The first transcript was read and reread for familiarity and initial exploratory notes were made. Exploratory notes included descriptions of participants' experiences, comments on the use of language, and conceptual notes informed by CMRT and the DRIVE model. From these exploratory notes, experiential statements were developed. These experiential statements were generated from components within CMRT and the DRIVE model, related concepts from the psychological literature, and concise phrases that reflected the exploratory notes made on the transcript. Experiential statements were then clustered into groups by a process of abstraction (i.e., clustering similar experiential statements) and subsumption (i.e., experiential statements becoming Personal Experiential Themes) to create Personal Experiential Themes using mind maps in the software MindView 7 (2017). MindView was chosen for this purpose due to ease of use and as a means of sense making around the data. Following this, Personal Experiential Themes were contextualised according to conceptual and temporal elements of the participants' experiences in order to visually reduce the data using MindView (note this step was only conducted for the professional data set; see Appendix T). Memos were written detailing how experiential statements fitted within Personal Experiential Themes and exploring relationships between superordinate themes. This process was conducted for all subsequent transcripts.

For the first transcript, I had a critical reflective meeting with a member of the supervisory team after exploratory notes were made. This was followed by a second meeting after experiential statements were developed. I had a further meeting with members of the supervisory team after Personal Experiential Themes were developed and memos were written. For all subsequent transcripts, I had a critical reflective meeting with members of the

supervisory team after Personal Experiential Themes were developed and memos were written. Within these meetings, the supervisory team challenged the categorisation of experiential statements into Personal Experiential Themes, discussed preconceived conceptual ideas, and critiqued the influence of my insider knowledge of orchestral and conservatoire environments to better assure trustworthiness. Additionally, the supervisory team critiqued the conceptual accuracy of superordinate themes and the mind maps created for each participant.

After this process was completed for each transcript, Personal Experiential Themes across transcripts were compared. This process was done by clustering Personal Experiential Themes into Group Experiential Themes using mind maps (see Appendix U) and comparing memos across participants. Additionally, a table of Group Experiential Themes was created for cross-case analysis and used to refine themes at the group level (Smith & Nizza, 2022). This table included quotes and descriptions of each participant's experience of the stress process. Group Experiential Themes related to the different types of demands that participants experienced. A discussion regarding the table of Group Experiential Themes took place between me and the supervisory team, where the conceptual accuracy of themes and associated participant quotes was critiqued.

In order to answer the research questions, with particular reference to RQ5, participants' experience of each demand was considered in turn, in accordance with elements of the stress process. As such, the table of Group Experiential Themes was expanded to include primary appraisals, underlying properties of stress appraisal, resources, and well-being aligned to each demand described. Each was categorised, described, and an example quote was noted. Categorisation was consistent with concepts in CMRT (Lazarus, 1999; Thatcher & Day, 2008), the DRIVE model (Mark & Smith, 2008), and hedonic and eudaimonic well-being (Diener et al., 1999; Ryff, 2014). Appraisals were categorised as either threat, challenge, benefit, harm, or loss; underlying properties of stress appraisal were categorised as either novelty, predictability, event uncertainty, imminence, duration, temporal uncertainty, ambiguity, timing of events in relation to life cycle, self and other comparison, inadequate preparation, or other; resources were categorised as either personal resources, occupational resources, or

study resources; perceived well-being experiences were categorised as either hedonic (positive affect, negative affect, or satisfaction) or eudaimonic (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, or self-acceptance).

6.4. Results

Given that professional classical musicians and conservatoire music students experience distinct occupational demands, the results for each group are presented separately. Firstly, the results for professional musicians are considered (see Section 6.4.1). Secondly, the results for conservatoire music students are presented (see Section 6.4.2).

The professional musicians' experiences of the occupational stress process and perceived well-being outcomes are detailed and illustrative quotes are provided in Section 6.4.1. This section addresses the research questions:

RQ1a. What are the perceived demands associated with the lived experiences of professional classical musicians?

RQ2a. What primary appraisals do professional classical musicians report for the occupational demands they experience?

RQ3a. What occupational and personal resources do professional classical musicians use to cope with the occupational demands they experience?

RQ4a. What well-being experiences do professional classical musicians report for the occupational demands they experience?

The results for conservatoire student musicians are then considered and participants' experiences of the occupational stress process are detailed alongside illustrative quotes in Section 6.4.2. This section addresses the following research questions:

RQ1b. What are the perceived demands associated with the lived experiences of conservatoire music students?

RQ2b. What primary appraisals do conservatoire music students report for the occupational demands they experience?

RQ3b. What study and personal resources do conservatoire music students use to cope with the occupational demands they experience?

RQ4b. What well-being experiences do conservatoire music students report for the occupational demands they experience?

6.4.1. Professional classical musicians' experiences of demands, appraisal, resources, and well-being

This section is structured according to the different types of demands professional classical musicians discussed. Through analysing the transcripts, three Group Experiential Themes were developed, which were encompassed under Occupational Demands: (a) Performance Demands; (b) Organisational Demands; (c) Relationship Demands. Performance Demands are defined as those demands that related to participants' experience of the musical demands they encountered (e.g., technical demands, musical interpretation demands) and demands directly arising from performance contexts (e.g., recording demands). Organisational Demands are defined as those demands controlled at the organisational level (i.e., by management staff) such as scheduling. Relationship Demands are defined as demands that involved interpersonal relationships between musicians and their colleagues and/or management staff. Definitions for each Group Experiential Theme were based on Fletcher et al. (2012).

Within each Group Experiential Theme, examples of demands, primary appraisal, underlying properties of stress appraisal, resources, and perceived well-being outcomes are illustrated through selected participant quotes. For ease, the terms *demand, appraisal, underlying properties of appraisal, resources,* and *well-being* are presented in italics as in Neil et al. (2016). These components of the stress process are presented together to illustrate the depth of participants' experiences and to preserve the idiographic quality of IPA. See Table 6.3 for an overview of participant experiences.

For some demands, participants made multiple appraisals (e.g., threat and challenge; benefit and challenge). Similarly, for some demands, participants discussed multiple underlying properties of stress appraisal (e.g., novelty and event uncertainty). Participants also reported multiple occupational resources, personal resources, and perceived well-being outcomes in association with some demands. Frequencies are shown for each type of appraisal, though this does not suggest a hierarchy of importance.

Table 6.3

Summary of professional classical musicians' occupational stress experiences

Demand	Participant	Demand theme	Appraisal	Underlying Properties	Personal resource	Occupational resource	Hedonic well-being	Eudaimonic well-being
*Multiple roles (chamber)	Adam	Organisational	Threat	Temporal uncertainty	Psychological skills	–	–	–
*Multiple roles (presenting)	Adam	Organisational	Challenge	Novelty Comparison	–	–	–	–
*Organisation (tour)	Ben	Organisational	Threat	Predictability Event uncertainty Imminence	Problem-solving	–	Negative affect	–
*Travel (tour)	Ben	Organisational	Threat	Duration Temporal uncertainty	Problem-solving	–	–	–
Competing employment	Ben	Organisational	Threat Benefit	Predictability Imminence	Problem-solving	–	–	–
Travel (audition)	Ben	Organisational	Threat	Temporal uncertainty	Problem-solving	–	Negative affect	–
Competing employer interests	Charlotte	Organisational	Threat	Predictability Event uncertainty	Problem-solving	–	–	Mastery
Organisation	Charlotte	Organisational	Threat	Preparation	–	–	Negative affect	–

Demand	Participant	Demand theme	Appraisal	Underlying Properties	Personal resource	Occupational resource	Hedonic well-being	Eudaimonic well-being
Responsibility to clients	Charlotte	Organisational	Threat	Event uncertainty	Problem-solving	–	–	–
Travel	Charlotte	Organisational	Threat	Predictability Duration Temporal uncertainty	Problem-solving	–	Negative affect	–
Work conditions	Charlotte	Organisational	Threat	Predictability	Problem-solving	–	Negative affect	–
Role criteria	Daniel	Organisational	Threat	Comparison	–	Autonomy	–	–
*Leadership	Eva	Organisational	Threat	Comparison	–	–	Negative affect	–
Schedule	Eva	Organisational	Benefit	Imminence	Psychological skills	Social support	–	–
*Travel	Kieran	Organisational	Threat	Duration	–	–	Negative affect	–
*World tour	Kieran	Organisational	Threat Challenge Benefit	Novelty Event uncertainty	–	Social support Development opportunities	Positive affect	Growth Mastery
Devolved responsibility	Kieran	Organisational	Threat	Predictability	–	–	Negative affect	–
Responsibility for orchestra	Kieran	Organisational	Threat	Event uncertainty	–	–	Negative affect	–

Demand	Participant	Demand theme	Appraisal	Underlying Properties	Personal resource	Occupational resource	Hedonic well-being	Eudaimonic well-being
*Exposure	Adam	Performance	Threat Benefit	Novelty Duration Comparison	Psychological skills	Social support	Negative affect	−
Performance standards	Adam	Performance	Threat	Event uncertainty	Psychological skills	Social support	−	Mastery
Presenting	Adam	Performance	Challenge Benefit	Comparison	Preparation	Social support	Positive affect	−
*Audition	Ben	Performance	Threat Benefit	Novelty Duration Preparation	Psychological skills Physiological	Social support	Positive Affect Negative Affect Satisfaction	Mastery
*Performance standards	Ben	Performance	Challenge	Event uncertainty	Preparation Emotion regulation	−	−	−
Musical	Ben	Performance	Threat Challenge	Novelty Imminence Comparison	Psychological skills	Social support	Positive affect	Mastery Purpose
Subsequent performance with orchestra	Ben	Performance	Threat	Comparison	−	−	Negative affect	−
Arranging music	Charlotte	Performance	Threat Benefit	Duration	Passion Problem-solving	Development opportunities	−	Growth Purpose

Demand	Participant	Demand theme	Appraisal	Underlying Properties	Personal resource	Occupational resource	Hedonic well-being	Eudaimonic well-being
Performance demand	Charlotte	Performance	Threat	Comparison Preparation	Physiological	–	Negative affect	–
*Chamber music	Daniel	Performance	Threat Benefit	Duration Comparison Preparation	–	Social support Autonomy Organisational resources	Positive Affect Negative Affect Satisfaction	–
*Exposure	Daniel	Performance	Threat	Event uncertainty Comparison	–	–	Negative affect	–
*Musical	Daniel	Performance	Threat	Event uncertainty Comparison Preparation	Preparation	–	Negative affect	Mastery
*Performance standards	Daniel	Performance	Threat	Comparison Preparation	Psychological skills	Social support	Negative affect	Mastery
* Interpretational difference	Eva	Performance	Threat Harm	Ambiguity Comparison	Psychological skills	Social support	Negative affect	Acceptance
*CD recording	Eva	Performance	Challenge Benefit	Duration Preparation	–	Social support Autonomy	Positive Affect Negative Affect	Autonomy Growth
*Performance spontaneity	Eva	Performance	Threat	Predictability	–	–	Negative affect	–
CD edit	Eva	Performance	Threat	Comparison	Emotion regulation	Autonomy	Negative affect	–

Demand	Participant	Demand theme	Appraisal	Underlying Properties	Personal resource	Occupational resource	Hedonic well-being	Eudaimonic well-being
					Understanding self and coping			
Televised performance	Eva	Performance	Threat	Comparison	–	–	–	–
Mobile phone concert	Kieran	Performance	Challenge	Novelty	Psychological skills	–	Positive Affect Negative Affect	Purpose
Unusual conducting setup	Kieran	Performance	Threat	Novelty	–	–	Negative affect	–
Unusual notation	Kieran	Performance	Challenge	Novelty	–	–	–	–
*Management miscommunication	Adam	Relationship	Threat	Comparison	Problem-solving	–	Negative affect	–
Colleagues' status	Adam	Relationship	Threat	Comparison	Preparation	–	–	–
*Controlling emotions	Ben	Relationship	Threat	Comparison	Psychological skills	–	Positive affect	–
Audition feedback	Ben	Relationship	Threat	Comparison	Psychological skills	Social support	Negative affect	–
*Colleague argument	Charlotte	Relationship	Threat Loss Harm	Novelty Predictability	Physiological Emotion regulation	–	Negative affect	Relationships

Demand	Participant	Demand theme	Appraisal	Underlying Properties	Personal resource	Occupational resource	Hedonic well-being	Eudaimonic well-being
*Dementia work	Charlotte	Relationship	Benefit	Preparation	Psychological skills	Development opportunities	Positive Affect Negative Affect	Purpose Growth Relationships
*Sensitivity to clients	Charlotte	Relationship	Benefit	Event uncertainty	–	Social support	–	–
*Working with vulnerable people	Charlotte	Relationship	Threat Loss	Event uncertainty Preparation	Emotion regulation	Social support	Negative affect	–
Client disclosure	Charlotte	Relationship	Harm	Preparation	–	Social support	Negative affect	–
Controlling emotions	Charlotte	Relationship	Threat	Comparison	Escape	–	–	–
Follow-up communication	Charlotte	Relationship	Harm	Novelty Predictability Comparison	Escape	–	Negative affect	–
Future interactions with colleague	Charlotte	Relationship	Threat	Event uncertainty	–	–	Negative affect	–
Apathy from musicians	Kieran	Relationship	Threat	Comparison	Problem-solving	–	–	–
Relationships with colleagues	Kieran	Relationship	Threat Loss	Duration Ambiguity	–	Social support		Relationships

Note. * indicates demands described in Results. Comparison = self and other comparison.

6.4.1.1.   Performance demands

The Group Experiential Theme, Performance Demands, related to participants' experience of the musical demands they faced (e.g., technical demands, musical interpretation demands), demands directly arising from performance (e.g., recording demands), and demands associated with the context of performing (e.g., sense of exposure). All participants discussed performance demands. Participants largely appraised performance demands as a threat (23 appraisals), followed by appraisals of benefit (7 appraisals), challenge (5 appraisals), and harm (1 appraisal).

Ben discussed the performance *demands* relating to an orchestral audition, where he had performed at both the first and second rounds of auditions on the same day. Ben found the intimate nature of the audition a demand, "that two hours of playing one-on-one is the, is the barrier." Further, the first round of the audition was "blind", a demand which Ben *appraised* as threatening:

> … more places are doing blind auditions now. First round at least, so they're behind the screen. So, getting used to that… was quite strenu-[ous]. That, that's only come in really since I've started doing it. So that my first few [auditions] were in front of people and suddenly you have this fake, playing into a wall, which is a bit strange. You can't, you can't talk or make any noise.

Overall, Ben appraised the audition experience as a benefit to his development. However, there was a tension and Ben also perceived a threat to his career advancement and personal goals:

> There's a kind of… paradox here because I, I always felt they [auditions] were really good for experience and growth. But only for a certain amount of time… as time goes on, you're thinking, okay there's much more pressure now to, to do quite well in these because I'm going to get older and I gotta try and provide for my family and stuff and pay the bills and things. So, there's that kind of stress.

Ben reported multiple *underlying properties of threat appraisal* that contributed to his experience of the demand: duration, novelty, and preparation. The duration of the auditions was "two hours"; Ben was required to perform the same repertoire to an audition panel on two separate occasions within the same day, which extended the duration of the event. As is typical of orchestral auditions, Ben would not have known whether he would be performing at the second round until after the first round, "I think I was like the last one in the morning sessions that day, so I'd found out if I was a second round [auditionee] quite soon as I went downstairs and then waited for a bit." Although Ben had experience of blind auditions, he still perceived an element of novelty when he stated, "that's only come in really since I've started doing it." Preparation was an important underlying property of appraisal for Ben and he said, "I felt, I was, I was so prepared for it and I knew, I felt really good." Ben further emphasised his feeling of preparation for the second audition, "yeah, same as the first one really. Sort of prepared, felt prepared for it." Prior to the audition, Ben used personal *resources* in the form of the psychological technique of mental rehearsal to cope with the demands, "I'll try and visualise what's going to happen when I get into the room," and self-efficacy, "having that kind of confidence to know that I can go and do it." Ben also used work resources and sought informational social support from colleagues, "I played it to someone beforehand and prepared it and he worked through things with me." Between the first and the second round, Ben used cognitive restructuring to cope with the demands and focused on the positive aspects of his experience, "I try and just focus on how happy I am with how I've played." In terms of *well-being* outcomes, Ben experienced positive affect in the form of enjoyment due to the appraisal of benefit, "I like them very much though. They are quite enjoyable," and negative affect in the form of anxiety due to the appraisal of threat, "I was sort of a bit nervous, you know, because it's a scary, it's quite a lot of pressure to play well." Ben also experienced satisfaction due to the appraisal of benefit and getting through to the second round, "I was also mostly just pleased that I got it… So, that kind of feeling of satisfaction and progress." This was the first audition that Ben had been successful at getting through to the second round and his sense of progress relates to eudaimonic well-being and environmental mastery, "I got to the second round, which is progress that I'd never seen before."

Whilst Daniel was employed as an orchestral musician, his role occasionally required him to perform chamber music[1] and he discussed the associated performance *demands*. Specifically, Daniel described the need for greater stamina when performing chamber music due to the need to play more continuously in comparison with orchestral repertoire. Daniel used the simile of a sprinter to describe the differences in demands when performing chamber music:

> So, it's a bit like asking a sprinter to do a 10k race. It's a bit like asking somebody whose, whose speciality is, is running a hundred meters to two-hundred meters to go and do a 10k… You wouldn't say, "Okay. We're just been marking you on your sprinting, so now, so now, right, I'm going to… I've set my watch. I want you to be back here in fifty min. Go and do a 10k and be back in forty-five minutes." You know, you wouldn't, you wouldn't do that… and so I think it's a similar situation of brass players doing chamber music. So it's different, actually.

Daniel *appraised* performing chamber music as threatening, which is demonstrated in his feelings of discomfort, "Like a fish out of water. I feel like a fish out of water, actually, quite a lot of time." Although Daniel experienced the chamber music context as threatening, he perceived that he had previously benefitted from performing chamber music and saw the potential to benefit in the future, "I think, is really good for us… if it's handled correctly." Daniel described how the *underlying properties of threat appraisal* preparation and self and other comparison affected his experience. Daniel perceived that there was insufficient preparation in terms of time allocated in the rehearsal schedule to achieve a high level of artistic quality, "And so I think we need preparation… we should be given more… they should happen more frequently. We should be given extra time." Considering self and other comparison, Daniel compared the standard of chamber music he was able to achieve in his present job with his

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[1] Chamber music is "music and especially instrumental ensemble music intended for performance in a private room or small auditorium and usually having one performer for each part" (Merriam-Webster, n.d.-a).

past experience. Daniel had previously been involved in performing chamber music at a high level and wanted to attain the same level of performance:

> … it's a shame because I did quite a lot of chamber music at college and after college as well. Played in a prize-winning [instrument] quartet, where we did quite a few recitals… And then… another difficulty for that, is that having done it to a high level in the past but quite a long time ago, I've got that standard of chamber music in my head and it's very difficult to replicate that just by throwing a bunch of orchestral musicians together and giving them a day or two. It's very difficult to come anywhere near that kind of level of chamber music-making.

Regarding "relaxed" performances[2], Daniel discussed the work resource of "relatedness", "it's a very collegiate atmosphere in the rehearsals" and autonomy, "it's quite a musician led project… That works quite well." However, Daniel perceived a lack of organisational resources such as time and artistic management, "that's not really being managed artistically at all [laughs]. You've just been thrown together and you've got to do it in a limited amount of time." Despite his discomfort, Daniel did enjoy performing in some chamber music contexts, particularly relaxed concerts, where he experienced a positive affective *well-being* outcome, "I do quite like doing those." However, overall, Daniel experienced a lack of satisfaction through engaging in chamber music performances as he did not find them as beneficial as they could be, "I think are not, are not as satisfying as they could be. Not as satisfying as they should be." This was due to the lack of preparation time and not being able to achieve the level of artistic quality he had in his previous ensemble.

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[2] Relaxed performances are less formal than traditional classical music performances. Whilst in traditional performances, audiences are expected to sit still, be quiet, and only clap between pieces, in relaxed performances, etiquette is less rigid and there is a relaxed attitude to movement and noise. This concert format was developed to be appropriate for people with disabilities, such as autism, and to be inclusive for young children (English National Opera, 2023).

Considering the performance *demands* related to a recording project, Eva discussed the demand of rehearsing and recording a large amount of material within a tight timeframe, "I think it was three days of recording plus one session… So seven sessions… So, there were four concertos[3]." Eva further said, "And of course, of course, there is then pressure with… well, if you didn't get it right, there is no time to get it right… You have to get it right now [laughs]." Eva needed to perform at a high standard as she was the soloist on the recording accompanied by a small orchestra, "And trying to do that absolutely perfectly… So it's a kind of, it's a kind of almost unrealistic quest for perfection." Eva *appraised* the recording project as a challenge and an opportunity for development, "a very nice… way of… growing out of the leader's chair into the soloist chair." Reflecting on the recording project, Eva appraised a benefit to her career in terms of industry recognition and financial reward, "it was very well received and it won some, you know, little, little accolades in the industry." In terms of the *underlying properties of challenge appraisal*, Eva discussed preparation and duration. Considering preparation, Eva considered the work she had done to arrange the music, "I made an arrangement… I prepared that. I prepared the arrangement and the put the music and all that…" In terms of duration, the recording element of the project spanned "three days," which Eva perceived as a short amount of time and meant working quickly to get the music recorded, "it was very fast, very fast paced." Eva used multiple work *resources* in this scenario including social support and autonomy. Concerning her colleagues, Eva reported tangible support from a producer who took responsibility for scheduling, "there's a producer. So, they keep an eye on the time… and it was a producer I trusted with my life." Eva discussed emotional support from the orchestral musicians, "it was a wonderful… feeling of being supported and being… almost carried, carried in a nice way [laughs]," as well as feelings of relatedness, "There was an amazing, amazing, amazing kind of group, group endeavour in the best possible way." Eva also had great autonomy within the project, "I chose the repertoire

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[3] A concerto is a piece for one or more soloists and orchestra with three contrasting movements (Merriam-Webster, n.d.-b).

and I made an arrangement of a harpsichord concerto for [my instrument]… I prepared that. I did that. I arranged that. I prepared the arrangement and put the music and all that." Eva's repetition of the word 'I' demonstrated the ownership she felt. Eva reported a number of *well-being* outcomes related to this project. Considering positive affect, Eva experienced excitement during the recording process due to the appraisal of challenge, "And excitement. It was very exciting, most tremendously exciting," as well as gratitude towards her colleagues for their involvement, "so there were lots of feelings of gratefulness." Regarding the finished product and the appraisal of benefit, Eva was proud of the recording:

> I am very proud of it. Of course, I'm proud of it… You know, I got, I got to record Z Composer with X Conductor, you know. So [laughs] so, so that's brilliant… and I'm very, you know, I'm proud of it.

Eva also discussed eudaimonic well-being and the dimensions of environmental mastery, positive relations with others, and personal growth. Eva demonstrated environmental mastery in her contribution to the artistic direction of the project and through creating arrangements, "I chose the repertoire and I made an arrangement." When Eva mentioned feeling "carried" and supported by her colleagues, this demonstrated the positive relationships she had with her colleagues. Further, Eva mentioned a "communal energy" between her colleagues which enhanced the musical experience. Eva also felt able to develop her practice as a soloist and reported personal growth linked to the benefit appraisal, "So it was a lovely, was a very nice… way of, of… of growing out of the leader's chair into the soloist chair… or standing position or whatever."

6.4.1.1.1.   Exposure

Within the Group Experiential Theme, Performance Demands, participants discussed a sense of being exposed. This related to the feeling of being vulnerable or exposed during performance and was discussed by four participants: Adam, Charlotte, Daniel, and Eva. Exposure was solely appraised as a threat (5 appraisals).

Similar to Daniel, Adam is employed as an orchestral musician and is required to perform, at times, chamber music. Adam discussed a time he was performing in a chamber music ensemble. The small group nature of chamber music, as opposed to the larger numbers typical of orchestral performance, created a *demand* for Adam, "it felt quite big to me because… obviously when you've got an orchestra of eighty, ninety people, you can kind of hide behind the mass a little bit." Further Adam said, "it was… very… the [instrument] part was very, very soloistic, very and… So that was, that was demanding," and he later said, "everything you play is very, very audible. Everything. Everything is very, very, very audible." Adam's repetition of the words 'very' and 'everything' within these quotes demonstrated the depth of his feelings of being exposed as not good enough. Adam *appraised* the situation as a threat to his employment due to the possibility of being judged by his colleagues and management, "So… in the past and still presently, I can sometimes imagine people thinking very negatively about me." When Adam said, "Everything is very, very, very audible," the implication was that because he could be heard, there was a risk of being judged negatively. For Adam, the *underlying properties of threat appraisal* included novelty, duration, and self and other comparison. Concerning novelty, Adam felt that the soloistic nature of the role presented an element of novelty, "And I'm not a soloist. I'm not someone who stands at the front. There are people who do that. I don't, I haven't got experience doing that." The duration of the performance also contributed to Adam's appraisal of the situation, "doing one of these roles for a piece that lasts nearly an hour." Considering self and other comparison, Adam was concerned about evaluation from his colleagues when he said, "I can sometimes imagine people thinking very negatively about me." Adam relied on personal *resources* to cope with the demand such as the psychological skills imagery and cognitive restructuring. Regarding imagery, Adam said, "imagining I'm someone else who I really admire. So, I imagine I'm… playing as somebody." Adam discussed challenging his own negative thoughts, "I can sometimes imagine people thinking very negatively about me. Which is unfounded… I try and turn that on its head and… think that those people are thinking positively about me." Adam also used the work resource social support in the form of esteem support from colleagues, "I get feedback from, positive feedback from colleagues, which is always nice and conductor, producer, all these people listening." Adam experienced anxiety as an affective

well-being outcome and as a result of the threat appraisal. However, he viewed this anxiety as facilitative of his performance, "But I think the, the adrenaline… it's probably, probably helps a lot… The adrenaline can throw you over the edge… Or it can bring about that level of concentration and excitement, which is a benefit to performance." On reflection, Adam experienced satisfaction due to his performance, which implied an appraisal of benefit "It went very well actually… It did… and I've listened to the broadcast… and I was very pleased with it."

6.4.1.1.2.   Performance standards

Within Performance Demands, professional classical musicians discussed demands created by the performance standards required for their roles. Performance standards described participants' need to perform to a high standard, which was closely linked with their own and others' expectations of performance. Performance standards were discussed by three participants: Adam, Ben, and Daniel. Participants mostly appraised performing at a high standard as a threat (6 appraisals), followed by challenge (1 appraisal).

Daniel discussed the *demands* of maintaining high performance standards:

> I'd say more, more recently the day-to-day demands are, for me, are meeting my own expectations… It's… hard, really hard to reach a very high standing in the first place and it's perhaps even harder to maintain [laughs] it actually.

Further, Daniel took a perfectionistic attitude towards his work and described, "aiming for perfection, you know… genuinely, really aiming for absolutely perfectly balanced, perfectly tuned chords all the time." Daniel discussed an occasion when he had done some freelance work outside his usual employed orchestra. During this freelance work, Daniel felt that he was not performing at his usual standards, "I'd actually been outside the orchestra and done some playing somewhere else and… hadn't had a great experience with that." When Daniel came back to his substantive role, he still felt that he was not performing at his usual high standards, "then I come back in to do this work and… there's something just… I felt as though my playing had gone off track a bit… Gone off, gone off course a little bit during that." Daniel

appraised the situation as threatening as he felt he was not reaching his own high standards. Further, Daniel perceived threats of being judged unfavourably by his colleagues, "trying to make sure that… the people around me don't notice a deterioration in my playing [laughs]," and disappointing the musicians in his section, "I'm going to be letting those guys down because they're going to know that I'm not very comfortable and that makes, puts a little bit of extra pressure on them." Daniel experienced multiple *underlying properties of threat appraisal*: preparation, event uncertainty, and self and other comparison. Regarding preparation, Daniel felt that the performance demands were in the area where he was struggling, "the playing demands of that, of that piece, we're… right in that area where, where things weren't working very well." As a result, Daniel experienced event uncertainty in the form of subjective probability and was unsure whether he could perform at the requisite standard, "when you got a… feeling, I don't, I don't know what's going to happen here… This could really go badly wrong." In terms of self and other comparison, Daniel compared his performance standards to previous times he had performed the same piece of music, "I'd warmed up and I thought this isn't going to feel like I'm used to it feeling." Further, Daniel compared his performance standards now with his performance standards across his career. Daniel explained:

> Because actually, when you start off on an instrument your, your progress curves. Your progress line is very steep… but then once your playing's plateaued and you think, oh, hang on, I'm putting the, I'm still putting the work into my playing but it's not getting any better. What's going on? And then, and then, oh, and then suddenly there's all that, what's going on there? I… this is something that I've always taken for granted in my playing and suddenly it feels a bit difficult now. What's going on? And … then you start thinking well about, I think you start thinking about that trajectory and you almost, you almost feel like you're on a ballistic trajectory where you've gone up and now you're going down and… it can, it can feel a bit like that.

Daniel discussed the work *resource* of "colleague social support". On the one hand, Daniel perceived that his colleagues were emotionally supportive, "if somebody's genuinely struggling then, then people have a lot of sympathy." However, Daniel perceived a lack of emotional support from some colleagues, "So there are people who, they won't have as much

time for somebody who's not, who's struggling with their playing." These opposing views created a contradiction for Daniel in the amount of emotional support he could expect from his colleagues when considering the demand of performance standards. Daniel also discussed the personal resources of routine practice and mindfulness. Considering mindfulness, Daniel focused on the present moment, "Under pressure, you're focusing back on the breathing and… the music." Regarding hedonic *well-being*, Daniel experienced negative affect in the form of discomfort due to the appraisal of threat, "I felt very uncomfortable." Daniel also reported a negative impact on eudaimonic well-being in terms of environmental mastery and his concern about losing skills when he discussed being on a "ballistic trajectory." However, in the moment of performance, Daniel's use of mindfulness helped to restore his feelings of mastery and he found he was able to perform the music to a high standard, "then I found out that it did work once I'd had one or two goes at it, it did work and then it was okay. And then I could relax into it and just stop worrying."

Ben also discussed *demands* related to performance standards. These were in relation to an international tour, which Ben had been asked to join at very short notice (i.e., as a "dep" or "deputy"). Although the orchestra had rehearsed before the tour began, there was no opportunity for Ben to join those rehearsals and his first rehearsal was on the same day as the first concert performance. In this situation, Ben was aware of the demand to perform at a high standard and needed to fit in with the regular members of the orchestra, who were familiar with the repertoire, "knowing they've played the stuff before on a, in a different tour." As a freelancer, Ben understood that being "able to read music quickly and react to it" was a key part of his role. Ben *appraised* the situation as a challenge and believed that he would be able to perform "to a good enough standard, if not a high standard." Ben experienced the *underlying property of challenge appraisal* event uncertainty in terms of his ability to perform at the required standard, "I'm usually quite confident that I can play what's put in front of me." Ben discussed using personal *resources* in the form of personal practice and emotion regulation. Regarding practice, Ben said, "being prepared, having the music beforehand, making sure I know what I'm doing." Ben reported that being emotional "doesn't particularly help the physical side of playing." As such, he described how emotion regulation helped him to stay in control of his performance:

… try and temper the excitement and the, the energy and the—hate the word but—passion and the emotion… I've got to try and put it to one side and just focus on what you're doing, but still be aware that you do enjoy it.

Ben's feelings of confidence reflect the environmental mastery element of eudaimonic *well-being*. Having performed successfully on the tour, Ben reported an increased perception of mastery which implied that he appraised the experience as a benefit on reflection, "I felt more comfortable having done it."

6.4.1.2.   Organisational demands

The Group Experiential Theme, Organisational Demands related to participants' discussion of demands controlled at the level of the organisation (e.g., by management staff). This included aspects such as travel, scheduling, and role related demands. Organisational demands were discussed by all participants and were predominantly appraised as a threat (21 appraisals), followed by benefit (3 appraisals), and challenge (3 appraisals).

Kieran discussed organisational *demands* related to a world tour in terms of accepting the offer to tour and the schedule. In terms of being offered the work, Kieran discussed the demand of needing to make a quick decision but to also consider his family:

… Then they said, "Look, we're off on a world tour next year. Would you, would you come and conduct all of the orchestras?" To which this time, I didn't consult with my wife. I just said, "Yes." And then went home and we had a consultation.

Kieran *appraised* a threat, in that he might lose the opportunity if he didn't act quickly, "if you say no, people will just move on." Kieran also appraised the tour as a challenge, "It was an opportunity came and, and I thought, right. I'm going to try this. I'm going to go headlong into it." In this situation, Kieran experienced the *underlying property of threat appraisal* event uncertainty as he was unsure how long the opportunity would be available and whether he would have enough time to discuss the idea with his family. He decided to accept the opportunity with the knowledge that he could later refuse, "… it's much easier to say yes and

then back out of something, than to say no and then say yes afterwards." Kieran discussed the personal *resource* of family social support, "we sat down and we made that choice as a group, as a family. We sat down and talked about it. So those things are always important."

Considering the tour itself, Kieran discussed the *demands* of travelling and performing in many different countries, "So you'd be in Taiwan for three or four days, and then you were in China, and then Indonesia, then Malaysia, then to Japan, then Hong Kong…" Kieran *appraised* the world tour as a challenge, "It was an opportunity… I thought, right, I'm going to try this. I'm going to go headlong into it." Reflecting on the event, Kieran appraised the tour as a benefit to his self-development, "I learned much about myself by doing the touring," and his career, "[Touring] gave me what I have now… career as a conductor and as a, as an all-round portfolio-type musician." Kieran discussed the *underlying property of benefit appraisal* of novelty in relation to visiting different countries, "there were always new experience to have, new foods to try." Kieran thought of the tour as a development opportunity, which is a work *resource*, "I gave myself the opportunity to take that and run with it." Kieran also perceived esteem social support from audiences, when performances were applauded and the musicians were given gifts, "beautiful things that were given to me as a, presents would be left on the stage." Kieran discussed many positive *well-being* outcomes associated with the tour. In terms of hedonic well-being, Kieran experienced positive affect in the form of excitement, which related to the appraisal of challenge, "I packed a suitcase and a bag and on the Monday morning, I flew to South Africa to begin a nine-month world tour with X Ensemble. And that was… you know, that was terribly exciting." Regarding the appraisal of benefit, Kieran experienced gratitude as a positive affective outcome, "lucky—and I do feel incredibly blessed that I was, that I was offered the opportunity." Further, linked to the appraisal of benefit, Kieran experienced the eudaimonic well-being outcome personal growth in the form of realising what was important to him:

I learned that I didn't need quite so much stuff in my life. There were things, there were certain things that were very important to me… two little books, one, one for each tour, my wife built for me with pictures of my kids in. You know one of these photo box things… where you've… little notes. I had little notes that were written by the children that I took with me. So, those things were important. But I realised that I didn't need, you know, oodles and oodles and oodles of clothes.

Additionally, Kieran experienced increased environmental mastery through conducting on the tour, "really opened my eyes to so many other things. Of what I was, I thought that I probably wasn't capable of… And that I became very capable of eventually."

Ben discussed organisational *demands* in relation to being a freelance musician. Regarding the tour that Ben took part in, the short notice provided by the orchestra created demands related to personal organisation:

They said, "Are you free to come to Heathrow at 5 a.m. to get a flight?" … that sort of thing is a bit more demanding… organisation-wise because I've got to try and get from—I was actually at a school—so I've got to get from X County, for A City to get the bus to B City for the flight in the morning. And then I'm not sure what I was playing, I didn't know the paperwork, or anything like, I don't know. Had to just— What to bring? And then going, having that sort of moment of intense stress and organisation.

Ben *appraised* a threat to his employment if he was not there on time. He discussed his responsibilities as a freelance musician, "be there on time and stuff, reliable, the sort of usual… employment caveats." Further, Ben perceived that his concern for organisation could distract him from performance, "If you're worrying about other things – like, I don't know what to wear, or where the stage door is – that's taking your mind off the fact that everything else is really fine." Within this situation, Ben experienced the *underlying properties of threat appraisal* of imminence, event uncertainty, and predictability. Concerning imminence, Ben needed to travel abroad at short notice, "getting organised at very short notice to go and… to get there." Regarding event uncertainty, Ben was unsure about the specifics of the performance and said,

"And then I'm not sure what I was playing." In terms of predictability, Ben needed to reschedule existing commitments, "To kind of make plans for the week now that I wasn't going to be there for five days." Ben used the personal *resource* of problem-solving to plan accordingly, "getting organised at very short notice to go and… to get there. To get everything together."

6.4.1.2.1.   Role demands

Within Organisational Demands, professional musicians discussed role related demands, such as role insecurity, role conflict, and role strain. Role conflict related to the demands of holding multiple roles within and across organisations, and role strain related to the level of responsibility a musician had within their organisation. Role demands were considered by Adam, Ben, and Daniel. Mostly, participants appraised role demands as a threat (4 appraisals), followed by challenge (1 appraisal), and benefit (1 appraisal).

Adam discussed role conflict and the *demands* of performing multiple roles at the same organisation. Adam was required not only to perform in the role he was employed for but also in two additional roles due to a vacancy. Although the roles were related, they required changes to the way Adam performed, which created a demand:

> … that's probably one of the biggest demands for me, is, … I like to think of it as wearing different hats. So I, you sort of… even moving two seats along left or right, it's amazing how different it feels.

Adam discussed a chamber music performance where he played in the principal position, "Where I sat in a… sat playing principal role in a piece of music that was, that was only seven of us." Adam *appraised* a threat in this situation and experienced role instability, "there's a sort of fragility to it. It's not, it doesn't feel like it's going to be forever." Further Adam appraised a threat due to the potential for being judged negatively by management and being asked not to perform in the principal role, "The management have the power to say, 'I'd rather you didn't do that anymore.'" Adam experienced the *underlying property of threat appraisal* temporal uncertainty when performing in the role of principal as he was aware the role was

being advertised yet he did not know when he would be required to stop performing the role, "there are only three [instrument] players in the orchestra, actually currently two because we have a vacancy, my job is also to cover the other two positions." Considering *resources*, Adam used the psychological technique of minimisation regarding the role of principal, "I'm quite happy where I am and I'm not in particularly, I haven't got much ambition to sort of climb the ladder and become a principal." Despite feeling role insecurity in the principal role, Adam felt secure in his permanent employed role, "that's my sanctioned role. That's what I got the job for. That, nobody else can take that role from me because that is my job." Adam implied that this experience had a negative impact on his *well-being* due to the appraisal of threat and he decided to discuss the issue with management, "I felt I needed to communicate what though, what that… for my own confidence and my own mental health."

Adam discussed another occasion when he had experienced role related *demands*. On this occasion, Adam had taken on the role of presenter for an orchestral performance, "there's been recently opportunities to stand up front, in front of the orchestra and be a presenter." Adam was responsible for introducing the concert and talking to the audience between pieces, "It was the link between pieces. [Pause] It might be about eight minutes in total or something?" Additionally, Adam was required to perform his instrumental role as part of the orchestra within the same concert, "I had to at one point say, 'I've got to go back and play in the orchestra now.'" Adam *appraised* the demands as challenging, "Yeah, I also had to play. That was… that was also the challenge." Further, Adam appraised a benefit to his career from taking on the additional role of presenter, "something that stands me out from my other musicians." In this situation, Adam experienced the *underlying property of challenge appraisal* of novelty as this was the first time he had presented a concert for the full orchestra, "So… the first time… that was just for a small, a smaller ensemble. And on the back of that, I was asked to present a concert… when we were in Y Town for the full orchestra." Adam also experienced self and other comparison as an *underlying property of benefit appraisal*, "A sort of unique challenge that I don't think many other people would have done [laughs]." Adam further elaborated:

… here's something I think I can do that not a lot of my colleagues can do. Because a lot of my colleagues wouldn't ever stand up and talk to… a big audience. And a lot of them to be honest probably wouldn't be very good at it, either.

Regarding presenting, Adam drew on the personal *resources* he used for musical performances and used imagery during rehearsal, "So imagining that there was the audience there… it's exactly the same thing that I have done actually… as a player… as a musician." Adam described preparing for the occasion, "the first thing I did was I scripted what… I was going to say and then I condensed it into bullet points, and then I put those bullet points… onto a card." There was a positive impact on Adam's hedonic *well-being* as a result of the experience and his appraisals of challenge and benefit, "I felt very good. I felt very good doing it actually, which is probably why I want to do more of it because it felt like a, a good experience… So, yes, no, I felt, I felt very happy."

6.4.1.2.2.   Responsibility

Role demands also encompassed role strain and the level of responsibility musicians held. Demands relating to responsibility were discussed by Charlotte, Eva, and Kieran, and were solely appraised as a threat (4 appraisals).

Considering a prestigious orchestral performance, Eva had an elevated level of responsibility, as she usually performed as a tutti player (i.e., not a leader or principal player) with the orchestra, "I was guest leading it, I usually just play in the section there." Eva discussed the responsibility of an orchestra leader and the *demands* this created:

> … you have to make sure that the conductor gets what, what he or she wants to get and then the orchestra's needs are met. As in, is the conductor clear enough? Do we know exactly what needs to happen? … you have to play and you have to lead your section, so that your body language… conveys how and when the section should play. We're all looking at the conductor but also we're all looking at the leader when we're not leading… And if there's any question, if the conductor is not clear at any point, then the leader's job is to kind of rescue the situation and be very clear and, and save the day, as it were. And gave a big gesture—here, we are now.

Within this scenario, the conductor made an unexpected and unclear gesture, "In the concert X Conductor did something… slightly different from what… [they] did in every rehearsal." As the leader, Eva felt it was her responsibility to "rescue the situation… and save the day." However, Eva was not able to bring the performers together and said, "there was a bit of a car crash." Eva *appraised* a threat to her employment as she had not adequately fulfilled the role of leader, "being in the in the leading chair, there is a responsibility with you—that's, that's your responsibility." Further, she appraised a threat to her employment due to her colleagues' perception of the event, "It made me feel fearful of what my colleagues think of me." Eva also appraised the event as causing lasting harm, "it leaves you pretty, you know, pretty… scarred." Eva reported the *underlying property of threat appraisal* of self and other comparison in two ways: firstly, there is the implication that Eva compared her own leadership to the ideal she described above; secondly, Eva was concerned about being negatively evaluated by her colleagues according to acceptable industry standards, "I was also apprehensive of what the conductor will say about what had happened… and I was definitely conscious of my, what my colleagues think of it. What other people think of me." Additionally, Eva experienced ambiguity in trying to evaluate whether she was correct in her interpretation of the conductor's gesture, "whether I was right or wrong, I still don't know." In order to cope, Eva used workplace *resources* and sought emotional and informational social support from her colleagues. Eva used the informational support to address the ambiguity she experienced, "I wanted to speak to them. Because I wanted an honest opinion. What they think happened… That was a good way of… of getting some clarity for myself." Additionally, Eva used psychological skills in the form of self-talk to regain a sense of control over her performance:

… it left me needing to have a kind of chat with myself and think, okay. So, what exactly happened? What could I have done differently? … Was there anything that I, I, you know, what aspect of that was, you know, something that was in, that is in my control to change now, you know? What do I need to work on as it were?

This experience had a lasting negative hedonic *well-being* outcome for Eva, which was related to the appraisal of harm, and she experienced anxiety, "even now when I talk about it, you know, I feel the knot in my stomach." Also related to the appraisal of harm, Eva was dissatisfied with her leadership in this situation and felt disappointment, "It made me… disappointed with myself." Reflecting on the event, Eva moved towards self-acceptance, a dimension of eudaimonic *well-being*, "I wasn't sure that in that moment I could have done anything differently… so, like an instinct, instinctive reaction."

6.4.1.3.   Relationship demands

Within the Group Experiential Theme, Relationship Demands, participants discussed relationships with colleagues, management, and audiences. Four participants discussed relationship demands: Adam, Ben, Charlotte, and Kieran. Relationship demands were appraised mostly as a threat (7 appraisals), followed by appraisals of benefit (3 appraisals), harm (2 appraisals), and loss (2 appraisals).

Charlotte discussed an occasion when an argument had taken place amongst her colleagues and created a relationship *demand*:

And during the rehearsal of another piece that I wasn't in, in the afternoon of the performance, [there] was an enormous row between… a small group of players, including my co-soloist and the management, because there'd been a massive fuck-up—for want of a better expression—about the way the stage was set.

Due to the argument, one of the musicians left the rehearsal and did not return for the performance later that evening, "So, this massive row blew up and it culminated in somebody storming out and saying, 'I'm, I'm done with it. I'm not doing this concert.'" This occasion

related to a performance where Charlotte was performing as a co-soloist, which was a role she performed infrequently. Charlotte made an *appraisal* of threat and perceived there was a risk she could become involved in the argument:

> Initially, I was not in the same room, but I heard the, I heard the rehearsal stop. I was in one of the band rooms right along the corridor. I heard it all stop and I heard some raised voices and I thought, oh, this is a bit weird. I'll just keep my head down and stay out the way. Because the last thing you want when that's going on is to stick your head round the door and find out.

After the event, Charlotte appraised that loss and harm had been caused. Considering the appraisal of loss, Charlotte perceived that her experience of being a co-soloist had been tainted and of the colleague who left the rehearsal she said, "You spoiled a day that was a really important one for me and I really wish you hadn't [laughs]." Charlotte also appraised some form of harm had occurred due to the relationship demands and used the simile, "it just felt like we'd all had a kicking." Although Charlotte was not part of the argument, she was still vicariously affected and experienced the *underlying property of threat appraisal* of predictability. This was due to the fact that usual workplace norms regarding relationships between colleagues had not been followed. Considering the underlying property of the loss appraisal, Charlotte experienced novelty as this was not her typical experience of working with this ensemble, "usually I get a lot of positivity from engaging in ensemble work." Charlotte employed personal *resources* and used avoidance and emotional regulation. Regarding avoidance, at the time of the argument Charlotte tried to "stay out the way," and additionally avoided the situation during the break, "I went out… in the tea break and I went for a walk. Quite a long walk, you know, away from the building." Charlotte also employed a psychological technique relating to mindfulness by focusing on her breathing, "I try and remember to breathe [laughs]—really deeply… if you concentrate on it, you can help yourself a lot with some really deep breathing." Charlotte discussed multiple negative hedonic *well-being* outcomes. Related to the appraisal of threat, Charlotte experienced anxiety, "unsettling, upsetting, unpleasant." Linked to the appraisals of harm and loss, Charlotte experienced anger, "I just felt really angry," and sadness, "it just left me feeling incredibly upset." Further

linked to the harm and loss appraisals, Charlotte was dissatisfied with the experience as it had not lived up to her expectations, "I felt upset because usually I get a lot of positivity from engaging in ensemble work, especially with that group of people." Regarding eudaimonic well-being, the dimension positive relations with other was negatively affected, particularly with the musician who left the rehearsal, "I just thought you selfish so and so."

Ben also discussed a relationship demand which related to colleagues and the need to socially integrate with his colleagues whilst on an international tour. Although Ben was excited about the opportunity to go on tour, he didn't feel it was appropriate to show this due to the apparent social norms, which created a demand, "not getting too keen about things and enthusiastic, and then carried away. It's kind of trying to restrain your excitement." Ben considered this necessary to appear professional to his colleagues, "It was just kind of, kind of temper that excitement and make sure it's not affecting how you work professionally because it's not really a factor, shouldn't, it shouldn't affect you." Ben *appraised* a threat to his social integration with the orchestra members:

> … because no one else is, is showing that emotion. It's just a bit, it kind of makes things a bit weird, awkward between people if, if one of you's really pumped up for it and everything, and no one else, everyone else is just sort of doing their job and they got, I don't know, they got a broken boiler at home or something.

Further, Ben appraised a threat to the quality of the work he produced if he did not control his emotions, "got to try and control it because it doesn't particularly help the physical side of playing, unfortunately." Ben experienced the *underlying property of threat appraisal* of self and other comparison and compared his own emotional state to his colleagues, "yes, it's exciting that you're going on tour… but… they've got lives as well, and they've got kids at home and a family and stuff. They've got bills to pay." Ben discussed using his psychological skills as a personal *resource*. Rather than getting emotional about his work, "too keen about things and enthusiastic, and then carried away," Ben reframed his experience as normal, "it's quite a normal thing to do. It's just, it's just a job that people do and it's a great job, but it's still just earning money to pay the bills and stuff." This is an example of cognitive restructuring which

allowed Ben to "temper the excitement." Although Ben modulated his emotions, he still reported positive *well-being* and experienced positive affect and satisfaction, which suggests an appraisal of benefit following the experience, "I really, I really enjoy it. I really enjoy music... I really enjoy it and I, I'd love it so much." This demonstrated some tension for Ben between his enjoyment of performance and his goal of appearing professional. Ben described this as, "There's a balance to find there."

Adam described how his relationship with management staff created a *demand* for the chamber music performance:

> [Pause] Now [Pause] I want, you see [laughs] there was, there is a bit of background to this in that prior to that... there was a, a miscommunication from my management, where they said, they said that they were going to get... a guest in to play that part, rather than me, have me do it... So, the reason for this was because, as I said, there're only two of us in the orchestra at the moment. The other... the actual principal wasn't available. So that basically leaves just one person left. That's me. Or, the management can decide that they don't want me to do it and they want to bring a guest in.

Initially, Adam thought that the management's final decision was to employ a guest performer for the occasion. Adam *appraised* the demand as a threat to his reputation in the orchestra:

> ... what that communicates to me, is that they'd rather take the... they'd rather not have the risk of... using me, who's on salary, so I don't cost them any more money... this will make me feel that you have, I haven't got your trust.

Adam experienced the *underlying property of threat appraisal* self and other comparison and was concerned about evaluation both by management and his colleagues. Adam's perception of management was that they had "a perceived hierarchy of... people and I don't fit into the, you know, the, the top tier." In terms of evaluation by colleagues, Adam said, "I also am in the paranoid part of my brain started thinking, blimey... has one of my colleagues said, 'I'd rather not have Adam play this part'?" Adam used problem-solving as a personal *resource* and

decided to speak to the management about the issue, "I had a little bit of a conversation with them, had to email them about this… yeah, it was a miscommunication but I had to communicate." Adam implied that the situation had a negative impact on his *well-being*, "I felt I needed to communicate… what that… for my own confidence and my own mental health."

For Charlotte, a relationship demand arose when she was working in healthcare settings which involved clients with dementia. Charlotte discussed needing to be sensitive to client needs and maintaining a high awareness of nonverbal communication. Regarding sensitivity to clients' needs, Charlotte said, "you're constantly monitoring the people in the room, what's happening?" Charlotte gave a specific example of an interaction that had been demanding on her communication skills:

> There's one lady sticks in my mind… really, really strongly, that I met at a care home in A City… It was a specialist home for people with dementia… And one lady was in a corner and she was really, really quiet and see we were just about to leave and she hadn't spoken. She sort of looked at us a little bit from time to time… And she sort of looked at us a little bit and looked away, looked at us a little bit and looked away, the whole time. It's nonverbal communication. That's another musicians' thing, isn't it? It's what we do when we're playing in an ensemble… And I'd noticed she was looking. And then she, she was *really* [emphasis added] looking at me. So, as I was sort of packing up to leave, I went over to, to sort of sit myself right down next to her chair. So, I wasn't over her. I was on a level with her. And she just started vocalising to me. She was sort of just going, "Oh, ha ha haaa, ha hah, ha ha, ha ha [sings]", having not said anything at all. This is really extraordinary. And I thought, oh, it's just a one-off. She's just done it. And then she did it again, and she was absolutely locked eyes on me. She was really looking at me from about this distance. And so I sang back to her exactly what she'd sung to me and her face just changed completely and then she sang again. And we just carried on this conversation for the best part of ten minutes.

Charlotte *appraised* her engagement with the client as beneficial to the client, "enabled that lady to express something in some way of herself and what, what she'd got from that day or how she was feeling at that moment." Further, Charlotte appraised a benefit to herself from working with clients with dementia and being able to witness her clients' interaction with music, "Also, very, very privileged in what you can achieve for people." In this scenario, Charlotte experienced the *underlying properties of appraisal* of preparation and event uncertainty. Considering preparation, Charlotte had received some clinical support prior to undertaking work with clients with dementia, "they introduced us to some qualified music therapy practitioners from a charity called, X Charity… So we spent a whole day with them." Regarding event uncertainty, Charlotte did not know how clients would react to the music she performed and said, "you've got to read the room and that requires a certain degree of communication sensitivity that's not just verbal… And so it's exhausting work to do." Charlotte discussed the work *resources* of social support and having a development opportunity. On this occasion, Charlotte was supported by an experienced music therapist who provided esteem related support, "having a, a supervision if you like, with a qualified clinical music therapist that day… she was witness to the whole thing and afterwards the debrief was really, really good." Charlotte perceived her work with dementia clients as a way to develop her skills for working in a healthcare context, "I've enjoyed some really good development on that front because we, for once, had some proper clinical support." Charlotte reported multiple *well-being* outcomes as a result of working with clients with dementia. In regard to hedonic well-being, Charlotte experienced positive affect in the form of joy, "the things that I've enjoyed the most in the last few years has been… the dementia work," and negative affect in the form of sadness, "something will strike you about a patient that they remind you of someone that you've known, or family member and you just think, hang on. This is a bit too much." Charlotte also experienced well-being outcomes related to her appraisal of benefit and factors of eudaimonic well-being in terms of purpose in life, personal growth, and positive relations with others. Considering purpose in life and positive relations with others, Charlotte was deeply affected by engaging with the individual client described in the quote above, "I found it a very moving experience." Charlotte later described this moment as "really profound."

6.4.2. Conservatoire student musicians' experiences of demands, appraisal, resources, and well-being

This section is structured according to the different types of demands experienced by conservatoire music students. Students reported Study Demands, which formed five subordinate themes: a) Performance Demands; b) Organisational Demands; c) Relationship Demands; d) Academic Demands; e) Multiple Demands. Performance Demands are defined as those demands that related to participants' experience of the musical demands they encountered (e.g., competitions, opera performance). Organisational Demands are defined as those demands controlled at the organisational level (i.e., by conservatoire staff) such as scheduling. Relationship Demands are defined as demands that involved interpersonal relationships between musicians and their peers or tutors. Academic Demands included demands related to specific modules and included written or non-performance tasks alongside independent study. Multiple Demands refers to students experiencing concurrent demands, which in itself was experienced as a demand.

Within each theme, examples of demands, appraisals, underlying properties of stress appraisal, resources, and well-being outcomes are provided. See Table 6.4 for an overview of conservatoire student experiences. This section is presented in a similar way to the results of professional classical musicians.

Table 6.4

Summary of conservatoire music students' occupational stress experiences

Demand	Participant	Demand theme	Appraisal	Underlying properties	Personal resource	Study resource	Hedonic well-being	Eudaimonic well-being
Independent study	Georgina	Academic	Threat	Preparation	–	–	–	–
Conflicting feedback	Hannah	Academic	Threat	Ambiguity	–	–	–	–
Personal practice	Jennifer	Academic	Threat	Comparison	–	–	–	–
*One-to-one tuition	Mark	Academic	Threat Benefit	Preparation	Understanding self and coping	Social support Development opportunities	Positive affect	Relationship Growth
Personal practice	Mark	Academic	Threat	Preparation	–	–	–	–
*Bow project (Academic submission)	Nicholas	Academic	Threat	Preparation	–	Organisational resources	Positive affect	–
*Bow project (making bow)	Nicholas	Academic	Threat Challenge	Novelty Imminence	Problem-solving	Social support Development opportunities	Positive affect Satisfaction	Relationship Growth Purpose

Demand	Participant	Demand theme	Appraisal	Underlying properties	Personal resource	Study resource	Hedonic well-being	Eudaimonic well-being
*Managing competing demands	Georgina	Multiple	Harm Challenge	Predictability Timing	Problem-solving Passion	–	Positive affect Negative affect	Growth
Managing mental health within studies	Hannah	Multiple	Threat Loss	Timing	–	Social support Organisational resources	Negative affect	–
*Juggling multiple demands	Laura	Multiple	Threat	Timing	Problem-solving	Social support Mental health support	–	–
*Wanted to be in choir	Georgina	Organisational	Loss/Harm	Ambiguity Comparison	Information seeking Problem-solving	–	Negative affect	Acceptance
Performance organisation	Hannah	Organisational	Challenge	Predictability Ambiguity	Problem-solving	–	Negative affect	–
*Hothouse environment	Laura	Organisational	Threat Loss	Novelty Comparison	Psychological skills Understanding self and coping	Organisational resources Mental health support	Negative affect	Relationship
Late scheduling at conservatoire	Laura	Organisational	Loss	Predictability Imminence Preparation	Problem-solving Information seeking	Mental health support	–	Growth

Demand	Participant	Demand theme	Appraisal	Underlying properties	Personal resource	Study resource	Hedonic well-being	Eudaimonic well-being
Financial	Nicholas	Organisational	Threat	Event uncertainty	–	–	Negative affect	–
Travel	Nicholas	Organisational	Threat	Predictability	–	–	–	–
Opera project	Georgina	Performance	Challenge Benefit	Preparation	Preparation Autonomy	Development opportunities	Positive affect Satisfaction	Relationship Mastery Autonomy
Play project	Georgina	Performance	Challenge Benefit	Novelty Predictability	Preparation Autonomy	Development opportunities	Positive affect Satisfaction	Relationship Growth Autonomy
Performance opportunity	Hannah	Performance	Challenge Benefit	Novelty Predictability Preparation	Psychological skills	Social support Development opportunities	Positive affect Satisfaction	Growth
*Recording performances	Jennifer	Performance	Threat Challenge Benefit	Event uncertainty Comparison	Psychological skills Problem-solving	–	Positive affect Negative affect	Growth
Being fit to perform	Jennifer	Performance	Threat	Predictability	–	–	–	–

Demand	Participant	Demand theme	Appraisal	Underlying properties	Personal resource	Study resource	Hedonic well-being	Eudaimonic well-being
*Competition performance	Laura	Performance	Challenge Benefit	Preparation	Passion	Autonomy Social support Development opportunities	Positive affect Satisfaction	Relationship Autonomy
*Final recital	Nicholas	Performance	Threat Challenge	Predictability Event uncertainty Comparison	Psychological skills Problem-solving Preparation	Social support	Positive affect Negative affect	Mastery
One-to-one lessons	Nicholas	Performance	Threat	Preparation	Psychological skills	Social support	Negative affect	–
Performance standard	Nicholas	Performance	Threat	Novelty Comparison Preparation	Psychological skills	Social support	Negative affect	Mastery Growth
Financial demand	Laura	Personal**	Threat	Predictability	Problem-solving	Social support	–	–
Accommodation	Georgina	Relationship	Threat Harm	Predictability Duration	Problem-solving Escape/avoidance	Information seeking	–	–
Relationships and competition with peers	Georgina	Relationship	Threat	Ambiguity Comparison	Preparation	Social support	–	–

Demand	Participant	Demand theme	Appraisal	Underlying properties	Personal resource	Study resource	Hedonic well-being	Eudaimonic well-being
*Difficult project lead	Hannah	Relationship	Challenge Loss Harm	Novelty Predictability	Psychological skills Problem-solving Understanding self and coping	Social support	Negative affect	Relationships Mastery Growth
Peer relationships	Hannah	Relationship	Threat Harm	Predictability Comparison	–	Development opportunities	Negative affect	–
*Collaborating with others	Jennifer	Relationship	Threat Harm	Novelty Predictability Comparison	Psychological skills Emotion regulation Understanding self and coping	–	Positive affect Negative affect	Relationship
*Relationship with accompanist	Mark	Relationship	Threat	Ambiguity	Problem-solving Emotion regulation Escape/avoidance	Organisational resources	Negative affect	Relationship

Note. * indicates demands described in Results. Comparison = self and other comparison. ** A small cluster of experiences were Personal Demands but this was not a Group Experiential Theme. Personal Demands are included as they related to musicians' experience of Multiple Demands.

6.4.2.1. Performance demands

The Group Experiential Theme, Performance Demands, related to students' experience of the musical demands they faced and participants often discussed specific performance instances (e.g., competitions, opera performance). Five participants discussed performance demands: Georgina, Hannah, Jennifer, Laura, and Nicholas. Across participants, performance demands were appraised as a challenge (7 appraisals), followed by appraisals of threat (6 appraisals), and benefit (5 appraisals).

For Nicholas, a performance *demand* arose due to a compulsory performance module in his final year of study, where he performed solo repertoire accompanied by a pianist. Nicholas discussed the technical demands of the music, "the technicalities of the piece, you know, learning how to play something." Nicholas made a challenge *appraisal* and he had wanted to learn the repertoire for some time, "well I wanted to choose something that I want, I'd been wanting to play for years… I just wanted it to be a challenge." Nicholas also appraised a threat that he might not reach the required performance standard, "So, there was quite a lot of pressure on me to try and push my level up to match [my peers]." Nicholas discussed the *underlying properties of threat appraisal* of self and other comparison and event uncertainty. Considering self and other comparison, Nicholas compared his abilities to perform the repertoire with his peers:

> … a colleague of mine who's just started their Master's and graduated the year before me, he did that [repertoire] in their first-year recital. And they played really well, and it… every time I try and learn it, I'm like, I can't. He did this years ago. Like, how, how do I make it better than his?

Nicholas described how self and other comparison had underlined much of his conservatoire experience and he had felt on the "back foot" throughout his studies, "well probably every assessment I felt behind." Nicholas experienced event uncertainty in the form of subjective probability and was unsure how the performance would go, "it was one of those, it could go either way in the performance." Nicholas discussed using personal *resources* to cope with the demands he experienced in the form of, problem-solving, preparation, and psychological

skills. The problem-solving skills Nicholas used involved the deployment of self-regulated learning strategies, "having the tools to work it out… I don't always have to go and ask. I can just sit there and work out what works best, what doesn't, and how to fix the bits in between." Regarding preparation, Nicholas simulated the performance environment by practising in the exam room, "the best thing I did is prepare myself in the room and do practising in the room that I was going to do my recital and get used to that." Nicholas also described using mindfulness techniques, focusing on himself to manage the comparisons he was making with his peers, "keeping myself out of the, 'oh, I'm not as good as them. I'm not as good as this' and just working on what I was doing, rather than focusing on everyone else." Considering *well-being* outcomes, Nicholas reported experiencing positive and negative affect during his practice. In terms of positive affect, Nicholas discussed feeling proud, which was linked to his challenge appraisal, "Sometimes it was full-on pride that I was doing something that I dreamed of doing." However, he also reported negative affect and felt disheartened when he perceived a lack of progress in comparison to his peers, which was aligned with the appraisal of threat:

> … other times it was just a disheartening like, oh, okay, it's taken me this long and someone else has already done it… the disheartening effect of not getting to where you should be in the amount of time that you anticipated.

Following the performance, Nicholas again felt proud, which is suggestive of a benefit appraisal following the experience, "I'm still listening to it on a weekly basis… It was actually pretty good for once, and listening to it and going, I can actually do this massive great instrument thing." This quote also demonstrates that Nicholas experienced the eudaimonic well-being outcome environmental mastery as he was pleased with his own performance.

Jennifer described the *demand* of recording performances, "maybe recordings… they have put in all these cameras and mics inside the rooms, inside performance spaces." Jennifer made multiple *appraisals* of recording performances: challenge, benefit, and threat. Initially, Jennifer had appraised recording performances as a challenge, "It was quite… challenging when we first started it because we're all, 'Ahh, it's a recording. It's me.' Like you're kind of scared

doing it." Having practised recording, Jennifer now saw this demand as beneficial to her development as a musician, "So, pushing yourself to do something that you're not… comfortable with was very good practice because now, almost everyone can just walk up to a camera and play in front of it, which was quite daunting before." Regarding a recent recording experience, Jennifer also made an appraisal of threat and was concerned about becoming tired and not getting a good take:

> I want to get it done quickly because I'm, I don't have good stamina. After two takes it can either go very well or it can go really bad afterwards. So, I want to get it done. So obviously, I'm stressed in the beginning.

Considering the recent recording experience, Jennifer experienced two *underlying properties of threat appraisal*: event uncertainty and self and other comparison. With regard to event uncertainty, Jennifer experienced subjective uncertainty as expressed in the above quote when she said, "it can either go very well or it can go really bad." Considering her stamina in performance, Jennifer compared herself to professionals she admired:

> … all these people competing in world-level competitions. I guess how they think, it's less about I want to get it done quickly, but more about I'm going to get a perfect take. Whereas for me now in this stage, I'm still thinking, I want to get it done quickly because I'm, I don't have good stamina.

Jennifer discussed using personal *resources* to manage the demand of recording in the form of psychological skills and problem-solving. Concerning psychological skills, Jennifer discussed normalising her experience of recording performances, "kind of shifted into thinking, well, it's the same thing—performing in front of a camera and performing in front of an audience." She also discussed focusing on the music when recording, "I've thought less about getting things clean and more about trying to exaggerate all the musical aspects so it can reach across the screen." In terms of problem-solving, Jennifer discussed creating a strategy when recording performances:

I try and get like a technically clean take for the first time because at least if the more musical takes afterwards don't go as planned, I still have a decent technical one that I can submit, you know. So, having a strategy on how you record.

Regarding *well-being*, Jennifer experienced negative affect in the form of nervousness ahead of recording, which was aligned to her appraisal of threat, "For a first take, it's always feeling nervous." Having a strategy allowed Jennifer to feel greater positive affect than she previously had when recording, "So, having a strategy on how you record… It does give me a lot of security and almost joy while, you know, while performing." Experiencing positive affect was linked to Jennifer's appraisal of challenge. Taking the opportunity to record a number of performances led Jennifer to experience personal growth, an aspect of eudaimonic well-being, which was connected to her appraisal of benefit, "teachers have said, 'your sound has improved,' or 'you play now, you're more sensitive, you have more emotion.' I feel, it's because of that—because you tend to exaggerate more on camera."

Laura also discussed performance *demands* and described a competition performance she was involved in, "there was a new chamber music competition and… I'd brought together a small number of singers with a harpist." Laura described some of the technical demands created by the rules of the competition and perceived that they disadvantaged singers, "it's not ideal for like singers, but we'll get on with it." Prior to performing, Laura *appraised* the competition as a challenge, "my background before I started at college was like an ensemble singer. So like I've done a lot of chamber work… like I really love chamber music." Following the competition, Laura made an appraisal of benefit, "definitely one of the best things that have come out, come out of the couple of years," and the ensemble had continued working together, "as a result, we've stayed together actually as a small ensemble." Laura reported preparation as an *underlying property of challenge appraisal*, "something that I also really liked about it was where we knew the dates really far in advance so we were able to like plan… rehearsals like and we had, we had ample time to rehearse." Laura discussed study *resources* within the situation. She perceived that the competition was one of a number of development opportunities at the conservatoire, "there were lots of different… opportunities there." The competition also gave Laura autonomy:

So rather than it being like us turning up and the… conductor telling us what to do, or whatever, we were all able to kind of suggest things, offer our ideas and thoughts… So like, we would try stuff and it wouldn't work and that was fine. And then we'd try something else.

Laura described her passion for chamber music, which can be considered a personal resource, "we're all like… very passionate and… It, it's been nice to have that." Considering *well-being* outcomes, Laura described positive affective outcomes, which were linked to the challenge and benefit appraisals and included enjoyment, inspiration, and pride. Laura took inspiration from working with her peers, "I really like hearing what they're all coming up with… I found that like a very… like creatively inspiring." Laura's ensemble ultimately won the competition, which was related to the appraisal of benefit and led her to experience pride, "I was dead chuffed." Also associated with the appraisal of benefit, Laura reported the hedonic well-being outcome satisfaction, "It being like a really equally collaborative experience. I found that very satisfying," and she described it as "a really artistically fulfilling project." Additionally, Laura experienced outcomes related to eudaimonic well-being in the form of positive relations with others (demonstrated in the previous quote) and autonomy (discussed above). Regarding autonomy, Laura had the idea to enter an ensemble into the competition, "I'd brought the group together just thinking it would be really nice to like give it a go and compete… I'd found the repertoire."

6.4.2.2.   Organisational demands

Participants discussed the Group Experiential Theme, Organisational Demands, which were demands controlled at the level of the organisation (e.g., by conservatoire staff). These included aspects such as scheduling, the conservatoire environment, and travel. Organisational demands were discussed by Georgina, Hannah, Laura, and Nicholas. Organisational demands were appraised as a threat (3 appraisals), loss (2 appraisals), harm (1 appraisal), and challenge (1 appraisal).

Georgina discussed the desire to be considered for a place in a conservatoire choir and the *demand* this created, "there was this choir that I really wanted to get into and I still really want

to get into it." There was no formal structure for Georgina to audition or approach staff, with students selected by the choir lead without any formal process, "She sees you, she likes you, she picks you." Georgina *appraised* the demand as a loss (due to harm) as she perceived that she was missing an opportunity to develop her musical abilities, "I really wanted to get in[to the choir] because that's the only way you can improve your sight-reading[4]—by getting into a choir and listening to other people." Georgina described two *underlying properties of loss appraisal*: self and other comparison and ambiguity. Regarding self and other comparison, Georgina compared her own singing ability to her peers who were in the choir, "it becomes another factor in how good you are against everyone else. So if someone's in that choir you're immediately like, 'Oh, they're a good sight-reader. They're good at this, this, and this.'" Georgina perceived that she needed to develop her sight-reading skills in order to be selected for the choir, "I've been trying to up my sight-reading skills." To do this, she used the personal *resources* information seeking and problem-solving. Regarding information seeking, Georgina sought out information from a member of staff, "I've been told by my… sight-singing teacher, 'Listen, this is the book that you're going to need. This is where you should start. This is where you should end up.'" She also used her problem-solving skills and spoke to the choir lead about auditioning, "I'd be chasing after this teacher again and again and again and again. I'm pretty sure she was sick of me. And I was like, 'Is there anything I can do? … Why can't I just audition for you?'" Georgina also spoke to her head of department about the situation and the possibility of setting up an alternative choir, "I've spoken with my head of department about making… changes, about getting choirs together." Georgina experienced frustration, a negative affective *well-being* outcome as her efforts to improve her sight-reading through personal study were unsuccessful:

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[4] Sight-reading is defined as the performance of music without previous preparation or study (Merriam-Webster, n.d.-c).

Working at it was really driving me nuts because I wasn't getting really simple things that other people could get really easily… So a mix of those two things just drove me mental and I was like, 'Nope, I'm putting it away. No.' And I just kind of basically chucked it back to the librarian. Didn't want to see it.

Georgina also experienced a lack of autonomy, an aspect of eudaimonic well-being, in the form of helplessness when her attempts to get into the choir were unsuccessful, "it made me feel helpless because I couldn't control anything." The experience of helplessness was associated with Georgina's appraisal of loss/harm.

Laura described the demand of the organisational culture creating a hothouse environment, "the other thing I would say I found demanding was just being in quite a hothouse environment… And it being about like being a performer." This created a competitive culture amongst students, "it's more about like how you present as a performer and your voice and, you know, what, what gig have you got coming up next? Or like what are you doing next? I found that slightly competitive energy…." Laura *appraised* the organisational culture as a threat, "the way people kind of peacock around one another about like how much they're doing and how successful they are. I'm not, I, I find that quite hard to, to cope with, I suppose." Laura discussed the *underlying properties of threat appraisal* novelty and self and other comparison. Laura was a Master's student but had no previous experience of learning in a conservatoire environment, which introduced novelty, "I hadn't really been around it before. You know, I did like a purely academic degree, so to come into this was quite a culture shock… Yeah. So it was, it was hard to adjust to." Laura compared her own experiences and successes to her peers, "I often found that I would kind of sit there being like, 'oh, I don't have that', or like, 'oh, I didn't get that', or 'I didn't even think to apply for that.'" Laura discussed using organisational *resources* to cope with the situation and due to a mental health diagnosis, she was able to access weekly mentoring sessions, "they can offer mentoring sessions through that. So, yeah, once DSA had approved it, they linked to X Conservatoire and X Conservatoire arrange the sessions." During her mentoring sessions, Laura's mentor delivered cognitive behavioural therapy (CBT) and Laura learnt techniques to challenge irrational thoughts, "in terms of countering that… she [my mentor] suggested, kind of… not like positive self-talk

because we both agreed that didn't really help me very much, but like, like rational self-talk." Laura's self-awareness was also a personal resource she drew on in the situation. Laura described how previous therapy had helped her to become more aware of her thoughts. Laura perceived that the culture had a negative impact on her overall *well-being*, which was related to her appraisal of threat, "I found that slightly competitive energy… maybe took a bit of a toll on my… mental well-being." She further elaborated on the reason for this, which included an element of self blame and was related to the eudaimonic well-being outcome purpose in life, "as soon as people tell me about things that they have and I don't have them, I'm like, oh, why don't I do that?!" The competitive culture also had a negative impact on Laura's relationships with her peers, an aspect of eudaimonic well-being:

> … would end up talking about, "Oh, have you done this audition?" "Are you doing this audition?" "Oh, you know, I've got a second round for this. You didn't." And you're like, "Oh, great." So yeah, I guess like that kind of environment.

6.4.2.3.   Relationship demands

The theme Relationship Demands included demands at the interpersonal level, which included relationships with tutors and peers. Relationship demands were discussed by four participants: Georgina, Hannah, Jennifer, and Mark. Relationship demands were largely appraised as a threat (9 appraisals), followed by harm (3 appraisals), challenge (1 appraisal), and loss (1 appraisal).

Jennifer described a situation where she was involved in a string quartet and had difficulties collaborating with one member of the ensemble, which created a *demand*, "For me, the main demand… the demand to communicate well… To collaborate with people." Jennifer made *appraisals* of threat and harm. Jennifer appraised a threat in this situation as she was performing for a friend's exam, "it was quite difficult for me and I was leading. And it was for friend's exam." Considering the harm appraisal, Jennifer did not get on with one of the ensemble members and they criticised each other's performance, "So, because I was very blunt, maybe not empathetic enough… I may criticise a lot but not do as much on my side in terms of playing and reflecting maybe, you know—There, there was tension." Jennifer

perceived the *underlying properties of threat appraisal* as self and other comparison and novelty. Regarding self and other comparison, Jennifer compared her acceptance of criticism within the situation to her peer who she wasn't getting on with, "because I've seen him in a negative light, my mind just goes, yeah, but you're not doing it as well." The novelty Jennifer experienced in this situation was due to not having worked in a string quartet before, "it was my first ever string quartet." Jennifer used personal *resources* to cope with the situation, which included reflection and cognitive restructuring. Jennifer reflected on her own involvement in the situation, "realising that I can actually look quite negative in someone else's eyes as well and not everyone's perfect. I think that really helped." In terms of cognitive restructuring, Jennifer minimised the importance of the situation and took a more rational approach, "it's just a onetime thing. It's not a long-term commitment," and also attempted to stay positive by focusing on the music:

> I'll just try my very best to focus on good music-making instead of just only trying to tolerate this one person…. And at the end of the day, it's—music-making is music-making. It doesn't matter who you're working with.

Considering *well-being*, Jennifer experienced negative affect in the form of frustration and annoyance, which was linked to the appraisal of harm, "I was very annoyed. I would try to, to be very patient in the beginning, but at the end of our two hours [of rehearsal]… it's very difficult to, you know, to try to be something you're not." The relationship dimension of eudaimonic well-being is demonstrated in this demand and Jennifer felt that this impacted not only her relationship with the individual, but also the whole group, "Yeah, and it didn't help with the group energy at all because if I was, because he was also criticising me."

Alongside relationship demands with peers, participants discussed the *demands* created due to interpersonal relationships with staff. Hannah discussed a time when she had been involved in an ensemble project that had a difficult project lead, "and the person running the project—who I will keep nameless because it's quite big name—was a very difficult character to deal with." Hannah described the project leads behaviour, "They just were the most patronising, degrading… person who spoke to you. They would put you down." Hannah

appraised the situation as a challenge as well as harm and loss. Hannah made a challenge appraisal and did not want her own emotions to be affected by the project lead, "not allowing these people to sort of cloud your experience is always a challenge." Following the final performance by the ensemble, Hannah made appraisals of harm and loss as she felt disrespected and that she had missed out on a positive learning experience, "Like what, I have no respect for you and you clearly have no respect for us, which is a real shame because this project would be fantastic and it's a fantastic opportunity." Hannah described the *underlying properties of threat appraisal* as novelty and predictability. Considering novelty, Hannah had not experienced such behaviour before, "there was one situation where they got angry at people for drinking water and it was like, are you serious right now?" The above quote also demonstrates that Hannah experienced the situation as unpredictable and the project lead did not act with the level of professionalism she expected. To cope with the situation, Hannah used personal *resources*, in terms of psychological skills, her understanding of herself, and problem-solving. Considering psychological skills, Hannah used positive thinking during the rehearsals, "I just tried to be this wall of positivity and I'd walk in, I'd be like 'Morning! Let's have a good rehearsal?'" Hannah discussed relying on her sense of self to counter the negative comments of the project lead, "learning who you are as a person and learning a sense of what you know is right and wrong." She later said, "because I had no respect for them, I could shake off [the comments] as I walked out." Following the performance, Hannah reported using problem-solving skills and contributing to a letter of complaint that was submitted with her peers, "we ended up, actually, writing into the department about this person." That Hannah came together with peers to submit the complaint also demonstrated her use of organisational resources in the form of social support from her peers. Hannah reported that prior to the final performance of the ensemble she received emotional support from her peers:

> … before the concert, we actually all got together… So we all just said, do you know what, let's just ignore that they're there [the project lead]. Let's do this performance, enjoy it. We've all worked hard on our own repertoire… So that sense of like camaraderie between the group was really, really nice.

Considering *well-being* outcomes, Hannah experienced negative affect in the form of frustration, anger, and sadness. Associated with the appraisal of harm, Hannah was frustrated and angry at how she was being treated by the project lead, "Anger. I was quite angry just because… I feel like I'm a grown woman. I know what's, how, how human beings should be treated." Hannah was also sad about the experience, "I felt sad. Saddened that like, it was our first project back [after COVID-19] and we were working with this knob [laughs]." Hannah also discussed eudaimonic well-being outcomes in relation to positive relations with others, personal growth, and environmental mastery. The "camaraderie" Hannah felt amongst her peers represents positive relations with others. Connected with the appraisal of loss, Hannah experienced a lack of personal growth and felt she could have developed more from the experience, "I could learn from this experience a lot more if I'd of, I don't know, it's a tricky one… couldn't progress at the rate I could've done had I not had my guard up." She also experienced a lack of environmental mastery in the performance, "I didn't perform to my best ability. I didn't put the effort in as much as I would have done because I didn't respect the person running it."

Mark also described a situation in which he experienced *demands* due to difficulties in a relationship with a member of staff, in this case, an accompanist, "The relationship with the accompanist is difficult… I definitely fall into not liking her and I'm pretty certain she doesn't like me." The demand was ongoing for Mark and he also discussed an incident where he had not replied to an email promptly and the accompanist had suggested he would lose rehearsal time, "this was an email about potentially losing… accompaniment hours… because of not responding to an email from two days ago." Mark *appraised* the demand as a threat on multiple levels. Firstly, Mark was concerned about the threat of losing rehearsal time with the accompanist and the effect on his performance module, "I can't lose half an hour of one and a half hours of accompaniment if I want to do well in my final performance. Like that's not really possible." Secondly, Mark appraised a threat due to not being at ease in rehearsals with the accompanist and the effect this could have on the quality of sessions, "worries about whether a poor relationship with this accompanist would possibly result in—I mean, even just like lower-quality rehearsals because we're not in a comfortable environment." Thirdly, Mark experienced the threat of poor educational experience within the department, "And she

has quite a lot of power within the department about decision-making and organisation." Mark experienced ambiguity as the *underlying property of threat appraisal* and felt on uncertain ground when interacting with the accompanist:

> … the interactions I've had with her have put me in mind of like, of, of like gaslighting… she will send an email saying, "Why haven't you responded to me?" … And then in person, she's a completely different person… Which makes interacting with her quite difficult.

Mark discussed the personal *resources* he used, which included avoidance and emotion regulation. With regard to avoidance, Mark discussed avoiding performing with the accompanist in the past and for an upcoming performance exam, "out of my half hour recital, this year, this for my final performance… I've chosen to do about ten minutes of it unaccompanied." In terms of emotion regulation, Mark discussed going into nature and disconnecting from his studies, "get away from things and try to get into natural environments and away from electronics and like, communication… Yeah, just getting away from work and, and people [laughs]." Mark experienced negative affective *well-being* outcomes in the form of anxiety, frustration, and anger. Mark reported ongoing anxiety suggesting an ongoing appraisal of threat, "just her communication still makes me very anxious… Like I, I don't like opening emails from her still." He was also frustrated that he had not been able to resolve the situation, "frustration with the, the system around the situation that means that I can't deal with it in an effective way." The low-quality relationship between Mark and the accompanist also relates to the relational dimension of eudaimonic well-being.

6.4.2.4.   Academic demands

Students discussed demands within the Group Experiential Theme, Academic Demands, which were related to specific modules that included written or non-performance tasks and the independent study expected by the conservatoire. Academic Demands were discussed by five participants: Georgina, Hannah, Jennifer, Mark, and Nicholas. Academic demands were appraised as a threat (7 appraisals), benefit (2 appraisals), and challenge (1 appraisal).

Nicholas discussed *demands* related to a module where he had made a bow and submitted an accompanying report, "had about four weeks to actually make a bow and make it ready for assessment, when I should have had a whole year of being there and learning how to do it properly. So, it was a little bit of slapdash bow making." Regarding the written aspect of the assessment, Nicholas said, "doing the write-up for that, was probably the worst part of the last five years. Trying to put words together." Nicholas *appraised* the situation as both a threat and challenge. He appraised a threat as if he did not pass the module, he would not be able to progress onto a Master's programme, "It was hard because it basically secures my place." Nicholas also appraised the making of the bow as a challenge, "if I do this really nice, it's going to look amazing." Within the situation, Nicholas experienced imminence as the *underlying property of threat appraisal*. Due to the impact of COVID-19, Nicholas had a short time period to make the bow, "had about four weeks to actually make a bow." Nicholas also experienced novelty as the underlying property of challenge appraisal, as this was the first time he had made a bow, "it was one of those, those things that I'd probably would never have even thought about doing, but just because I was in the right place at the right time, it happened." Nicholas used organisational *resources* in the form of social support from his teacher and perceived the experience as an opportunity for development. Nicholas received tangible support from his teacher, who gave his time for free:

> … he refused to take any money… I was trying to give him cash and he was like, "No. I'm not having this. You're making a bow with me. You got me loads of work. So let's just make a bow, see what happens."

Nicholas also perceived the experience as a development opportunity, "the area that I never thought I'd ever develop was the bow-making stuff that I've done." Nicholas used personal resources in the form of problem-solving and created a plan to manage the short timeframe, "And we had to like plan everything down to the minute, making sure that we were doing it." Considering *well-being* outcomes, Nicholas experienced positive affect in the form of enjoyment, which related to the appraisal of challenge, "I've never had more fun sitting in a shed with quite a grumpy bow maker," and pride at what he achieved:

I think the best part was when you start from a block and then you come back a week later and you've been working at it and suddenly you're like, oh, that actually looks like a bit of a bow. It doesn't just look like a block that you've hacked out with a saw and chiselled away with a chisel and not really done anything useful. It looks like a bit of a bow.

Nicholas described the satisfaction he experienced from making his own bow, which suggests an appraisal of benefit following the experience, "I was close to tears and also close to just running around the room shouting." Nicholas experienced the eudaimonic well-being outcomes of positive relations with others, personal growth, and purpose in life. Considering personal growth, Nicholas had learnt a new skill and approach to working, which implied that he later appraised a benefit, "… disbelief, that someone who just plays the bass could actually do something neat and delicate." He also discussed the purpose he felt in creating the bow, "I put all the work in, it was like, ah, this is, this is great. But obviously it wasn't alive but to me it was."

Mark discussed the *demands* he experienced from one-to-one tuition, "that's only an hour a week, and it's, I mean, it's an intense hour." Mark made *appraisals* of threat and benefit from his one-to-one lessons. Mark appraised a threat that he would not be fully prepared for his one-to-one lessons, particularly in weeks where he had a large number of ensemble rehearsals scheduled, "… in that week it's pretty intense. We do like six hours of rehearsal a day for a week… I'll still have a one-to-one [lesson] that week… and my teacher will still expect me to have learnt something…." Considering benefit, Mark appraised that he had benefitted from one-to-one tuition in two ways. Firstly, he had been able to develop his musical abilities, "there's no other way to, to gain that technical skill, and insight into the industry than just through one-to-one interaction with… somebody who's doing it already every day." Secondly, Mark had benefitted by receiving professional performance engagements through his one-to-one tutors, "most of the… orchestral gigs that I've got in the last years have been through either tutors or students passing my name onto someone." Mark discussed inadequate preparation as an *underlying property of threat appraisal*, particularly in weeks where a large number of rehearsals were scheduled, "makes it difficult to fit the amount of personal

practice I need in." Considering *resources*, Mark considered one-to-one tuition as a development opportunity and discussed social support from his teacher. In terms of a development opportunity, Mark was able to have one-to-one tuition from a number of staff members:

> But the good thing about the X Department… I can have A as my main tutor and then she's perfectly happy for me to have… seven hours, spread between B [Tutor] and C [Tutor] over the rest of the year… And their skill sets are completely different. And, and so that's, that's a fantastic opportunity to learn.

Mark also felt emotionally supported by his one-to-one teachers, "… it's a nice environment and supportive environment, and it does feel like they genuinely care about the both the well-being and the progression of students." Considering *well-being* outcomes, Mark experienced positive affect and enjoyed working with his one-to-one tutors and being in the department more widely, "It's just a friendly positive environment… that is, yeah, a joy to be a part of really." Connected to his appraisal of benefit, Mark also experienced the eudaimonic well-being outcomes of personal growth and positive relations with others. In terms of growth, Mark perceived that he had developed his "technical skill, and insight into the industry." He also described the relationships with his one-to-one tutors and peers in his department as "familial" indicating the positive relationships he experienced.

6.4.2.5.   Multiple demands

The Group Experiential Theme, Multiple Demands, included participants' experiences of concurrent demands, which in itself created a demand. Participants discussed experiencing competing demands between the conservatoire and professional work, and between the conservatoire and their mental health. Managing multiple demands was discussed by Georgina, Hannah, and Laura. The requirement to manage multiple demands simultaneously was appraised as a threat (2 appraisals), loss (1 appraisal), and harm (1 appraisal).

Georgina discussed a time when she was managing a number of competing *demands*, which included her conservatoire study, two student-led performance projects, and part-time work,

"I had a very hectic life otherwise because I'd gotten into a play and an opera. The opera was happening around the same time, performing the same week, and I also had a job to juggle on top of that." Georgina *appraised* managing the demands simultaneously as both a challenge and causing harm. In terms of challenge, Georgina was fully committed to the demands she was juggling, "I'm a very enthusiastic person. So say if I'm doing something, I'm all in. So I was all in with my job, I was all in with the play, I was all in with the [laughs] opera." Regarding harm, Georgina experienced harm to her health, although she had not been aware of it at the time:

> So, I got very subconsciously stressed. That's something that happens with my psoriasis. It's not really triggered so much by diet, but by stress. And I didn't realise how stressed I'd actually gotten about it all until I could move my scalp like a unit.

Within the situation, Georgina discussed predictability and timing as *underlying properties of challenge appraisal*. Regarding predictability, Georgina's schedule was liable to change as she had limited notice of her working pattern, which impacted her other commitments, "it was a weekly basis that I got given my shifts and I never knew when my shifts were going to be. So, I looked at what my schedule was, what scope I had to change it." Timing as an underlying property of stress appraisal is represented by the number of commitments that Georgina was managing simultaneously. Georgina used personal *resources* to cope with her commitments, in the form of problem-solving and drawing on her passion. In terms of problem-solving, Georgina used time management strategies to create a plan for when she would complete her project and personal tasks, "Maximising the time I had… planning mealtimes, planning when I was going to be washing my clothes [laughs]… I literally had to sometimes time manage down to the minute of what I was doing in a day." Georgina also relied on her passion for music to help manage the demands, "I know that I was stressed all the time but it didn't matter because I was doing what I loved. And that was the important thing." With regard to *well-being* outcomes, Georgina experienced positive affect related to the appraisal of challenge, "I was running on just all the excitement of it all." However, after the intense period of coping with multiple demands, Georgina experienced a dip in her well-being, "Once, once it was all over, I was like, oh, God. I don't know what to do with myself [laughs]." Georgina also

reported experiencing personal growth, an aspect of eudaimonic well-being, which is suggestive of an appraisal of benefit following the event, "So, my time management skills have drastically improved because of that."

Laura also described the *demand* of managing multiple demands:

> I was struggling a bit with like managing my demands of like the course, the jobs that I was doing, the external singing work I was doing, and at the same time as that I was trying to find funding for my second year.

Laura *appraised* a threat, that she might not fulfil all her commitments at the conservatoire and she would be perceived negatively by staff, "I didn't really want to upset college or, you know, get in anybody's bad books." Laura discussed the timing of managing multiple stressful demands simultaneously as the *underlying property of threat appraisal*, "they were all important things that… I didn't really feel I could drop any of them." Laura discussed time management and information seeking as personal *resources* to help her cope with the demands, "I'm very personally… particular with how I manage my time. So like, if I think I've got hours free, I will, you know, be like, okay I'll do two hours practice, I'll do three hours on this project." Regarding information seeking, she sought information from her mentor, "talking about like, I guess time management. And I would bring to her like, very practical things, like I had a lot to do and I couldn't quite understand how to get through it." Laura also discussed organisational resources in the form of social support from her teacher and from the wider organisation. Laura's teacher provided tangible social support and helped her to approach another member of staff about time off:

> I'd just been offered like a summer contract. And I wanted to ask her for like all this time off. So I was like preparing my email and I spoke to my teacher and she was like, "Don't." Like "Let's wait for like maybe two, three weeks. Kind of get you on her good side, try and get you guys to talk in person…" we did do that and I did get the time.

Despite this, Laura perceived a lack of organisational support for the multiple demands she was facing, "I found that they [college staff] weren't particularly understanding… if you had external engagements. You know, it was kind of, 'College comes first. That's the end of it.'"

6.5. Discussion

In the following sections, the results are considered alongside existing research. The results are discussed in line with the research questions with sections on perceived demands, appraisals and underlying properties of stress appraisal, resources, and well-being experiences. Within each section, results are considered for professional and student participants alongside comparisons between the two groups. Firstly, the results relating to occupational demands are discussed in Section 6.5.1 to answer RQ1a, 1b, and 1c:

> **RQ1a.** What are the perceived demands associated with the lived experiences of professional classical musicians?

> **RQ1b.** What are the perceived demands associated with the lived experiences of conservatoire music students?

> **RQ1c.** How do perceived demands differ between professional classical musicians and conservatoire music students?

Secondly, results relating to appraisal are considered for professional classical musicians and conservatoire music students with comparisons between groups. This section also considers some of the reasons why particular appraisals were made by discussing underlying properties of stress appraisal. Given that there was some conceptual overlap, preparation is addressed in this section as an underlying property of stress appraisal, though it could also be considered a resource. Section 6.5.2 addresses RQ2a, 2b, and 2c:

> **RQ2a.** What primary appraisals do professional classical musicians report when experiencing occupational demands?

RQ2b. What primary appraisals do conservatoire music students report when experiencing occupational demands?

RQ2c. How do the primary appraisals of occupational demands differ between professional classical musicians and conservatoire music students?

Thirdly, occupational, study, and personal resources are considered for musicians. Included within this section is a discussion of the resource social support, though conceptually, this could also align with eudaimonic well-being. Resources are discussed in Section 6.5.3 in relation to RQ3a, 3b, and 3c:

RQ3a. What occupational and personal resources do professional classical musicians use to cope with the occupational demands they experience?

RQ3b. What study and personal resources do conservatoire music students use to cope with the occupational demands they experience?

RQ3c. How does the use of resources differ between professional classical musicians and conservatoire music students?

Following this, well-being experiences are considered for professional classical musicians and conservatoire music students. Comparisons are made between groups in terms of their experiences of hedonic and eudaimonic well-being. This section includes a discussion of the eudaimonic well-being autonomy, although autonomy could also be perceived as a resource for musicians. Section 6.5.4 addresses RQ4a, 4b, and 4c:

RQ4a. What well-being experiences do professional classical musicians report when encountering occupational demands?

RQ4b. What well-being experiences do conservatoire music students report when encountering occupational demand?

RQ4c. How do well-being experiences differ between professional classical musicians and conservatoire music students?

Finally, connections are made across the stress process considering occupational demands, appraisal, underlying properties of stress appraisal, resources, and perceived well-being outcomes of professional classical musicians and conservatoire music students. Section 6.5.5 addresses RQ5:

> **RQ5.** How can the perceived connections between occupational demands, appraisal, occupational resources, personal resources, and perceived well-being outcomes be interpreted?

6.5.1.   Perceived demands

Both professional and student musicians discussed demands within the Group Experiential Themes: a) Performance Demands; b) Organisational Demands; c) Relationship Demands. Additionally, conservatoire music students discussed demands within the Group Experiential Themes: d) Academic demands; e) Multiple demands. The themes Performance Demands, Organisational Demands, and Relationship Demands relate to the seven categories of occupational demands experienced by classical musicians, which were identified in a systematic review by Vervainioti and Alexopoulos (2015): Performance Demands relates to the categories public exposure, repertoire, and competition; Organisational Demands relates to job context; Relationship Demands relates to personal hazards and particularly the sub-category "colleague interaction." Research with conservatoire music students has also identified similar demands to the present study such as the structure of the workload (including competition and funding), the workload (including practising, learning approaches, and employment), elements of the teaching and learning environment (including assessment, teaching, and feedback), and psychological and physiological issues (including MPA; Jääskeläinen, López-Íñiguez, & Lehikoinen, 2022; Jääskeläinen, López-Íñiguez, & Phillips, 2022).

The theme Performance Demands included demands related to different performance contexts [Ben – audition; Daniel – chamber music; Eva – CD recording; Jennifer – recording; Laura – competition; Nicholas – final recital], exposure [Adam – chamber music], and performance standards [Ben – performance standards; Daniel – performance standards;

Nicholas – final recital]. Given the centrality of concerts and performances in the profession and the conservatoire curriculum, it is not surprising that participants often discussed Performance Demands. Within the conservatoire setting, teaching is oriented towards developing students' specialist performance skills (Bennett, 2009; Perkins, 2013b) with performance situations that simulate those of the profession. Demands that participants discussed occurred within a variety of settings including orchestral performances, recording sessions, auditions, competitions, and chamber music ensembles, all of which have been considered in the literature (e.g., Brodsky, 2006; Kegelaers, Hoogkamer, et al., 2022; Lim, 2014; Parasuraman & Purohit, 2000). Depending on the performance context, some participants reported feeling exposed. For instance, Adam described feeling exposed in a chamber music setting, which he contrasted with his orchestral performance, where he was able to "hide" amongst other performers. Vervainioti and Alexopoulos (2015) reported that public exposure is one of the main demands faced by classical musicians, with musicians often experiencing music performance anxiety (MPA) as a result. Musicians also discussed the demand of meeting high performance standards, which was related to high self-expectations and the perceived expectations of others. Similarly, in a study on the transition into the music profession, Creech et al. (2008) reported that self-doubt regarding the ability to meet high performance demands was one of the main challenges experienced by musicians.

The theme Organisational Demands related to those demands that were controlled at the level of the organisation (i.e., by management or conservatoire staff) [Adam – role conflict, presenting; Ben – organisation; Eva – orchestral leadership; Georgina – choir; Kieran – international tour; Laura – hothouse environment]. This theme encompassed demands such as touring schedules, travel, organisation, role related demands, and students' perception of the conservatoire environment. Zendel (2021) suggested that the demands of touring, such as frequent travel and scheduling issues could increase the precarity experienced by professionals. Professional musicians' perceptions of Organisational Demands were more nuanced compared to music students and encompassed specific role-related demands. This might be due to the complexities of the work environment for professional musicians, particularly those with portfolio careers. In comparison, within the conservatoire, timetables and rehearsals are managed by staff to a larger extent. Professional musicians also discussed

role related issues, which included role insecurity, role conflict, and role overload [Adam – role conflict, presenting, chamber music; Eva – orchestral leadership]. Adam discussed two contrasting situations involving role demands. In one instance, Adam described performing across multiple roles within one organisation (i.e., in principal, first, and second roles). Here, Adam focused on the differences between the roles, which led to role conflict, which has been defined as "the occurrence of two or more incompatible behavioural expectations" (Anglin et al., 2022, Online Appendix C). In the second scenario, Adam described taking on the role of presenter as well as being an instrumental performer in a concert. However, this did not create role conflict and Adam viewed the two roles as complementary. The difference in the experience of role conflict may have occurred due to Adam's perception of the roles: in the first scenario, Adam needed to mould his instrumental skills in multiple ways; in the second scenario, he could separate the roles of musician and presenter. Adam's experience is representative of the multiple roles musicians take on within a portfolio career and the findings suggest that role conflict may occur as a result of roles being perceived as incompatible.

Considering students, the perception of the conservatoire culture as competitive created an Organisational Demand with Laura describing a "hothouse environment". Several studies have discussed the competitive aspect of learning at a conservatoire, which has been ascribed to a competitive labour market and concerns over the criticism of peers (e.g., Dobson, 2010a; Jääskeläinen et al., 2020; Perkins et al., 2017). Researchers have also suggested that conservatoires operate hierarchically through activities such as displaying orchestral seating, awarding of opportunities, and demonstrating favouritism towards particular students (Davies, 2004; Perkins, 2013a, 2013b). Such activities offer an explanation as to why Georgina was unable to join the choir as she may not have been perceived as a "favourite" by staff. Additionally, hierarchical practices may explain why the conservatoire environment created an Organisational Demand for students.

The theme Relationship Demands related to interpersonal relationships with colleagues, peers, management, staff, and audiences [Adam – management relationship; Ben – social integration; Charlotte – argument, healthcare work; Hannah – project lead; Jennifer – string

quartet; Mark – accompanist]. Professional musicians discussed Relationship Demands associated with colleagues, which may be due to the importance of such relationships for work opportunities and performance outcomes. Indeed, Dobson (2010a) discussed the term "professional sociability" and suggested that high interpersonal skills could lead to work retention and future work opportunities. Whilst colleagues may help professional musicians access work opportunities, for students such opportunities may be facilitated by staff. Hannah was concerned that a poor relationship between herself and a staff member could have a negative impact on her future career. The experiences of professionals and students demonstrate that others (i.e., colleagues and teachers) may have power over career opportunities. Whilst professionals may find themselves on an equal footing with colleagues, for students, a power imbalance exists due to the student-teacher relationship and teaching practices within the conservatoire, which are based on a master-apprentice relationship (Burwell, 2005). Similarly, conservatoire students have reported difficulties due to poor relationships with one-to-one teachers (Pecen et al., 2018; Perkins et al., 2017).

Conservatoire music students also discussed Academic Demands [Mark – one-to-one tuition; Nicholas – bow project] and Multiple Demands [Georgina – multiple demands; Laura – multiple demands]. Mark discussed the demands related to his one-to-one lessons, which again demonstrates the centrality of performance in the conservatoire learning environment. The theme Multiple Demands encompassed the perspective that managing several demands at once was itself a demand. This included balancing demands such as conservatoire study, external employment, sourcing funding, and additional performances. Laura was particularly concerned about her ability to continue funding her studies and it has been suggested that students who are less financially stable may take on performance work, which can create conflicting demands (Davies, 2004). Similarly, Jääskeläinen, López-Íñiguez and Lehikoinen (2022) suggested that the need to work alongside studying could lead to stress overload for music students. It is interesting that Multiple Demands was only a theme for students. Whilst professionals did discuss co-occurring demands, it appeared that they were more easily able to separate the demands of work and other aspects of their lives. For students undergoing a period of transition, it may be the first time living away from home and taking on a greater

number of demands, which could explain why Multiple Demands was a Group Experiential Theme for students but not professionals.

6.5.2. Appraisals and underlying properties of stress appraisal

This is the first qualitative study to explore appraisals and underlying properties of stress appraisal in professional classical musicians and conservatoire music students. Two novel findings regarding underlying properties of stress appraisal emerged from this study. Firstly, participants discussed preparation more broadly than was suggested by Thatcher and Day (2008), referring not only to inadequate preparation but also to adequate preparation. Secondly, considering self and other comparison, participants made direct as well as indirect comparisons. These findings are discussed further in the following section after consideration of appraisal.

Informed by CMRT (Lazarus, 1999), professional and student musicians' appraisals of demands were categorised as threat, challenge, benefit, harm, and loss. Across all demands, threat appraisals were by far the most common. A small number of demands were appraised as a challenge or benefit and the fewest appraisals were made for loss and harm. The frequency of threat appraisals across all Group Experiential Themes, suggests that the occupational environments of both professional classical musicians and conservatoire music students can be characterised as threatening. Similarly, in a study of popular musicians, occupational demands were most commonly appraised as a threat (Cohen, 1999). However, Cohen (1999) reported that harm was the second most frequent appraisal, followed by challenge and benefit.

For professional musicians, threat appraisals were frequently related to employment security [Ben – social integration; Eva – orchestral leadership], career advancement [Ben – audition; Kieran – international tour], and negative judgement by colleagues or management [Adam – chamber music; Daniel – performance standards]. Occasionally, professional musicians appraised a threat to their own well-being or perception of self [Daniel – performance standards]. Students reported threat appraisals due to performance or academic outcomes (e.g., grades) [Jennifer – recording, string quartet; Mark – accompanist; Nicholas – final recital,

bow project] and/or the organisational culture [Jennifer – string quartet; Laura – hothouse environment, multiple demands; Mark – accompanist]. For professional musicians, precarious employment conditions and threats to employment security have been discussed in the literature (Chafe & Kaida, 2019; Dobson, 2010a; Umney & Kretsos, 2015). Musicians often work on a freelance basis, which may lead to employment uncertainty alongside financial insecurity (Chafe & Kaida, 2019). That participants perceived a threat due to the potential for negative judgement by colleagues is also relevant to employment security. Coulson (2012) described the importance networking played in obtaining employment, with colleagues providing performance opportunities and advice. Colleagues' perception of performance skills is therefore crucial for musicians to be able to access such employment opportunities. Similarly for students, the perceptions of teachers and conservatoire staff may play a role in access to further study and employment opportunities. Considering the appraisal of threat due to the conservatoire culture, Long et al. (2014) suggested that this may be due to the competitive and specialised nature of music study. Additionally, students are expected to meet high standards and there is the possibility of failure based on a single performance. Further, the perception of the organisational culture as threatening led some students not to make formal complaints or to submit complaints anonymously. This is a concerning finding and students perceived that complaining might result in negative responses—affecting study, relationships with staff, or career prospects.

Challenge appraisals were made by professional musicians when they were in unusual circumstances but had experienced similar scenarios previously [Adam – presenting; Ben – performance standards; Eva – CD recording]. This suggests an element of prior learning and reflection, where participants have previously benefitted from engaging with similar demands. Students also made challenge appraisals when encountering unusual or new situations [Georgina – multiple demands; Nicholas – bow project] as well as for performance projects [Hannah – project lead; Jennifer – recording; Laura – competition; Nicholas – final recital]. Professional musicians believed they could experience personal growth through taking on demands and students perceived learning new skills as a beneficial opportunity. The notion that conservatoire students benefit from engaging in development opportunities, is promoted in the discourse of conservatoire websites and prospectuses (Blackstone, 2019).

Within CMRT, Lazarus (1999) suggested that perception of opportunity is part of the transactional relationship between the individual and their environment and contributes to the appraisal process. Moreover, Lazarus suggested that individuals can precipitate opportunities by developing skills ahead of time, for instance, through enrolling on courses or gaining knowledge. In the case of musicians, developing their instrumental skills to a sufficient level may allow them to take advantage of opportunities when they are presented. Another potentially relevant concept is growth mindset, which is the belief that one's traits are malleable and can be changed through effort (Dweck, 2008). Dweck and Yeager (2019) suggested that individuals with a growth mindset are more likely to seek out challenges, which may explain why musicians made challenge appraisals when in unusual situations.

Benefit appraisals were made when participants perceived that the experience had been beneficial to their career or professional development [Adam – presenting; Eva – CD recording; Jennifer – recording; Laura – competition; Mark – one-to-one tuition], personal development [Kieran – international tour], or to audiences [Charlotte – healthcare work]. Often, these benefit appraisals were made after taking on new roles or opportunities that represented a step forward in terms of career. Given the precarious nature of a career in music, many musicians choose to adopt a portfolio career, which may encompass a range of activities such as musical performance, teaching, and composing (Thomson, 2013). Portfolio careers may help provide some stability for musicians through regular engagements or teaching work, whilst also allowing time for performance work (Umney & Kretsos, 2015). As such, taking on new roles may have provided participants with increased employment security and thus been perceived as beneficial. Further, the roles that Adam and Charlotte took on had an impact on their identities, which they perceived as beneficial: Adam incorporated the role of presenter into his identity; Charlotte changed her perception of herself as a musician.

Harm and loss appraisals related to not meeting the perceived role requirements [Eva – orchestral leadership], low-quality experiences [Charlotte – argument; Hannah – project lead], missing out on opportunities [Georgina – choir], and negative physical health outcomes [Georgina – multiple demands]. Consistent with CMRT (Lazarus, 1999), harm and loss appraisals were made when participants were unable to achieve their goals and perceived

negative consequences. Considering Georgina's experience of missing out, some conservatoire students have reported that they were not provided with adequate performance opportunities to develop their skills to an appropriate professional level (Davies, 2004; Perkins, 2013a). At a professional level, harm and loss appraisals have been explored in a high performance context with sports coaches working at Olympic and international levels (Didymus, 2017). Similarly to the present study, sports coaches reported harm or loss appraisals when they were unable to achieve their goals or perceived damage to themselves in terms of well-being or emotion.

Alongside appraisal, participants' experiences of underlying properties of stress appraisal were explored. Professional musicians reported experiencing all 10 underlying properties of stress appraisal as reported by Thatcher and Day (2008). Students reported experiencing nine of the underlying properties of stress appraisal except for temporal uncertainty. Following is a discussion of novel findings from this research and consideration of four underlying properties of stress, which were frequently discussed by participants: inadequate preparation, self and other comparison, event uncertainty, and novelty.

A unique finding from the present study is that professional and student musicians discussed adequate preparation [Ben – audition; Charlotte – healthcare work; Eva – CD recording; Laura – competition; Nicholas – final recital] alongside inadequate preparation [Daniel – chamber music, performance standards; Mark – one-to-one tuition]. Preparation was largely discussed in relation to practice and a significant body of literature exists on the topic of deliberate practice in music (e.g., Hambrick et al., 2014; How et al., 2021; Kegelaers, Hoogkamer, et al., 2022). When participants discussed adequate preparation, they were more likely to report positive performance outcomes and the opposite was true for inadequate preparation, a finding reflected by Clark et al. (2014). A possible reason why adequate preparation was not suggested as an underlying property of stress appraisal by Thatcher and Day (2008) was that they asked participants to consider their most stressful competition experience. As such, the situations participants discussed are likely to have involved significantly high levels of demand with implications for underlying properties of stress appraisal and performance outcomes. In contrast, in the present study participants were asked to describe two

demanding scenarios: one perceived as stressful and one perceived positively. The inclusion of a broader range of demands is a strength in the present study and might be one reason why preparation emerged as an additional underlying property of stress appraisal. This suggests that Thatcher and Day's (2008) underlying properties of stress can be revised to include "preparation" rather than specifically "inadequate preparation."

For both students and professionals, the most common underlying property of stress appraisal was self and other comparison. Self and other comparison was observed in two ways. Firstly, professional and student musicians made direct comparisons between themselves and colleagues, peers, past selves, and musicians they admired [Adam – presenting; Daniel – chamber music; Georgina – choir; Jennifer – string quartet, recording; Laura – hothouse environment; Nicholas – final recital]. Secondly, professional musicians compared themselves to a tacit industry standard, which caused them to be concerned about evaluation from colleagues [Adam – chamber music; Eva – orchestral leadership]. These can be considered as indirect comparisons and this type of self and other comparison is a novel finding of the present study. Considering direct comparison, professional musicians compared themselves both favourably and unfavourably, whereas students only compared themselves unfavourably to others. This suggests that professionals have a more balanced perspective of their skills due to their level of experience and understanding of the requirements of the profession. Self and other comparison is embedded in the careers of classical musicians and linked to conservatoire culture. Within the conservatoire, activities such as displaying orchestral seating positions may lead students to feel competitive and compare their performance with peers (Perkins et al., 2017). Georgina also compared the opportunities she was offered with those of their peers as a proxy for measuring success and Davies (2004) reported a similar finding. On a professional level, for those who desire an employed role in a UK orchestra, the recruitment process can involve multiple rounds of auditions followed by a trial period lasting months or even years (Noden, 2017). Auditions, therefore, lead to situations in which musicians are in direct competition and required to compare their skills against those of their peers (Kegelaers, Hoogkamer, et al., 2022). These contextual factors may go some way to explain why self and other comparison was so frequently discussed by both students and professionals.

Considering indirect comparisons between self and others and the need to perform in line with professional standards, participants were concerned with whether their performances were of a high enough standard. Participants were concerned about being remembered for poor performances and the potential for losing work due to reputational damage. Similarly, self-employed musicians reported that musical ability was an important aspect of their reputation (Portman-Smith & Harwood, 2015). Additionally, freelance jazz musicians have reported feeling a need to prove themselves during performance as new colleagues may be unaware of their normal performance standard (Dobson, 2010a). This may explain Eva's concern about her colleagues' evaluation as she was employed on a freelance basis when leading the orchestra. As such, she may have felt the need to demonstrate to her colleagues that she was capable of this level of responsibility.

Considering event uncertainty, professional and student musicians more often discussed subjective probability as opposed to objective probability. This took the form of considering whether they would be able to perform at the required standard of the profession or for assessment [Ben – performance standards; Daniel – performance standards; Jennifer – recording; Nicholas – final recital] or meet the requirements of the role [Charlotte – healthcare work]. Whilst Ben was "confident" in his abilities, Daniel felt unsure whether he would be able to perform at the required standard. Self-efficacy describes an individual's belief in their ability to execute a particular skill (Bandura, 1997). Music performance self-efficacy has been explored in relation to appraisal (Osborne & McPherson, 2018). Osborne and McPherson (2018) found that students with higher music performance self-efficacy were more likely to make challenge appraisals, whereas those with lower performance self-efficacy made threat appraisals. Further, Clark et al. (2014) conducted a study on musicians' thoughts whilst performing and reported that positive feelings such as confidence were associated with successful performance outcomes, whilst negative thoughts were associated with unsuccessful performance outcomes.

Novelty was more apparent in the discussions of music students in comparison to professional musicians. This makes sense given that students are in a period of transition and are exposed to new experiences during their studies, whereas professionals are less likely to

encounter new situations as their careers progress. Music students reported experiencing novelty in relation to the conservatoire culture [Laura – hothouse environment], relationships with staff [Hannah – project lead], performance contexts [Jennifer – string quartet], and assessments [Nicholas – bow project]. For Laura, Hannah, and Jennifer the novelty of their situations added to the negative perception of the demands. Miksza et al. (2021) suggested that novelty and uncertainty underpin some of the demands that music students experience such as understanding assessment criteria, responding to performance feedback, and concern about employment after graduation. Whilst absolute novelty was not reported by professional musicians, they did discuss occasions which they perceived as unique, such as new roles or working in unusual circumstances [Adam – presenting; Charlotte – argument; Kieran – international tour]. This was similar to Thatcher and Day's (2008) finding that although it was unlikely that experienced gymnasts encountered true novelty, they still perceived an element of novelty in their experiences.

6.5.3.   Resources

Professional and student musicians discussed using both personal and occupational resources to cope with the demands they experienced, frequently relying on personal resources. Personal resources used by both professionals and students included the use of psychological skills, problem-solving, performance preparation, emotion regulation, and avoidance. Students also referred to passion for music, self-awareness, and reflection as personal resources. Workplace and conservatoire resources included social support from staff, colleagues, peers, and audiences as well as development opportunities, the provision of autonomy, and organisational resources. Participants used resources that were appropriate to the type of demand they experienced: for instance, in the case of performance demands, professional musicians frequently used psychological skills aimed at affecting their performance outcomes. In this section, the personal resources of psychological skills, problem-solving, and emotion regulation are discussed, followed by consideration of the organisational resources of social support and development opportunities.

For both professionals and music students, psychological skills were frequently referred to and included imagery and mental rehearsal [Adam – chamber music], self-talk [Eva – orchestral leadership; Laura – hothouse environment], cognitive restructuring [Ben – audition; Hannah – project lead; Jennifer – recording, string quartet], and mindfulness activities [Daniel – performance standards; Nicholas – final recital]. The results from a systematic review by Ford and Arvinen-Barrow (2019) suggested that psychological skills interventions are effective in supporting musicians to cope with the demands they experience and can lead to enhanced performance skills, reduced anxiety, and improvements in self-efficacy. The majority of intervention studies in this area have been conducted with music students and further exploration with professional musicians is warranted given the continued exposure to performance demands throughout a musician's career. Professional musicians indicated a more advanced use of psychological skills, such as incorporating imagery and mental rehearsal, which may reflect greater experience at applying such skills. Participants had developed their psychological skills through formal and informal learning: Adam and Laura had received CBT; Daniel's interest in meditation led him to use mindfulness activities. Those who received CBT perceived the psychological skills they learnt as effective for managing performance demands and continued to apply their skills in performances. The continued use of these skills by professional musicians suggests that students would benefit from learning about and engaging with psychological skills at an earlier stage and interventions could be incorporated into the conservatoire curriculum.

Considering problem-solving skills, participants described creating travel plans [Ben – organisation], time management [Georgina – multiple demands; Laura – multiple demands; Nicholas – bow project], self-regulated learning [Nicholas – final recital], creating strategies to approach performances [Jennifer – recording], and taking a constructive approach to problem-solving [Adam – chamber music; Georgina – choir; Hannah – project lead]. Regarding time management, students discussed considering their schedules and planned when to complete work, sometimes on a day-to-day basis [Georgina – multiple demands; Laura – multiple demands; Nicholas – bow project]. Although some students did develop their problem-solving skills due to their conservatoire experiences, many of the problem-solving skills they used were not taught as part of the formal curriculum. In a study on the

hidden curriculum in a university music setting, several third year undergraduate students reported that time management was an important skill they had learnt during their studies (Pitts, 2003). Professional musicians used similar problem-solving skills to students, which suggests that such skills are important to learn. This may be particularly true for freelance musicians, who do not have the support of management staff. Vaag et al. (2014) reported that problem-solving skills related to entrepreneurship and management were particularly important for freelance rock and popular musicians. Making the development of such skills explicit for conservatoire students may support their progression into the profession.

Participants also discussed personal resources including self-efficacy [Ben – audition], remembering their passion for music [Georgina – multiple demands; Laura – competition], avoidant behaviour [Charlotte – argument; Mark – accompanist], self-awareness [Laura – hothouse environment], reflection [Jennifer – string quartet], and emotion regulation [Ben – performance standards, social integration] although these were discussed less frequently. Interestingly, Ben discussed emotion regulation strategies and reported different strategies for downregulating his emotions. In the case of performing whilst on tour, Ben described focusing on the music to reduce feelings of excitement; whilst interacting with colleagues on tour, he reappraised the situation as "normal" to downregulate his emotions to the same level as his colleagues. These techniques are discussed by McRae and Gross (2020), who described five types of strategies for emotion regulation including attentional deployment and cognitive change, which incorporates reappraisal. Ben's success at using these techniques to regulate his emotions is reflected in the literature, which suggests that reappraisal is linked to adaptive outcomes, including positive impacts on well-being (Gross & John, 2003).

Alongside personal resources, professional and student musicians discussed occupational resources. This included social support, autonomy, development opportunities, and organisational resources. Professional musicians considered social support from colleagues, supervisors, and audiences. Colleague social support and its relevance to professional musicians have been examined in the literature (e.g., Ascenso et al., 2017; Dobson & Gaunt, 2015; Parker et al., 2019). In the present study, participants discussed different types of social support such as emotional support [Daniel – performance standards; Eva – CD recording],

esteem support [Adam – chamber music], informational support [Ben – audition; Eva – orchestral leadership], and tangible support [Eva – CD recording], which aligns with the categories of social support identified in the literature (Cutrona & Suhr, 1992). Informational support has been considered in the literature in relation to popular musicians who may share information and skills between band members (Vaag et al., 2014). Tangible support has also been perceived as important for professional musicians, as colleagues may provide work opportunities, free instrumental lessons, and accommodation (Coulson, 2012). Whilst the majority of the participants perceived that social support was available from colleagues, Daniel described a lack of colleague support and instead relied on his personal resources to cope with demands. In contrast to professionals, conservatoire students discussed peer support infrequently, which may be due to the perception of the conservatoire culture as competitive.

Students more often discussed social support provided by teachers and staff members. Within the literature, students have identified one-to-one teachers as a source of support regarding health and well-being (Perkins et al., 2017). Further, Williamon and Thompson (2006) reported that first year conservatoire students were most likely to seek support from their one-to-one teacher for both physical and psychological issues. Students discussed support from staff members in terms of informational support [Georgina – choir; Laura – multiple demands], tangible support [Laura – multiple demands; Nicholas – bow project], and emotional support [Mark – one-to-one tuition]. Given the educational context and position of staff, it is unsurprising that students sought informational support regarding managing the demands of their studies. Additionally, the emphasis on the one-to-one learning environment in a conservatoire may encourage students to rely on a specific teacher. Interestingly, tangible support was provided by Laura's one-to-one teacher in navigating the relationships with other members of conservatoire staff. The reliance of students on their one-to-one teachers could lead to a large amount of responsibility and Gaunt (2008) discussed the intensity of the one-to-one relationship for both students and teachers. Indeed, some one-to-one teachers have reported feeling responsible for students' personal lives as well as musical development (Carey & Grant, 2015; Gaunt, 2008).

Social support from supervisors and audiences was also discussed by professional musicians although less frequently. Supervisor social support occurred in the form of esteem support [Charlotte – healthcare work]. Charlotte was able to discuss her experience of working with clients with dementia with a music therapist, which she perceived as supportive and confirmed that she had acted appropriately. Although Charlotte often worked in a healthcare setting, it was rare for her to have the opportunity to discuss her experiences with a professional music therapist. Given the intensity of Charlotte's experiences with clients, the results suggest that more frequent supervision could be beneficial, which could take a similar supervision model as for music therapists (Kennelly et al., 2016).

Development opportunities were discussed by professional and student musicians as an organisational resource. These opportunities allowed participants to work in different settings [Charlotte – healthcare work; Kieran – international tour; Daniel – chamber music], develop their musical abilities [Laura – competition; Mark – one-to-one tuition], and develop practical skills [Nicholas – bow project]. Some professional musicians perceived a lack of development opportunities within their roles or that the available opportunities were inadequate. This may be due to the flat organisational structure of orchestras leading to limited opportunities for career progression. Therefore, experiences such as working in healthcare settings and schools may provide an opportunity to develop additional skills and be considered a creative outlet (Abeles & Hafeli, 2014; Ascenso, 2016). Contrastingly, students perceived a number of opportunities to develop their musicianship and associated skills. Given the educational context of a conservatoire, this is not surprising. Similarly, Jääskeläinen (2022) suggested that music students experienced personal growth and development through their engagement in musical activities.

6.5.4. Well-being experiences

Professional and conservatoire musicians reported both hedonic and eudaimonic well-being outcomes. Participants discussed acute emotional responses at the time of experiencing occupational demands (i.e., positive and negative affect) alongside long-term well-being outcomes (i.e., satisfaction and eudaimonic well-being), which aligns with Lazarus' CMRT

(1999). In this section, positive affect, negative affect, and satisfaction are discussed. Following this, some aspects of eudaimonic well-being are considered with a focus on environmental mastery, personal growth, purpose, and autonomy.

Considering positive affect, professional and student musicians reported experiencing enjoyment, excitement, inspiration, and pride due to their musical experiences [Ben – audition; Charlotte – healthcare work; Daniel – chamber music; Eva – CD recording; Georgina – multiple demands; Kieran – international tour; Laura – competition; Mark – one-to-one tuition; Nicholas – final recital]. Similarly, Ascenso et al. (2017) reported that music-making was an important contributor to positive emotions in professional classical musicians and musicians reported experiencing higher levels of positive emotion when compared to the general population (Ascenso et al., 2018). Music students have also reported experiencing positive emotions as a result of performing (Lamont, 2012; Perkins et al., 2017). Additionally, professional musicians have reported experiencing positive emotions due to being able to give music to others (Ascenso et al., 2017), which is akin to Charlotte's experience of working in a healthcare setting.

Participants also discussed negative affective outcomes in the form of anxiety [Ben – audition; Eva – orchestral leadership; Jennifer – recording; Mark – accompanist], frustration [Georgina – choir; Hannah – project lead; Jennifer – string quartet; Mark – accompanist], anger [Hannah – project lead; Mark – accompanist], discomfort [Daniel – performance standards], and feeling disheartened [Nicholas – final recital]. Both professionals and students reported acute anxiety due to performance scenarios and Barros et al. (2022) suggested 16–83.1% of music students experience MPA. Additionally, a large body of literature exists regarding MPA, its prevalence, and possible interventions for musicians (e.g., Fernholz et al., 2019; Kenny, 2011). Eva experienced a more lasting negative affective outcome due to leadership issues, which is similar to the guilt experienced by string players who made mistakes during performance (Dobson, 2010b). The findings of the present study suggest that whilst anxiety is a relevant negative affective outcome for musicians, there are other relevant outcomes. Music students reported experiencing frustration and anger when they perceived they were being treated wrongly by staff or other students. A similar finding has been reported in medical students,

where experiences of mistreatment such as verbal abuse and the denial of opportunities were related to negative affective outcomes including anger, shock, and shame (Yau et al., 2021).

Professional and student musicians described experiencing satisfaction as an outcome, both in terms of feeling satisfied [Adam – chamber music; Ben – audition; Laura – competition; Nicholas – bow project] and dissatisfied [Charlotte – argument; Daniel – chamber music; Eva – orchestral leadership]. Participants reported feeling satisfied when performances had gone well, which aligns with research suggesting that making music is itself a source of satisfaction for musicians (Coulson, 2012). Specifically regarding students, research suggests that music students are somewhat satisfied with their lives and study experiences (Demirbatir et al., 2013; Habe et al., 2021). Participants reported dissatisfaction when either their own performance or the actions of others failed to live up to their expectations. This is similar to research from the occupational literature, which suggests that unmet expectations may have a negative impact on job satisfaction (Irving & Montes, 2009; Murray, 2008). Consequently, it is important that conservatoire students develop a realistic job preview. Whilst students may choose to go into music due to their passion for the subject, it is important that they understand and are prepared for the realities of the job. Bennett (2009) identified that whilst performing arts students understood that they would likely take on different roles within a portfolio career, such roles were often not seen as desirable when compared with the ideal of being a full-time performer. This means that there is potential for musicians transitioning into the workplace to be disappointed and dissatisfied if their careers do not live up to their expectations.

Alongside hedonic well-being outcomes, professional and student musicians reported eudaimonic well-being outcomes including autonomy, environmental mastery, personal growth, positive relations with others, and purpose in life. Self-acceptance was only discussed by professional musicians [Eva – orchestral leadership]. Professional and student musicians frequently referred to environmental mastery, which they discussed in relation to a range of performance situations [Adam – chamber music; Ben – audition; Daniel – performance standards; Hannah – project lead; Kieran – international tour; Nicholas – final recital]. Experiencing environmental mastery was linked to performance outcomes: when performance outcomes were perceived as positive, this was associated with an increase in

environmental mastery; conversely, when performance outcomes were perceived as negative, this related to a decrease in environmental mastery. Environmental mastery is similar to the concept accomplishment, which is part of Seligman's (2011) PERMA framework of psychological well-being and has been explored in musicians (Ascenso et al., 2017). Musicians have reported experiencing accomplishment through music-making, taking on additional musical roles, and relationships with colleagues and audiences (Ascenso et al., 2017). The authors also noted that accomplishment was associated with the achievement of goals that were intrinsically motivated.

Personal growth was discussed by professional and student musicians [Ben – audition; Charlotte – healthcare work; Eva – CD recording; Georgia – multiple demands; Hannah – project lead; Jennifer – recording; Kieran – international tour; Mark – one-to-one tuition; Nicholas – bow project]. For students, personal growth included developing specific skills, such as time management and instrumental skills. These skills resulted from engaging with the conservatoire curriculum, student projects, external employment opportunities, and self-directed learning activities. For professionals, personal growth involved working in new settings and gaining new perspectives on themselves and their work. This finding is echoed in research on critical life events in sport and music where individuals have reported experiencing personal growth through increased maturity, greater self-understanding, and developing perspective on what was important (John et al., 2019). Whilst most participants described experiences that benefitted their personal growth, Hannah reported a lack of personal growth due to the interpersonal demands she experienced.

Purpose in life [Charlotte – healthcare work; Nicholas – bow project], self-acceptance [Eva – orchestral leadership], and autonomy [Eva – CD recording; Laura – competition] were discussed less frequently by participants. Charlotte derived a sense of meaning and purpose from her work with clients with dementia. Similarly, musicians working with clients with a variety of health conditions experienced meaning through developing relationships and being able to use their musical skills to serve others (Forbes & Bartlett, 2020b). Considering autonomy, Laura had considerable input into the decision-making process regarding the competition performance. She contrasted this to other educational and professional

performance experiences, which were normally led by a conductor and left little autonomy for individual performers. Additionally, conservatoire students may be required to perform specific repertoire for assessments and auditions, meaning there can be little room for autonomy within the curriculum. A similar finding has been reported for professional and student string players, where those performing in orchestral settings perceived little autonomy (Dobson, 2010b). However, solo and chamber music settings were suggested to provide greater autonomy (Dobson, 2010b).

6.5.5.   Occupational stress and well-being

This is the first qualitative study to explore the stress process and perceived well-being outcomes from the perspective of CMRT (Lazarus, 1999) in professional classical musicians and conservatoire music students. As such, this study demonstrates that CMRT is a useful framework for exploring musicians' experiences of occupational stress and well-being. In this final section, connections are made between occupational demands, appraisal, underlying properties of stress appraisal, resources, and perceived well-being outcomes.

Across occupational demands, threat appraisals were most frequent and related to all Group Experiential Themes. This suggests that, on the whole, the occupational context of both professional musicians and conservatoire music students can be characterised as threatening. The main threats that were perceived by participants related to career and employment security for professionals alongside the organisational culture of the conservatoire for students. The appraisal of the conservatoire culture as threatening may be due to the competitive nature of study, which is linked to competition within the labour market for professional musicians. The underlying property of stress appraisal most frequently discussed by professional and student musicians was self and other comparison. This may be due to the competitive environment musicians operate in. When making comparisons between self and others, participants either compared themselves directly to others or indirectly via a tacit industry standard. Participants, particularly students, compared themselves unfavourably to others, which may explain why the majority of demands were appraised as a threat. To elaborate, if an individual's musical abilities are judged as

inadequate when compared to others this could mean the loss of work or performance opportunities. Preparation was an important underlying property of stress appraisal for participants, with individuals reporting both adequate and inadequate preparation.

Preparation was tied to practice for participants and can also be considered a personal resource. Additionally, participants described personal resources including psychological skills, problem-solving, and emotion regulation. Organisational resources were largely related to the social support of colleagues and teachers. Such resources are important for employment opportunities and performance outcomes. Through using resources, participants often referred to successful outcomes, particularly in terms of performance. However, sometimes participants discussed unsuccessful performance outcomes and times when using resources had not been effective or timely.

Well-being outcomes were related to the type of appraisal that participants made. Threat and challenge appraisals were related to acute hedonic well-being experiences. Threat was related to the experience of negative affective well-being outcomes and challenge was related to positive affective well-being outcomes. Longer term well-being outcomes, including satisfaction and aspects of eudaimonic well-being, were related to appraisals of benefit and harm/loss. Satisfaction had a positive impact on eudaimonic well-being experiences (e.g., increases in environmental mastery, personal growth) and was connected with appraisals of benefit. This often related to the effective use of resources, which was associated with successful performance outcomes and positive music-making related activities. Harm and loss appraisals were connected with dissatisfaction and experiences that negatively impacted eudaimonic well-being (i.e., related to ill-being). Such experiences were associated with ineffective use of resources and negative performance outcomes. Additionally, harm and loss appraisals were associated with negative affective outcomes, such as anger, when participants perceived that they had been wronged or mistreated by others. It is important to note the temporal element of these appraisals and the associated well-being outcomes: challenge and threat appraisals were made prior to events and affected acute well-being outcomes; benefit and harm/loss appraisals were made following events and led to lasting well-being outcomes.

Chapter 7

General discussion

7.1. Introduction

In this chapter, I restate the aims of the research programme, set out in Chapter 2, and systematically outline where they were met within the thesis. I synthesise the findings from Studies 1, 2, and 3 (see Chapters 4-6) and demonstrate how the thesis contributes to our knowledge of the occupational stress and well-being of professional classical musicians and conservatoire music students. I then consider the findings of each study and discuss theoretical, conceptual, and practical implications. Finally, I consider the strengths and limitations of the research programme and provide recommendations for future research.

7.2. Purpose of the thesis

The aim of this research programme was to examine the occupational stress process and well-being of professional classical musicians and conservatoire music students. This was achieved using a multi-method research design and ensuring that the research was underpinned by relevant, contemporary conceptualisations of occupational stress and well-being. The main objectives of the research were as follows:

1. To systematically evaluate and synthesise the literature on the relationship between occupational demands and well-being in performing artists.
2. To assess, quantitatively, the relationships between occupational demands, appraisal, resources, and perceptions of well-being among professional classical musicians and conservatoire music students.
3. To explore, qualitatively, professional classical musicians and conservatoire music students' views and opinions on the relationships between occupational demands, appraisal, resources, and well-being.
4. To compare differences in the experience of occupational stress and well-being outcomes as reported by professional classical musicians and conservatoire music students.

Specifically, I conducted a systematic review in Study 1 (see Chapter 4) to meet objective 1. In Study 2 (see Chapter 5), I used the DRIVE model (Mark & Smith, 2008) to underpin a

nomothetic approach by conducting a cross-sectional survey with a large sample to address objectives 2 and 4. In Study 3 (see Chapter 6), I used CMRT and took an idiographic approach by conducting interviews with a small sample of professional classical musicians and conservatoire music students to address objectives 3 and 4.

7.3. Contribution to knowledge

By addressing the objectives of the research programme, I have contributed to knowledge in the field of occupational stress and well-being, specifically in professional classical musicians and conservatoire music students. The contribution to knowledge of each study is outlined in Sections 7.3.1– 7.3.3.

7.3.1. Study 1: Systematic review

Through conducting this study, I was the first to systematically evaluate and synthesise research on the topic of occupational stress and well-being of performing artists, and to consider how the extant research related to established and contemporary theories of occupational stress and well-being (therefore addressing thesis objective 1; Willis et al., 2019). I found 20 studies that met the inclusion criteria for the systematic review. Seventeen of the included studies involved musicians of which 13 included classical musicians. I considered the studies in relation to the JDC(S) model (Johnson & Hall, 1988; Karasek, 1979), ERI model (Siegrist, 1996), and JD-R theory (Bakker & Demerouti, 2014). Four studies considered models of occupational stress and three studies drew on established conceptualisations of well-being. I found that although they included relevant factors, the JDC(S) model, ERI model, and JD-R theory did not fully encompass factors relevant to the experience of occupational stress and well-being of professional and conservatoire musicians. As such, this was an important study for the research programme and addressing the objective helped me establish the direction of the subsequent studies in terms of choosing an appropriate theoretical framework, study design, and methods.

7.3.2. Study 2: Quantitative assessment

Through undertaking this study, I was the first to use the DRIVE model (Mark & Smith, 2008) with professional classical musicians and conservatoire music students (therefore addressing thesis objective 2). I also compared differences in the experience of occupational stress and well-being outcomes as reported by professional classical musicians and conservatoire music students (therefore addressing thesis objective 4). I found that occupational characteristics and personal demands and resources had a direct effect on perceived stress and hedonic well-being. I found that the final model accounted for 97% of the variance in hedonic well-being and 29% of the variance in perceived stress. Disengaged coping, social support coping, task resources, and interpersonal resources significantly contributed to hedonic well-being. Occupational demands and disengaged coping significantly contributed to perceived stress. This study goes further than prior research that has adopted the DRIVE model by holistically examining the direct and mediation relationships using SEM.

7.3.3. Study 3: Qualitative exploration

Through conducting this study, I was the first to qualitatively explore the occupational stress process and well-being outcomes using CMRT (Lazarus, 1999) in professional classical musicians and conservatoire music students (therefore meeting thesis objective 3). Further, this study is the first to consider the role of primary appraisals as well as the underlying properties of stress appraisal for classical musicians and more widely for performing artists. I also compared differences in the experience of occupational stress and well-being outcomes as reported by professional classical musicians and conservatoire music students (therefore addressing thesis objective 4). I found that the most common type of appraisal reported by participants was threat, which suggests that the occupational environment of both professional classical musicians and conservatoire music students can be characterised as threatening. Underlying properties of stress often included preparation, self and other comparison, and event uncertainty. I found that "preparation" more broadly was an underlying property of stress appraisal rather than "inadequate preparation", which was proposed by Thatcher and Day (2008). I also found that self and other comparison was

experienced in two ways: firstly, through direct comparison with others; secondly, through indirect comparison with others via a tacit industry standard. Further, I found that well-being outcomes were related to appraisals: challenge and threat appraisals related to positive and negative affect; benefit and harm/loss appraisals were associated with satisfaction and eudaimonic well-being outcomes.

7.4. Explanation of findings

In the following section, I consider the findings of my research alongside the theoretical and conceptual implications. I also consider how the recommendations from Study 1 (see Chapter 4) impacted my decisions for research design and methods in Studies 2 and 3 (see Chapters 5 and 6).

7.4.1. Study 1: Systematic review

Following from the finding that the JDC(S) model, ERI model, and JD-R theory did not fully represent the occupational stress experience of musicians, I suggested that future researchers should consider contemporary transactional models of stress which incorporate not only stress and well-being outcomes but also the most salient demands and resources for musicians. Considering study design, many of the included quantitative studies were cross-sectional. Therefore, I suggested that to extend knowledge, researchers ought to consider study designs that allow for the examination of cause and effect (e.g., longitudinal study designs) and use methods of data analysis that allow for multivariate perspectives of occupational stress and well-being (e.g., SEM or path analysis).

As part of the systematic review, I conducted critical appraisal of the included studies using the MMAT (Pluye et al., 2011) and identified a lack of high-quality research in this field, which was due to several issues. For instance, quantitative studies had sampling issues, such as samples not being representative of the population being studied and some researchers used measures that were not validated. Therefore, I called for researchers to use a considered approach to sampling, undertaking power analyses where required, and employ validated measures that are appropriate to professional classical musicians and conservatoire music

students. Using questionnaires that have not been validated could lead to issues with validity or reliability, resulting in inaccuracies in the conclusions drawn by researchers. Additionally, I suggested that measures need to align with the theoretical concepts under investigation. Further, some of the issues identified through critical appraisal were due to inadequate reporting by researchers. Consequently, I suggested that researchers should be guided by relevant reporting standards to increase transparency and support the creation of high-quality research in the field. The lack of high-quality research in this area means it is not possible to draw strong conclusions on the relationship between occupational characteristics and well-being for performing artists.

These recommendations for future research directly impacted Studies 2 and 3 (see Chapters 5 and 6). Considering theoretical models, I chose to use the DRIVE model (Mark & Smith, 2008) for Study 2, as the authors recommended it as an appropriate model for a nomothetic approach, which can be adapted to the occupational context. This model is flexible and allowed me to include occupational demands and resources that are relevant for classical musicians. Further, whilst grounded in a transactional approach, the DRIVE model operationalises appraisal as perceived job stress, which limits the number of variables and makes it appropriate for use with large samples. I chose to use CMRT (Lazarus, 1999) for Study 3, as it was appropriate for an idiographic approach. CMRT allowed for a more nuanced exploration of appraisal and examination of the underlying properties of stress appraisal.

The recommendations in the systematic review also influenced my approach to methods in the subsequent studies. In Study 2, I considered how the concepts were operationalised and chose measures that aligned with the concepts. I also chose to use SEM for Study 2 to provide a multivariate perspective of occupational stress and well-being in professional classical musicians and conservatoire music students. In Study 3, I considered how the interview guide was impacted by the use of CMRT and a transactional approach to stress. Due to the issues with reporting identified in the systematic review, I decided to follow APA journal article reporting standards for the quantitative and qualitative studies (Appelbaum et al., 2018; Levitt et al., 2018).

7.4.2. Study 2: Quantitative assessment

The key finding that disengaged coping, which included denial and substance abuse, was the largest predictor of hedonic well-being is perhaps not surprising given that previous research with large populations has found that negative coping strategies negatively affect well-being (e.g., Meng & D'Arcy, 2016). However, this finding is important given that a high prevalence of substance use is reported in musicians (Kennelly et al., 2016; Kenny et al., 2014). Additionally, I found that both the availability of interpersonal resources and social support seeking behaviours contributed significantly to hedonic well-being (i.e., when social support coping and interpersonal resources were higher, hedonic well-being was higher). Social support may be important to musicians' well-being due to meeting the basic psychological need of relatedness (Deci & Ryan, 2000). Moreover, Ryff (2014) includes positive social relationships as a dimension of eudaimonic well-being and social support may contribute to this dimension of well-being. The importance of social support for classical musicians' well-being, has previously been reported in the literature (e.g., Johansson & Theorell, 2003). Additionally, I found that the provision of task resources, such as influence at work and role clarity, were shown to be key for musicians' hedonic well-being (i.e., when task resources were reported as higher, hedonic well-being was higher). Task resources may also contribute to the fulfilment of autonomy, which is also a basic psychological need within the framework of SDT (Deci & Ryan, 2000).

I found that occupational demands were the largest predictor of perceived stress (i.e., when occupational demands were reported as higher, perceived stress was higher), which could be explained by stress appraisal. To elaborate, when musicians have higher demands, they may be more likely to make an appraisal of threat (e.g., not completing tasks within the designated timeframe and associated employment threat), which leads to the perception of greater stress. I also found that occupational resources were not significant predictors of perceived stress. This may be surprising given that established theories and models such as the JDC(S) model and JD-R theory indicate that resources are related to strain (Bakker & Demerouti, 2014; Karasek, 1979). However, the findings of longitudinal research suggest that occupational resources are not predictive of distress in employees, whereas occupational demands are

predictive of distress (Knight et al., 2023). A possible reason for this finding within Study 2 could be that the occupational resources available to musicians do not adequately target or reduce the demands they experience. Consequently, the presence of resources may not affect musicians' ability to cope with demands and their perception of stress. Additionally, I found that disengaged coping was a significant contributor to perceived stress (i.e., when disengaged coping was reported as higher, perceived stress was higher). This may be due to using coping strategies that do not address demands and result in a higher level of job demands at a later point in time. For instance, avoidance of a demand does not adequately address an issue and the individual may still need to complete associated tasks in the future, thus increasing future demands and perceptions of stress.

The relationships between some latent factors in the DRIVE model were not supported by the results of Study 2. Firstly, the relationship between perceived stress did not contribute to hedonic well-being. This is contrary to other studies that have examined this relationship using the DRIVE model (e.g., Galvin, 2016; Oliver et al., 2022). A possible reason for the nonsignificance of this relationship could be due to the role of appraisal. For example, challenge appraisals could be more likely to relate to higher well-being, whereas threat appraisals could relate to lower well-being. These different effects of appraisals would not have been identified in the present study as a single item was used to measure perceived job stress. Additionally, active coping did not relate to hedonic well-being or perceived stress. This could be due to professional musicians' limited ability to change their occupational environment in terms of occupational demands and industry practices (e.g., use of short-term contracts). Such changes would require more than an individual musician could achieve and would need sustained commitment from industry stakeholders (e.g., unions, orchestras, Association of British Orchestras).

Further, the relationships proposed in the DRIVE model between resources (interpersonal and task) and perceived stress were not supported. This is contrary to previous research with orchestral musicians in Denmark which suggested that interpersonal and task resources are related to stress (Holst et al., 2012). A possible explanation for this could be due to the high number of self-employed musicians in Study 2. These musicians may not feel that the

resources available to them support the completion of work tasks or reduce the demands they face (e.g., job insecurity). As such, they may still experience stress despite resources being made available.

It is important to acknowledge that within the preliminary CFA, the inclusion of separate factors for hedonic and eudaimonic well-being was not supported, which is contrary to previous research (Keyes et al., 2002). A possible reason why a two-factor model of well-being was not supported could be due to the choice of measures for eudaimonic well-being. In Study 2, this included two scales for eudaimonic well-being, whereas previous research (e.g., Keyes et al., 2002) has used the Psychological Well-being Scales (PWB; Ryff, 1989a), which includes six scales. Using the PWB in Study 2 may have improved the model fit for the two-factor model of well-being due to an increased number of scales for eudaimonic well-being and alignment of items with the six dimensions of eudaimonic well-being. However, the PWB was not chosen for the present study due to the number of items and potential for participant burden (see Section 7.7.3). Therefore, although eudaimonic well-being was ultimately not examined in the SEM, the concept may still be relevant for professional classical musicians and conservatoire music students.

7.4.3. Study 3: Qualitative exploration

A key finding of this study was that participants most frequently appraised occupational demands as a threat and reported experiencing threats to employment security, self, performance outcomes, and study outcomes. Many of these threats appeared to stem from competitive employment and study environments. Competition amongst peers and colleagues is an important facet of the occupational environment of classical musicians, as it relates to the amount of work and number of performance opportunities that a musician can access and retain. The constant competition for work, particularly amongst freelance musicians, can lead to the experience of job insecurity and precarity, which have been discussed in the literature (e.g., Chafe & Kaida, 2019; Dobson, 2010a). Musicians may, therefore, be concerned about becoming unemployed and the associated loss of earnings and economic stability, which means they appraise demands as a threat.

Where appraisals of threat were made, participants often referred to self and other comparison as the underlying property of stress appraisal. Participants made direct comparisons with colleagues and peers, as well as indirect comparisons via tacit industry standards. The competitive nature of conservatoires and the employment context of musicians may encourage individuals to make comparisons between themselves and their colleagues or peers. When musicians judge themselves unfavourably in comparison to their peers, they may assume that others will be offered work instead, which could increase job insecurity and, consequently, increase the likelihood of appraising a demand as a threat. Additionally, preparation was an important underlying property of stress appraisal. When participants felt inadequately prepared, they appraised a threat; when participants felt adequately prepared, they appraised a challenge.

Challenge appraisals were made less often than threat appraisals. Professional classical musicians made challenge appraisals when they were in unusual situations but had experienced something similar in the past. This suggests that professional musicians have previously benefitted from similar situations and that prior learning and reflection helped them feel prepared and consider the demand as an opportunity. This, in turn, leads the individual to make a challenge appraisal. Students made challenge appraisals when they perceived situations as an opportunity for professional development. In other words, students perceived that they would benefit or grow from engaging in professional development. Therefore, for both professional and student musicians to make challenge appraisals, they must perceive that they will benefit from the experience. This is concordant with CMRT and Lazarus (1999) suggested that the perception of opportunity is an important antecedent of appraisal. Opportunity can be considered as part of the transaction between the individual and the environment, in terms of the opportunity being present in the environment and the individual being in the right position to take advantage of the opportunity.

Participants attempted to cope with the demands they experienced by using personal and occupational resources. Participants used resources to try and change the outcome of situations (e.g., performance outcomes), reduce the impact of demands, or change their emotional experience. This is similar to the concept of job resources as defined by Schaufeli

and Bakker (2004), who suggested that job demands could: a) support the fulfilment of work goals; b) diminish demands and associated psychological consequences; and c) contribute to personal development. A range of resources were used with both professionals and students relying on their personal resources, particularly on psychological skills. Psychological skills were often used in relation to performance, which can be considered a key work task for musicians. Considering Schaufeli and Bakker's (2004) definition of job resources, the use of psychological skills may meet all three aspects of the definition through enhancing performance, reducing MPA (and therefore, negative affect), and contributing to learning about oneself. Similarly, Ford and Arvinen-Barrow (2019) reported that psychological skills could improve performance, reduce anxiety, and increase self-efficacy. This may be why individuals so frequently turn to their personal resources, in particular, psychological skills, rather than rely on resources provided by the organisation. Aligned with the finding that individuals often relied on psychological skills, task resources were demonstrated to be an important contributor to hedonic well-being in Study 2.

Considering occupational resources, social support coping and interpersonal resources were both found to be significant contributors to hedonic well-being in Study 2 (for discussion see Section 7.4.2). This is supported by the findings of Study 3, where social support from colleagues was also found to be important for professional musicians. Further, social support has been reported as important within the occupational context of musicians in terms of performance outcomes and achieving a high level of artistry (Dobson & Gaunt, 2015). Consequently, as a job resource, social support can be considered as supporting the fulfilment of work goals for musicians.

In Study 2 (see Chapter 5), the relationship between perceived stress and hedonic well-being proposed by the DRIVE model was not found to be significant. This is contrary to previous research with occupational groups (e.g., Oliver et al., 2022). To investigate this finding further, this relationship was explored in Study 3 (see Chapter 6) from the perspective of CMRT and using an idiographic approach. Using CMRT facilitated the exploration of primary appraisals of threat, challenge, benefit, harm and/or loss. The results of Study 3 suggested that primary appraisals relate differentially to well-being outcomes. Threat and challenge appraisals, which

are future orientated, were related to acute hedonic well-being outcomes in the form of positive and negative affect. That is, participants experienced positive affect from engaging in demands appraised as challenging and negative affect from demands appraised as threatening. Researchers assessing the role of stress appraisals for the well-being of employees have reported similar findings. For instance, threat appraisals have been related to higher distress and anger, whereas challenge appraisals have been related to higher positive affect (Searle & Auton, 2015; Tuckey et al., 2015). Tuckey et al. (2015) suggested that threat appraisals may have a negative emotional impact due to the threat to basic psychological needs. Conversely, challenge appraisals may lead to positive affective experiences due to the potential fulfilment of basic psychological needs. In Study 3, benefit and harm and/or loss appraisals, which are orientated towards the past, were related to satisfaction, an aspect of hedonic well-being, and eudaimonic well-being. Participants experienced satisfaction and increases in eudaimonic well-being outcomes (e.g., increased environmental mastery) when they had positive outcomes (i.e., benefitted from the experience). The findings from Study 3, suggest that eudaimonic well-being, particularly environmental mastery, is an important well-being outcome for musicians, which is affected by the occupational stress process. This may be due to the fulfilment or thwarting of competence, which is a basic psychological need within SDT (Deci & Ryan, 2000).

The results of Study 2 suggested that a two-factor model of well-being was not supported in this cohort. Contrastingly, the results of Study 3 suggested that both hedonic and eudaimonic well-being were important for professional classical musicians and conservatoire music students. As discussed in Section 7.4.2, this lack of support in Study 2 could have been due to the choice of measures and limitations in the distinction of the separate dimensions of eudaimonic well-being. In Study 3, eudaimonic well-being was explored with particular reference to the six dimensions proposed by Ryff (2014). Distinguishing the dimensions of eudaimonic well-being was useful in Study 3 and allowed for the finding that environmental mastery is of particular importance to musicians.

7.5. Theoretical and conceptual implications

Taken together, the results from Studies 1, 2, and 3 (see Chapters 4, 5, and 6) suggest that a multidimensional approach towards understanding the occupational stress process is appropriate and should include the most salient demands and resources relevant to the context, as suggested by Bakker and Demerouti (2007). Additionally, the relationship between primary appraisal and well-being outcomes highlights the role of the individual in the stress process and suggests that transactional approaches are required for assessing occupational stress and well-being in professional classical musicians and conservatoire music students. The findings of this thesis support the use of both the DRIVE model (Mark & Smith, 2008) and CMRT (Lazarus, 1999) as transactional approaches to explore the stress and well-being process. Going forward, consideration is required to choose the most appropriate framework that aligns with the aims of the research. Study 2 demonstrates that the DRIVE model is useful for nomothetic approaches and collecting data from large samples. The richness of data obtained from Study 3, informed by CMRT, shows that it is an appropriate framework for qualitative research taking an idiographic approach and exploring the psychological processes involved in the experience of occupational stress and well-being.

Regarding underlying properties of stress appraisal, the results from Study 3 suggest that "inadequate preparation" should be revised to "preparation," as participants discussed being both adequately and inadequately prepared. Adequate preparation was linked to challenge appraisals, whereas inadequate preparation was related to threat appraisals. This could be explained by considering the expected outcome of performance situations. To elaborate, musicians who feel adequately prepared make challenge appraisals because they expect positive performance outcomes, which may lead to benefits in the future (e.g., increased work opportunities). Conversely, musicians who feel inadequately prepared make threat appraisals because they anticipate poor performance outcomes, which may lead to harm and/or loss (e.g., loss of work). Preparation may be particularly relevant to musicians due to the importance of practising their instrument with many expert musicians reported to have completed more than 10,000 hours of deliberate practice (e.g., Ericsson et al., 1993; Hambrick et al., 2014). In order to encapsulate both adequate and inadequate preparation within the underlying

properties of stress appraisal, preparation could be defined more broadly as "the extent to which an individual feels prepared for performance."

Additionally, self and other comparison could be expanded to not only account for comparisons with "another individual" but with perceived industry standards more widely. The comparison to a tacit standard may reflect how classical music is taught, often through a master-apprentice relationship. Smilde (2009) suggested that tacit or implicit knowledge is often demonstrated in artistic learning environments with tacit knowledge being communicated by an experienced individual in close proximity over a number of years. Further, conductors may use tacit knowledge when communicating with orchestral musicians through subtle gestures. The reliance on tacit knowledge for both professional and student musicians could mean that many aspects of the occupational environment remain unspoken or hidden. This could explain why musicians compare themselves to a tacit industry standard rather than agreed and explicit industry standards. The definition of self and other comparison could be expanded to "comparing any physiological, psychological, or social aspect of performance or the associated environment with that of another individual or perceived occupational standards." An example specific to the music context could be comparing one's personal performance of a piece to perceived industry standards, which may manifest itself through concern of negative evaluation by colleagues.

7.6.   Practical implications

At an organisational level, there are several practical implications that originate from this programme of work. Firstly, there are implications for both professional orchestras and conservatoires in terms of measuring occupational stress and well-being. Secondly, there are implications for professional orchestras regarding the continuing professional development of musicians and social support. Thirdly, there are implications for conservatoires in terms of organisational culture and curriculum. Finally, there are implications for individual musicians and the use of coping behaviours.

With regard to measuring stress and well-being at an organisational level, professional orchestra managers and conservatoire leaders can use the methods set out in Study 2 (see

Chapter 5) for quantitative assessment of stress and well-being of professional classical musicians and conservatoire music students. Indeed, such measures could apply more widely to performing arts organisations to include musicians of other genres, dancers, actors, and artists. Organisational leaders can use measures such as the COPSOQ III (Burr et al., 2019) to gain a comprehensive understanding of occupational demands and resources experienced by professional musicians and conservatoire music students. Additionally, organisational leaders can use short, validated measures such as the Brief COPE, WPQ, SWLS, and I-PANAS-SF (Carver, 1997; Diener et al., 1985; Thompson, 2007; Williams, Thomas, et al., 2017) to assess coping and well-being. Using validated measures can help organisational leaders to monitor occupational stress and well-being of employees and students over time. Additionally, the measures outlined could be used in research to assess the effectiveness of any interventions implemented that aim to reduce stress and improve the well-being of musicians. Such interventions could include those that target social support, continued professional development, and the educational culture of conservatoires as these were highlighted as important aspects of the occupational environment for musicians and related to well-being outcomes.

Practical implications for professional orchestras relate to continuing professional development opportunities and creating socially supportive workplace environments. Given that professional musicians made challenge appraisals when they were in new or unusual circumstances, continuing professional development represents one way to provide such experiences. For instance, orchestra managers can provide opportunities for musicians to develop their musicianship, learn new skills, or perform in different contexts. For orchestral musicians, this could be achieved through rehearsing and performing in smaller ensembles (e.g., chamber music ensembles), opportunities to programme concerts, arranging music, or working in healthcare or educational settings. Findings from qualitative research suggest that working in educational and community contexts can positively impact musicians' well-being (Ascenso, 2016; Forbes & Bartlett, 2020b). For instance, Forbes and Bartlett (2020b) reported that musicians leading community singing groups experienced all aspects of the PERMA model of well-being (Seligman, 2011) as a result of their work. Additionally, musicians are able to develop their skills by working in new contexts. Musicians working in healthcare

contexts have reported developing their performance skills, versatility in terms of repertoire and style of performance, and their ability to communicate (Perkins et al., 2018; Preti & Welch, 2013; Shaughnessy et al., 2023). For such opportunities to be experienced positively by participants and appraised as a challenge rather than a threat, it is important that they are adequately resourced. This means that musicians need appropriate time, training, and support for working in new contexts. For those working in healthcare settings, this could mean training to understand specific conditions, introduction to specific programmes and models of working, mentorship programmes, and opportunities to learn from colleagues (Forbes & Bartlett, 2020a; Perkins et al., 2018; Shaughnessy et al., 2023). Given the emotional labour involved when working in healthcare settings (Koivisto, 2022), it is important that musicians are given the opportunity to discuss their experiences and are appropriately debriefed to help them manage any additional demands and perceived stress. This could be through a model similar to supervision for professional music therapists (for discussion see Kennelly et al., 2016) or through discussions with colleagues involved in similar work.

It is also important that social support is considered at an organisational level in orchestral environments. Orchestra managers can consider providing different types of support for musicians, such as informational support (e.g., feedback on performance), tangible support (e.g., HR support, finance to attend counselling), emotional support (e.g., talking to musicians about how they're feeling), and esteem support (e.g., acknowledging when tasks are done well; Cutrona & Suhr, 1992). One way to provide social support to orchestral musicians who are employed or regularly work with the same ensemble could be through regular conversations or catch-ups with section principals, ensemble leaders, or orchestra managers. This could allow musicians to receive feedback on their performance skills in a non-threatening environment and provide an opportunity to discuss relevant professional development opportunities. Further, regular conversations could allow managers to build social connection with musicians, making them more comfortable to discuss issues when they do arise. Focusing on discussions of musicians' performance skills, appropriate frameworks for exploring quality are required. Watson and Forrest (2014) suggested that resources from the Australian Council for the Arts (e.g., Bailey, 2009) could be appropriate and several tools exist for music organisations to reflect on quality in different contexts (e.g., participatory arts,

programmes with young people; Helix Arts, n.d.; Youth Music, 2017). Although such discussions could increase the social support available to musicians, Watson and Forrest (2014) identified several barriers to implementation. These included musicians being unwilling to discuss artistic standards and the need for those leading such conversations (i.e., section leaders, ensemble principals, and orchestra managers) to be provided with adequate training and support. For these conversations to be beneficial, orchestra managers need to work in collaboration with musicians to create acceptable frameworks for discussing quality, a shared language, and processes which are perceived positively by musicians.

As well as support from managers, the results of this research programme highlight the importance of social support from colleagues. Increasing musicians' abilities to support each other could be achieved by delivering training on communication and collaboration skills through reflective exercises and group activities (e.g., Jungert et al., 2018). Research from the wider occupational literature suggests that such interventions may be effective for increasing colleagues' abilities to support each other in terms of basic psychological needs (i.e., autonomy, competence, and relatedness), and, in turn, positively impact well-being and motivation at work (Slemp et al., 2021). Slemp et al. (2021) provide suggestions for implementing interventions that target basic psychological needs (including relatedness), which include consideration of the occupational context and recognition of other demands that might affect employees' engagement in interventions.

The findings from the research programme also have implications for conservatoires regarding culture and the curriculum. The culture of conservatoires was perceived to be threatening by some students, which was linked to hierarchical practices and perceived favouritism. Changing the perception of the learning culture as threatening could be achieved through focusing on learning environments, greater transparency, and widening the definition of success. Perkins (2013b) suggested that hierarchical practices within conservatoires are incompatible with a positive learning environment, where risk taking and openness are required. Perkins (2013b) proposed that learning should be given higher priority within conservatoires through the creation of learning environments where students can reflect on their skills and develop without concern about repercussions for where they will be

perceived to be within the hierarchy. As such, Perkins (2013b) suggested that the needs of *all* learners should be considered, not just those perceived to be at the top of the musical hierarchy, with relevant opportunities provided for all students to develop their skills. In order to reduce the perception of favouritism, conservatoires could be more transparent in the awarding of opportunities, particularly those opportunities held in high regard. Porton (2020) made a similar recommendation based on the finding that talent was privileged within the conservatoire and suggested that greater transparency could be achieved through more frequent auditions for prestigious performances and explanations being given to students on how selection was made. Additionally, Perkins (2013a) suggested that widening the definition of success could reduce the perceived hierarchy of students by celebrating the achievements of those outside performance. This could be done by celebrating current students and alumni in fields such as research, education, and business through newsletters, prizes, and events (Perkins, 2013a). Many of the suggestions for addressing issues within conservatoire cultures were made a decade ago (Perkins, 2013a, 2013b), however, the findings of the present study suggest that such issues still exist and contribute to students experiencing the conservatoire culture as threatening. This implies that recommendations made by researchers have not been implemented within conservatoires.

At an individual level, there are implications for musicians' use of coping skills. Disengaged coping skills such as self blame, venting, and substance use were related to lower well-being. Therefore, discouraging musicians from engaging in such behaviours in the first place is an important recommendation from this study. This could be achieved through providing education, signposting musicians to appropriate support services, and providing alternative coping strategies. Considering education, conservatoires could deliver modules that incorporate material on coping skills and healthy lifestyle including substance use. Matei et al. (2018) evaluated a health education course delivered to conservatoire students, which incorporated a range of topics on health and well-being alongside lectures on life skills and coping with MPA. Students' knowledge of the lecture topics increased and some made positive health behaviour changes (Matei et al., 2018; Matei & Ginsborg, 2022). Where maladaptive coping skills, such as substance use, are identified, orchestras and conservatoires can signpost and encourage musicians to seek support from GPs as well as industry-focused

helplines, peer support groups, and charities (e.g., Music Minds Matter, Tonic Rider, Music Support, British Association for Performing Arts Medicine). Additionally, such industry-focused organisations are well placed to offer educational support to musicians on adaptive coping strategies through workshops and training. Orchestras and conservatoires could consider partnering with these organisations to deliver educational programmes to musicians. Such programmes could increase awareness of potential issues (e.g., substance use) or encourage the development of appropriate coping skills. In the wider literature on workplace interventions that address substance use, Morse et al. (2022) suggested that general health promotion interventions and targeted brief interventions may be effective at reducing problematic substance use.

Psychological skills were discussed by both professional musicians and conservatoire music students as a useful coping strategy and further training to develop these skills could be of benefit. Considering students, conservatoire educators could incorporate psychological skills training into the curriculum through modules or workshops, where students can practise using techniques in a supportive environment. Modules or workshops could include skills such as goal setting, self-talk, mental rehearsal, cognitive restructuring, and mindfulness. Ford and Arvinen-Barrow (2019) conducted a systematic review of psychological skills training interventions for musicians and suggested that they are effective for developing performance skills and reducing MPA. For professional musicians, Juncos and de Paiva e Pona (2018) suggested that the most appropriate way to develop psychological skills was by working with a performance psychologist with an understanding of the demands experienced by musicians.

7.7. Strengths, limitations, and future directions

As with all research, strengths and limitations exist within this programme of work and I discuss these in the following section. Taking the strengths and limitations of the research programme into account, I then make recommendations for future research.

7.7.1. Strengths

One of the main strengths of the research programme is the systematic approach used to assess and explore occupational stress and well-being in professional classical musicians and conservatoire music students. The systematic approach can be seen in the studies undertaken with a clear link between the findings of the systematic review (see Chapter 4) and the subsequent studies (see Chapters 5 and 6). In the first step, I wanted to evaluate and synthesise the extant literature and approaches that had been taken to assess the occupational stress and well-being of professional classical musicians and conservatoire music students. As such, this led me to conduct a systematic review, which in itself was a systematic process involving the development of a protocol, systematic search strategy, screening process, critical appraisal and synthesis of the included studies. The results of the systematic review directly informed the subsequent studies in terms of the approach to assessing occupational stress and well-being, the use of theoretical models, and consideration of study design and methods.

Considering the approach, I set out to use a multi-method design to address the aim and objectives of the thesis. This approach was supported by the results of the systematic review, which suggested that both quantitative and qualitative approaches were warranted in examining occupational stress and well-being outcomes in performing artists. Therefore, I decided to use an explanatory sequential design incorporating both nomothetic and idiographic approaches, which aligns with a critical realist stance. Given that these different approaches were used, it was necessary to consider the appropriate theoretical framework. This was particularly important as the systematic review found that research on occupational stress and well-being of performing artists was often lacking a firm theoretical basis (Willis et al., 2019). Additionally, in the systematic review, I suggested that a transactional approach to stress could provide a holistic way to examine the stress process, allowing for the incorporation of appraisal and resources. In deciding on an appropriate theoretical framework for the studies, I needed to consider the applicability to nomothetic and idiographic research, the appropriateness for research with musicians, and ensure the use of a transactional approach. Therefore, the theoretical framework for the research was as follows: the DRIVE model (Mark & Smith, 2008) was chosen as a contemporary model for the

nomothetic aspect of the research programme; CMRT (Lazarus, 1999) was selected for the idiographic aspect of the programme. Combining CMRT and the DRIVE model into a theoretical framework allowed me to holistically assess the occupational stress process and well-being outcomes in professional classical musicians and conservatoire music students. Additionally, both CMRT and the DRIVE model have previously been used with occupational and student groups, which demonstrates their applicability to the research programme. Furthermore, CMRT and the DRIVE model are complementary and using both allowed me to provide both breadth and depth in the research programme.

Additionally, evidence of systematic study is demonstrated through the use of appropriate designs to align with the different research approaches. Given that the results of the systematic review suggested that a multivariate statistical analysis would contribute to knowledge in this area (Willis et al., 2019), the use of SEM is a specific strength of Study 2 (see Chapter 5). This allowed me to assess both the direct and mediation relationships in the DRIVE model and provide a comprehensive analysis of occupational stress in classical musicians. Further, the systematic review highlighted that previous research in the field of occupational stress and well-being of musicians lacked alignment between the theoretical models employed and the chosen measures. Therefore, in Study 2, I chose to use validated measures that aligned with the DRIVE model. Additionally, for the SEM, latent variables were derived from existing research.

Study 3 (see Chapter 6) followed from the results of Study 2, particularly in the examination of appraisal. Whilst appraisal was operationalised in Study 2 as perceived stress, in Study 3, I was able to take a more nuanced approach to exploring appraisal given the idiographic approach. In Study 3, I explored primary appraisal by examining threat, challenge, benefit, harm, and/or loss, as well as underlying properties of stress appraisal in professional classical musicians and conservatoire music students for the first time. The inclusion of demands that were perceived both positively and negatively is also a strength of Study 3. Thatcher and Day (2008) based their underlying properties of stress appraisal on situations that were perceived as extremely stressful. The inclusion of demands perceived as both positive and negative

allowed for further development of the underlying properties of stress appraisal through the findings of Study 3.

7.7.2. Limitations

This research programme was conducted with both professional classical musicians and conservatoire music students. While the results are relevant to this particular population, they may not be generalisable to workers in the general population, whose occupational contexts may differ. In particular, the results of the SEM may be limited to the sample used in Study 2. However, given that the sample was representative of professional classical musicians and conservatoire music students in the UK, it is likely that the results can be generalised to classical musicians in the UK more broadly. Additionally, there is potential that the results of the SEM are transferable to those in artistic professions and high-performance occupations as individuals may experience similar contextual factors (e.g., job insecurity). Additionally, I used a cross-sectional study design in Study 2 (see Chapter 5). As a result, I was not able to address questions relating to cause and effect within the DRIVE model. Whilst I planned to collect longitudinal data, this was not possible due to the COVID-19 pandemic, which led to significant disruption and the loss of work for musicians during 2020–2022. The study related to the everyday occupational experience in terms of stress and well-being of musicians and given the significant disruption to the workplace, repeated data collection did not go ahead as initially planned. Despite this, it was still possible to address the research aims and objectives. Additionally, COVID-19 may have impacted the musicians interviewed in Study 3 (see Chapter 6). Participants were asked to consider their usual workplace experience, and given the disruption caused by COVID-19, this relied on participants accurately remembering and representing their workplace experiences.

Limitations may also be perceived in sample size. Considering Study 2, Kline (2015) recommended that sample sizes for SEM be estimated based on the number of free parameters, with the ideal being between 10 and 20 participants per free parameter estimated. To meet these requirements, Study 2 would have needed to include between 1070 and 2140 participants for the hypothesised structural model, and a sample size of this size was not

achieved. Kline (2015) also noted that with five or fewer participants per parameter estimated the results may become doubtful. With regard to the final model, this means that a minimum of 270 participants would be required. Given that the present study used data from 327 participants, the sample size for the final model can be considered within recommendations, although at the lower end. Further, MacCallum et al. (1996) reported that a sample size of 300 is adequate for SEM. Considering Study 3, a small sample size was also used. This was due to the idiographic nature of the research, which necessitated a small sample size to achieve depth within the analysis. However, whilst consistent with IPA, this means that the findings of Study 3 are based on the individual experiences of a small sample, whose experiences may not be generalisable to other professional classical musicians or conservatoire music students.

The internal consistency of some scales assessed in Study 2 may be questioned. Whilst the majority of the scales used in the study had good reliability, there were several that had low alpha coefficients. This included scales on the COPSOQ III (emotional demands, insecurity of working conditions, possibilities for development, variation at work, control over working time) and Brief COPE (self distraction, denial, venting, and acceptance). Considering the COPSOQ III, core questions can be supplemented with those in the medium and long versions of the questionnaire. Apart from the scale, variation at work, the COPSOQ III scales mentioned above have additional items in the medium and long versions of the questionnaire. The internal consistency of scales on the core/middle version of the questionnaire has been assessed and shown to be acceptable to good (Burr et al., 2019). Core items were introduced into the COPSOQ III to ensure completeness of the questionnaire, with content validity being prioritised, given that internal consistency had already been examined (Lincke et al., 2021). Including items from the middle and long versions of the scales in the present study may have increased the internal consistency, however, this would have resulted in greater participant burden and the potential loss of participants. Regarding the Brief COPE, the alpha coefficients reported in Study 2 are in line with the development of the questionnaire, which aimed to create a brief measure of coping to reduce participant burden (Carver, 1997). Additionally, Miles and Shevlin (2007) suggested that the reliability of measures can impact model fit indices, which may go some way to explaining the inconsistency between the RMSEA and CFI/TLI.

7.7.3. Future directions

In the next section, I consider recommendations for future research in light of the implications, strengths, and limitations discussed above. Both the DRIVE model (Mark & Smith, 2008) and CMRT (Lazarus, 1999) were appropriate for assessing occupational stress and well-being in professional classical musicians and conservatoire music students. The DRIVE model was appropriate for a nomothetic approach, and CMRT was appropriate for an idiographic approach. Both of these models can be used in future research on occupational stress and well-being of musicians, where researchers take a transactional approach to stress.

Considering the specific relationships in the DRIVE model (Mark & Smith, 2008), the direct and mediation relationships were assessed in Study 2 (see Chapter 5). Whilst support was found for the majority of the direct relationships, the relationship between perceived stress and hedonic well-being was not found to be statistically significant. This meant that the mediation relationship was also not supported. One reason why the relationship between perceived stress and hedonic well-being was not significant in Study 2 could be due to the differences in how primary appraisal relates to well-being outcomes, which were found in Study 3 (threat and challenge appraisals were related to positive and negative affect; benefit and harm and/or loss appraisals were related to satisfaction and eudaimonic well-being). In Study 2, appraisal was operationalised as perceived stress and a single-item measure was used as recommended by Williams and Smith (2018) in order to prevent the questionnaire becoming excessively long. In the future, researchers could use measures that assess different types of appraisal (i.e., threat challenge, benefit, harm and/or loss) such as the Stress Appraisal Measure (Peacock & Wong, 1990) or the Primary Appraisal Secondary Appraisal Scale (Gaab et al., 2005). However, consideration is required on the number of items included in a survey as these measures include 28- and 16-items, respectively. Consequently, researchers should consider including only the most appropriate scales as fits the research aims and objectives, and could consider removing scales related to organisational resources or personal demands and resources. Measures for stress appraisal could be incorporated into SEM by creating latent factors for different types of stress appraisal. Incorporating such measures when assessing the occupational stress of musicians would lead to a more nuanced perspective of the stress

process and could be used with the DRIVE model. Using such measures would allow for assessment of how each type of primary appraisal relates to well-being and whether there are differences.

Regarding the incorporation of hedonic and eudaimonic well-being outcomes, hedonic well-being was assessed using the DRIVE model (Mark & Smith, 2008). However, eudaimonic well-being was not assessed using the DRIVE model in Study 2 and was seen to be an important well-being outcome for musicians in Study 3. Going forward, researchers could explore the incorporation and assessment of eudaimonic well-being outcomes into studies that use the DRIVE model. This could be achieved through further exploration of the Flourishing Scale (FS; Diener et al., 2010), which was used in Study 2, or by exploring the use of other validated measures such as the PWB (Ryff, 1989a) or the Eudaimonic Workplace Well-being Scale (EWWS; Bartels et al., 2019). The PWB has been used to examine flourishing in professional and student musicians (Ascenso, 2022) although was not chosen for the present study due to length (42-items). The EWWS is a short, 8-item measure, which future researchers may look to incorporate as an outcome measure into studies using the DRIVE model. Additionally, CMRT (Lazarus, 1999) was appropriate for guiding the assessment of both hedonic and eudaimonic well-being and could be used as a framework in future studies adopting an idiographic approach.

Studies 1, 2, and 3 included both professional classical musicians and conservatoire music students. These groups may have unique experiences, which should be explored and further compared in future studies. Going forward, studies involving both professional classical musicians and conservatoire music students could incorporate in-depth comparisons of demographic characteristics. This could further explain and contextualise the results of the SEM and multivariate analysis. Additionally, comparisons of demographic characteristics would add to our understanding of the factors impacting each group and inform the transferability of the findings to similar occupational contexts. Where such comparisons are desired, researchers should also be aware of the need to collect data from large samples to support such analyses.

Within the DRIVE model, Mark and Smith (2008) proposed several moderation relationships, which were not examined in this research programme as they were not relevant to the aims and objectives. In the future, researchers may look to explore the moderation relationships in the DRIVE model with samples of professional classical musicians and conservatoire music students, which may help to shine additional light on how occupational stress impacts well-being. The moderation relationships proposed in the DRIVE model could be explored in musicians through SEM or path analysis. Research indicates that the moderation relationships proposed in the DRIVE model may be applicable to professional musicians; Pihl-Thingvad et al. (2022) reported that interpersonal resources moderated the relationship between emotional demands and perceived stress.

Regarding underlying properties of stress appraisal, researchers should consider using the expanded definitions for preparation and self and other comparison proposed in Section 7.5. Including not only inadequate preparation but preparation more broadly provided a better understanding of why different types of appraisal were made. Additionally, researchers may consider exploring self and other comparison and studying whether individuals in other fields also make comparisons between themselves and tacit industry standards.

Considering study design, future research on the occupational stress and well-being of musicians should look towards longitudinal research designs. For instance, the questionnaire used in Study 2 could be repeated at multiple time points (e.g., before and after a specific demanding event). Analysis could then be conducted examining the relationship between occupational characteristics (i.e., demands and resources) reported before the event and well-being after the event. An approach such as this could allow researchers to examine questions relating to cause and effect (e.g., How does the perceived availability of resources at T1 relate to well-being outcomes at T2?). Further, researchers in this field would benefit from developing interventional studies that look to address issues of occupational stress and well-being in musicians. Considering the findings of the present research, at an organisational level, interventions could be designed to target social support in the workplace of professional musicians and the development of programmes for continuing professional development. Given that many participants who took part in the research were self-employed, the music

industry may look towards creating well marketed and funded networks for these musicians that support them to develop the resources needed for a thriving career. For conservatoires, educational interventions focused on creating a positive learning culture could be beneficial. At an individual level, interventions could target the reduction of maladaptive coping strategies and support the development of adaptive coping skills, such as social support seeking and psychological skills. Much of the research on psychological skills has been conducted with music students and further research is needed with professional musicians. Additionally, qualitative research on participants' experiences of using psychological skills could support implementation of interventions.

7.8. Conclusion

In this chapter, I provided an overview of the aims and objectives of the research programme and presented how these were addressed in the thesis. Through the research programme, I have contributed to knowledge in the following ways: a) systematically evaluating and synthesising research on the relationship between occupational demands and well-being of performing artists; b) finding that occupational characteristics and personal demands and resources had a direct effect on perceived stress and hedonic well-being; c) examining the direct and mediation relationships in the DRIVE model using SEM; d) using the DRIVE model with musicians; e) exploring the occupational stress process and well-being outcomes using CMRT in professional classical musicians and conservatoire music students; f) exploring the role of primary appraisal and underlying properties of stress appraisal for classical musicians. Considering theoretical implications, I suggested that the DRIVE model was appropriate for nomothetic assessment of the occupational stress process and well-being outcomes and that CMRT was an appropriate framework for idiographic approaches. I discussed conceptual implications for underlying properties of stress appraisal: firstly, suggesting that inadequate preparation should be broadened to preparation; secondly, that self and other comparison should include comparison with perceived industry standards; thirdly, providing updated definitions for both preparation and self and other comparison. I detailed practical implications at the organisational and individual levels that can impact the experience of occupational stress and well-being of musicians. Firstly, I suggested that orchestra managers

consider how professional development and social support are managed in the workplace. Secondly, I recommended that conservatoire educators develop positive learning environments and consider the organisational culture. Thirdly, I discussed implications for the development of coping skills for musicians. As with all research, strengths and limitations exist. The key strength of the research programme is the systematic and rigorous approach I have taken in terms of the theoretical underpinning of the research, which informed study design. However, I acknowledge a limitation in the use of a cross-sectional design and have made suggestions for future researchers to use longitudinal designs. I also made recommendations for research in terms of the assessment of occupational stress, resources, appraisal, and well-being.

Chapter 8

Reflections

8.1. Introduction

In this chapter, I reflect on my experiences over the past seven years of completing a PhD. I have encountered both challenges and successes during this period including starting an academic role and working on my thesis during the COVID-19 pandemic. This chapter is structured in two sections: firstly, I examine my own career transition, which was facilitated by undertaking a PhD; secondly, I reflect on my experiences of being a part-time student and the lessons I have learned alongside some tips for future students. I chose to focus on these two areas as they represent important parts of my academic and personal development which have taken place during the course of my PhD. Additionally, considering my career transition allowed me to reflect on my previous experiences in music. In reflecting on my experiences, I was prompted by Rolfe et al.'s (2001) simple model of reflection. This model prompted me to not only describe the situation (What?) but to consider what I have learnt (So what?) and the actions I will take forward at work and in my personal life (Now what?).

8.2. Career in transition

In this section, I reflect on transitioning into an academic role after working as a music teacher. I consider the academic skills I have developed through both studying for a doctorate and working as a researcher. I describe how doctoral study has influenced my approach to my work role and vice versa. I also reflect on what occupational stress and well-being mean for me, how this relates to my current approach to work, and considerations for future job roles.

During the PhD, I set out to test my assumptions about a career in research and whether I could see myself working as a researcher or lecturer. I also wanted to find out what research skills I could develop and enjoyed using. I gained research skills in systematic reviews, as well as quantitative and qualitative study designs. I took up teaching opportunities and gained experience in delivering seminars, supporting lectures, assessments, and marking. I developed my written and verbal communication skills by discussing and writing about my research for different stakeholders—presenting at academic conferences, writing a blog (Willis et al., 2018), and discussing my work on podcasts (Heyman, 2019; Shum et al., 2018). I

also contributed to the postgraduate community by chairing the Academic Associate Committee, representing research students to senior members of staff and organising a conference. I was surprised when the Graduate Studies Lead presented me with an award for Contribution to the Postgraduate Environment!

Two years into my PhD in 2018, I decided to apply for a research position as I felt I had developed a broad understanding of research methods and was close to completing my systematic review with plans to submit to a peer-reviewed journal. I was successful and was appointed as a Systematic Reviewer at Cardiff University on a part-time basis. It was chance that I saw the position advertised, as I had not even known such a job existed, let alone pictured myself in the role. The research skills I developed through my PhD were directly relevant to the role. Additionally, the teaching experience I had gained was another selling point as the role involved teaching professional development courses to staff and professionals in healthcare.

Whilst I was initially employed for a period of two years, I have had several contract extensions and continue to work as a Systematic Reviewer. I have contributed to a range of evidence reviews in health and social care topics including reviews on case management in homelessness (Weightman et al., 2022; Weightman et al., 2023), school counselling (Copeland et al., in press; Hewitt et al., 2022), and mental health and well-being for care-experienced children and young people (e.g., Evans et al., 2021; Evans et al., 2023). I have also authored a methodology paper on systematic reviews (Willis et al., 2021) and gained experience working with different funders and stakeholders such as the National Institute for Health and Care Research (NIHR), the National Institute for Health and Care Excellence (NICE), and the Welsh Government. I regularly contribute to reports and manuscripts and have gained FHEA accreditation. I am proud of the projects I have been involved in and these experiences have led me to be a specialist in evidence review methodologies.

My colleagues have commented that they can see the skills I have learnt through my PhD coming into play in my work, especially in the development of my writing quality. Working in the role has also benefitted my PhD—for instance, I have developed my understanding of

searching for literature and critiquing studies. This directly influenced choices I made in designing and conducting studies in my PhD as well as consideration of reporting standards. Through contributing to reports and manuscripts at work, I have developed a better understanding of how to structure my writing, observing others and the feedback they provide. Specifically, this has helped me improve my writing for an academic audience in terms of structuring a coherent argument and clarity of communicating ideas and concepts. Recently, I was given responsibility for synthesising a large volume of literature and needed to write at a quicker pace. This has affected my writing for the thesis, particularly in the later stages, where I have taken greater consideration to structure early on and planned writing time for specific sections. Through tasks at work and for the PhD, I have developed my writing in terms of building a narrative, structuring an argument, paragraph progression, and sentence structure.

Studying occupational stress and well-being has informed what I consider a "good job". When I first set out to pursue a career as a classical musician, I valued the excitement of performing and delivering outstanding artistic quality. Working primarily as a music teacher, I was faced with the reality of many musicians: lack of job security, irregular work, operating as a small business, driving long distances, and little opportunity for career progression. Whilst I never set out to become a Systematic Reviewer, it is a job that I really enjoy and contributes to my well-being. I now have greater career security, options for flexible working, annual leave, and opportunities for professional development. I am provided with challenges through conducting reviews on a variety of topics and have been able to make a meaningful impact on areas such as school counselling and homelessness. Previously, if I had been presented with different job opportunities, I would have evaluated these based mainly on the job content. However, if I were to consider a change of job in the future, I would take a broader approach and consider a variety of potential consequences. For instance, I would consider: the interaction between work and life (How would this job affect the time I have for relationships with friends and family? Would I have to travel? Would I be able to fit in my hobbies?); resources offered by an employer (What is the benefits package? Could I work flexibly?); and the well-being impacts of a potential job change (Would I experience more stress? Would I enjoy the content of job? Would I enjoy working in that type of environment?).

I would also seek out the opinions of those already employed in similar jobs to attain a realistic preview through informational interviews. If I were to change job in the future, I would reflect on my well-being through the transition by using reflective writing and a questionnaire such as the SWLS (Pavot & Diener, 1993).

Additionally, I have been able to contribute my knowledge of what constitutes a good job through being a trustee of two charities. I have influenced initiatives to improve the well-being of employees and musicians engaged in work on a freelance basis—this has included the collection and monitoring of data on employee well-being and the creation of professional development sessions on well-being for musicians. It has been rewarding to use the knowledge I have gained through my PhD and be able to contribute to the well-being of others, which is something I look forward to continuing to do in the future.

8.3. Balancing act: Lessons from part-time study

In this section, I consider the implications of studying in a part-time capacity, some of the resources I used during my PhD, and my own well-being throughout this time. This section is structured around six tips for incoming and current PhD students. Through these tips, I reflect on three areas that have been important to me when approaching my PhD: maintaining perspective throughout the PhD journey, the task of writing the thesis, and social support from my peers and supervisors.

Tip 1: There is life outside the PhD. As a part-time PhD student, keeping the balance between work, study, and leisure hasn't always been easy. At the induction day for my PhD, one of my supervisors described how his PhD experience had a negative impact on his well-being and advised that we made time for our own well-being throughout the PhD programme. With this in mind and having had experiences in my undergraduate studies that negatively affected my well-being, I decided to make my well-being a priority and reduce the chances of low well-being experiences in my PhD. One way I did this was by having clear boundaries both at work and for my PhD. For me, part-time study has meant a minimum of two to three days a week working on my thesis. I have treated my PhD like a job, which means studying during working hours—Monday to Friday, 9am to 5pm.

In the early stages of the PhD when I was teaching music, although I had less time for studying during term time, this was compensated for during the school holidays where I could carve out blocks of time to work on my PhD. These blocks of time really helped me to focus and get work done. As I transitioned into working in academia, I had a regular work pattern and could more reliably schedule time for my PhD. I blocked time out in my diary for both work and study, which helped me plan. In the late stages of writing my thesis, I was more flexible with my time—working until 6pm, writing on weekends, and carving out blocks of time by using annual leave. I felt that whilst in the short-term this might have some detrimental effect on my well-being, it was needed to finish the thesis. Having clear boundaries between work and study allowed me to focus on whatever task was relevant. Equally, these boundaries allowed me to decompress and make time for hobbies and personal relationships. Throughout the PhD, I have kept up with friends, family, and hobbies to maintain my own well-being. Studying part-time has meant the PhD has not been an all-consuming process and has provided perspective—my life outside the PhD has continued and I have also been able to achieve personal milestones such as buying a house and getting married. Going forward, I will continue to set clear boundaries between my work time and personal life in terms of the hours I work and the location I choose for work.

Tip 2: Stop in the middle. In switching between work and study, it was necessary for me to develop a way to pick up a train of thought after a break of several days. Early in my studies, I attended a professional development session called "The Effective Researcher". The best tip I took away from the session was that it wasn't necessary to finish a task at the end of the day and coming back to a task that you're in the middle of can work well to maximise time and facilitate navigating the work quickly. The session leader suggested leaving incomplete paragraphs and sentences at the end of the day with a short prompt (e.g., on a post-it note), which could then be picked up at a later date without needing to put a lot of effort into retracing previous work. At first, it seemed counterintuitive to stop in the middle of a paragraph or sentence but after a few weeks, this technique helped me to continue writing without losing momentum. This is something I have done throughout the PhD, leaving post-it notes or comments in a document with brief instructions for my future self on the current

task. I also use this technique at work and will continue to do so in order to help navigate tasks and stop me spending time retracing my steps.

Tip 3: Be realistic. It has also been necessary for me to develop realistic and reasonable expectations of myself and the work I am able to achieve as a part-time student. Early on, I had little to base my timelines on and was overambitious in what I thought I could achieve. Over time, I developed a sense of how long tasks would take, especially writing, and learnt to plan accordingly. After trial and error, I found a system that allowed me to write fluidly and noted that I could write around 500 words per day. First, I created an overarching structure. Second, I identified references and noted where they would go within the structure alongside some notes. Only then did I turn to writing each section. In the final stages of writing my thesis, I was able to accurately map out monthly, weekly, and daily writing tasks necessary for completing the thesis.

I have also learnt to value my time and really consider what opportunities to take on. It is always tempting to say "yes" to one more opportunity, but I have developed skills in saying "no" and appreciate there will be many more opportunities in the future. For instance, last year I turned down an invitation to become a trustee for another charity. My decision about which opportunities I say "yes" to is underpinned by reflecting on some questions such as: a) Have I already done something similar? b) Is this opportunity something I want to do or something someone else wants me to do? c) Do I realistically have time to do this? d) Is this a one-time-only opportunity or will there be similar opportunities available in the future? e) What are the potential benefits or harms of saying "yes" or "no" (e.g., to career or well-being)? These questions have helped me gain clarity about which opportunities I take on, consider my priorities, and be realistic about the potential impact of new commitments. I will continue to reflect on these questions when opportunities are presented to me in the future.

At times, it has been frustrating to be a part-time student, as I believe I could have completed the PhD quicker if I was enrolled full-time. Equally, I have met full-time students who have been envious of my part-time status, the time it has afforded me to develop my thinking, and that I was also working in a professional capacity. Studying workplace stress and well-being

has given me the insight to be kind to myself and reduce unnecessary pressure by giving myself sufficient time to complete work.

Tip 4: Connect with peers. Support from my peers helped me stay motivated and kept the PhD in perspective. I have been able to share the journey with other students in my cohort and joined networks outside my university. This has been invaluable: receiving advice, celebrating the highs, and sharing the lows. In particular, sharing the experience of working on a PhD during COVID-19 is something that stands out. At this time, being part of a group of students who checked in on each other and had socially distanced catchups kept me going. I also chaired the Academic Associate Committee for a year, which allowed me to connect with PhD students across the different schools, learn about research outside of my own field, and hear about their academic journeys. Additionally, I have had the opportunity to work in an environment with other PhD students in "Research House". This space allowed me to connect with students at different points in their studies and be part of a community of doctoral researchers. In my first week in Research House, I asked those who were further on in their research programmes for suggestions on what they wished they had done at the beginning of their studies. I received great advice on document set-up, approaching my literature review, reference management, and tasks that I could do in my first week. Additionally, having physical space to work helped me maintain boundaries between my studies and other areas of my life. More widely, talking to friends in other professions helped keep the PhD in perspective (see Tip 1) and understand that there are many ways to be successful.

Tip 5: Communicate regularly with supervisors. Having a good relationship with my supervisors has been an important part of the PhD journey. I was initially nervous about meeting established academics to discuss my underdeveloped research ideas. At the "Effective Researcher" session, I was provided with advice on how to approach and plan for my supervision meetings. I also took advice from *How to get a PhD: A handbook for students and their supervisors* (Phillips & Pugh, 2005) and on the suggestion of my Director of Studies, I started sending an agenda to my supervisors ahead of each meeting. This gave me a sense of purpose for each meeting and clarity in what I needed to discuss with my supervisors.

Throughout my PhD, I have met with my supervisors every 4–6 weeks and continued to send an agenda ahead of each meeting. This has kept our meetings focused, afforded me autonomy over the research programme whilst drawing on their knowledge and skills, and allowed me to develop as an independent researcher. After each supervision meeting, I wrote a summary of our discussion on the online platform, PhD Manager, and added agreed action points. The notes from each meeting were agreed by my supervisors and served as a record of our discussions, which I have been able to return to throughout my PhD. For instance, I have been able to revisit why particular decisions were made about analysis and check my understanding of topics discussed in supervision meetings. Additionally, I used PhD Manager to record professional development courses I have undertaken and conferences I attended. I found PhD Manager a useful tool for recordkeeping and supporting communication with my supervisors. Further, it has been important to discuss issues with my supervisors before they escalate into bigger problems and they have been a great source of support and encouragement throughout my PhD.

Tip 6: Write as you go. Finally, I reflect on the process of writing the thesis. When I first started, I had no concept of 80–100,000 words—only that this sounded like *a lot* of words. At the induction session, we were advised to write throughout the PhD process and not leave everything to the end. This sounded sensible to me as someone who likes to plan and hates leaving things to the last minute. I was also worried I'd forget everything if I left writing to the end of a part-time PhD and have no idea why I made particular decisions. At induction, we were also advised that writing could be repurposed: a research proposal could form the basis of aims and objectives; ethics forms could be turned into methods sections; a submission for upgrade from MPhil to PhD could be used as a literature review chapter. I, therefore, made the decision at the beginning of my PhD to write everything as I went, repurposing material where possible. In the early days, I felt like I was getting nowhere, constantly redrafting and not knowing what direction to take my writing. It was challenging to understand how to write in an academic style and have a sense of the overall thesis. Working on the systematic review for publication in a peer-reviewed journal really helped me to develop my writing skills and style, and I felt this was a big achievement early on in my PhD. Additionally, observing the development of reports and manuscripts at work has helped me to understand how to

structure my work. My work has meant I am introduced to lots of new topics, meaning I have read papers from different areas as well as critically appraising different types of research. This has given me a broader understanding of academic writing. In the later stages of writing chapters, I have seen the benefit of writing as I go and have been able to repurpose material for my thesis. Writing was not only a necessity for the thesis but also helped me clarify my understanding, learn how to conceptualise topics, and communicate an argument. In the later stages, I have noted that I am able to plan my writing at a high level and consider the thread of the work before committing words to paper. This has helped me see the end goal for my thesis. Going forward in an academic role, I am now confident in my writing and feel able to contribute to manuscripts and reports as well as offer support to others.

References

Aalberg, A. L., Saksvik-Lehouillier, I., & Vaag, J. R. (2019). Demands and resources associated with mental health among Norwegian professional musicians. *Work*, *63*, 39-47. https://doi.org/10.3233/WOR-192906

Abeles, H., & Hafeli, M. (2014). Seeking professional fulfillment: US symphony orchestra members in schools. *Psychology of Music*, *42*(1), 35-50. https://doi.org/10.1177/0305735612456447

Ackermann, B., Driscoll, T., & Kenny, D. T. (2012). Musculoskeletal pain and injury in professional orchestral musicians in Australia. *Medical Problems of Performing Artists*, *27*(4), 181-187. https://doi.org/10.21091/mppa.2012.4034

Akaike, H. (1987). Factor analysis and AIC. *Psychometrika*, *52*, 371-386.

Akel, S., & Düger, T. (2007). Psychosocial risk factors of musicians in Turkey: Use of the Job Content Questionnaire. *Medical Problems of Performing Artists*, *22*(4), 147-152. https://doi.org/10.21091/mppa.2007.4032

All-Party Parliamentary Group on Arts, Health and Wellbeing. (2017). *Creative health: The arts for health and wellbeing*. https://www.culturehealthandwellbeing.org.uk/appg-inquiry/

Allmendinger, J., Hackman, J. R., & Lehman, E. V. (1996). Life and work in symphony orchestras. *The Musical Quarterly*, *80*(2), 194-219. https://doi.org/10.1093/mq/80.2.194

Allport, G. W. (1961). *Pattern and growth in personality*. Holt, Reinhart & Winston.

Andersson, P. (2008). Happiness and health: Well-being among the self-employed. *The Journal of Socio-Economics*, *37*(1), 213-236. https://doi.org/10.1016/j.socec.2007.03.003

Anglin, A. H., Kincaid, P. A., Short, J. C., & Allen, D. G. (2022). Role theory perspectives: Past, present, and future applications of role theories in management research. *Journal of Management*, *48*(6), 1469-1502. https://doi.org/10.1177/01492063221081442

Antonini Philippe, R., Kosirnik, C., Vuichoud, N., Williamon, A., & von Roten, F. C. (2019). Understanding wellbeing among college music students and amateur musicians in Western Switzerland. *Frontiers in Psychology*, *10*, Article 820. https://doi.org/10.3389/fpsyg.2019.00820

Appelbaum, M., Cooper, H., Kline, R. B., Mayo-Wilson, E., Nezu, A. M., & Rao, S. M. (2018). Journal article reporting standards for quantitative research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, *73*, 3-25. https://doi.org/10.1037/amp0000191

Arbuckle, J. L. (2022). *Amos*. (Version 29) [Computer software]. IBM SPSS. https://www.ibm.com/uk-en/products/spss-statistics

Archibald, M. M., Ambagtsheer, R. C., Casey, M. G., & Lawless, M. (2019). Using Zoom videoconferencing for qualitative data collection: Perceptions and experiences of researchers and participants. *International Journal of Qualitative Methods*, *18*, 1-8. https://doi.org/10.1177/1609406919874596

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469-480. https://doi.org/10.1037/0003-066X.55.5.469

Arts Council England. (2020). *Let's Create*. https://www.artscouncil.org.uk/our-strategy-2020-2030

Arts Council England. (2022). Creative health & wellbeing. https://www.artscouncil.org.uk/developing-creativity-and-culture/health-and-wellbeing/creative-health-wellbeing

Ascenso, S. (2016). *Finding meaning in music: The impact of community engagement for professional musicians*. Royal College of Music & London Music Masters. https://musicmasters.org.uk/wp-content/uploads/2020/09/Finding-Meaning-in-Music-an-LMM-RCM-research-project-2016.pdf

Ascenso, S. (2022). *Musicians' wellbeing: a cross-sectional investigation within the framework of Positive Psychology* [Doctoral dissertation, Royal College of Music]. Research Online. https://doi.org/10.24379/RCM.00002247

Ascenso, S., & Perkins, R. (2013). *"The more the merrier"? Understanding the wellbeing of professional musicians in collaborative and solo work settings* [Research presentation]. International Symposium on Performance Science, Vienna, Austria.

http://performancescience.org/wp-content/uploads/2018/08/isps2013_proceedings.pdf

Ascenso, S., Perkins, R., & Williamon, A. (2018). Resounding meaning: A PERMA wellbeing profile of classical musicians. *Frontiers in Psychology*, *9*, Article 1895. https://doi.org/10.3389/fpsyg.2018.01895

Ascenso, S., Williamon, A., & Perkins, R. (2017). Understanding the wellbeing of professional musicians through the lens of positive psychology. *Psychology of Music*, *45*(1), 65-81. https://doi.org/10.1177/0305735616646864

Association of British Orchestras. (2019). *The state of the UK's orchestras in 2019*. https://abo.org.uk/assets/files/News-and-Press/ABO-The-State-of-UKs-Orchestras-in-2019.pdf

Baadjou, V. A. E., Roussel, N. A., Verbunt, J. A. M. C. F., Smeets, R. J. E. M. & de Bie R. A. (2016). Systematic review: Risk factors for musculoskeletal disorders in musicians. *Occupational Medicine*, *66(8)*, 614-622, https://doi.org/10.1093/occmed/kqw052

Bailey, J. (2009). *Artistic vibrancy: Self-reflection tool*. Australian Council for the Arts. http://www.ascevaluation.ca/Documents/Toolkits/Artistic_Vibrancy_Self_Reflection_Tool.pdf

Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands-resources model. *European Journal of Work and Organizational Psychology*, *12*(4), 393-417. https://doi.org/10.1080/13594320344000165

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, *22*(3), 309-328. https://doi.org/10.1108/02683940710733115

Bakker, A. B., & Demerouti, E. (2014). Job demands–resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Wellbeing: A complete reference Guide: Vol. 3. Work and wellbeing* (pp. 1-28). Wiley-Blackwell. https://doi.org/10.1002/9781118539415.wbwell019

Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, *22*(3), 273-285. https://doi.org/10.1037/ocp0000056

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psycholgoy*, *10*(2), 170-180. https://doi.org/10.1037/1076-8998.10.2.170

Baldock, L., Cropley, B., Neil, R., & Mellalieu, S. D. (2021). Stress and mental well-being experiences of professional football coaches. *The Sport Psychologist*, *35*(2), 108-122. https://doi.org/10.1123/tsp.2020-0087

Balk, Y. A., de Jonge, J., van Rijn, R., & Stubbe, J. (2018). "Leave it all behind": The role of mental demands and mental detachment in relation to dance students' health and well-being. *Medical Problems of Performing Artists*, *33*(4), 258-264. https://doi.org/10.21091/mppa.2018.4038

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman and Company.

Barrell, G. M., & Terry, P. C. (2003). Trait anxiety and coping strategies among ballet dancers. *Medical Problems of Performing Artists*, *18*(2), 59-64. https://doi.org/10.21091/mppa.2003.2012

Barros, S., Marinho, H., Borges, N., & Pereira, A. (2022). Characteristics of music performance anxiety among undergraduate music students: A systematic review. *Psychology of Music*, *50*(6), 2021-2043. https://doi.org/10.1177/03057356211066967

Bartels, A. L., Peterson, S. J., & Reina, C. S. (2019). Understanding well-being at work: Development and validation of the eudaimonic workplace well-being scale. *PLoS ONE*, *14*(4), Article e0215957. https://doi.org/10.1371/journal.pone.0215957

Becker, R. (2022). Gender and survey participation: An event history analysis of the gender effects of survey participation in a probability-based multi-wave panel study with a sequential mixed-mode design. *Methods, Data, Analyses*, *16*(1), 3-32. https://doi.org/10.12758/mda.2021.08

Bennett, D. (2009). Academy and the real world: Developing realistic notions of career in the performing arts. *Arts and Humanities in Higher Education*, *8*(3), 309-327. https://doi.org/10.1177/1474022209339953

Bennett, D., & Bridgstock, R. (2015). The urgent need for career preview: Student expectations and graduate realities in music and dance. *International Journal of Music Education*, *33*(3), 263-277. https://doi.org/10.1177/0255761414558653

Bentler, P. M. (1992). On the fit of models to covariances and methodology to the Bulletin. *Psychological Bulletin*, *112*(3), 400-404. https://doi.org/10.1037/0033-2909.112.3.400

Bergin, M., Wells, J. S. G., & Owen, S. (2008). Critical realism: A philosophical framework for the study of gender and mental health. *Nursing Philosophy*, *9*(3), 169-179. https://doi.org/10.1111/j.1466-769X.2008.00358.x

Berthelsen, H., Hakanen, J. J., & Westerlund, H. (2018). Copenhagen Psychosocial Questionnaire - A validation study using the job demand-resources model. *PLoS ONE*, *13*(4), Article e0196450. https://doi.org/10.1371/journal.pone.0196450

Bhaskar, R. (2008). *A realist theory of science*. Routledge. (Original work published 1975)

Binder, M., & Coad, A. (2016). How satisfied are the self-employed? A life domain view. *Journal of Happiness Studies*, *17*(4), 1409-1433. https://doi.org/10.1007/s10902-015-9650-8

Biswas-Diener, R., Kashdan, T. B., & King, L. A. (2009). Two traditions of happiness research, not two distinct types of happiness. *Journal of Positive Psychology*, *4*(3), 208-211. https://doi.org/10.1080/17439760902844400

Blackstone, K. L. (2019). *How do conservatoire graduates manage their transition into the music profession? Exploring the career-building process* (Publication Number uk.bl.ethos.800477) [Doctoral dissertation, University of Leeds]. White Rose eTheses Online. https://etheses.whiterose.ac.uk/26037/

Blanchflower, D. G., & Oswald, A. J. (2008). Is well-being U-shaped over the life cycle? *Social Science & Medicine*, *66*(8), 1733-1749. https://doi.org/10.1016/j.socscimed.2008.01.030

Blevins, P., Erskine, S., Hopper, L., & Moyle, G. (2020). Finding your balance: An Investigation of recovery–stress balance in vocational dance training. *Journal of Dance Education*, *20*(1), 12-22. https://doi.org/10.1080/15290824.2018.1532571

Bodner, E., & Bensimon, M. (2008). After the curtain falls: On the post-performance adjustment of solo singers. *Medical Problems of Performing Artists*, *23*(4), 172-177. https://doi.org/10.21091/mppa.2008.4035

Bolles, R. N. (2009). *What color is your parachute? 2010: A practical manual for job-hunters and career-changers*. Ten Speed.

Bosco, F. A., Aguinis, H., Singh, K., Field, J. G., & Pierce, C. A. (2015). Correlational effect size benchmarks. *Journal of Applied Psychology*, *100*(2), 431-449. https://doi.org/10.1037/a0038047

Bosma, H., Peter, R., Siegrist, J., & Marmot, M. G. (1998). Two alternative job stress models and the risk of coronary heart disease. *American Journal of Public Health*, *88*(1), 68-74. https://doi.org/10.2105/ajph.88.1.68

Bradburn, N. M. (1969). *The structure of psychological well-being*. Aldine.

Bradburn, N. M., & Caplovitz, D. (1965). *Reports on happiness: A pilot study of behaviour related to mental health*. Aldine.

Breda, J., & Kulesa, P. (1999). *Stress and job satisfaction among symphony musicians*. Symphony Orchestra Institute. https://iml.esm.rochester.edu/polyphonic-archive/wp-content/uploads/sites/13/2012/05/research-study-series-2.pdf

Brodsky, W. (2006). In the wings of British orchestras: A multi-episode interview study among symphony players. *Journal of Occupational and Organizational Psychology*, *79*(4), 673-690. https://doi.org/10.1348/096317905X68213

Brooks, S. K., & Patel, S. S. (2022). Challenges and opportunities experienced by performing artists during COVID-19 lockdown: Scoping review. *Social Sciences & Humanities Open*, *6*(1), Article 100297. https://doi.org/10.1016/j.ssaho.2022.100297

Brown, A., Hecker, K. G., Bok, H., & Ellaway, R. H. (2021). Strange bedfellows: Exploring methodological intersections between realist inquiry and structural equation modeling. *Journal of Mixed Methods Research*, *15*(4), 485-506. https://doi.org/10.1177/1558689820970692

Brown, L. (2009). Introduction. In *The Nicomachean Ethics* (11th ed., pp. vii-xxxi). Oxford University Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Sage.

Bujacz, A., Bernhard-Oettel, C., Rigotti, T., & Lindfors, P. (2017). Task-level work engagement of self-employed and organizationally employed high-skilled workers. *Career Development International*, *22*(6), 724-738. https://doi.org/10.1108/CDI-05-2016-0083

Burgoyne, S., Poulin, K., & Rearden, A. (1999). The impact of acting on student actors: Boundary blurring, growth, and emotional distress. *Theatre Topics*, *9*(2), 157-179. https://doi.org/10.1353/tt.1999.0011

Burland, K., & Davidson, J. W. (2002). Training the talented. *Music Education Research*, *4*(1), 121-140. https://doi.org/10.1080/14613800220119813

Burland, K., & Pitts, S. (2007). Becoming a music student: Investigating the skills and attitudes of students beginning a music degree. *Arts and Humanities in Higher Education*, *6*(3), 289-308. https://doi.org/10.1177/1474022207080847

Burr, H., Berthelsen, H., Moncada, S., Nübling, M., Dupret, E., Demiral, Y., Oudyk, J., Kristensen, T. S., Llorens, C., Navarro, A., Lincke, H.-J., Bocéréan, C., Sahan, C., Smith, P., & Pohrt, A. (2019). The third version of the Copenhagen Psychosocial Questionnaire. *Safety and Health at Work*, *10*(4), 482-503. https://doi.org/10.1016/j.shaw.2019.10.002

Burt, R., & Mills, J. (2006). Taking the plunge: The hopes and fears of students as they begin music college. *British Journal of Music Education*, *23*(1), 51-73. https://doi.org/10.1017/S0265051705006741

Burwell, K. (2005). A degree of independence: Teachers' approaches to instrumental tuition in a university college. *British Journal of Music Education*, *22*(3), 199-215. https://doi.org/10.1017/S0265051705006601

Butler, N., & Stoyanova Russell, D. (2018). No funny business: Precarious work and emotional labour in stand-up comedy. *Human Relations*, *71*(12), 1666-1686. https://doi.org/10.1177/0018726718758880

Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.

Cahalan, R., & O'Sullivan, K. (2013). Job satisfaction of professional Irish dancers: Implications for performer health and well-being. *Journal of Dance Medicine & Science*, *17*(4), 139-149.

Carey, G., & Grant, C. (2015). Teacher and student perspectives on one-to-one pedagogy: Practices and possibilities. *British Journal of Music Education*, *32*(1), 5-22. https://doi.org/10.1017/S0265051714000084

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, *4*(1), 92-100. https://doi.org/10.1207/s15327558ijbm0401_6

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*(2), 267-283. https://doi.org/10.1037//0022-3514.56.2.267

Cebr. (2019). *Contribution of the arts and culture industry to the UK economy*. https://www.artscouncil.org.uk/research-and-data/contribution-arts-and-culture-industry-uk-economy#:~:text=The%20arts%20and%20culture%20industry%20has%20grown%20%C2%A3390million%20in,a%20year%20and%20363%2C700%20jobs.

Chafe, D., & Kaida, L. (2019). Harmonic dissonance: Coping with employment precarity among professional musicians in St John's, Canada. *Work, Employment and Society*, *34*(3), 407-423. https://doi.org/10.1177/0950017019865877

Clark, A. M., MacIntyre, P. D., & Cruickshank, J. (2007). A critical realist approach to understanding and evaluating heart health programmes. *Health*, *11*(4), 513-539. https://doi.org/10.1177/1363459307080876

Clark, T., Lisboa, T., & Williamon, A. (2014). An investigation into musicians' thoughts and perceptions during performance. *Research Studies in Music Education*, *36*(1), 19-37. https://doi.org/10.1177/1321103X14523531

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, *20*(1), 37-46. https://doi.org/10.1177/001316446002000104

Cohen, S., & Ginsborg, J. (2021). The experiences of mid-career and seasoned orchestral musicians in the UK during the first COVID-19 lockdown. *Frontiers in Psychology*, *12*, Article 645967. https://doi.org/10.3389/fpsyg.2021.645967

Cohen, S., & Ginsborg, J. (2022). One year on: The impact of COVID-19 on the lives of freelance orchestral musicians in the United Kingdom. *Frontiers in Psychology*, *13*, Article 885606. https://doi.org/10.3389/fpsyg.2022.885606

Cohen, S. D. (1999). *An exploratory study of popular musicians' occupational stress, cognitive appraisals, and coping responses* (Publication Number 9959473) [Doctoral dissertation, The University of Texas at Austin]. ProQuest Dissertations & Theses Global. Ann Arbor.

Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research*, *22*(10), 1435-1443. https://doi.org/10.1177/1049732312452938

Cooper, C. L., Dewe, P., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research and applications*. Sage Publications.

Cooper, C. L., & Wills, G. I. (1989). Popular musicians under pressure. *Psychology of Music*, *17*(1), 22-36. https://doi.org/10.1177/0305735689171003

Copeland, L., Willis, S., Hewitt, G., Edwards, A., Jones, S., Page, N., Murphy, S., & Evans, R. (in press). School and community-based counselling services for children and young people aged 7-18 in the UK: Rapid review of effectiveness, implementation and acceptability. *Counselling and Psychotherapy Research*.

Coulson, S. (2012). Collaborating in a competitive world: Musicians' working lives and understandings of entrepreneurship. *Work, Employment and Society*, *26*(2), 246-261. https://doi.org/10.1177/0950017011432919

Cox, T., & Griffiths, S. (2010). Work-related stress: A theoretical perspective. In S. Leka & J. Houdmont (Eds.), *Occupational health psychology* (pp. 31-56). John Wiley & Sons.

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*(5), 834–848. https://doi.org/10.1037/a0019364

Creech, A., Papageorgi, I., Duffy, C., Morton, F., Haddon, E., Potter, J., de Bezenac, C., Whyton, T., Himonides, E., & Welch, G. (2008). From music student to professional: The process of transition. *British Journal of Music Education*, *25*(3), 315-331. https://doi.org/10.1017/S0265051708008127

Creswell, J. W., & Clark, V. L. P. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.

Crowe, M., & Sheppard, L. (2011). A review of critical appraisal tools show they lack rigor: Alternative tool structure is proposed. *Journal of Clinical Epidemiology*, *64*(1), 79-89. https://doi.org/10.1016/j.jclinepi.2010.02.008

Cutrona, C. E., & Suhr, J. A. (1992). Controllability of stressful events and satisfaction with spouse support behaviors. *Communication Research*, *19*(2), 154-174. https://doi.org/10.1177/009365092019002002

Dallos, R., & Vetere, A. (2005). *Researching psychotherapy and counselling*. McGraw-Hill Education.

Danermark, B., Ekström, M., & Karlsson, J. C. (2019). *Explaining society: Critical realism in the social sciences*. Routledge.

Davies, A. (2004). Preparing professional performers: Music students' perceptions and experiences of the learning process at Birmingham Conservatoire. *International Journal of Qualitative Studies in Education*, *17*(6), 803-821. https://doi.org/10.1080/0951839042000256466

Davison, D. (2022). Sources of occupational stress among the military musicians of the Royal Air Force. *BMJ Military Health*, *168*(3), 181-185. https://doi.org/10.1136/bmjmilitary-2020-001432

de Jonge, J., Bosma, H., Peter, R., & Siegrist, J. (2000). Job strain, effort-reward imbalance and employee well-being: A large-scale cross-sectional study. *Social Science and Medicine*, *50*(9), 1317-1327. https://doi.org/10.1016/S0277-9536(99)00388-3

de Jonge, J., & Kompier, M. A. J. (1997). A critical examination of the demand-control-support model from a work psychological perspective. *International Journal of Stress Management*, *4*, 235–258. https://doi.org/10.1023/B:IJSM.0000008152.85798.90

de Lange, A. H., Taris, T. W., Kompier, M. A. J., Houtman, I. L. D., & Bongers, P. M. (2003). "The very best of the millennium": Longitudinal research and the demand-control-(support) model. *Journal of Occupational Health Psycholgoy*, *8*(4), 282-305. https://doi.org/10.1037/1076-8998.8.4.282

de Witte, H., Pienaar, J., & De Cuyper, N. (2016). Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being: Is there causal evidence? *Australian Psychologist*, *51*(1), 18-31. https://doi.org/10.1111/ap.12176

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Press.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227-268. https://doi.org/10.1207/S15327965PLI1104_01

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499-512. https://www.isonderhouden.nl/doc/pdf/arnoldbakker/articles/articles_arnold_bakker_69.pdf

Demirbatir, E., Helvaci, A., Yilmaz, N., Gul, G., Senol, A., & Bilgel, N. (2013). The psychological well-being, happiness and life satisfaction of music students. *Psychology*, *4*(11), 16-24, Article 40240. https://doi.org/10.4236/psych.2013.411A004

Denzin, N. K., & Lincoln, Y. S. (2008). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The landscape of qualitative research* (3rd ed., pp. 1-43). Sage Publications.

Dews, C. L. B., & Williams, M. S. (1989). Student musicians' personality styles, stresses, and coping patterns. *Psychology of Music*, *17*(1), 37-47. https://doi.org/10.1177/0305735689171004

Didymus, F. F. (2017). Olympic and international level sports coaches' experiences of stressors, appraisals, and coping. *Qualitative Research in Sport, Exercise and Health*, *9*(2), 214-232. https://doi.org/10.1080/2159676X.2016.1261364

Didymus, F. F., & Fletcher, D. (2012). Getting to the heart of the matter: A diary study of swimmers' appraisals of organisational stressors. *Journal of Sports Sciences*, *30*(13), 1375-1385. https://doi.org/10.1080/02640414.2012.709263

Didymus, F. F., & Fletcher, D. (2014). Swimmers' experiences of organizational stress: Exploring the role of cognitive appraisal and coping strategies. *Journal of Clinical Sport Psychology*, *8*(2), 159-183. https://doi.org/10.1123/jcsp.2014-0020

Diener, E. (2006). *Understanding scores on the Satisfaction with Life Scale* https://commondatastorage.googleapis.com/eddiener/uploads/support/file/10/Understanding_SWLS_Scores.pdf

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13

Diener, E., Sapyta, J., & Suh, E. (1998). Subjective well-being is essential to well-being. *Psychological Inquiry*, *9*(1), 33-37. https://doi.org/10.1207/s15327965pli0901_3

Diener, E., & Seligman, M. E. P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, *5*(1), 1-31. https://doi.org/10.1111/j.0963-7214.2004.00501001.x

Diener, E., Smith, H., & Fujita, F. (1995). The personality structure of affect. *Journal of Personality and Social Psychology*, *69*(1), 130-141. https://doi.org/10.1037/0022-3514.69.1.130

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276-302. https://doi.org/10.1037/0033-2909.125.2.276

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.-w., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143-156. https://doi.org/10.1007/s11205-009-9493-y

DiMaria, C. H., Peroni, C., & Sarracino, F. (2020). Happiness matters: Productivity gains from subjective well-being. *Journal of Happiness Studies*, *21*(1), 139-160. https://doi.org/10.1007/s10902-019-00074-1

Dixon-Woods, M., Agarwhal, S., Jones, D., Young, B., & Sutton, A. (2005). Synthesising qualitative and quantitative evidence: A review of possible methods. *Journal of Health Services Research and Policy*, *10*(1), 45-53. https://doi.org/10.1177/135581960501000110

Dobson, M. C. (2010a). Insecurity, professional sociability, and alcohol: Young freelance musicians' perspectives on work and life in the music profession. *Psychology of Music*, *39*(2), 240-260. https://doi.org/10.1177/0305735610373562

Dobson, M. C. (2010b). Performing your self? Autonomy and self-expression in the work of jazz musicians and classical string players. *Music Performance Research*, *3*(1), 42-60. http://musicperformanceresearch.org/wp-content/uploads/2020/11/Dobson-Vol.-3.1-42-60.pdf

Dobson, M. C., & Gaunt, H. F. (2015). Musical and social communication in expert orchestral performance. *Psychology of Music*, *43*(1), 24-42. https://doi.org/10.1177/0305735613491998

Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, *2*(3), 222-235. https://doi.org/10.5502/ijw.v2i3.4

Draugelis, S., Martin, J., & Garn, A. (2014). Psychosocial predictors of well-being in collegiate dancers. *The Sport Psychologist*, *28*(1), 1-9. https://doi.org/10.1123/tsp.2012-0093

Dwan, K., Gamble, C., Williamson, P. R., & Kirkham, J. J. (2013). Systematic review of the empirical evidence of study publication bias and outcome reporting bias — An updated review. *PLoS ONE*, *8*(7), Article e66844. https://doi.org/10.1371/journal.pone.0066844

Dweck, C. S. (2008). Can personality be changed? The role of beliefs in personality and change. *Current Directions in Psychological Science*, *17*(6), 391-394. https://doi.org/10.1111/j.1467-8721.2008.00612.x

Dweck, C. S., & Yeager, D. S. (2019). Mindsets: A view from two eras. *Perspectives on Psychological Science*, *14*(3), 481-496. https://doi.org/10.1177/1745691618804166

English National Opera. (2023). *Relaxed Performances*. Retrieved 25/01/2023 from https://www.eno.org/whats-on/relaxed-performances/

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological review*, *100*(3), 363-406.

Erikson, E. H. (1959). *Identity and the life cycle: selected papers*. International Universities Press.

Evans, R., Boffey, M., MacDonald, S., Noyes, J., Melendez-Torres, G. J., Morgan, H. E., Trubey, R., Robling, M., Willis, S., & Wooders, C. (2021). Care-experienced cHildren and young people's Interventions to improve Mental health and wEll-being outcomes: Systematic review (CHIMES) protocol. *BMJ Open*, *11*(1), Article e042815. https://doi.org/10.1136/bmjopen-2020-042815

Evans, R., MacDonald, S., Trubey, R., Noyes, J., Robling, M., Willis, S., Boffey, M., Wooders, C., Vinnicombe, S., & Melendez-Torres, G. J. (2023). Interventions targeting the mental health and wellbeing of care-experienced children and young people in higher-income countries: Evidence map and systematic review. *Systematic Reviews*, *12*(1), 111. https://doi.org/10.1186/s13643-023-02260-y

Fernholz, I., Mumm, J. L. M., Plag, J., Noeres, K., Rotter, G., Willich, S. N., Ströhle, A., Berghöfer, A., & Schmidt, A. (2019). Performance anxiety in professional musicians: A systematic review on prevalence, risk factors and clinical treatment effects. *Psychological Medicine*, *49*(14), 2287-2306. https://doi.org/10.1017/S0033291719001910

Fisher, C. D. (2010). Happiness at work. *International Journal of Management Reviews*, *12*(4), 384-412. https://doi.org/10.1111/j.1468-2370.2009.00270.x

Fisher, C. D. (2014). Conceptualizing and measuring wellbeing at work. In P. Y. Chen & C. L. Cooper (Eds.), *Wellbeing: A complete reference Guide: Vol. 3. Work and wellbeing* (pp. 9-33). Wiley Blackwell. https://doi.org/10.1002/9781118539415.wbwell018

Fleetwood, S. (2005). Ontology in organization and management studies: A critical realist perspective. *Organization*, *12*(2), 197-222. https://doi.org/10.1177/1350508405051188

Fleetwood, S. (2014). Bhaskar and critical realism. In P. Adler, P. du Gay, G. Morgan, & M. Reed (Eds.), *Oxford handbook of sociology, social theory, and organization studies:*

Contemporary currents (pp. 182-219). https://doi.org/10.1093/oxfordhb/9780199671083.013.0009

Fleetwood, S. (2017). The critical realist conception of open and closed systems. *Journal of Economic Methodology*, *24*(1), 41-68. https://doi.org/10.1080/1350178X.2016.1218532

Fletcher, D., Hanton, S., Mellalieu, S. D., & Neil, R. (2012). A conceptual framework of organizational stressors in sport performers. *Scandinavian Journal of Medicine and Science in Sports*, *22*(4), 545-557. https://doi.org/10.1111/j.1600-0838.2010.01242.x

Forbes, M., & Bartlett, I. (2020a). 'It's much harder than I thought': Facilitating a singing group for people with Parkinson's disease. *International Journal of Community Music*, *13*(1), 29-47. https://doi.org/10.1386/ijcm_00009_1

Forbes, M., & Bartlett, I. (2020b). 'This circle of joy': Meaningful musicians' work and the benefits of facilitating singing groups. *Music Education Research*, *22*(5), 555-568. https://doi.org/10.1080/14613808.2020.1841131

Ford, J., & Arvinen-Barrow, M. (2019). Exploring the use of psychological skills training interventions in a music domain: A systematic review. *Medical Problems of Performing Artists*, *34*(4), 222-229. https://doi.org/10.21091/mppa.2019.4033

Ford, J. A., Jones, A., Wong, G., Clark, A., Porter, T., & Steel, N. (2018). Access to primary care for socio-economically disadvantaged older people in rural areas: Exploring realist theory using structural equation modelling in a linked dataset. *BMC Medical Research Methodology*, *18*(1), 57. https://doi.org/10.1186/s12874-018-0514-x

Frederiksen, D. J., & Kringelum, L. B. (2021). Five potentials of critical realism in management and organization studies. *Journal of Critical Realism*, *20*(1), 18-38. https://doi.org/10.1080/14767430.2020.1846153

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, *40*(2), 287-322. https://doi.org/10.1111/j.1744-6570.1987.tb00605.x

Gaab, J., Rohleder, N., Nater, U. M., & Ehlert, U. (2005). Psychological determinants of the cortisol stress response: The role of anticipatory cognitive appraisal.

Psychoneuroendocrinology, *30*(6), 599-610. https://doi.org/10.1016/j.psyneuen.2005.02.001

Galvin, J. (2016). *A multi-method approach to researching stress and mental health in two groups of healthcare students: Nursing students and trainee clinical psychologists* [Doctoral dissertation, Cardiff University]. Online Research @Cardiff. https://orca.cardiff.ac.uk/id/eprint/98616

Garver, M. S., & Mentzer, J. T. (1999). Logistics research methods: Employing structural equation modeling to test for construct validity. *Journal of Business Logistics*, *20*(1), 33-57.

Gaunt, H. (2008). One-to-one tuition in a conservatoire: The perceptions of instrumental and vocal teachers. *Psychology of Music*, *36*(2), 215-245. https://doi.org/10.1177/0305735607080827

Gaunt, H. (2010). One-to-one tuition in a conservatoire: The perceptions of instrumental and vocal students. *Psychology of Music*, *38*(2), 178-208. https://doi.org/10.1177/0305735609339467

Gembris, H., Heye, A., & Seifert, A. (2018). Health problems of orchestral musicians from a life-span perspective. *Music and Science*, *1*. https://doi.org/10.1177/2059204317739801

Grégoire, G., Derderian, F., & Le Lorier, J. (1995). Selecting the language of the publications included in a meta-analysis: Is there a tower of babel bias? *Journal of Clinical Epidemiology*, *48*(1), 159-163. https://doi.org/10.1016/0895-4356(94)00098-B

Griep, R. H., Rotenberg, L., Chor, D., Toivanen, S., & Landsbergis, P. (2010). Beyond simple approaches to studying the association between work characteristics and absenteeism: Combining the DCS and ERI models. *Work and Stress*, *24*(2), 179-195. https://doi.org/10.1080/02678373.2010.493083

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*(2), 348-362. https://doi.org/10.1037/0022-3514.85.2.348

Guba, E. G. (1990). The alternative paradigm dialog. In E. G. Guba (Ed.), *The paradigm dialog*. Sage Publications.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Sage Publications.

Gunzler, D. D., & Morris, N. (2015). A tutorial on structural equation modeling for analysis of overlapping symptoms in co-occurring conditions using MPlus. *Statistics in Medicine*, *34*(24), 3246-3280. https://doi.org/10.1002/sim.6541

Habe, K., Biasutti, M., & Kajtna, T. (2021). Wellbeing and flow in sports and music students during the COVID-19 pandemic. *Thinking Skills and Creativity*, *39*, Article 100798. https://doi.org/10.1016/j.tsc.2021.100798

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279. https://doi.org/10.1016/0030-5073(76)90016-7

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, *43*(6), 495-513. https://doi.org/10.1016/j.jsp.2005.11.001

Hambrick, D. Z., Oswald, F. L., Altmann, E. M., Meinz, E. J., Gobet, F., & Campitelli, G. (2014). Deliberate practice: Is that all it takes to become an expert? *Intelligence*, *45*, 34-45. https://doi.org/10.1016/j.intell.2013.04.001

Hanton, S., Wagstaff, C. R. D., & Fletcher, D. (2012). Cognitive appraisals of stressors encountered in sport organizations. *International Journal of Sport and Exercise Psychology*, *10*(4), 276-289. https://doi.org/10.1080/1612197X.2012.682376

Häusser, J. A., Mojzisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the job demand-control(-support) model and psychological well-being. *Work and Stress*, *24*(1), 1-35. https://doi.org/10.1080/02678371003683747

Health and Safety Executive. (n.d.). *What are the Management Standards?* Retrieved July 20, 2023 from https://www.hse.gov.uk/stress/standards/index.htm

Heidegger, M., Macquarrie, J., & Robinson, E. (1962/1996). *Being and time*. Blackwell. (Original work published 1962).

Helix Arts. (n.d.). *Best practice*. Retrieved June 22, 2023 from https://www.helixarts.com/about-us/best-practice/#:~:text=Our%20quality%20framework%2C%20known%20as,a%20360%2Ddegree%20reflection%20process.

Helliwell, J. F., Layard, R., Sachs, J. D., Aknin, L. B., De Neve, J.-E., & Wang, S. (2023). *World Happiness Report 2023* (11th ed.). Sustainable Development Solutions Network.

Help Musicians. (2023). *Musicians, make some noise: Call to musicians across the country to take part in the first Musicians' Census*. Retrieved July 20, 2023 from https://www.helpmusicians.org.uk/media-and-press-office/musicians-make-some-noise-call-to-musicians-across-the-country-to-take-part-in-the-first-musicians-census#:~:text=There%20are%20an%20estimated%2037,to%20understand%20the%20holistic%20picture.

Help Musicians & Musicians' Union. (2023). Musicians' Census: Mental Wellbeing Report. https://static1.squarespace.com/static/6398a2cf26f9de4e45e94dd7/t/655e09ac9064433549b2237b/1700661683250/MC23+Mental+Health+Report+1023+FA.pdf

Hewitt, G., Copeland, L., Page, N., Willis, S., Murphy, S., Edwards, A., Jones, S., Renold, R., & Evans, R. (2022). *Review of statutory school and community-based counselling services: Optimisation of services for children and young people aged 11 to 18 years and extension to younger primary school aged children*. Welsh Government. https://www.gov.wales/review-school-and-community-based-counselling-services

Heyman, L., (Host). (2019, December 9). Wellbeing (No. 11) [Audio podcast episode]. In *Elevate music podcast*. Listen Entertainment, Help Musicians, & Elevate. https://podcasts.apple.com/gb/podcast/wellbeing-ayanna-witter-johnson-and-simone-willis/id1469535660?i=1000459038407

Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, *84*(3), 632-643. https://doi.org/10.1037/0022-3514.84.3.632

Holst, G. J., Paarup, H. M., & Baelum, J. (2012). A cross-sectional study of psychosocial work environment and stress in the Danish symphony orchestras. *International Archives of*

Occupational and Environmental Health, *85*(6), 639-649. https://doi.org/10.1007/s00420-011-0710-z

Hone, L., Jarden, A., & Schofield, G. (2014). Psychometric properties of the Flourishing Scale in a New Zealand sample. *Social Indicators Research*, *119*(2), 1031-1045. https://doi.org/10.1007/s11205-013-0501-x

Hong, Q. N., Gonzalez-Reyes, A., & Pluye, P. (2018). Improving the usefulness of a tool for appraising the quality of qualitative, quantitative and mixed methods studies, the Mixed Methods Appraisal Tool (MMAT). *Journal of Evaluation in Clinical Practice*, *24*(3), 459-467. https://doi.org/10.1111/jep.12884

Hood, R. (2016). Combining phenomenological and critical methodologies in qualitative research. *Qualitative Social Work*, *15*(2), 160-174. https://doi.org/10.1177/1473325015586248

Hopewell, S., Clarke, M. J., Lefebvre, C., & Scherer, R. W. (2007). Handsearching versus electronic searching to identify reports of randomized trials. *Cochrane database of systematic reviews*. https://doi.org/10.1002/14651858.MR000001.pub2.

Hopper, L. S., Blevins, P., Erskine, S., Hendry, D., Hill, R., & Longbottom, R. (2020). Sustaining dancer wellbeing through independent professional dance careers. *Theatre, Dance and Performance Training*, *11*(4), 470-486. https://doi.org/10.1080/19443927.2020.1740312

How, E. R., Tan, L., & Miksza, P. (2021). A PRISMA review of research on music practice. *Musicae Scientiae*, *26*(3), 675-697. https://doi.org/10.1177/10298649211005531

Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55. https://doi.org/10.1080/10705519909540118

Huang, W.-L., & Song, B. (2021). How do college musicians self-manage musical performance anxiety: Strategies through time periods and types of performance. *International Journal of Music Education*, *39*(2), 95-118. https://doi.org/10.1177/0255761421990800

Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational

definitions. *Journal of Happiness Studies*, *15*(6), 1425-1456. https://doi.org/10.1007/s10902-013-9485-0

IBM Corp. (2022). *IBM SPSS Statistics for Windows*. In (Version 29) [Computer software]. IBM Corp. https://www.ibm.com/uk-en/products/spss-statistics

Institute for Government. (2022, December 09). *Timeline of UK government coronavirus lockdowns and restrictions*. Retrieved July 19, 2023 from https://www.instituteforgovernment.org.uk/data-visualisation/timeline-coronavirus-lockdowns

Irving, P. G., & Montes, S. D. (2009). Met expectations: The effects of expected and delivered inducements on employee satisfaction. *Journal of Occupational and Organizational Psychology*, *82*(2), 431-451. https://doi.org/10.1348/096317908X312650

Jääskeläinen, T. (2022). "Music is my life": Examining the connections between music students' workload experiences in higher education and meaningful engagement in music. *Research Studies in Music Education*, Advance online publication. https://doi.org/10.1177/1321103X221104296

Jääskeläinen, T., López-Íñiguez, G., & Lehikoinen, K. (2022). Experienced workload, stress, and coping among professional students in higher music education: An explanatory mixed methods study in Finland and the United Kingdom. *Psychology of Music*, *50*(6), 1853-1876. https://doi.org/10.1177/03057356211070325

Jääskeläinen, T., López-Íñiguez, G., & Phillips, M. (2020). Music students' experienced workload, livelihoods and stress in higher education in Finland and the United Kingdom. *Music Education Research*, *22*(5), 505-526. https://doi.org/10.1080/14613808.2020.1841134

Jääskeläinen, T., López-Íñiguez, G., & Phillips, M. (2022). Music students' experienced workload in higher education: A systematic review and recommendations for good practice. *Musicae Scientiae*. https://doi.org/10.1177/10298649221093976

Jacobs, C. L., Hincapie, C. A., & Cassidy, D. (2012). Musculoskeletal injuries and pain in dancers: A systematic review update. *Journal of Dance Medicine and Science*, *16*(2), 74-84.

Jacukowicz, A. (2016). Psychosocial work aspects, stress and musculoskeletal pain among musicians. A systematic review in search of correlates and predictors of playing-related pain. *Work, 54*(3), 657-668. https://doi.org/10.3233/WOR-162323

Jacukowicz, A., & Wezyk, A. (2018). Development and validation of the Psychosocial Risks Questionnaire for Musicians (PRQM). *Psychology of Music, 46*(2), 252-265. https://doi.org/10.1177/0305735617706540

Jahoda, M. (1958). *Current concepts of positive mental health*. Basic Books. https://doi.org/10.1037/11258-000

Jambrino-Maldonado, C., Rando-Cueto, D., Núñez-Sánchez, J. M., Iglesias-Sanchez, P. P., & De las Heras-Pedrosa, C. (2022). Bibliometric analysis of international scientific production on the management of happiness and well-being in organizations. *Social Sciences, 11*(7), 272. https://doi.org/10.3390/socsci11070272

James, I. M. (2000). Survey of orchestras. In R. Tubiana & P. C. Amadio (Eds.), *Medical Problems of the Instrumentalist Musician* (pp. 195-201). Martin Dunitz.

Jenzer, T., Read, J. P., Naragon-Gainey, K., & Prince, M. A. (2019). Coping trajectories in emerging adulthood: The influence of temperament and gender. *Journal of Personality, 87*(3), 607-619. https://doi.org/10.1111/jopy.12419

Jeong, H., & Othman, J. (2016). Using interpretative phenomenological analysis from a realist perspective. *The Qualitative Report, 21*(3), 558-570. https://doi.org/10.46743/2160-3715/2016.2300

Johansson, Y. L., & Theorell, T. (2003). Satisfaction with work task quality correlates with employee health: A study of 12 professional orchestras. *Medical Problems of Performing Artists, 18*(4), 141-149. https://doi.org/10.21091/mppa.2003.4025

John, J. M., Gropper, H., & Thiel, A. (2019). The role of critical life events in the talent development pathways of athletes and musicians: A systematic review. *Psychology of Sport and Exercise, 45*, Article 101565. https://doi.org/10.1016/j.psychsport.2019.101565

Johnson, J. V., & Hall, E. M. (1988). Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working

population. *American Journal of Public Health*, *78*(10), 1336-1342. https://doi.org/10.2105/AJPH.78.10.1336

Juncos, D. G., & de Paiva e Pona, E. (2018). Acceptance and commitment therapy as a clinical anxiety treatment and performance enhancement program for musicians: Towards an evidence-based practice model within performance psychology. *Music & Science*, *1*, Article 2059204317748807. https://doi.org/10.1177/2059204317748807

Jungert, T., Van den Broeck, A., Schreurs, B., & Osterman, U. (2018). How colleagues can support each other's needs and motivation: An intervention on employee work motivation. *Applied Psychology*, *67*(1), 3-29. https://doi.org/10.1111/apps.12110

Kang, S., & Yoo, H. (2019). Music teachers' psychological needs and work engagement as predictors of their well-being. *Bulletin of the Council for Research in Music Education*(221), 58-71. https://doi.org/10.5406/bulcouresmusedu.221.0058

Karasek, A., Triantis, K. P., & Chaudhry, S. S. (1982). Coworker and supervisor support as moderators of associations between task characteristics and mental strain. *Journal of Occupational Behaviour*, *3*(2), 181-200.

Karasek, R., & Thoerell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. Basic Books.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, *24*(2), 285-308. https://doi.org/10.2307/2392498

Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *The Journal of Positive Psychology*, *3*(4), 219-233. https://doi.org/10.1080/17439760802303044

Kegelaers, J., Hoogkamer, L., & Oudejans, R. R. (2022). Practice and performance management strategies of emerging professional musicians in preparation for orchestra auditions. *Research Studies in Music Education*, *44*(1), 175-191. https://doi.org/10.1177/1321103x211054659

Kegelaers, J., Jessen, L., Van Audenaerde, E., & Oudejans, R. R. (2022). Performers of the night: Examining the mental health of electronic music artists. *Psychology of Music*, *50*(1), 69-85. https://doi.org/10.1177/0305735620976985

Kennelly, J. D., Daveson, B. A., & Baker, F. A. (2016). Effects of professional music therapy supervision on clinical outcomes and therapist competency: A systematic review involving narrative synthesis. *Nordic Journal of Music Therapy*, *25*(2), 185-208. https://doi.org/10.1080/08098131.2015.1010563

Kenny, D., Driscoll, T., & Ackermann, B. (2014). Psychological well-being in professional orchestral musicians in Australia: A descriptive population study. *Psychology of Music*, *42*(2), 210-232. https://doi.org/10.1177/0305735612463950

Kenny, D. T. (2011). *The Psychology of Music Performance Anxiety*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199586141.001.0001

Kenny, D. T., Davis, P., & Oates, J. (2004). Music performance anxiety and occupational stress amongst opera chorus artists and their relationship with state and trait anxiety and perfectionism. *Journal of Anxiety Disorders*, *18*(6), 757-777. https://doi.org/10.1016/j.janxdis.2003.09.004

Kenny, D. T., Driscoll, T., & Ackermann, B. (2016). Is playing in the pit really the pits? Pain, strength, music performance anxiety, and workplace satisfaction in professional musicians in stage pit, and combined stage/pit orchestras. *Medical Problems of Performing Artists*, *31*(1), 1-7. https://doi.org/10.21091/mppa.2016.1001

Kenny, S. J., Whittaker, J. L., & Emery, C. A. (2016). Risk factors for musculoskeletal injury in preprofessional dancers: A systematic review. *British Journal of Sports Medicine*, *50*(16), 997-1003. https://doi.org/10.1136/bjsports-2015-095121

Keyes, C. L. M. (2016). Why Flourishing? In D. W. Harward (Ed.), *Well-being and higher education: A strategy for change and the realization of education's greater purposes* (pp. 99-107). Bringing Theory to Practice.

Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, *82*(6), 1007-1022. https://doi.org/10.1037/0022-3514.82.6.1007

Kivimäki, M., & Jokinen, M. (1994). Job perceptions and well-being among symphony orchestra musicians: A comparison with other occupational groups. *Medical Problems of Performing Artists*, *9*(3), 73-76.

Kline, R. B. (2015). *Principles and practice of structural equation modeling* (2nd ed.). Guilford publications.

Knight, C., Keller, A. C., & Parker, S. K. (2023). Job demands, not resources, predict worsening psychological distress during the early phase of the COVID-19 pandemic. *Work & Stress*, *37*(1), 55-77. https://doi.org/10.1080/02678373.2022.2117879

Koivisto, T.-A. (2022). Healthcare musicians and musico-emotional work: An in-depth case study within the context of end-of-life care. *Approaches: An Interdisciplinary Journal of Music Therapy*. https://taju.uniarts.fi/handle/10024/7525

Kok, L. M., Huisstede, B. M. A., Voorn, V. M. A., Schoones, J. W., & Nelissen, R. G. H. H. (2016). The occurrence of musculoskeletal complaints among professional musicians: A systematic review. *International Archives of Occupational and Environmental Health*, *89*(3), 373-396. https://doi.org/10.1007/s00420-015-1090-6

Kristensen, T. S., Hannerz, H., Høgh, A., & Borg, V. (2005). The Copenhagen Psychosocial Questionaire—a tool for assessment and improvement of the psychosocial work environment. *Scandinavian Journal of Work, Environment and Health*, *31*(6), 438-449. https://doi.org/10.5271/sjweh.948

Kubacki, K. (2008). Jazz musicians: Creating service experience in live performance. *International Journal of Contemporary Hospitality Management*, *20*(4), 303-313. https://doi.org/10.1108/09596110810873516

Kuper, H., & Marmot, M. (2003). Job strain, job demands, decision latitude, and risk of coronary heart disease within the Whitehall II study. *Journal of Epidemiology and Community Health*, *57*(2), 147-153. https://doi.org/10.1136/jech.57.2.147

Kuper, H., Singh-Manoux, A., & Siegrist, J. (2002). When reciprocity fails: Effort-reward imbalance in relation to coronary heart disease and health functioning within the Whitehall II study. *Occupational and Environmental Medicine*, *59*(11), 777-784. https://doi.org/10.1136/oem.59.11.777

Lai, K., & Green, S. B. (2016). The problem with having two watches: Assessment of fit when RMSEA and CFI disagree. *Multivariate Behavioral Research*, *51*(2-3), 220-239. https://doi.org/10.1080/00273171.2015.1134306

Lamont, A. (2012). Emotion, engagement and meaning in strong experiences of music performance. *Psychology of Music*, *40*(5), 574-594. https://doi.org/10.1177/0305735612448510

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, *33*(1), 159-174. https://doi.org/10.2307/2529310

LaRocco, J. M., House, J. S., & French Jr., J. R. P. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behavior*, *21*(3), 202-218. https://doi.org/10.2307/2136616

Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. Springer.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Levitt, H. M., Bamberg, M., Creswell, J. W., Frost, D. M., Josselson, R., & Suárez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, *73*(1), 26-46. https://doi.org/10.1037/amp0000151

Lewchuk, W. (2017). Precarious jobs: Where are they, and how do they affect well-being? *Economic and Labour Relations Review*, *28*(3), 402-419. https://doi.org/10.1177/1035304617722943

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *Journal of Clinical Epidemiology*, *62*(10), e1-34. https://doi.org/10.1016/j.jclinepi.2009.06.006

Lim, M. C. (2014). In pursuit of harmony: The social and organisational factors in a professional vocal ensemble. *Psychology of Music*, *42*(3), 307-324. https://doi.org/10.1177/0305735612469674

Lincke, H. J., Vomstein, M., Lindner, A., Nolle, I., Häberle, N., Haug, A., & Nübling, M. (2021). COPSOQ III in Germany: Validation of a standard instrument to measure psychosocial factors at work. *Journal of Occupational Medicine and Toxicology*, *16*(1), Article 50. https://doi.org/10.1186/s12995-021-00331-1

Lincoln, Y. S., & Guba, E. G. (2013). *The constructivist credo*. Left Coast Press.

Llorens, C., Pérez-Franco, J., Oudyk, J., Berthelsen, H., Dupret, E., Nübling, M., & Moncada, S. (2019). *COPSOQ III. Guidelines and questionnaire*. COPSOQ International Network. https://www.copsoq-network.org/guidelines and questionnaire/

Long, M., Creech, A., Gaunt, H., & Hallam, S. (2014). Conservatoire students' experiences and perceptions of instrument-specific master classes. *Music Education Research*, *16*(2), 176-192. https://doi.org/10.1080/14613808.2013.859659

Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, *71*(3), 616-628. https://doi.org/10.1037/0022-3514.71.3.616

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological methods*, *1*(2), 130-149. https://doi.org/10.1037/1082-989X.1.2.130

MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, *94*, Article 102352. https://doi.org/10.1016/j.system.2020.102352

Mainwaring, L. M., & Finney, C. (2017). Psychological risk factors and outcomes of dance injury: A systematic review. *Journal of Dance Medicine and Science*, *21*(3), 87-96. https://doi.org/10.12678/1089-313X.21.3.87

Margrove, G., & Smith, A. P. (2022). The Demands-Resources-Individual Effects (DRIVE) Model: Past, present, and future research. In A. u. Haque (Ed.), *Handbook of Research on the Complexities and Strategies of Occupational Stress* (pp. 13-32). IGI Global. https://doi.org/10.4018/978-1-6684-3937-1.ch002

Mark, G., & Smith, A. P. (2012a). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. *Anxiety, Stress and Coping*, *25*(1), 63-78. https://doi.org/10.1080/10615806.2010.548088

Mark, G., & Smith, A. P. (2012b). Occupational stress, job characteristics, coping, and the mental health of nurses. *British Journal of Health Psychology*, *17*(3), 505-521. https://doi.org/10.1111/j.2044-8287.2011.02051.x

Mark, G. M., & Smith, A. P. (2008). Stress models: A review and suggested new direction. In J. Houdmont & S. Leka (Eds.), *Occupational health psychology: European perspectives on research, education and practice* (Vol. 3, pp. 111-144). Nottingham University Press.

Martínez-Hernández, A. (2022). Conservatory and music schoolteachers' experiences with videoconferencing software during and after the COVID-19 pandemic. *Distance Education*, *43*(3), 388-407. https://doi.org/10.1080/01587919.2022.2088475

Maslow, A. H. (1968). *Toward a psychology of being* (2nd ed.). Van Nostrand.

MatchWare. (2017). *MindView 7*. (Version released in May 2017) [Computer software]. https://www.matchware.com/mind-mapping-software

Matei, R., Broad, S., Goldbart, J., & Ginsborg, J. (2018). Health education for musicians. *Frontiers in Psychology*, *9*, Article 1137. https://doi.org/10.3389/fpsyg.2018.01137

Matei, R., & Ginsborg, J. (2022). Health education for musicians in the UK: A qualitative evaluation. *Health Promotion International*, *37*(2), Article daab146. https://doi.org/10.1093/heapro/daab146

Matei, R., & Ginsborg, J. (2023). Why do music students attend counseling? A longitudinal study of reasons in one UK conservatoire. *Journal of Research in Music Education*, Advance online publication. https://doi.org/10.1177/00224294231168622

Maxwell, I., Seton, M., & Szabó, M. (2015). The Australian actors' wellbeing study: A preliminary report. *About Performance*, 13, 69-113. https://www.senseconnexion.com/wp-content/uploads/2015/08/The-Australian-Actors-Wellbeing-Study.pdf

Maxwell, J. A., & Mittapalli, K. (2010). Realism as a stance for mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *SAGE handbook of mixed methods in social & behavioral research* (2nd ed., pp. 145-168). Sage Publications. https://doi.org/10.4135/9781506335193

McEvoy, P., & Richards, D. (2003). Critical realism: A way forward for evaluation research in nursing? *Journal of Advanced Nursing*, *43*(4), 411-420. https://doi.org/10.1046/j.1365-2648.2003.02730.x

McEvoy, P., & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing*, *11*(1), 66-78. https://doi.org/10.1177/1744987106060192

McFadden, P., Ross, J., Moriarty, J., Mallett, J., Schroder, H., Ravalier, J., Manthorpe, J., Currie, D., Harron, J., & Gillen, P. (2021). The role of coping in the wellbeing and work-related quality of life of UK health and social care workers during COVID-19. *International Journal of Environmental Research and Public Health*, *18*(2), Article 815. https://doi.org/10.3390/ijerph18020815

McRae, K., & Gross, J. J. (2020). Emotion regulation. *Emotion*, *20*(1), 1-9. https://doi.org/10.1037/emo0000703

Meng, X., & D'Arcy, C. (2016). Coping strategies and distress reduction in psychological well-being? A structural equation modelling analysis using a national population sample. *Epidemiology and Psychiatric Sciences*, *25*(4), 370-383. https://doi.org/10.1017/S2045796015000505

Mensah, A. (2021). Job stress and mental well-being among working men and women in Europe: The mediating role of social support. *International Journal of Environmental Research and Public Health*, *18*(5), Article 2494. https://doi.org/10.3390/ijerph18052494

Merriam-Webster. (n.d.-a). Chamber music. In *Merriam-Webster.com dictionary*. Retrieved October 7, 2022, from https://www.merriam-webster.com/dictionary/chamber%20music

Merriam-Webster. (n.d.-b). Concerto. In *Merriam-Webster.com dictionary*. Retrieved October 7, 2022, from https://www.merriam-webster.com/dictionary/concerto

Merriam-Webster. (n.d.-c). Sight-read. In *Merriam-Webster.com dictionary*. Retrieved October 7, 2022, from https://www.merriam-webster.com/dictionary/sight-read

Middlestadt, S. E., & Fishbein, M. (1988). Health and occupational correlates of perceived occupational stress in symphony orchestra musicians. *Journal of Occupational Medicine*, *30*(9), 687-692.

Miksza, P., Evans, P., & McPherson, G. E. (2021). Wellness among university-level music students: A study of the predictors of subjective vitality. *Musicae Scientiae*, *25*(2), 143-160. https://doi.org/10.1177/1029864919860554

Miles, J., & Shevlin, M. (2007). A time and a place for incremental fit indices. *Personality and Individual Differences*, *42*(5), 869-874. https://doi.org/10.1016/j.paid.2006.09.022

Mills, J. (2004). Working in music: The conservatoire professor. *Brittish Journal of Music Education*, *21*(2), 179-198. https://doi.org/10.1017/s0265051704005698

Mogelof, J. P., & Rohrer, L. H. (2005). Rewards and sacrifices in élite and non-élite organizations: Participation in valued activities and job satisfaction in two symphony orchestras. *International Journal of Manpower*, *26*(1), 93-109. https://doi.org/10.1108/01437720510587307

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, *6*(7), Article e1000097. https://doi.org/10.1371/journal.pmed.1000097

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., Stewart, L. A., & Prisma-P Group. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, *4*(1). https://doi.org/10.1186/2046-4053-4-1

Moita, J. P., Nunes, A., Esteves, J., Oliveira, R., & Xarez, L. (2017). The relationship between muscular strength and dance injuries: A systematic review. *Medical Problems of Performing Artists*, *32*(1), 40-50. https://doi.org/10.21091/mppa.2017.1002

Morse, A. K., Askovic, M., Sercombe, J., Dean, K., Fisher, A., Marel, C., Chatterton, M.-L., Kay-Lambkin, F., Barrett, E., Sunderland, M., Harvey, L., Peach, N., Teesson, M., & Mills, K. L. (2022). A systematic review of the efficacy, effectiveness and cost-effectiveness of

workplace-based interventions for the prevention and treatment of problematic substance use. *Frontiers in Public Health*, *10*, Article 1051119. https://doi.org/10.3389/fpubh.2022.1051119

Mukumbang, F. C. (2023). Retroductive theorizing: A contribution of critical realism to mixed methods research. *Journal of Mixed Methods Research*, *17*(1), 93-114. https://doi.org/10.1177/15586898211049847

Mukumbang, F. C., Marchal, B., Van Belle, S., & van Wyk, B. (2020). Using the realist interview approach to maintain theoretical awareness in realist studies. *Qualitative Research*, *20*(4), 485-515. https://doi.org/10.1177/1468794119881985

Murray, J. P. (2008). New faculty members' perceptions of the academic work life. *Journal of Human Behavior in the Social Environment*, *17*(1-2), 107-128. https://doi.org/10.1080/10911350802168886

Neil, R., Bowles, H. C. R., Fleming, S., & Hanton, S. (2016). The experience of competition stress and emotions in cricket. *Sport Psychologist*, *30*(1), 76-88. https://doi.org/10.1123/tsp.2014-0077

Neil, R., Hanton, S., Mellalieu, S. D., & Fletcher, D. (2011). Competition stress and emotions in sport performers: The role of further appraisals. *Psychology of Sport and Exercise*, *12*(4), 460-470. https://doi.org/10.1016/j.psychsport.2011.02.001

Nelson, K. V., & Smith, A. P. (2016). Occupational stress, coping and mental health in Jamaican police officers. *Occupational Medicine*, *66*(6), 488-491. https://doi.org/10.1093/occmed/kqw055

Noden, M. (2017). *"Just practice!" To what extent is practice the key to success in orchestral auditions?: An exploration of the factors affecting an oboist's performance at audition* [Master's thesis, Kungliga Musikhögskolan]. Kungliga Musikhögskolan Portal. https://www.diva-portal.org/smash/get/diva2:1108443/FULLTEXT01.pdf

Noh, Y.-E., Morris, T., & Andersen, M. B. (2009). Occupational stress and coping strategies of professional ballet dancers in Korea. *Medical Problems of Performing Artists*, *24*(3), 124-134. https://doi.org/10.21091/mppa.2009.3027

Ntoumanis, N., & Biddle, S. J. (1999). A review of motivational climate in physical activity. *Journal of Sports Sciences*, *17*(8), 643-665. https://doi.org/10.1080/026404199365678

O'Mahoney, J., & Vincent, S. (2014). Critical realism as an empirical project. In P. K. Edwards, J. O'Mahoney, & S. Vincent (Eds.), *Studying organizations using critical realism: A practical guide* (pp. 1-20). Oxford University Press.

OECD. (2020). *How's Life? 2020: Measuring well-being*. OECD Publishing. https://doi.org/10.1787/9870c393-en

Office for National Statistics. (2012). *Measuring national well-being: Life in the UK, 2012*. https://webarchive.nationalarchives.gov.uk/ukgwa/20160105183326/http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/first-annual-report-on-measuring-national-well-being/art-measuring-national-well-being-annual-report.html

Oliver, H., Thomas, O., Neil, R., Moll, T., & Copeland, R. J. (2022). Stress and psychological wellbeing in British police force officers and staff. *Current Psychology*. https://doi.org/10.1007/s12144-022-03903-4

Omosehin, O., & Smith, A. P. (2019). Adding new variables to the Well-being Process Questionnaire (WPQ) – Further studies of workers and students. *Journal of Education, Society and Behavioural Science*, *28*(3), 1-19. https://doi.org/10.9734/JESBS/2018/45535

Orejudo Hernández, S., Zarza-Alzugaray, F. J., & Casanova, O. (2018). Music performance anxiety. Substance use and career abandonment in Spanish music students. *International Journal of Music Education*, *36*(3), 460-472. https://doi.org/10.1177/0255761418763903

Osborne, M. S. (2016). Psychological skills to support performance under pressure. In A. Mornell (Ed.), *Art in Motion III: Performing Under Pressure* (pp. 93 - 114). Peter Lang. https://doi.org/10.3726/978-3-631-69464-0

Osborne, M. S., & McPherson, G. E. (2018). Precompetitive appraisal, performance anxiety and confidence in conservatorium musicians: A case for coping. *Psychology of Music*, *47*(3), 451-462. https://doi.org/10.1177/0305735618755000

Ostry, A. S., Kelly, S., Demers, P. A., Mustard, C., & Hertzman, C. (2003). A Comparison between the effort-reward imbalane and demand control models. *BMC Public Health*, *3*(1), 10-18. https://doi.org/10.1186/1471-2458-3-10

Pace, R., Pluye, P., Bartlett, G., Macaulay, A. C., Salsberg, J., Jagosh, J., & Seller, R. (2012). Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic mixed studies review. *International Journal of Nursing Studies*, *49*(1), 47-53. https://doi.org/10.1016/j.ijnurstu.2011.07.002

Palmer, T., & Baker, D. (2021). Classical soloists' life histories and the music conservatoire. *International Journal of Music Education*, *39*(2), 167-186. https://doi.org/10.1177/0255761421991154

Parasuraman, S., & Purohit, Y. S. (2000). Distress and boredom among orchestra musicians: The two faces of stress. *Journal of Occupational Health Psychology*, *5*(1), 74-83. https://doi.org/10.1037/1076-8998.5.1.74

Park, Y. S., Konge, L., & Artino, A. R. (2020). The positivism paradigm of research. *Academic medicine*, *95*(5), 690-694. https://doi.org/10.1097/ACM.0000000000003093

Parker, S. L., Jimmieson, N. L., & Amiot, C. E. (2019). Persisting with a music career despite the insecurity: When social and motivational resources really matter. *Psychology of Music*, *49*(1), 138-156. https://doi.org/10.1177/0305735619844589

Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, *5*(2), 164-172. https://doi.org/10.1037/1040-3590.5.2.164

Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, *3*(2), 137-152. https://doi.org/10.1080/17439760701756946

Pavot, W., Diener, E., Colvin, C. R., & Sandvik, E. (1991). Further validation of the Satisfaction With Life Scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, *57*(1), 149-161. https://doi.org/10.1207/s15327752jpa5701_17

Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review - a new method of systematic review designed for complex policy interventions. *Journal of Health Services Research & Policy*, *10*(Suppl 1), 21-34. https://doi.org/10.1258/1355819054308530

Peacock, E. J., & Wong, P. T. P. (1990). The stress appraisal measure (SAM): A multidimensional approach to cognitive appraisal. *Stress Medicine*, *6*(3), 227-236. https://doi.org/10.1002/smi.2460060308

Pearson, A., White, H., Bath-Hextall, F., Apostolo, J., Salmond, S., & Kirkpatrick, P. (2014). *The Joanna Briggs Institute reviewers' manual 2014: Methodology for JBI mixed methods systematic reviews*. The Joanna Briggs Institute. https://nursing.lsuhsc.edu/JBI/docs/ReviewersManuals/Mixed-Methods.pdf

Pecen, E., Collins, D. J., & MacNamara, Á. (2018). "It's your problem. Deal with it." Performers' experiences of psychological challenges in music. *Frontiers in Psychology*, *8*, Article 2374. https://doi.org/10.3389/fpsyg.2017.02374

Perkins, R. (2013a). Hierarchies and learning in the conservatoire: Exploring what students learn through the lens of Bourdieu. *Research Studies in Music Education*, *35*(2), 197-212. https://doi.org/10.1177/1321103X13508060

Perkins, R. (2013b). Learning cultures and the conservatoire: An ethnographically-informed case study. *Music Education Research*, *15*(2), 196-213. https://doi.org/10.1080/14613808.2012.759551

Perkins, R., Reid, H., Araújo, L. S., Clark, T., & Williamon, A. (2017). Perceived enablers and barriers to optimal health among music students: A qualitative study in the music conservatoire setting. *Frontiers in Psychology*, *8*, Article 968. https://doi.org/10.3389/fpsyg.2017.00968

Perkins, R., Yorke, S., & Fancourt, D. (2018). Learning to facilitate arts-in-health programmes: A case study of musicians facilitating creative interventions for mothers with symptoms of postnatal depression. *International Journal of Music Education*, *36*(4), 644-658. https://doi.org/10.1177/0255761418771092

Peter, R., & Siegrist, J. (1999). Chronic psychosocial stress at work and cardiovascular disease: The role of effort-reward imbalance. *International Journal of Law and Psychiatry*, *22*(5-6), 441-449. https://doi.org/10.1016/S0160-2527(99)00020-5

Peter, R., Siegrist, J., Hallqvist, J., Reuterwall, C., & Theorell, T. (2002). Psychosocial work environment and myocardial infarction: Improving risk estimation by combining two complementary job stress models in the SHEEP Study. *Journal of Epidemiology and Community Health*, *56*(4), 294-300. https://doi.org/10.1136/jech.56.4.294

Peters, R. M., Solberg, M. A., Templin, T. N., & Cassidy-Bushrow, A. E. (2020). Psychometric properties of the Brief COPE among pregnant African American women. *Western Journal of Nursing Research*, *42*(11), 927-936. https://doi.org/10.1177/0193945920907686

Phillips, E., & Pugh, D. S. (2005). *How to get a PhD: A handbook for students and their supervisors* (4th ed.). Open University Press.

Pietkiewicz, I., & Smith, J. A. (2012). Praktyczny przewodnik interpretacyjnej analizy fenomenologicznej w badaniach jakościowych w psychologii [A practical guide to using interpretative phenomenological analysis in qualitative research psychology]. *Czasopismo Psychologiczne*, *18*(2), 361-369.

Pihl-Thingvad, J., Kristensen, T. T., Paarup, H. M., Baelum, J., & Roessler, K. K. (2022). Workplace social capital as buffer for emotional demands and perceived stress in symphony orchestras: A Danish cross-sectional survey. *Medical Problems of Performing Artists*, *37*(3), 192-199. https://doi.org/10.21091/mppa.2022.3026

Piperek, M. (1981). *Stress and music: Medical, psychological, sociological and legal strain factors in a symphony orchestra musician's profession*. Wilhelm Braümuller.

Pitts, S. E. (2003). What do students learn when we teach music?: An investigation of the 'hidden' curriculum in a university music department. *Arts and Humanities in Higher Education*, *2*(3), 281-292. https://doi.org/10.1177/14740222030023005

Pluye, P., Robert, E., Cargo, M., Bartlett, G., O'Cathain, A., Griffiths, F., Boardman, F., Gagnon, M. P., & Rosseau, M. C. (2011). *Proposal: A mixed methods appraisal tool for systematic mixed studies reviews*. McGill University. http://mixedmethodsappraisaltoolpublic.pbworks.com

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews: A product from the ESRC methods programme*. Economic and Social Research Council. https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/fhm/dhr/chir/NSsynthesisguidanceVersion1-April2006.pdf

Portía, E., Parradob, E., Cladellasb, R., & Chamarrob, A. (2021). Health outcomes of occupational stress in passionate musicians. *Ansiedad y estrés*, *27*(1), 47-56. https://doi.org/10.5093/anyes2021a7

Portman-Smith, C., & Harwood, I. A. (2015). 'Only as good as your last gig?': An exploratory case study of reputational risk management amongst self-employed musicians. *Journal of Risk Research*, *18*(4), 483-504. https://doi.org/10.1080/13669877.2014.910679

Porton, J. J. (2020). *Contemporary British conservatoires and their practices - Experiences from alumni perspectives* [Doctoral dissertation, Royal Holloway, University of London]. Royal Holloway Research Portal. https://pure.royalholloway.ac.uk/ws/portalfiles/portal/36949446/2020portonjjphd.pdf

Preti, C., & Welch, G. F. (2013). Professional identities and motivations of musicians playing in healthcare settings: Cross-cultural evidence from UK and Italy. *Musicae Scientiae*, *17*(4), 359-375. https://doi.org/10.1177/1029864913486664

QSR International Pty Ltd. (2020). *NVivo*. (Version released in March 2020) [Computer software]. https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home

Qualtrics. (2005). *Qualtrics*. (Version 2019) [Computer software]. Qualtrics. https://www.qualtrics.com

Quested, E., Duda, J. L., Ntoumanis, N., & Maxwell, J. P. (2013). Daily fluctuations in the affective states of dancers: A cross-situational test of basic needs theory. *Psychology of Sport and Exercise*, *14*(4), 586-595. https://doi.org/10.1016/j.psychsport.2013.02.006

Raeburn, S. D. (1987). Occupational stress and coping in a sample of professional rock musicians (Second of two parts). *Medical Problems of Performing Artists*, *2*(3), 77-82.

Reid, K., Flowers, P., & Larkin, M. (2005). Exploring lived experience. *The Psychologist*, *18*(1), 20-23.

Reid, S. W., Patel, P. C., & Wolfe, M. T. (2018). The struggle is real: Self-employment and short-term psychological distress. *Journal of Business Venturing Insights*, *9*, 128-136. https://doi.org/10.1016/j.jbvi.2018.04.002

Rickert, D. L., Barrett, M. S., & Ackermann, B. J. (2013). Injury and the orchestral environment: Part 1. The role of work organisation and psychosocial factors in injury risk. *Medical Problems of Performing Artists*, *28*(4), 219-229. https://doi.org/10.21091/mppa.2013.4043

Rickert, D. L. L., Barrett, M., & Ackermann, B. J. (2014). Injury and the orchestral environment: Part II. Organisational culture, behaviour norms, and attitudes to injury. *Medical Problems of Performing Artists*, *29*(2), 94-101. https://doi.org/10.21091/mppa.2014.2020

Ritchie, L., & Sharpe, B. T. (2021). Music student's approach to the forced use of remote performance assessments. *Frontiers in Psychology*, *12*, Article 641667. https://doi.org/10.3389/fpsyg.2021.641667

Robb, A., Due, C., & Venning, A. (2018). Exploring psychological wellbeing in a sample of Australian actors. *Australian Psychologist*, *53*(1), 77-86. https://doi.org/10.1111/ap.12221

Roberts, G. C. (2001). Understanding the dynamics of motivation in physical activity: The influence of achievement goals on the motivational processes. In G. C. Roberts & D. C. Treasure (Eds.), *Advances in motivation in sport and exercise.* (3rd ed., pp. 1-50). Human Kinetics.

Robotham, D. (2008). Stress among higher education students: Towards a research agenda. *Higher Education*, *56*(6), 735-746. https://doi.org/10.1007/s10734-008-9137-1

Robotham, D. (2012). Student part-time employment: Characteristics and consequences. *Education + Training*, *54*(1), 65-75. https://doi.org/10.1108/00400911211198904

Rolfe, G., Freshwater, D., & Jasper, M. (2001). *Critical reflection for nursing and the helping professions: A user's guide*. Palgrave.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*(1), 141-166. https://doi.org/10.1146/annurev.psych.52.1.141

Ryff, C. D. (1989a). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069-1081. https://doi.org/10.1037/0022-3514.57.6.1069

Ryff, C. D. (1989b). In the eye of the beholder: Views of psychological well-being among middle-aged and older adults. *Psychology and Aging*, *4*(2), 195-210. https://doi.org/10.1037/0882-7974.4.2.195

Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, *83*(1), 10-28. https://doi.org/10.1159/000353263

Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, *9*(1), 13-39. https://doi.org/10.1007/s10902-006-9019-0

Sandelowski, M., Voilis, C., Leeman, J., & Crandell, J. L. (2012). Mapping the mixed methods-mixed research synthesis terrain. *Journal of Mixed Methods Research*, *6*(4), 317-331. https://doi.org/10.1177/1558689811427913

Sandelowski, M., Voils, C. I., & Barroso, J. (2006). Defining and designing mixed research synthesis studies. *Research in the Schools*, *13*(1), 29-40.

Sandgren, M. (2002). Voice, soma, and psyche: A qualitative and quantitative study of opera singers. *Medical Problems of Performing Artists*, *17*(1), 11-21. https://doi.org/10.21091/mppa.2002.1003

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multiple-sample study. *Journal of Organizational Behavior*, *25*(3), 293-315. https://doi.org/10.1002/job.248

Schaulfeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.),

Bridging occupational, organizational and public health: A transdisciplinary approach (pp. 43-68). Springer, Dordrecht. https://doi.org/10.1007/978-94-007-5640-3_4

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, *99*(6), 323-337. https://doi.org/10.3200/JOER.99.6.323-338

Searle, B. J., & Auton, J. C. (2015). The merits of measuring challenge and hindrance appraisals. *Anxiety, Stress, & Coping*, *28*(2), 121-143. https://doi.org/10.1080/10615806.2014.931378

Sedgwick, P. (2015). A comparison of parametric and non-parametric statistical tests. *BMJ*, *350*, Article h2053. https://doi:10.1136/bmj.h2053

Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Simon and Schuster.

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster, Free Press.

Selye, H. (1946). The general adaptation syndrome and the diseases of adaptation. *Journal of Clinical Endocrinology and Metabolism*, *6*(2), 117-230. https://doi.org/10.1210/jcem-6-2-117

Sergeant, D. C., & Himonides, E. (2019). Orchestrated sex: The representation of male and female musicians in world-class symphony orchestras. *Frontiers in Psychology*, *10*, Article 1760. https://doi.org/10.3389/fpsyg.2019.01760

Shallcross, R., Dickson, J. M., Nunns, D., Taylor, K., & Kiemle, G. (2019). Women's experiences of vulvodynia: An interpretative phenomenological analysis of the journey toward diagnosis. *Archives of Sexual Behavior*, *48*(3), 961-974. https://doi.org/10.1007/s10508-018-1246-z

Shaughnessy, C., Hall, A., & Perkins, R. (2023). Becoming the right musician for the job: Versatility, connectedness, and professional identities during personalized, online music-making in hospital maternity wards. *Musicae Scientiae*, Advanced online publication. https://doi.org/10.1177/10298649231165028

Shrier, I., & Hallé, M. (2011). Psychological predictors of injuries in circus artists: An exploratory study. *British Journal of Sports Medicine*, *45*(5), 433-436. https://doi.org/10.1136/bjsm.2009.067751

Shrier, I., Meeuwisse, W. H., Matheson, G. O., Wingfield, K., Steele, R. J., Prince, F., Hanley, J., & Montanaro, M. (2009). Injury patterns and injury rates in the circus arts: An analysis of 5 years of data from Cirque du Soleil. *The American Journal of Sports Medicine*, *37*(6), 1143-1149. https://doi.org/10.1177/0363546508331138

Shum, D., Hancock, I., & Jageurs, O., (Host). (2018, August 1). Simone Willis (No. 8) [Audio podcast episode]. In *Musicians' weekend*. https://podcasts.apple.com/gb/podcast/episode-8-feat-simone-willis-phd-researcher-in-musicians/id1376497842?i=1000416978404

Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psycholgoy*, *1*(1), 27-41. https://doi.org/10.1037/1076-8998.1.1.27

Siegrist, J. (2008). Effort–reward imbalance and health in a globalized economy. *SJWEH Supplements*(6), 163-168. https://www.sjweh.fi/show_abstract.php?abstract_id=1263

Siegrist, J., & Li, J. (2016). Associations of extrinsic and intrinsic components of work stress with health: A systematic review of evidence on the effort-reward imbalance model. *International Journal of Environmental Research and Public Health*, *13*(4), Article 432. https://doi.org/10.3390/ijerph13040432

Slemp, G. R., Lee, M. A., & Mossman, L. H. (2021). Interventions to support autonomy, competence, and relatedness needs in organizations: A systematic review with recommendations for research and practice. *Journal of Occupational and Organizational Psychology*, *94*(2), 427-457. https://doi.org/10.1111/joop.12338

Smedema, S. M., Catalano, D., & Ebener, D. J. (2010). The relationship of coping, self-worth, and subjective well-being: A structural equation model. *Rehabilitation Counseling Bulletin*, *53*(3), 131-142. https://doi.org/10.1177/0034355209358272

Smilde, R. (2009). *Musicians as lifelong learners: Discovery through biography*. Eburon Delft.

Smith, A., Wadsworth, E., Chaplin, K., Allen, P., & Mark, G. (2011). *What is a good job?: The relationship between work/working and improved health and wellbeing*. IOSH.

https://iosh.com/health-and-safety-professionals/improve-your-knowledge/resources/what-is-good-job-relationship-between-work-working-improved-health-wellbeing-2011/

Smith, A. P., & James, A. (2021). The well-being of staff in a Welsh secondary school before and after a COVID-19 lockdown. *Journal of Education, Society and Behavioural Science*, *34*(4), 1-9. https://doi.org/10.9734/jesbs/2021/v34i430319

Smith, A. P., & Smith, H. (2017). An international survey of the wellbeing of employees in the business process outsourcing industry. *Psychology*, *8*(1), 160-167. https://doi.org/10.4236/psych.2017.81010

Smith, D. W. E. (1989). Aging and the careers of symphony orchestra musicians. *Medical Problems of Performing Artists*, *4*(2), 81-85.

Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research* (1st ed.). SAGE.

Smith, J. A., Flowers, P., & Larkin, M. (2022). *Interpretative phenomenological analysis: Theory, method and research* (2nd ed.). SAGE.

Smith, J. A., & Nizza, I. E. (2022). *Essentials of interpretative phenomenological analysis*. American Psychological Association.

Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (1st ed., pp. 51-80). SAGE.

Smith, J. A., & Shinebourne, P. (2012). Interpretative phenomenological analysis. In H. Cooper, P. M. Camic, D. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological.* (pp. 73-82). American Psychological Association. https://doi.org/10.1037/13620-005

Snell, D., Schmitt, D., Glavas, A., & Bamberry, L. (2015). Worker stress and the prospect of job loss in a fragmented organisation. *Qualitative Research in Organizations and Management*, *10*(1), 61-81. https://doi.org/10.1108/QROM-03-2014-1210

Sobh, R., & Perry, C. (2006). Research design and data analysis in realism research. *European Journal of Marketing*, *40*(11/12), 1194-1209. https://doi.org/10.1108/03090560610702777

Solberg, M. A., Gridley, M. K., & Peters, R. M. (2022). The factor structure of the Brief Cope: A systematic review. *Western Journal of Nursing Research*, *44*(6), 612-627. https://doi.org/10.1177/01939459211012044

Souto, R. Q., Khanassov, V., Hong, Q. N., Bush, P. L., Vedel, I., & Pluye, P. (2015). Systematic mixed studies reviews: Updating results on the reliability and efficiency of the mixed methods appraisal tool. *International Journal of Nursing Studies*, *52*(1), 500-501. https://doi.org/10.1016/j.ijnurstu.2014.08.010

Spiro, N., Perkins, R., Kaye, S., Tymoszuk, U., Mason-Bertrand, A., Cossette, I., Glasser, S., & Williamon, A. (2021). The effects of COVID-19 lockdown 1.0 on working patterns, income, and wellbeing among performing arts professionals in the United Kingdom (April–June 2020). *Frontiers in Psychology*, *11*, Article 594086. https://doi.org/10.3389/fpsyg.2020.594086

Steptoe, A. (1989). Stress, coping and stage fright in professional musicians. *Psychology of Music*, *17*(1), 3-11. https://doi.org/10.1177/0305735689171001

Stern, C., Lizarondo, L., Carrier, J., Godfrey, C., Rieger, K., Salmond, S., Apostolo, J., Kirkpatrick, P., & Loveday, H. (2021). Methodological guidance for the conduct of mixed methods systematic reviews. *JBI Evidence Implementation*, *19*(2), 120-129. https://doi.org/10.1097/XEB.0000000000000282

Tavakol, M., & Wetzel, A. (2020). Factor analysis: A means for theory and instrument development in support of construct validity. *International Journal of Medical Education*, *11*, 245-247. https://doi.org/10.5116/ijme.5f96.0f4a

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Sage.

Terwee, C. B., Bot, S. D. M., de Boer, M. R., van der Windt, D. A. W. M., Knol, D. L., Dekker, J., Bouter, L. M., & de Vet, H. C. W. (2007). Quality criteria were proposed for measurement properties of health status questionnaires. *Journal of Clinical Epidemiology*, *60*(1), 34-42. https://doi.org/10.1016/j.jclinepi.2006.03.012

Thatcher, J., & Day, M. C. (2008). Re-appraising stress appraisals: The underlying properties of stress in sport. *Psychology of Sport and Exercise*, *9*(3), 318-335. https://doi.org/10.1016/j.psychsport.2007.04.005

The British Psychological Society. (2014). *Code of human research ethics*. The British Psychological Society. https://www.bps.org.uk/sites/beta.bps.org.uk/files/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf

Thompson, E. R. (2007). Development and validation of an internationally reliable short-form of the Positive and Negative Affect Schedule (PANAS). *Journal of Cross-Cultural Psychology*, *38*(2), 227-242. https://doi.org/10.1177/0022022106297301

Thomson, K. (2013). Roles, revenue, and responsibilities: The changing nature of being a working musician. *Work and Occupations*, *40*(4), 514-525. https://doi.org/10.1177/0730888413504208

Throsby, D., & Zednik, A. (2011). Multiple job-holding and artistic careers: Some empirical evidence. *Cultural Trends*, *20*(1), 9-24. https://doi.org/10.1080/09548963.2011.540809

Tsutsumi, A., & Kawakami, N. (2004). A review of empirical studies on the model of effort-reward imbalance at work: Reducing occupational stress by implementing a new theory. *Social Science and Medicine*, *59*(11), 2335-2359. https://doi.org/10.1016/j.socscimed.2004.03.030

Tuckey, M. R., Searle, B. J., Boyd, C. M., Winefield, A. H., & Winefield, H. R. (2015). Hindrances are not threats: Advancing the multidimensionality of work stress. *Journal of Occupational Health Psychology*, *20*(2), 131-147. https://doi.org/10.1037/a0038280

Tuisku, K., Houni, P., Seppänen, J., & Virtanen, M. (2016). Association between unstable work and occupational wellbeing among artists in Finland: Results of a psychosocial survey. *Medical Problems of Performing Artists*, *31*(2), 104-109. https://doi.org/10.21091/mppa.2016.2018

UCAS Conservatoires. (2022). *UCAS Conservatoires end of cycle 2022 data resources*. UCAS. Retrieved May 18, 2022 from https://www.ucas.com/data-and-analysis/ucas-conservatoires-releases/ucas-conservatoires-end-cycle-2022-data-resources

UK Government. (2010, November 25). *Britain's wellbeing to be measured*. Retrieved July 7, 2023 from https://www.gov.uk/government/news/britains-wellbeing-to-be-measured

UK Government. (2013). *National wellbeing*. Retrieved July 19, 2023 from https://www.gov.uk/government/collections/national-wellbeing

UK Government. (2014). *New What Works Centre for Wellbeing*. Retrieved July 19, 2023 from https://www.gov.uk/government/news/new-what-works-centre-for-wellbeing

Umney, C., & Kretsos, L. (2015). "That's the experience": Passion, work precarity, and life transitions among London jazz musicians. *Work and Occupations*, *42*(3), 313-334. https://doi.org/10.1177/0730888415573634

United Nations. (n.d.). *Ensure healthy lives and promote well-being for all at all ages*. Retrieved July 19, 2023 from https://sdgs.un.org/goals/goal3

Useche, S. A., Montoro, L., Alonso, F., & Pastor, J. C. (2019). Psychosocial work factors, job stress and strain at the wheel: Validation of the Copenhagen Psychosocial Questionnaire (COPSOQ) in professional drivers. *Frontiers in Psychology*, *10*, Article 1531. https://doi.org/10.3389/fpsyg.2019.01531

Vaag, J., Giæver, F., & Bjerkeset, O. (2014). Specific demands and resources in the career of the Norwegian freelance musician. *Arts and Health*, *6*(3), 205-222. https://doi.org/10.1080/17533015.2013.863789

Van den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. (2016). A review of self-determination theory's basic psychological needs at work. *Journal of Management*, *42*(5), 1195-1229. https://doi.org/10.1177/0149206316632058

Van der Doef, M., & Maes, S. (1999). The job demand-control(-support) model and psychological well-being: A review of 20 years of empirical research. *Work and Stress*, *13*(2), 87-114. https://doi.org/10.1080/026783799296084

van Rens, F. E. C. A., & Heritage, B. (2021). Mental health of circus artists: Psychological resilience, circus factors, and demographics predict depression, anxiety, stress, and flourishing. *Psychology of Sport and Exercise*, *53*, Article 101850. https://doi.org/10.1016/j.psychsport.2020.101850

van Vegchel, N., de Jonge, J., Bakker, A. B., & Schaufeli, W. B. (2002). Testing global and specific indicators of rewards in the effort-reward imbalance model: Does it make any difference? *European Journal of Work and Organizational Psychology*, *11*(4), 403-421. https://doi.org/10.1080/13594320244000265

van Vegchel, N., de Jonge, J., Meijer, T., & Hamers, J. P. H. (2001). Different effort constructs and effort–reward imbalance: Effects on employee well-being in ancillary health care workers. *Journal of Advanced Nursing*, *34*, 128-136. https://doi.org/10.1046/j.1365-2648.2001.3411726.x

VanderWeele, T. J., Trudel-Fitzgerald, C., Allin, P., Farrelly, C., Fletcher, G., Frederick, D. E., Hall, J., Helliwell, J. F., Kim, E. S., Lauinger, W. A., Lee, M. T., Lyubomirsky, S., Margolis, S., McNeely, E., Messer, N., Tay, L., Viswanath, V., Węziak-Białowolska, D., & Kubzansky, L. D. (2020). Current recommendations on the selection of measures for well-being. *Preventive Medicine*, *133*, Article 106004. https://doi.org/10.1016/j.ypmed.2020.106004

Vervainioti, A., & Alexopoulos, E. C. (2015). Job-related stressors of classical instrumental musicians: A systematic qualitative review. *Medical Problems of Performing Artists*, *30*(4), 197-202. https://doi.org/10.21091/mppa.2015.4037

Vispoel, W. P. (1993). The development and validation of the arts self-perception inventory for adolescents. *Educational and Psychological Measurement*, *53*(4), 1023-1033. https://doi.org/10.1177/0013164493053004015

Vispoel, W. P. (1995). Self-concept in artistic domains: An extension of the Shavelson, Hubner, and Stanton (1976) model. *Journal of Educational Psychology*, *87*(1), 134-153. https://doi.org/10.1037/0022-0663.87.1.134

Warr, P. (2018). Self-employment, personal values, and varieties of happiness-unhappiness. *Journal of Occupational Health Psycholgoy*, *23*(3), 388-401. https://doi.org/10.1037/ocp0000095

Waterman, A. S. (2008). Reconsidering happiness: A eudaimonist's perspective. *The Journal of Positive Psychology*, *3*(4), 234-252. https://doi.org/10.1080/17439760802303002

Watson, A., & Forrest, D. (2014). Performance reviews for the orchestral musician. *Australian Journal of Music Education,* (1), 94-102. https://search.informit.org/doi/10.3316/informit.988451675445198

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*(6), 1063-1070. https://doi.org/10.1037/0022-3514.54.6.1063

Weightman, A. L., Kelson, M. J., Thomas, I., Mann, M. K., Searchfield, L., Hannigan, B., Smith, R. J., Willis, S., & Cordiner, R. (2022). PROTOCOL: Exploring the effect of case management in homelessness per components: A systematic review of effectiveness and implementation, with meta-analysis and thematic synthesis. *Campbell Systematic Reviews*, *18*, Article e1220. https://doi.org/10.1002/cl2.1220

Weightman, A. L., Kelson, M. J., Thomas, I., Mann, M. K., Searchfield, L., Willis, S., Hannigan, B., Smith, R. J., & Cordiner, R. (2023). Exploring the effect of case management in homelessness per components: A systematic review of effectiveness and implementation, with meta-analysis and thematic synthesis. *Campbell Systematic Reviews*, *19*, Article e1329. https://doi.org/10.1002/cl2.1329

Welbourne, J. L., Eggerth, D., Hartley, T. A., Andrew, M. E., & Sanchez, F. (2007). Coping strategies in the workplace: Relationships with attributional style and job satisfaction. *Journal of Vocational Behavior*, *70*(2), 312-325. https://doi.org/10.1016/j.jvb.2006.10.006

What Works Centre for Wellbeing. (n.d.). *About us*. Retrieved July 19, 2023 from https://whatworkswellbeing.org/about-us/

Whitty, M. T. (2003). Coping and defending: Age differences in maturity of defence mechanisms and coping strategies. *Aging & Mental Health*, *7*(2), 123-132. https://doi.org/10.1080/1360786031000072277

Williamon, A. (2004). A guide to enhancing musical performance. In A. Williamon (Ed.), *Musical excellence: Strategies and techniques to enhance performance* (pp. 3-18). Oxford University Press.

Williamon, A., & Thompson, S. (2006). Awareness and incidence of health problems among conservatoire students. *Psychology of Music*, *34*(4), 411-430. https://doi.org/10.1177/0305735606067150

Williams, G., Pendlebury, H., & Smith, A. (2021). Stress and the well-being of nurses: An investigation using the demands-resources-individual effects (DRIVE) model and the Well-being Process Questionnaire (WPQ). *Advances in Social Sciences Research Journal*, *8*(8), 575-586. https://doi.org/10.14738/assrj.88.10782

Williams, G., Pendlebury, H., Thomas, K., & Smith, A. P. (2017). The Student Wellbeing Process Questionnaire (Student WPQ). *Psychology*, *8*(11), 1748-1761. https://doi.org/10.4236/psych.2017.811115

Williams, G., & Smith, A. (2012). A holistic approach to stress and wellbeing: Part 6: the Wellbeing Process Questionnaire (WPQ short-form). *Occupational Health at Work*, *9*(1), 29-31.

Williams, G., & Smith, A. P. (2018). A practical method of predicting wellbeing at work: The Wellbeing Process Tool. *Advances in Social Sciences Research Journal*, *5*(1), 233-240. https://doi.org/10.14738/assrj.52.4158

Williams, G., Thomas, K., & Smith, A. P. (2017). Stress and well-being of university staff: An investigation using the demands-resources-individual effects (DRIVE) model and Well-Being Process Questionnaire (WPQ). *Psychology*, *8*(12), 1919-1940. https://doi.org/10.4236/psych.2017.812124

Williams, G. M., & Smith, A. P. (2016). Using single-item measures to examine the relationships between work, personality, and well-being in the workplace. *Psychology*, *7*(6), 753-767. https://doi.org/10.4236/psych.2016.76078

Willis, S., Morgan, H., Morgan, F., & Scourfield, J. (2021). Use of systematic review terminology and methodological quality in children's social care. *Journal of Evidence-Based Social Work, 18*(6), 667-688. https://doi.org/10.1080/26408066.2021.1938827

Willis, S., Neil, R., Mellick, M. C., & Wasley, D. (2019). The relationship between occupational demands and well-being of performing artists: A systematic review. *Frontiers in Psychology*, *10*, Article 393. https://doi.org/10.3389/fpsyg.2019.00393

Willis, S., Woolridge, B., & Mellick, M. C. (2018). *How musicians and athletes could learn from each other when it comes to coping with stress*. The Conversation. https://theconversation.com/how-musicians-and-athletes-could-learn-from-each-other-when-it-comes-to-coping-with-stress-90255

Wiltshire, G. (2018). A case for critical realism in the pursuit of interdisciplinarity and impact. *Qualitative Research in Sport, Exercise and Health*, *10*(5), 525-542. https://doi.org/10.1080/2159676X.2018.1467482

Wolfenden, H. E. G., & Angioi, M. (2017). Musculoskeletal injury profile of circus artists: A systematic review of the literature. *Medical Problems of Performing Artists*, *32*(1), 51-59. https://doi.org/10.21091/mppa.2017.1008

Woolridge, B. (2022). *Demands and wellbeing in university students: A study of undergraduates at a post-92 UK university* [Doctoral dissertation, Cardiff Metropolitan University]. Figshare. https://doi.org/10.25401/cardiffmet.21749813.v1

World Health Organization. (2019). *The Thirteenth General Programme of Work 2019–2023*. https://www.who.int/about/what-we-do/thirteenth-general-programme-of-work-2019---2023

World Health Organization. (2021). *The Geneva charter for well-being*. https://www.who.int/publications/m/item/the-geneva-charter-for-well-being

Wright, T. A., & Bonett, D. G. (2007). Job satisfaction and psychological well-being as nonadditive predictors of workplace turnover. *Journal of Management*, *33*(2), 141-160. https://doi.org/10.1177/0149206306297582

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, *74*(3), 235-244. https://doi.org/10.1016/j.jvb.2008.11.003

Yau, B. N., Chen, A. S., Montgomery, K. B., Dubuque, N., & McDowelle, D. M. (2021). An internal perspective: The psychological impact of mistreatment. *Academic Psychiatry*, *45*(3), 308-314. https://doi.org/10.1007/s40596-021-01430-1

Youth Music. (2017). *Do, review, improve... Youth Music quality framework*. https://network.youthmusic.org.uk/file/38028/download?token=G3PM6gN7

Zachariadis, M., Scott, S., & Barrett, M. (2013). Methodological implications of critical realism for mixed-methods research. *MIS Quarterly*, *37*(3), 855-879.

Zaza, C. (1998). Playing-related musculoskeletal disorders in musicians: A systematic review of incidence and prevalence. *Canadian Medical Association Journal*, *158*(8), 1019-1025.

Zendel, A. (2021). "There are no days off, just days without shows": Precarious mobilities in the touring music industry. *Applied Mobilities*, *6*(2), 184-201. https://doi.org/10.1080/23800127.2020.1827516

Zurlo, M. C., Vallone, F., & Smith, A. P. (2018). Effects of individual differences and job characteristics on the psychological health of Italian nurses. *Europe's Journal of Psychology*, *14*(1), 159-175. https://doi.org/10.5964/ejop.v14i1.1478

Appendix A

Criteria for inclusion and exclusion of studies

		Inclusion Criteria	Exclusion criteria
Population	**Occupation**	Professional OR student performing artists Any one of the following performing artist categories: musicians, dancers, actors, circus artists, comedians, conductors Individuals studying performing arts awards in the following educational settings: conservatoires, colleges, training institutions, higher education institutions, specialist performing arts training institutions	Those not working as performing artists OR those not studying for an award in the field of the performing arts Authors, journalists, writers, sculptors, painters, composers, conductors, choreographers, film directors, stage directors, photographers, image and sound recording personnel
	Age	Adults aged 18 and above	Children and young people aged 17 and below
Comparator		Performing artists, non-performing artists, no comparator specified	
Outcomes		Assesses relationship between occupational demands and well-being Occupational demands operationalised as "physical, social, or organisational aspects of the occupation that require sustained physical or mental effort" (Demerouti et al., 2001). Well-being operationalised as psychological functioning of the individual represented by only cognitive evaluations relating to the quality of life, or cognitive evaluations and affective outcomes combined relating to the quality of life. Cognitive evaluations include to life satisfaction, job satisfaction environmental mastery, autonomy, self-acceptance, relations with	Measures only one outcome from occupational demands or well-being Does not assess the relationship between occupational demands and well-being Studies measuring only affective well-being outcomes (i.e., positive or negative affect) and not cognitive evaluations.

	others, purpose in life, personal growth. Affective evaluations include positive affect and negative affect (Diener et al., 1999; Ryff, 2014).	
Study Design	Qualitative (all study designs) Quantitative (all study designs) Mixed-methods (all study designs)	Systematic review Literature review Commentary
Publication Type	Peer-reviewed journal articles	Non peer-reviewed articles Editorials and forewords Books and book chapters Book reviews Book synopses Conference proceedings Abstracts and unpublished theses
Language	English language	Non-English language
Date	No date filter - up to date searched (13/10/17)	

Appendix B

Data Extraction Form

Main Author (Year)	
Full Reference	
Journal Impact Factor	

Reason for inclusion in systematic review	
Inclusion criteria	Delete/Describe how meets inclusion criteria
Peer-reviewed journal	Yes/No
English language	Yes/No
Professional performing artists OR students	Professional performing artists/Students
Aged 18+	Yes/No
Measures Occupational Demands (give details):	
Measures well-being (give details):	
Assess the relationship between occupational demands and well-being (give details):	

Study Characteristics		
Participant characteristics	**Age**	
	Gender	
	Occupation	
	Other	
Context	(e.g., symphony orchestra, conservatoire)	
Study location/ country		

Sampling method			
Response rate			346
Aims/ Research question			
Study design			
Conceptual framework			
Method			
Variables/ Themes explored			
Outcome measures	**Occupational stress measures**		
	Well-being measures		
Validity OR Credibility	(i.e., were the measures used valid, is credibility discussed e.g., triangulation of analysis)		
Method of analysis			
Results summary			
Results summary			
	Findings specific to occupational demands		
	Findings specific to well-being domains (e.g., positive affect, negative affect, life satisfaction, job satisfaction, environmental mastery, autonomy, self-acceptance, purpose in life, relationships with others, personal growth)		

Author identified limitations	347
Additional limitations	
Future research direction	
Funding Body/Sponsor	
Notes	

Appendix C

Articles Excluded at Full-text

Main Author	Date	Journal	Reason for Exclusion
Adams-Price et al.	2007	Int J of Aging Hum Dev	Wrong population: Participants are not professional jewellery-makers; recruited from discussion group. Does not mention employment status.
Bille et al.	2013	Econ Lett	Wrong population: includes authors, journalists, writers, Sculptors, painters, Composers, Choreographers, directors, Photographers, image and sound recording equipment operators, Clowns, magicians
Boerner et al.	2007	Psychol Music	Wrong outcome: Does not measure well-being as operationalised in for this systematic review
Bos	2010	J Sing	Wrong outcome: Does not measure well-being
Bradshaw et al.	2005	Consump Mark Cult	Wrong outcome: Does not measure well-being
Brandfonbrener	1986	Med Probl Perform Ar	Wrong outcome: Does not measure well-being. Wrong population: participants under 18 years of age
Brandfonbrener	1988	Med Probl Perform Ar	Wrong outcome: Does not measure well-being
Brandfonbrener	2000	Med Probl Perform Ar	Wrong outcome: Does not measure well-being

Main Author	Date	Journal	Reason for Exclusion
Brandfonbrener	2005	Med Probl Perform Ar	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Brandfonbrener	1989	Med Probl Perform Ar	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Brandfonbrener	2005	Med Probl Perform Ar	Article is a repeat of two articles that have already been excluded after reading at full-text
Cahalan et al.	2013	J Dance Med Sci	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Cupido	2016	Muziki	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Demirbatir et al.	2013	Sci Res	Wrong outcome: Does not measure occupational demands
Dobson et al.	2015	Psychol Music	Wrong outcome: Does not measure well-being
Evans	2003	Med Probl Perform Ar	Wrong outcome: Does not measure well-being
Gabriel	1977	Psychol Music	Wrong outcome: Does not measure occupational demands; Wrong context: Emotional responses to music.
Greben	1999	Med Probl Perform Ar	Wrong outcome: Does not measure well-being; Wrong study design: Commentary article. Observations from working with performing artists.

Main Author	Date	Journal	Reason for Exclusion
Guzmán et al.	2014	Rev int med Cienc act fis deporte	Wrong population: participants under 18 years of age
Hamilton et al.	1994	Med Probl Perform Ar	Wrong outcome: Does not measure well-being
Hancox et al.	2017	Pers Indiv Differ	Wrong population: participants includes children and those under 18 years: Mean age =15.57
Haslam, et al.	2009	Stress Health	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Heath	2004	Nurs Older People	Wrong outcome: Does not assess occupational demands. Context: Older people
Hernandez et al.	2009	Med Probl Perform Ar	Wrong outcome: Does not measure well-being
Holst et al.	2012	Int Arch Occ Env Hea	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Huddy	2016	Perf Enhancement Health	Wrong population: Age: 17-22; Wrong outcome: Does not measure well-being; Does not measure occupational demands
Jenkins et al.	2014	J Tour Cult Change	Wrong context: examines the impact of the tourism industry from a socio-political perspective on artists. Focuses on economic well-being. Focuses on the socio-political environment rather than specific occupational demands related to artists
Jeong et al.	2017	Sustainability	Wrong outcome: Does not measure occupational demands, but perceived "gap in the work conditions". Defined as the gap between expected work conditions and actual work conditions

Main Author	Date	Journal	Reason for Exclusion
Kenny et al.	2014	Psychol Music	Wrong outcome: Does not measure well-being according to operationalisation for this systematic review. Does not measure occupational demands
Lamont	2012	Psychol Music	Wrong population: includes musicians studying psychology, which is not a performing arts award
Lee et al.	2015	Occup Med	Wrong outcome: Does not measure occupational demands. Measures injury, which is not an occupational demand as operationalised for this review. Injury may be considered an outcome of the physical demands of playing an instrument.
Liburd et al.	2009	Tour Hosp Res	Wrong context: Context is within an abnormal occupational setting of a festival. Not the regular context of those involved
Manturzewska	1978	Psychol Music	Wrong outcome: Does not assess occupational demands or well-being.
Maxfield	2015	J Sing	Wrong study design: Critical review
Maxwell	2015	About Perf	Wrong population: participants under 18 years old.
Meltzer	2004	J Occup Sci	Wrong outcome: Does not measure well-being.
Mundet-Boloset al.	2017	Rev Cercet Inter Soc	Wrong study design: Review. Wrong population: not professional musicians
No author	1980	Am J Occup Ther	Wrong outcome: Does not measure occupational demands. Wrong study design: Commentary
No author	1987	Am J Occup Ther	Wrong study design: information announcements

Main Author	Date	Journal	Reason for Exclusion
Quested et al.	2009	J Dance Med Sci	Insufficient information on population: Does not state that participants are professional or studying for performing arts awards in educational setting
Quested et al.	2011	J Sport Exercise Psy	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Quested et al.	2011	Psychol Sport Exerc	Wrong population: participants under 18 years old
Quested et al.	2010	J Sport Exercise Psy	Wrong population: participants under 18 years old
Raeburn	1987	Med Probl Perform Ar	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Raeburn	1987	Med Probl Perform Ar	Wrong outcome: Does not assess the relationship between occupational demands and well-being
Runco	1995	Empir Studies Arts	Wrong population: Participants are not performing artists
Sanal et al.	2014	Psychol Music	Wrong outcome: Well-being is not operationalised as for this systematic review
Schmalenberger et al.	2009	J Am Geriatr Soc	Wrong outcome: Does not measure occupational demands. Assesses the impact of breast cancer therapy and rehabilitation
Singha et al.	2016	J of Psychosoc Res	Wrong outcome: Does not measure occupational demands
Snooks	1984	J Aust Stud	Wrong context: income of Australian Artists. Does not mention occupational demands or well-being in full text

Main Author	Date	Journal	Reason for Exclusion
Steiner et al.	2013	J Cult Econ	Wrong outcome: Does not assess the relationship between occupational demands and well-being, due to insufficient population size
Stenberg	2016	Int J Qual Stud Health	Wrong outcome: Does not assess the well-being of artists
Stewart et al.	2016	Psychol Music	Wrong population: Participants are amateur choral and solo singers
Tuisku	2016	Med Probl Perfrom Ar	Wrong population: participants under 18 years old
van Staden et al.	2009	J Dance Med Sci	Wrong outcome: Does not measure well-being
Walker et al.	2017	J Sing	Wrong population: Applied psychology for music teachers. Wrong outcome: Does not measure the relationship between occupational demands and well-being
Westby	1960	Soc Forces	Wrong outcome: Does not measure well-being
Wills et al.	1987	Stress Med	Wrong outcome: Does not measure occupational demands

Appendix D

COPSOQ III

Question format: The next set of questions are about your *experience of the workplace* as a professional musician. If you are *employed by a specific ensemble* for the majority of your work, please answer in relation to this employment. If you work in a *freelance context*, please answer in relation to your work experiences as a whole.

Please answer the questions in relation to the **past 4 weeks**. Please read each statement carefully and decide if you have experienced the situation in your work. If you have experienced the situation, indicate how often by selecting the box (1–4; Always – Seldom). If you have never or hardly ever experienced the situation, select 5 (Never/hardly ever).

1	2	3	4	5
Always	Often	Sometimes	Seldom	Never/hardly ever

1. *How often do you not have time to complete all your work tasks? (QD2; core)
2. *Do you get behind with your work? (QD3; core)
3. *Do you have to work very fast? (WP1; core)
4. *Do you have to deal with other people's personal problems as part of your work? (EDX2; core)
5. *Do you have a large degree of influence on the decisions concerning your work? (INX1, core)
6. *Do you have any influence on what you do at work? (IN4, middle)
7. *Do you have any influence on how you do your work? (IN6, middle)
8. *Is your work varied? (VA1, long)
9. Can you decide when to take a break? (CT1, middle)
10. Can you take holidays more or less when you wish? (CT2, middle)

5	4	3	2	1
Always	Often	Sometimes	Seldom	Never/hardly ever

11. Do you have to do the same thing over and over again? (VA2, long)

Question format: The next set of questions are about your experiences at work. If you are employed by a specific ensemble for the majority of your work, please answer in relation to this employment. If you work in a freelance context, please answer in relation to your work experiences as a whole.

Please read each question carefully and decide if you have experienced these situations in your work. Please answer the questions in relation to the past 4 weeks. If you have experienced the situation, indicate the extent by selecting the number on the 1–5 scale (To a very large extent – To a very small extent) that best describes how frequently the situation occurs.

1	2	3	4	5
To a very large extent	To a large extent	Somewhat	To a small extent	To a very small extent

12. *Do you work at a high pace throughout the day? (WP2, core)

13. *Is your work emotionally demanding? (ED3, core)

14. *Do you have the possibility of learning new things through your work? (PD2, core)

15. *Can you use your skills or expertise in your work? (PD3, core)

16. *Is your work meaningful? (MW1, core)

17. *At your place of work, are you informed well in advance concerning for example important decisions, changes or plans for the future? (PR1, core)

18. *Do you receive all the information you need in order to do your work well? (PR2, core)

19. *Is your work recognized and appreciated by the management? (RE1, core)

20. *Does your work have clear objectives? (CL1, core)

21. *Are contradictory demands placed on you at work? (CO2, core)

22. Do you sometimes have to do things which ought to have been done in a different way? (CO3, core)

23. *Are you worried about becoming unemployed? (JI1, core)

24. *Are you worried about it being difficult for you to find another job if you became unemployed? (JI3, core)

25. *Are you worried about being transferred to another job against your will? (IW1, core)

26. Are you worried about the timetable being changed (shift, weekdays, time to enter and leave ...) against your will? (IW3, middle)

27. *Do you feel that your work drains so much of your energy that it has a negative effect on your private life? (WF2, core)

28. *Do you feel that your work takes so much of your time that it has a negative effect on your private life? (WF3, core)

29. *Does the management trust the employees to do their work well? (TM1, core)

30. *Can the employees trust the information that comes from the management? (TMX2, core)

31. Are conflicts resolved in a fair way? (JU1, core)

32. *Is the work distributed fairly? (JU4, core)

Question format: The following questions are about your *relationships with your supervisor and colleagues* in the workplace. Where *immediate superior* is mentioned, please think about your *line manager* or equivalent role in your workplace. Please read the questions carefully and select the most appropriate answer on the 1–5 scale (Always – Never/hardly ever). Please answer the questions in relation to the **past 4 weeks**. If you do not have a supervisor or colleagues in the role you work in, please select 6 (I do not have a supervisor/colleagues).

1	2	3	4	5	6
Always	Often	Sometimes	Seldom	Never/ hardly ever	I do not have a supervisor

33. *How often do you get help and support from your immediate superior, if needed? (SSX2, core)

Question format: To what extent would you say that your immediate superior:

1	2	3	4	5	6
To a very large extent	To a large extent	Somewhat	To a small extent	To a very small extent	I do not have a supervisor

34. is good at work planning? (QL3, core)
35. is good at solving conflicts? (QL4, core)
36. *How often do you get help and support from your colleagues, if needed? (SCX1, core)
37. *Is there a good atmosphere between you and your colleagues? (SW1, core)

Question format: The next set of questions are about your feelings about aspects of your *work and health*. Please read the questions carefully and select the most appropriate answer on the scale. Regarding your work in general, how pleased are you with:

1	2	3	4	5
Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Unsatisfied	Very unsatisfied

your work prospects? (JS1, middle)

*your job as a whole, everything taken into consideration? (JS4, core)

**your salary? (JS5, middle)

Question format: In general, would you say your health is:

(GH1, core)

1	2	3	4	5
Excellent	Very good	Good	Fair	Poor

Question format: These questions are about how you have been feeling during the past 4 weeks.

1	2	3	4	5
All the time	A large part of the time	Part of the time	A small part of the time	Not at all

38. How often have you had problems relaxing? (ST1, long)
39. How often have you been tense? (ST3, long)

Note: ** indicates question omitted for students; * indicates those questions where wording was adapted for conservatoire music students as follows:

1. How often do you not have time to complete all your study tasks?
2. Do you get behind with your studies?
3. Do you have to complete your study tasks very fast?
4. Do you have to deal with other people's personal problems as part of your conservatoire experience?
5. Do you have a large degree of influence on the decisions concerning your music studies?
6. Do you have any influence on what you do at the conservatoire?
7. Do you have any influence on how you do your music study tasks?
8. Are your music study tasks varied?
9. Do your music studies require you to work at a high pace throughout the day?
10. Are your music study tasks emotionally demanding?
11. Do you have the possibility of learning new things through your music studies?
12. Can you use your skills or expertise in your music studies?
13. Are your music study tasks meaningful?
14. At your conservatoire, are you informed well in advance concerning, for example, important decisions, changes or plans for the future?
15. Do you receive all the information you need in order to do your music study tasks well?
16. Is your work recognised and appreciated by the conservatoire staff?
17. Do your music study tasks have clear objectives?
18. Are contradictory demands placed on you at the conservatoire?
19. Are you worried about dropping out of your studies?
20. Are you worried about it being difficult for you to return to the conservatoire after a period of leave?
21. Are you worried about being withdrawn from your course against your will?
22. Do you feel that your music studies drain so much of your energy that it has a negative effect on your private life?
23. Do you feel that your music studies take so much of your time that it has a negative effect on your private life?
24. Do the conservatoire staff trust the students to do their work well?
25. Can the students trust the information that comes from the conservatoire staff?
26. Are the music study tasks distributed fairly?
27. How often do you get help and support from your primary academic contact, if needed?
28. How often do you get help and support from your peers, if needed?
29. Is there a good atmosphere between you and your peers?
    Regarding your work in general, how pleased are you with:
30. your conservatoire experience as a whole, everything taken into consideration?

Scale abbreviations

Quantitative demands	QD
Work pace	WP
Emotional demands	ED
Influence at work	IN
Possibilities for development	PD
Variation at work	VA
Control over working time	CT
Meaning of work	MW
Predictability	PR
Recognition	RE
Role clarity	CL
Role conflicts	CO
Quality of leadership	QL
Social support from supervisor	SS
Social support from colleagues	SC
Sense of community at work	SW
Insecurity over employment	JI
Insecurity of working conditions	IW
Job satisfaction	JS
Work life conflict	WF
Vertical trust	TM
Organisational justice	JU
Self-rated health	GH
Stress	ST

Structure of COPSOQ III domains and dimensions

Domain	Dimension
Demands at work	Quantitative demands
	Work pace
	Cognitive demands
	Emotional demands
	Demands for hiding emotions
Work organization and job contents	Influence at work
	Possibilities for development
	Variation of work
	Control over working time
	Meaning of work
Interpersonal relations and leadership	Predictability
	Recognition
	Role clarity
	Role conflicts
	Illegitimate tasks
	Quality of leadership
	Social support from supervisor
	Social support from colleagues
	Sense of community at work
Work individual Interface	Commitment to the workplace
	Work engagement
	Insecurity over employment
	Insecurity over working conditions
	Quality of work
	Job satisfaction
	Work life conflict
Social capital	Vertical trust
	Horizontal trust
	Organizational justice
Conflicts and offensive behaviour	Gossip and slander
	Conflicts and quarrels
	Unpleasant teasing
	Harassment in social media
	Sexual harassment
	Threats of violence
	Physical violence
	Bullying
Health and well being	Self-rated health
	Sleeping troubles
	Burnout
	Stress
	Somatic stress
	Cognitive stress
	Depressive symptoms
Personality	Self-efficacy

Appendix E

Well-being Process Questionnaire (Williams et al., 2017)

The single-item question measuring stress is as follows:

Question format for professionals: In general, how stressful do you find your job?

Question format for students: In general, how stressful do you find your student experience?

1	2	3	4	5
Not at all stressful	A little stressful	Somewhat stressful	Very stressful	Extremely stressful

Appendix F

Brief Cope (Carver, 1997; Carver et al., 1989)

Question format: We are interested in how you respond when you confront difficult or stressful events in your life. There are lots of ways to try to deal with stress. Please recall your most recent stressful experience or event within the past 4 weeks. The following questions ask you to indicate what you have done or felt over the **past 4 weeks** when you have experienced a stressful event.

0	1	2	3
I haven't been doing this at all	I've been doing this a little bit	I've been doing this a medium amount	I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticising myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.

18. I've been making jokes about it.

19. I've been doing something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.

20. I've been accepting the reality of the fact that it has happened.

21. I've been expressing my negative feelings.

22. I've been trying to find comfort in my religion or spiritual beliefs.

23. I've been trying to get advice or help from other people about what to do.

24. I've been learning to live with it.

25. I've been thinking hard about what steps to take.

26. I've been blaming myself for things that happened.

27. I've been praying or meditating.

28. I've been making fun of the situation.

NB. For students, Q1 was adapted to: I've been turning to my studies or other activities to take my mind off things.

Scoring

Scale	Item No.
Self-distraction	1 and 19
Active coping	2 and 7
Denial	3 and 8
Substance use	4 and 11
Use of emotional support	5 and 15
Use of instrumental support	10 and 23
Behavioural disengagement	6 and 16
Venting	9 and 21
Positive reframing	12 and 17
Planning	14 and 25
Humour	18 and 28
Acceptance	20 and 24
Religion	22 and 27
Self blame	13 and 26

Appendix G

Satisfaction With Life Scale (SWLS; Pavot and Diener, 1993)

Question format: We are interested in emotions and how you feel about your life in general. Below are five statements with which you may agree or disagree. Using the 1–7 (Strongly disagree – strongly agree) scale below, indicate your current level of agreement with each item by selecting the appropriate box. Please be open and honest in your responding.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree

1. In most ways my life is ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want from life.
5. If I could live my life over, I would change almost nothing.

Scoring

1. Range: 5–35
2. 5–9   Extremely dissatisfied
3. 10–14   Dissatisfied
4. 15–19   Slightly below average satisfaction
5. 20–24   Average satisfaction
6. 25–29   High score
7. 30–35   Very high score; highly satisfied

Appendix H

International Positive and Negative Affect Schedule Short Form (I-PANAS-SF; Thompson, 2007)

Question format: The next questions are about the *emotions* you experience in your life. Please think about how you have been feeling over the **past 4 weeks**. Please select how often you have experienced these emotions on the 1–5 scale (Never – Always). If you have not experienced this emotion over the past 4 weeks, select 1 (Never). If you have experienced the emotion, select the appropriate frequency (Rarely – Always). Thinking about yourself and how you have felt over the **past 4 weeks**, to what extent have you felt:

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

1. Upset
2. Hostile
3. Alert
4. Ashamed
5. Inspired
6. Nervous
7. Determined
8. Attentive
9. Afraid
10. Active

Scoring:

Positive affect items: 3, 5, 7, 8, 10**;** Negative affect items: 1, 2, 4, 6, 9

Appendix I

Flourishing Scale (Diener et al., 2010)

Question format: These questions are about *how you view your life* in general. Below are eight statements with which you may agree or disagree. Using the 1–7 (Strongly disagree – strongly agree) scale below, indicate your current level of agreement with each item by indicating that response for each statement.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Mixed or neither agree nor disagree	Slightly agree	Agree	Strongly agree

1. I lead a purposeful life
2. My social relationships are supportive and rewarding
3. I am engaged and interested in my daily activities
4. I actively contribute to the happiness and well-being of others
5. I am competent and capable in the activities that are important to me
6. I am a good person and live a good life
7. I am optimistic about my future
8. People respect me

Scoring: Add the responses, varying from 1 to 7, for all eight items. The possible range of scores is from 8 (lowest possible) to 56 (highest PWB possible). A high score represents a person with many psychological resources and strengths.

Appendix J

Pilot study

Procedure

Participants completed a battery of questionnaires using the online platform Qualtrics (2005), which could be accessed through an email link using desktop, tablet, or mobile devices. Questions included demographic questions, as well as items from the COPSOQ III, WPQ, Brief COPE, I-PANAS-SF, SWLS, and FS as identified in Section 5.3.1. The pilot survey also requested feedback and included questions about the participant's experience of answering the questions in the survey. Participants could complete the survey in their own time and from a comfortable location. Data collection for the pilot survey took place in September 2019.

Participants

Participants were either professional classical musicians or conservatoire music students as defined in Section 5.3.2.1. Participants were recruited from my professional network. Twenty-one individuals were invited to complete the survey and 13 musicians completed the full questionnaire, which represented a 62% response rate. Demographic data for participants are presented in Table J1.

Table J1

Pilot participant demographics

	Total (*N* = 13)		Professionals (*n* = 12)		Students (*n* = 1)	
	n	*%*	*n*	*%*	*n*	*%*
Gender						
Female	11	84.6	10	83.3	1	100.0
Male	2	15.4	2	16.7	0	0.0
Age mean (*SD*)	27.5	(3.0)	27.7	(8.2)	26	-
Instrument Category						
Strings	11	84.6	10	83.3	1	100.0
Brass	1	7.7	1	8.3	-	-
Keyboard	1	7.7	1	8.3	-	-
Country*						
UK	13	100.0	12	100.0	1	100.0
Years working mean (*SD*)	-	-	6.1	(3.0)		
Employment/student status						
Employed full-time	1	7.7	1	8.3	-	-
Employed part-time	2	15.4	2	16.7	-	-
Self-employed full-time	6	46.2	6	50.0	-	-
Self-employed part-time	3	23.1	3	25.0	-	-
Student full-time	1	7.7	-	-	1	100.0

Appendix K

Social media recruitment post

Appendix L

Participant information sheet

Musicians' Stress and Well-being

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please read the following information carefully. The study is *completely voluntary* and you can refuse to participate without any negative outcomes.

Background and Aims of the Research

This project is part of an ongoing doctoral programme which explores stress and well-being of musicians. An initial review found that musicians are exposed to a wide range of occupational stressors, which may affect their well-being. The aim of the next part of the research is to find out the specific stressors musicians experience, how musicians cope with these stressors and how they affect well-being. We will also explore how the stressors musicians face change over time. A future study will investigate the perceptions of musicians of the occupational stressors they experience.

This information may help conservatoires and orchestras to provide a healthy environment for students and musicians. The results may also apply to people working in other occupations. The data will be presented as part of a PhD submission for a doctoral thesis. Where appropriate, the results may be presented at academic conferences and published in peer-reviewed academic journals.

Why you have been asked to participate?

We are asking people who are currently professional classical musicians or music students at a Conservatoire or specialist music college to participate in this study. Any professional classical musician, who earns the majority of their salary through performance and music-related activities (i.e., teaching) may join the study. Any music student at a Conservatoire or

specialist music college can join this research project. It is *entirely voluntary* – there is no obligation of any kind to join the study and your employer or conservatoire will not discriminate against anyone who does not want to participate.

What will you be asked to do?

You will be asked to complete a questionnaire on the topics of your work environment, stress, coping and well-being. The questionnaire will take approximately 20 minutes to complete and you will be invited to complete the questionnaire online in your own time via a web-link.

You will be asked to *complete the questionnaire twice*. The first time you will complete the questionnaire will be in October 2019. The second time will be in May/June 2020.

Are there any benefits or risks?

There are no direct benefits to you as an individual for taking part in this study. The study may give you an opportunity to reflect on your work environment and how you interact with it. The study may also help improve the working environment for professional musicians and students at conservatoires. When the study is complete and we publish the results, we can let you know what we found.

We do not think there are any significant risks due to taking part in the study. The questions we are using have been developed and used multiple times by researchers interested in this topic. If you feel any stress due to answering the questions, you can stop at any time. If you experience any concerns or distress, you are able to find support and advice through NHS services (your GP, NHS Direct), conservatoire student services, Mind, the Samaritans, Help Musicians UK, Music Minds Matter (a 24/7 national support line dedicated to the music community), and British Association for Performing Arts Medicine (BAPAM).

What happens if you want to change your mind?

If you decide to join the study, you can change your mind and stop at any time. We will respect your decision and there are no penalties for stopping. Should you complete the questionnaire and then decide you do not wish your data to be included in the research, you

can ask to have your data removed. If you have completed part of the questionnaire and you wish to withdraw from the study, please contact a member of the research team using the details below. You can also contact Katy Burson, Ethics and Research & Enterprise Support Officer, to withdraw from the study (kburson@cardiffmet.ac.uk).

How will my data be used?

The data from the study will be used as part of a doctoral research programme. It will be presented as part of a doctoral thesis for a PhD submission. The data may also be presented in peer-reviewed academic journals and at academic conferences.

How will my data be protected?

The information you provide is *confidential* and the research team (Simone Willis, Dr David Wasley, Dr Mikel Mellick, and Dr Richard Neil) will respect your privacy. Your responses will be managed in line with the General Data Protection Regulation (GDPR) and your individual responses will not be revealed to anyone outside the university research team.

You will be asked to create a unique ID in order to link your data. After all the data has been collected we will delete your unique ID. We will also ask you to provide your email address, so we can contact you to complete the questionnaire for the second time. We will keep your email address separate from your answers to the questionnaire to ensure that your answers remain anonymous. We have taken very careful steps to make sure that you cannot be identified from the answers you provide in the questionnaire.

The data will be held on a secure encrypted database on the university digital storage system for 10 years, which is a requirement of the University. After this time, the data will be destroyed.

This study has been reviewed by the Cardiff Metropolitan University ethics committee prior to publication. For more information on this research project, please contact Simone Willis (siwillis@cardiffmet.ac.uk) or Dr David Wasley (dwasley@cardiffmet.ac.uk).

<u>Consent to Participate</u>

If you consent to participating in this study on musicians' stress and well-being, please continue to read the statements and tick the boxes below. In line with the General Data Protection Regulation (2018):

I confirm that I have read and understand the information sheet for the above ☐
study. I have had the opportunity to consider the information, ask questions and
have had these answered.

I understand that my participation is voluntary and that I am free to withdraw at ☐
any time, without giving any reason.

I agree to take part in the above study and the procedures detailed ☐
in the Participant Information Sheet.

I confirm that I am 18 years of age or older. ☐

_____   _____

Signature of Participant: Date:

Appendix M

Musicians' well-being survey thank you message

Thank you for taking part in the Musicians' Well-being Survey.

What happens if you want to change your mind?

If you have completed part of the questionnaire and you wish to withdraw from the study, please contact a member of the research team: Simone Willis (siwillis@cardiffmet.ac.uk); David Wasley (dwasley@cardiffmet.ac.uk). You can also contact Katy Burson, Ethics and Research Enterprise Support Officer, to withdraw from the study (kburson@cardiffmet.ac.uk).

What do if you need help or support

If you require urgent help in an emergency, dial 999.

If you experience any concerns or distress after taking this survey, you can contact the following organisations for support and advice.

NHS Services or your GP: www.nhs.uk

NHS 111 (if you need help now, non-emergency services): 111.nhs.uk; 111

Mind: www.mind.org.uk; 0300 123 3393The

Samaritans: www.samaritans.org; jo@samaritans.org; 116 123

Help Musicians UK: www.helpmusicians.org.uk; info@helpmusicians.org.uk; 020 7329 9100

Music Minds Matter (a 24/7 national support line dedicated to the music community): www.musicmindsmatter.org.uk; mmm@helpmusicians.org.uk; 0808 802 8008

British Association of Performing Artists: www.bapam.org.uk; info@bapam.org.uk; 020 7404 5888

Appendix N

Unique ID Generation Questions (adapted from Ripper et al., 2017)

In order to match data between the stages of the study, the following questions will generate a unique ID. You will be asked the same questions the next time you complete the study.

1. What are the first and second letters of your surname?
2. What month of the year were you born?
3. What is the first letter of your mother's or female caregiver's first name? (Please remember to use the first letter of her full name and not a nickname)
4. What is the first letter of the city where you were born?

Appendix O

Multivariate assessment of normality

Variable	min	max	skew	c.r.	kurtosis	c.r.
Perceived stress	1.000	5.000	.159	1.173	-.335	-1.238
Social support from colleagues	.000	100.000	-.630	-4.648	.103	.382
Sense of community at work	.000	100.000	-1.056	-7.799	1.782	6.577
Social support from supervisor	.000	100.000	-.255	-1.882	-1.169	-4.316
Quality of leadership	.000	100.000	-.201	-1.483	-1.223	-4.513
Recognition	.000	100.000	-.393	-2.904	-.449	-1.657
Predictability	.000	100.000	-.166	-1.227	-.113	-.419
Organisational justice	.000	100.000	-.389	-2.870	-.312	-1.151
Vertical trust	.000	100.000	-.624	-4.607	.417	1.539
Insecurity of working conditions	.000	100.000	1.234	9.112	1.047	3.864
Job insecurity	.000	100.000	.156	1.151	-1.079	-3.983
Influence at work	.000	100.000	-.351	-2.591	-.230	-.849
Possibilities for development	.000	100.000	-.820	-6.056	.499	1.843
Variation at work	12.500	100.000	-.239	-1.767	-.270	-.997
Role clarity	.000	100.000	-.651	-4.808	.143	.530
Control over work time	.000	100.000	.320	2.359	-.645	-2.381
Quantitative demands	.000	100.000	-.185	-1.369	-.332	-1.226
Work pace	12.500	100.000	-.304	-2.242	-.479	-1.767
Emotional demands	.000	100.000	-.179	-1.321	-.453	-1.674
Role conflicts	.000	100.000	.075	.552	-.709	-2.618
Work life conflicts	.000	100.000	.155	1.145	-1.063	-3.923
Meaning of work	.000	100.000	-.828	-6.115	.407	1.503
Positive affect	9.000	25.000	-.311	-2.299	.268	.988
Negative affect	6.000	22.000	.221	1.633	-.441	-1.630
Life satisfaction	6.000	35.000	-.586	-4.324	-.181	-.668
Job satisfaction	.000	100.000	-.413	-3.048	-.046	-.171
Planning	.000	6.000	-.214	-1.581	-.893	-3.295
Active coping	.000	6.000	-.066	-.487	-.750	-2.767
Positive reframing	.000	6.000	.046	.337	-.625	-2.308
Instrumental support	.000	6.000	.220	1.622	-.795	-2.936
Emotional support	.000	6.000	-.063	-.464	-.747	-2.758
Acceptance	.000	6.000	-.074	-.548	-.549	-2.026
Religion	.000	6.000	1.532	11.312	1.667	6.155
Humour	.000	6.000	.611	4.513	-.719	-2.655
Self blame	.000	6.000	.120	.883	-1.150	-4.246
Venting	.000	6.000	.485	3.582	.152	.560
Denial	.000	6.000	2.384	17.600	6.441	23.775
Self distraction	.000	6.000	.133	.985	-.634	-2.340
Substance use	.000	6.000	1.462	10.793	1.004	3.706
Behavioural disengagement	.000	6.000	1.490	11.001	1.955	7.218
Multivariate normality					93.407	14.570

Appendix P

CFA results for hypothesised models

Figure P1

Standardised estimates for confirmatory factor analysis of hypothesised model for occupational demands and resources

Note. QD = Quantitative demands; WP = Work pace; ED = Emotional demands; CO = Role conflicts; WF = Work life conflict; IW = Insecurity of working conditions; JI = Job insecurity; IN = Influence at work; PD = Possibilities for development; VA = Variation at work; CL = Role clarity; CT = Control over work time; SC = Social support from colleagues; SW = Sense of community at work; RE = Recognition; PR = Predictability; JU = Organisational justice; TM = Vertical trust; QL = Quality of leadership; SS = Social support from supervisor.

Table P1

Unstandardised regression weights for confirmatory factor analysis of hypothesised model for occupational demands and resources

Variable	Factor B (*SE* B)				
	Occupational demands	Occupational insecurity	Task resources	Interpersonal resources	Leadership resources
Quantitative demands	0.59 (0.17)				
Work pace	0.95 (0.22)				
Emotional demands	0.94 (0.18)				
Role conflict	1.00 –				
Work life conflict	1.13 (0.20)				
Insecurity over working conditions		1.27 (0.64)			
Job insecurity		1.00 –			
Influence at work			1.00 –		
Possibilities for development			0.79 (0.11)		
Variation at work			0.51 (0.10)		
Role clarity			0.82 (0.17)		
Control over working time			0.83 (0.11)		
Social support from colleagues				1.00 –	
Sense of community at work				0.87 (0.26)	
Quality of leadership					0.62 (0.10)
Social support from supervisor					0.47 (0.11)
Recognition					1.00 –
Predictability					0.58 (0.06)
Organisational justice					0.71 (0.06)
Vertical trust					0.75 (0.05)

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error.

Figure P2

Standardised estimates for confirmatory factor analysis of hypothesised model for personal demands and resources
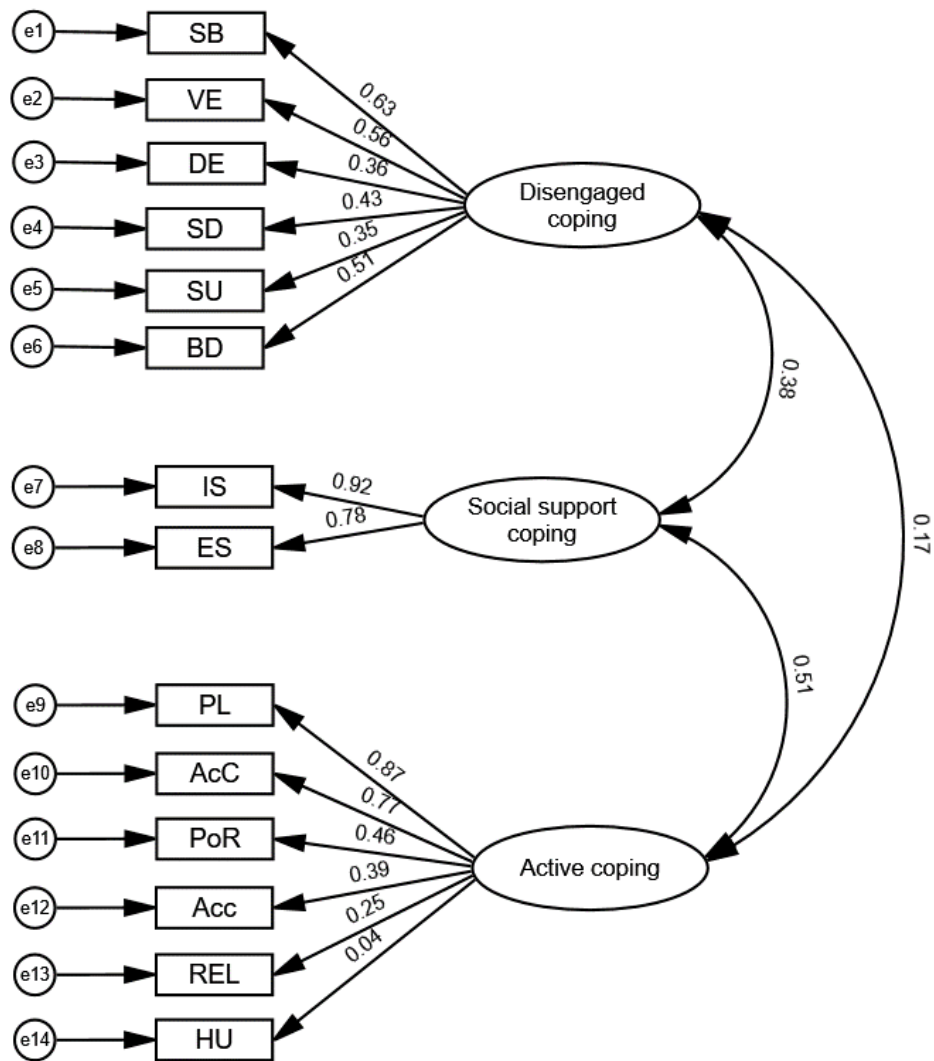
Note. BD = Behavioural disengagement; SU = Substance use; SD = Self distraction; DE = Denial; VE = Venting; SB = Self blame; PL = Planning; AcC = Active coping; PoR = Positive reframing; IS = Instrumental support; ES = Emotional support; Acc = Acceptance; REL = Religion; HU = Humour.

Table P2

Unstandardised regression weights for confirmatory factor analysis of hypothesised model for personal demands and resources

Variable	Factor B (*SE* B)					
	Disengaged coping		Social support coping		Active coping	
Self blame	1.93	(0.36)				
Venting	1.23	(0.47)				
Denial	0.56	(0.12)				
Self distraction	1.10	(0.38)				
Substance use	0.96	(0.24)				
Behavioural disengagement	1.00	–				
Instrumental support			1.24	(0.13)		
Emotional support			1.00	–		
Planning					1.00	–
Active coping					0.82	(0.06)
Positive reframing					0.47	(0.07)
Acceptance					0.40	(0.06)
Religion					0.25	(0.06)
Humour					0.06	(0.09)

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error.

Figure P3

Standardised estimates for confirmatory factor analysis of hypothesised model for hedonic well-being and eudaimonic well-being
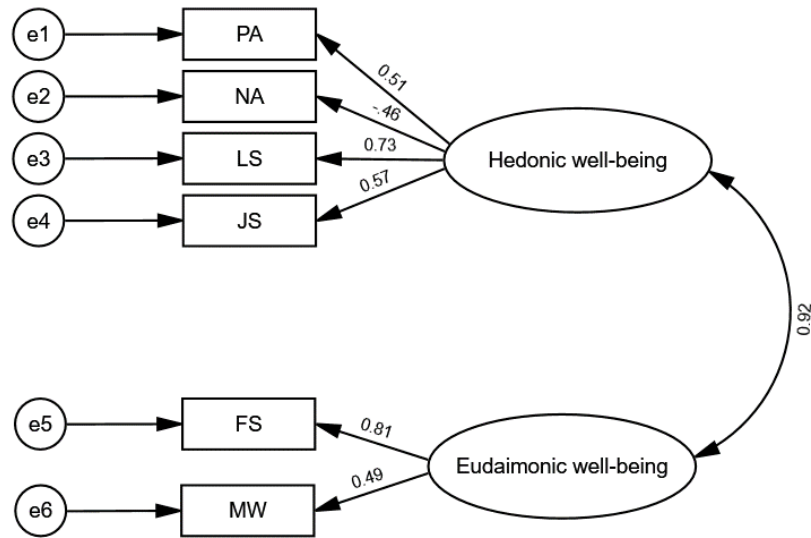
Note. PA = Positive affect; NA = Negative affect; LS = Life satisfaction; JS = Job satisfaction; FS = Flourishing; MW = Meaning of work.

Table P3

Unstandardised regression weights for confirmatory factor analysis of hypothesised model for hedonic well-being and eudaimonic well-being

Variable	Factor B (*SE* B)			
	Hedonic well-being		**Eudaimonic well-being**	
Positive affect	0.13	(0.03)		
Negative affect	-0.13	(0.03)		
Life satisfaction	0.40	(0.05)		
Job satisfaction	1.00	–		
Flourishing			1.00	–
Meaning of work			2.13	(0.38)

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error.

Table P4

Unstandardised regression weights for structural model of occupational stress

Variable	Hedonic well-being		Perceived stress	
	B (*SE* B)			
Occupational demands	-0.02	(0.53)	0.05	(0.02)
Occupational insecurity	-0.15	(0.44)	-0.01	(0.02)
Task resources	0.43	(1.09)	-0.03	(0.05)
Interpersonal resources	0.16	(0.12)	0.00	(0.01)
Leadership resources	-0.06	(0.58)	0.02	(0.03)
Disengaged coping	-7.78	(2.11)	0.26	(0.08)
Social support coping	1.74	(1.28)	-0.03	(0.07)
Active coping	0.42	(0.72)	-0.04	(0.04)
Perceived stress	-0.57	(2.88)	–	–

Note. B = Unstandardised regression weight. *SE* B = Bootstrap standard error.

Appendix Q

Sample covariance matrix

Table Q1: Sample covariance matrix

	q50	q27	q28	q16	q154	q84	q83	q88	q80	q87	q90	q92	q86	q81	q79	q82
q50	0.87															
q27	0.04	7.73														
q28	1.31	-1.57	10.59													
q16	-1.26	5.63	-8.16	39.05												
q154	-2.12	13.32	-13.91	59.78	405.41											
q84	0.19	0.15	1.39	-0.26	1.31	3.21										
q83	0.18	0.28	1.19	0.60	1.96	2.20	2.93									
q88	0.06	0.70	0.67	-0.44	-2.45	1.34	0.94	3.04								
q80	0.12	0.60	0.67	0.64	0.26	1.01	0.76	1.91	2.64							
q87	0.03	0.49	0.02	1.42	1.66	0.55	0.54	1.02	0.87	2.44						
q90	-0.06	0.46	-0.47	0.17	4.16	0.43	0.28	0.89	0.66	0.83	2.29					
q92	0.64	-0.89	3.15	-3.64	-5.69	0.62	0.76	0.44	0.13	0.16	-0.08	3.66				
q86	0.17	-0.36	1.65	-1.39	-5.21	0.94	0.80	0.55	0.48	0.28	0.26	0.80	1.91			
q81	0.07	-0.03	0.65	-1.20	0.46	0.12	0.16	0.07	0.06	-0.01	-0.06	0.41	0.19	0.95		
q79	0.16	-0.72	1.45	-2.21	-5.39	0.62	0.41	0.36	0.29	0.34	0.28	0.84	0.64	0.12	2.57	
q82	0.41	0.24	1.59	-2.33	-0.24	0.01	0.13	-0.29	-0.08	0.06	0.04	0.78	0.42	0.32	0.43	2.95
q150	2.03	6.32	-4.02	30.64	152.81	6.92	6.86	0.66	1.47	5.48	3.93	1.49	2.02	-0.44	2.71	3.54
q151	-1.54	8.03	-12.36	29.17	106.56	-1.97	-1.60	-0.09	-1.99	3.64	4.69	-0.68	-2.64	0.26	-0.69	0.39
q148	0.50	2.52	3.11	28.24	188.71	10.59	5.22	3.51	5.75	6.72	4.49	8.95	1.53	3.77	2.32	0.07
q145	-1.23	12.38	-10.24	38.42	279.97	5.18	3.09	0.11	1.78	1.08	5.24	-0.42	0.07	-0.74	-4.07	0.76
q144	-0.54	6.16	-0.19	30.19	169.75	-0.11	-0.17	-1.72	0.59	0.26	1.52	-3.45	-0.71	0.38	-3.96	-2.24
q157	-0.22	2.78	-4.10	18.38	147.25	2.08	0.96	1.19	2.15	-0.71	2.84	3.34	-0.64	0.32	-3.48	-0.72
q156	-0.55	4.25	-3.71	19.82	166.69	2.85	1.23	-0.29	1.56	0.41	4.13	2.11	-1.18	-0.67	-0.80	-1.63
q153	4.24	-8.68	17.85	-19.92	-128.79	1.84	0.91	4.02	3.01	2.21	-0.72	9.64	6.29	3.03	5.35	1.53
q152	2.94	-14.34	14.70	-53.53	-272.77	4.07	4.52	4.17	-2.40	-0.80	-1.06	11.38	6.48	0.26	10.78	1.95
q139	-0.69	9.87	-2.88	22.65	170.82	5.42	4.43	6.06	6.03	4.80	4.50	1.67	0.34	0.99	-0.58	0.34
q140	0.47	14.21	-0.93	22.36	152.32	4.80	4.65	2.75	1.60	3.66	4.73	1.53	0.45	0.09	-1.47	0.44
q141	-1.51	8.82	-8.82	25.56	82.89	2.53	5.04	1.26	0.82	2.38	0.66	-1.89	1.45	-2.61	-1.08	0.02
q146	-0.10	13.89	-6.12	24.88	138.06	2.86	1.69	0.54	0.37	-0.12	2.64	-3.04	-1.38	-1.60	-0.47	-3.71
q137	4.93	12.70	3.53	-0.08	4.79	3.12	5.29	5.83	2.34	1.16	-0.20	1.29	3.09	0.43	1.42	3.37
q138	5.76	7.90	14.95	-12.71	3.94	5.23	6.58	5.57	4.23	1.33	0.90	7.15	2.92	1.44	1.13	4.86
q147	3.78	0.93	7.13	-11.76	-83.23	0.85	0.37	5.85	5.86	2.85	1.28	2.22	4.73	0.81	3.82	4.43
q155	12.97	-9.61	27.78	-54.27	-141.72	-0.32	2.48	-3.77	-2.48	-1.10	-5.94	12.83	4.58	1.17	4.11	8.23

	q150	q151	q148	q145	q144	q157	q156	q153	q152	q139	q140	q141	q146	q137	q138	q147	q155
q150	632.60																
q151	290.98	429.61															
q148	210.35	170.30	1062.15														
q145	185.84	150.96	282.28	785.37													
q144	60.33	75.09	208.97	300.66	475.55												
q157	101.05	94.48	252.93	352.44	234.40	515.54											
q156	110.58	114.02	227.74	398.46	211.54	307.05	459.16										
q153	-47.50	-49.82	56.69	-116.91	-74.91	-48.97	-55.13	492.02									
q152	-54.36	-37.28	-39.81	-126.67	-164.23	-58.58	-78.86	242.18	1020.75								
q139	89.50	65.20	133.23	327.50	203.59	181.51	214.38	-41.43	-160.70	569.56							
q140	103.54	77.21	92.14	240.58	116.57	142.91	165.50	-73.97	-71.74	189.10	370.34						
q141	76.27	79.46	20.06	154.90	51.20	59.10	101.03	-105.77	-9.06	102.05	108.97	339.86					
q146	133.09	126.66	160.59	292.19	194.21	152.48	186.16	-127.30	-41.63	119.09	140.22	115.32	547.24				
q137	15.58	28.35	37.49	18.87	-16.63	-30.77	11.94	80.22	38.88	44.04	54.59	2.72	28.84	444.29			
q138	16.06	-30.24	60.76	-32.48	-36.22	-52.75	-33.41	94.82	39.43	36.97	32.98	-27.61	-15.98	189.59	426.64		
q147	1.37	-41.08	-79.02	-157.27	-127.87	-167.62	-128.99	126.31	77.03	15.81	-24.72	-58.82	-127.30	139.97	175.52	591.03	
q155	-16.04	-82.18	-1.76	-150.79	-73.25	-131.11	-128.52	164.93	97.05	-54.85	-77.83	-125.69	-145.36	197.32	202.20	218.11	983.48

Note. q137 = WP; q138 = ED; q139 = IN; q140 = PD; q141 = VA; q144 = PR; q145 = RE; q146 = CL; q147 = CO; q148 = QL; q150 = SC; q151 = SW; q152 = JI; q153 = IW; q154 = JS; q155 = WF; q156 = TM; q157 = JU; q16 = LS; q27 = PA; q28 = NA; q50 = Perceived stress; q79 = SD; q80 = AcC; q81 = DE; q82 = SU; q83 = ES; q84 = IS; q86 = VE; q87 = PoR; q88 = PL; q90 = Acc; q92 = SB.

Appendix R

Interview Guide

I am interested in the day-to-day working environment of musicians. I would like you to reflect back to the time before COVID-19 and keep this in mind as we talk. I recognise a lot has changed for us all and your current situation may be very different.

1. What type of work do you do?

   OR Tell me about your studies?

2. What were the day to day demands you experienced?

Some parts of your job may be challenging whilst also providing opportunities for growth and development. Other aspects of your job may be more demanding and might have negative or distressing outcomes for you or those around you.

Negative Demand Experience

1. Did you experience any aspects of your career experience as very demanding?

   OR Did you experience any aspects of your career experience as very demanding?

2. Can you give me a specific example of a *relatively recent* (pre-COVID-19) situation that was very demanding? (One that might have had a more negative out or been more distressing)

3. Considering that situation, what were your thoughts about it at the time?

4. Thinking about that situation, how did feel you at the time?

5. What did you do to cope with that situation?

6. What was the outcome of that situation?

Positive Demand Experience

7. Were there any aspects of your job that created opportunities for you to develop or grow?

   OR Were there any aspects of your studies that created opportunities for you to develop or grow?

8. Can you give me a specific example of a *relatively recent* (pre-COVID-19) situation that was challenging but also provided you with an opportunity to develop?

9. Considering that situation, what were your thoughts about it at the time?

10. Thinking about that situation, how did feel you at the time?

11. What did you do to cope with that situation?

12. What was the outcome of that situation?

Support

13. Do you know of any help or support that is available to musicians to help them cope?

14. Is there any help or support that you would like to be available to musicians?

15. Is there anything else you'd like to discuss today?

Appendix S

Musicians' Well-being Interview Invitation

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please read the following information carefully.

Background and Aims of the Research

This project is part of an ongoing doctoral programme which explores stress and well-being of musicians. An initial review found that musicians are exposed to a wide range of occupational stressors, which may affect their well-being. The aim of the next part of the research is to find out about musicians' experience of stress, coping and well-being.

This information may help conservatoires and orchestras to provide a healthy environment for students and musicians. The results may also apply to people working in other occupations. The data will be presented as part of a PhD submission for a doctoral thesis. Where appropriate, the results may be presented at academic conferences and published in peer-reviewed academic journals.

Why you have been asked to participate?

We are asking people who participated in the Musicians' Well-being Survey to take part in this follow-up study. You can participate if you are currently a professional classical musician or a student at a Conservatoire. It is *entirely voluntary* – there is no obligation of any kind to join the study and your employer or conservatoire will not discriminate against anyone who does not want to participate.

What will you be asked to do?

The study involves an interview with a researcher (Simone Willis). The interview will consist of questions around the themes of workplace stress, coping and well-being. We are interested in hearing your opinions – there are no right or wrong answers. The interviews are expected to last between 60-90 minutes and will be arranged at a time and location that is convenient for you. The interviews may take place over a video conferencing platform (e.g., Microsoft Teams, Zoom) and only audio data will be recorded. You will also be asked to read and sign a consent form before the interview.

What will happen to the data that is collected?

Each interview will be audio recorded and transcribed. In order to ensure confidentiality, pseudonyms will be given to participants during the transcription process. All data and analysis will be stored on a password-protected, encrypted system and will be managed in line with General Data Protection Regulation 2018. Only members of the research team (Simone Willis, Dr David Wasley, Dr Mikel Mellick and Dr Rich Neil) from Cardiff Metropolitan University will have access to the raw data, which will be stored for a maximum of 24 months (duration of the study). After this, only anonymised transcripts will be used.

How will my data be protected?

The information you provide is confidential to the research team (Simone Willis, Dr David Wasley, Dr Mikel Mellick, and Dr Rich Neil) and the professional transcription service. Given the small number of people involved in the study and the relation of the topic to the workplace, absolute confidentiality cannot be guaranteed. The anonymised transcript data will be held on a secure encrypted database on the university digital storage system for 10 years after publication, which is a requirement of the University. After this time, the data will be destroyed. This study has been reviewed by the Cardiff Metropolitan University ethics committee prior to publication.

Are there any benefits or risks?

Taking part in this research study will give you the opportunity to reflect on how you engage with your workplace environment. The study may help improve the working environment for professional musicians and students at conservatoires. When the study is complete and we publish the results, we can let you know what we found.

If you experience any concerns or distress, you may stop the interview process at any time. We will respect your decision and there are no penalties for stopping. You are able to find support and advice through a number of UK-based organisations listed at the bottom of this information sheet.

What happens if you want to change your mind?

You are able to withdraw from this research project by completing the Participant Withdrawal From, which is enclosed with this information sheet. Should you wish to withdraw during data collection, the interviewer will help you through this process. Should you wish to withdraw your data after the interview has taken place, please contact the lead researcher (Simone Willis) using the contact details below. Please note, that the timing of the withdrawal request will have implications for the removal of data from the research project. If you would like to withdraw from the study, please contact the School Research and Innovation Support Office at Cardiff Metropolitan University (cshsresoffice@cardiffmet.ac.uk).

How do I participate?

If you would like to take part in this research study, or you would like further information, please contact the PhD researcher, Simone Willis (siwillis@cardiffmet.ac.uk) or the supervisor Dr David Wasley (dwasley@cardiffmet.ac.uk).

If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, and wish to speak to an independent contact, please email our Research and Enterprise Officer, Susie Powell (spowell@cardiffmet.ac.uk).

<u>Where can I get further advice and support?</u>

If you require urgent help in an emergency, dial 999.

The Musicians' Union: www.musiciansunion.org.uk

Incorporated Society of Musicians: www.ism.org; membership@ism.org, 020 7221 3499

NHS Services or your GP: www.nhs.uk

NHS 111 (if you need help now, non-emergency services): 111.nhs.uk; 111

Mind: www.mind.org.uk; 0300 123 3393

The Samaritans: www.samaritans.org; jo@samaritans.org; 116 123

Help Musicians UK: www.helpmusicians.org.uk; info@helpmusicians.org.uk; 020 7329 9100

Music Minds Matter (a 24/7 national support line dedicated to the music community): www.musicmindsmatter.org.uk; mmm@helpmusicians.org.uk; 0808 802 8008

Appendix T

Conceptual maps of participant experiences
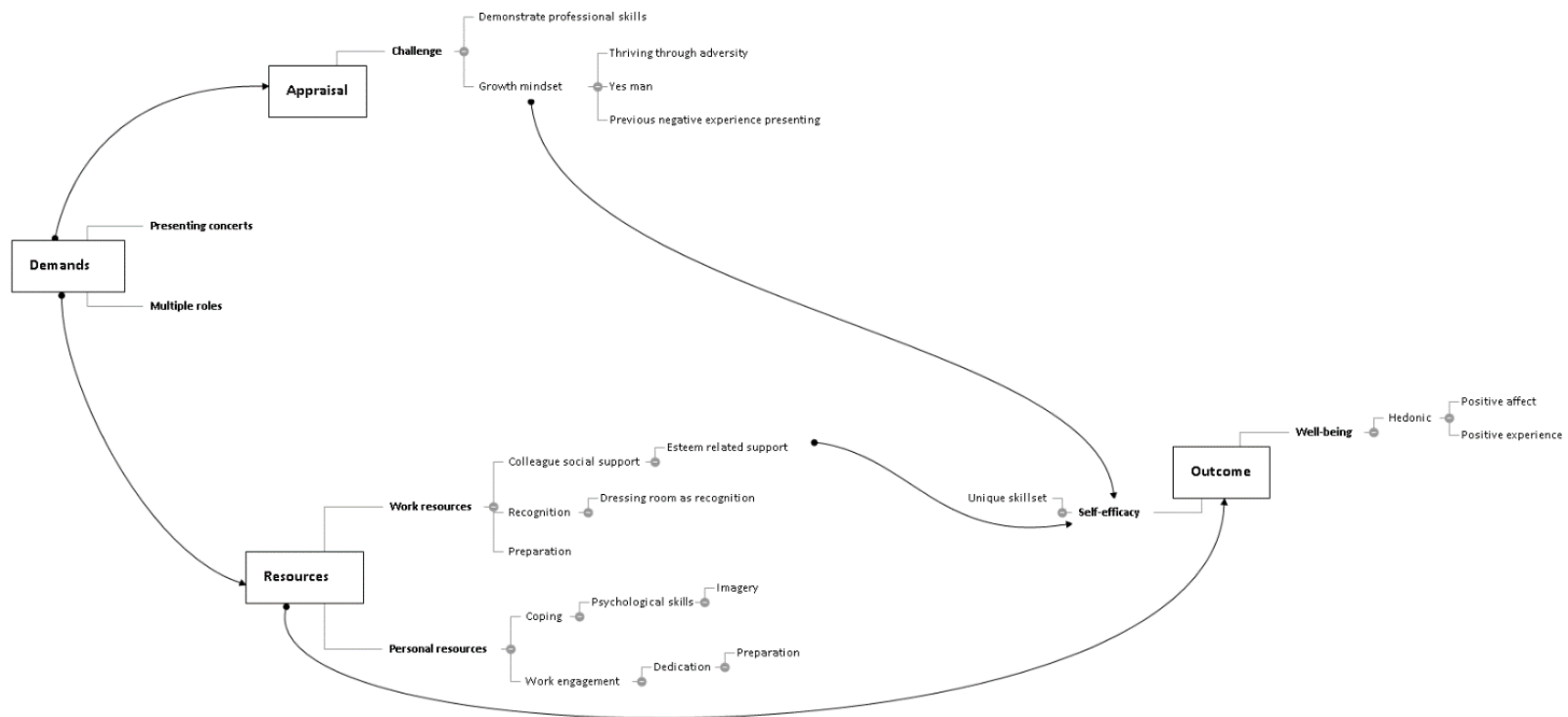
Figure T1

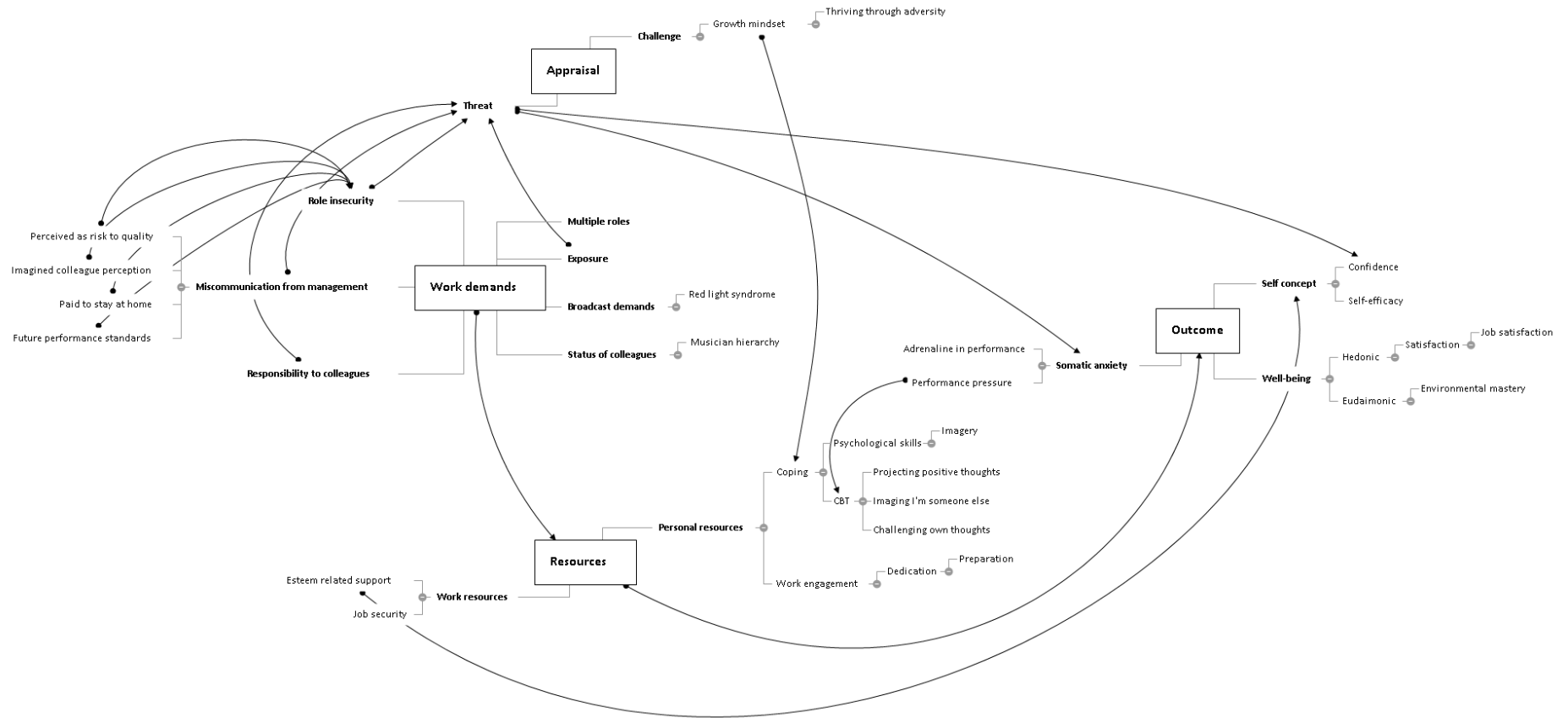*Adam's positive experience*

Figure T2

Adam's demanding experience

Figure T3

Ben's positive experience

Challenge

Growth mindset

Appraisal

Fear of failure

Threat

Wanted to get out of the situation

Audition demands

Organisation demands

Travel demands

Work demands

Building rapport

Demands

Subsequent performance with orchestra

Pressure to achieve major life goals · Personal demands

Feedback from audition

Enjoyment

Positive affect

Performance anxiety

Negative affect

Disappointment

Well-being

Hedonic

Emulating others in performance

Visualisation

Psychological skills

Breathing exercise

Simulating performance situation

Satisfaction

Personal satisfaction

Abstaining from coffee

Questioning performance standards · Self-efficacy

Advice from other musicians · Beta blockers

Outcome

Self-concept

Eating bananas

Comfortable in new environment

Invited to second round

Physical needs · Staying hydrated

Focus on positive performance

Coping

Rationalising thoughts

Minimising expectations

Acceptance

Keep going

Uncertainty of auditions

Move on

It's a job

Personal resources

Perspective

Auditions are misleading

Panel is on my side

Expectations of self

Resources

Taking orchestras perspective

Development opportunities

Work resources

Emotional support

Colleague social support

Building professional relationships

Preparing the music in advance

Listening to music

Preparation

Dedication

Practice

Work engagement

Familiar with audition repertoire
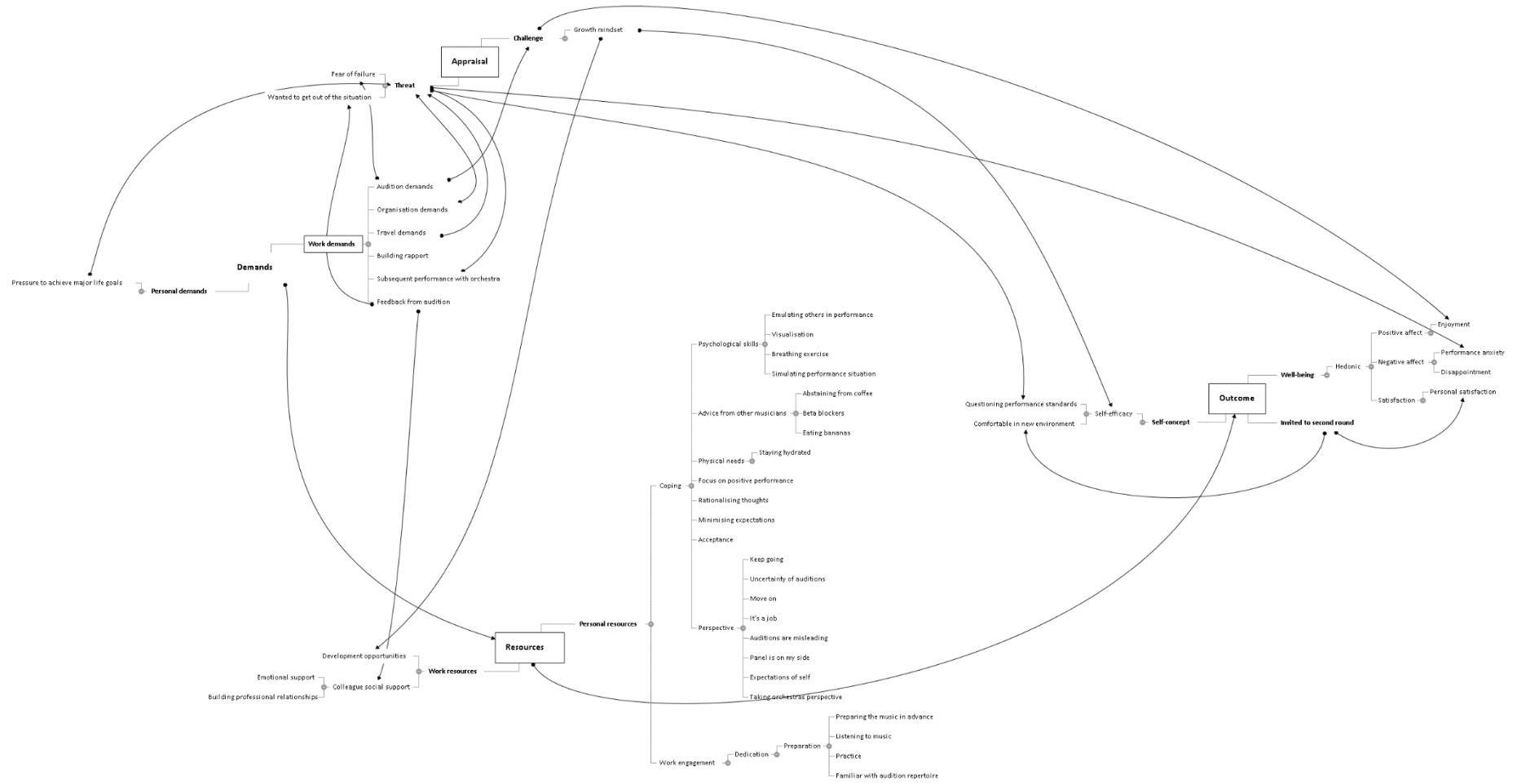
395

Figure T4

Ben's demanding experience
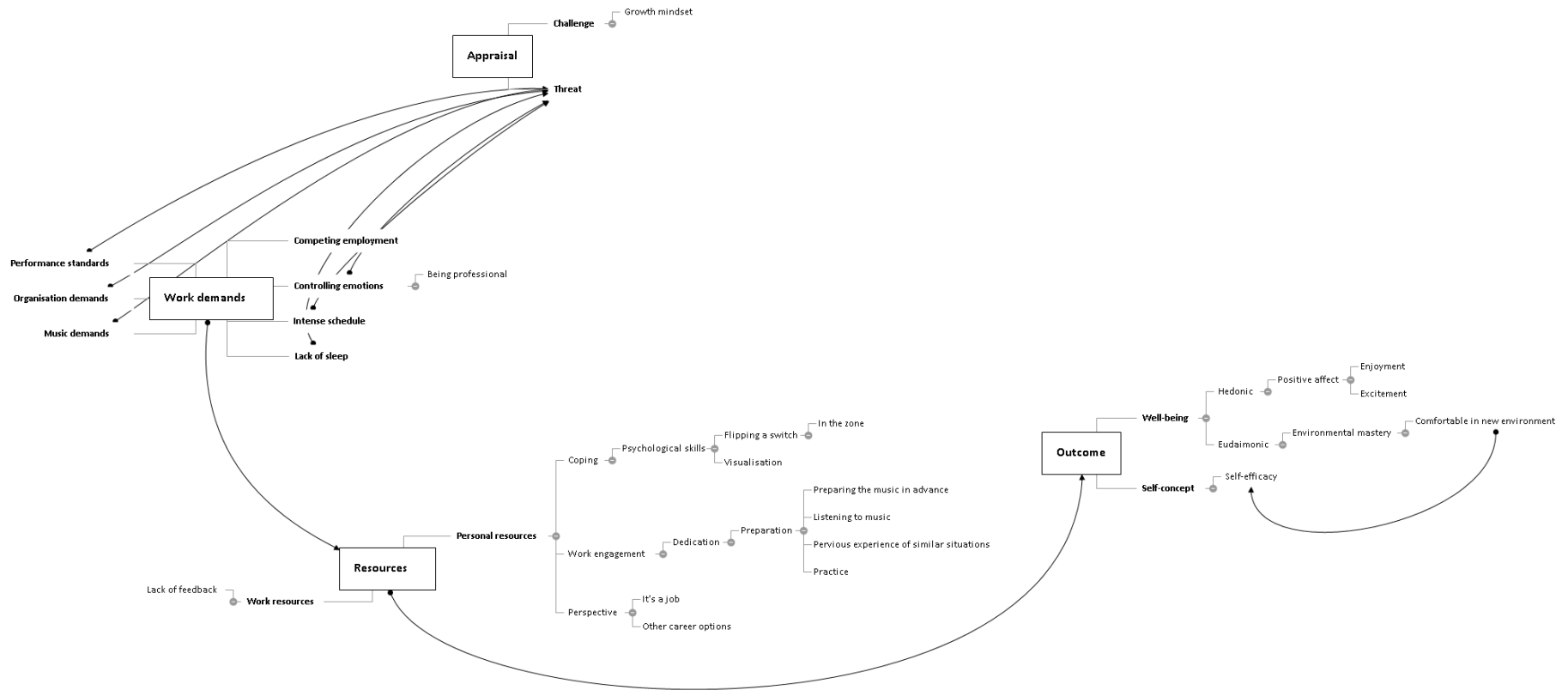
Figure T5

Charlotte's positive experience
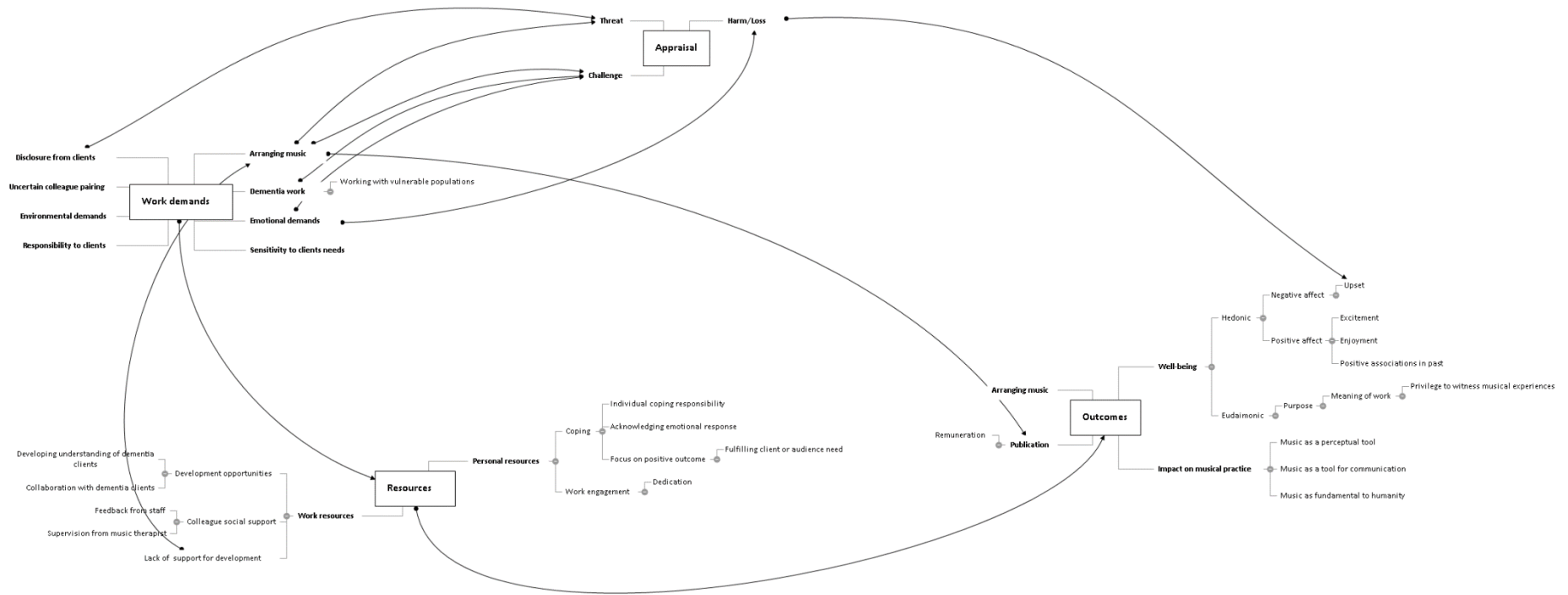
Figure T6

Charlotte's demanding experience

Harm/Loss

Appraisal

Threat

Responsibility to colleagues

Performance demand

Argument between colleagues

Unusual situation

Poor work conditions

Importance of performance

Work demands

Travel

Potential future interactions with colleague

Uncomfortable atmosphere

Follow-up communication

Upset

Anger

Negative affect

Disappointment

Let down by colleagues

Well-being

Hedonic

Outcomes

Somatic anxiety

Anxiety

Cognitive anxiety

Performance anxiety

Lifestyle choices

Physical activity

Breathing techniques

Coping

Limited personal coping resources

Empathy

Personal resources

Walk away from situation

Constructive follow-up approach

Emotional support

Colleague social support

Work resources

Resources

Preparation for being soloist

Dedication

Work engagement

Figure T7

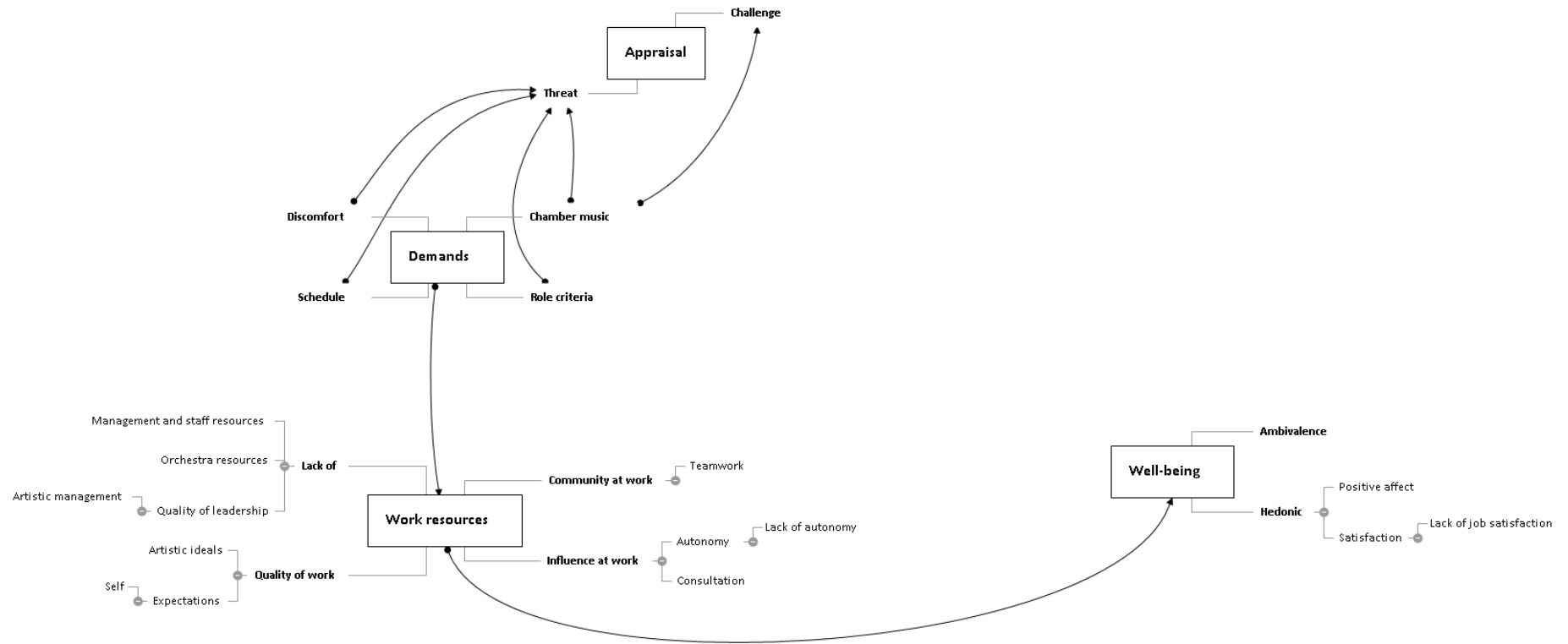*Daniel's positive experience*

Figure T8

Daniel's negative experience
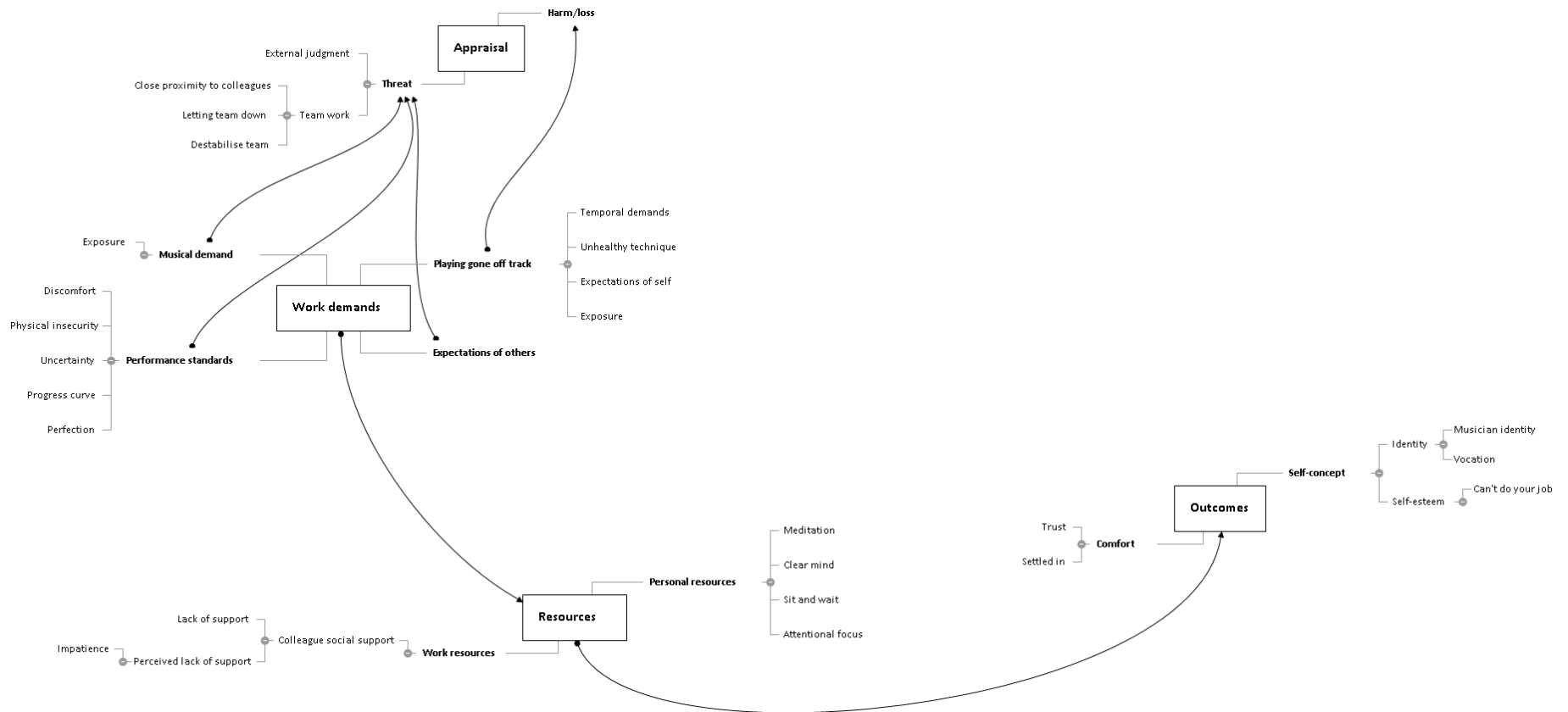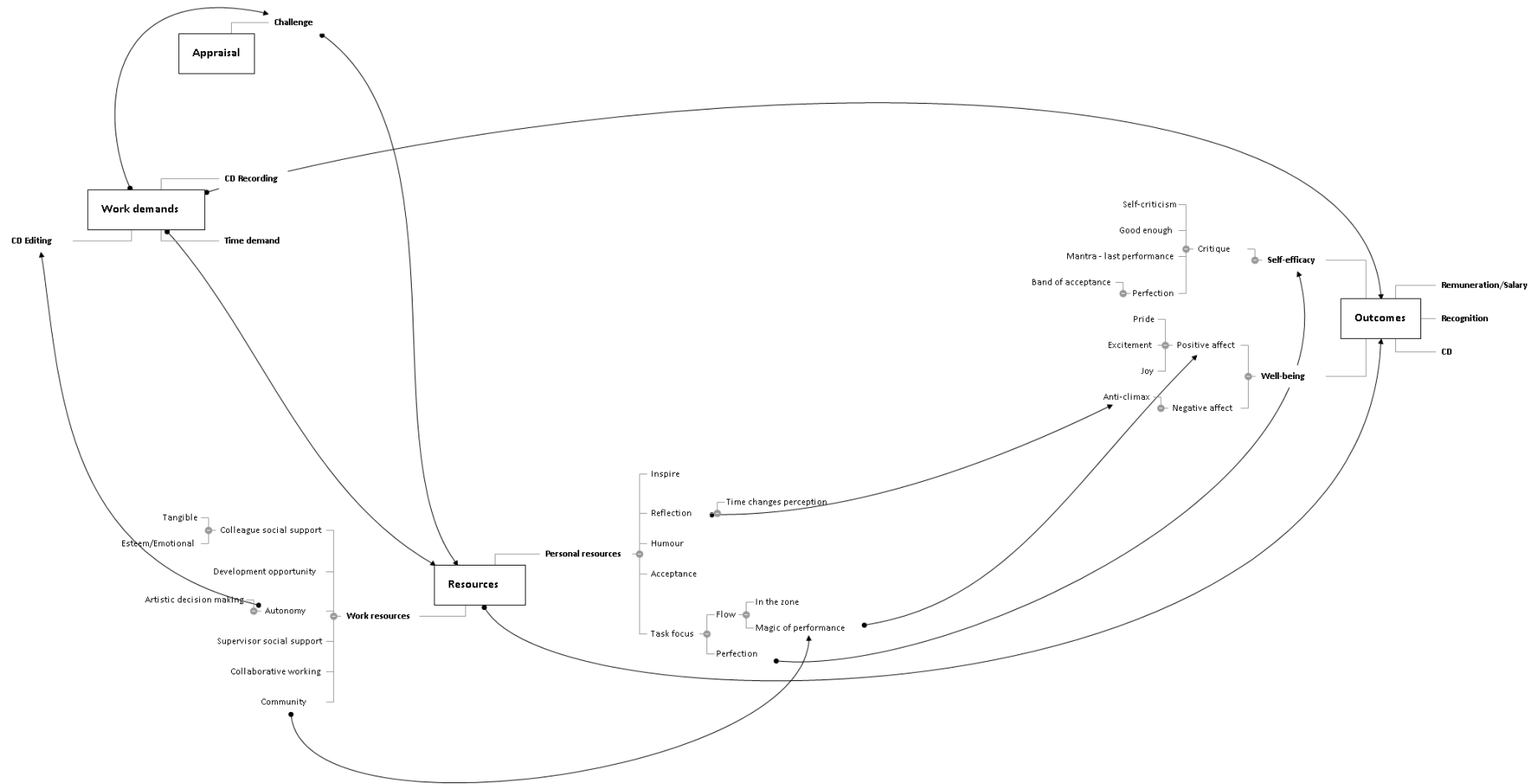
Figure T9

Eva's positive experience

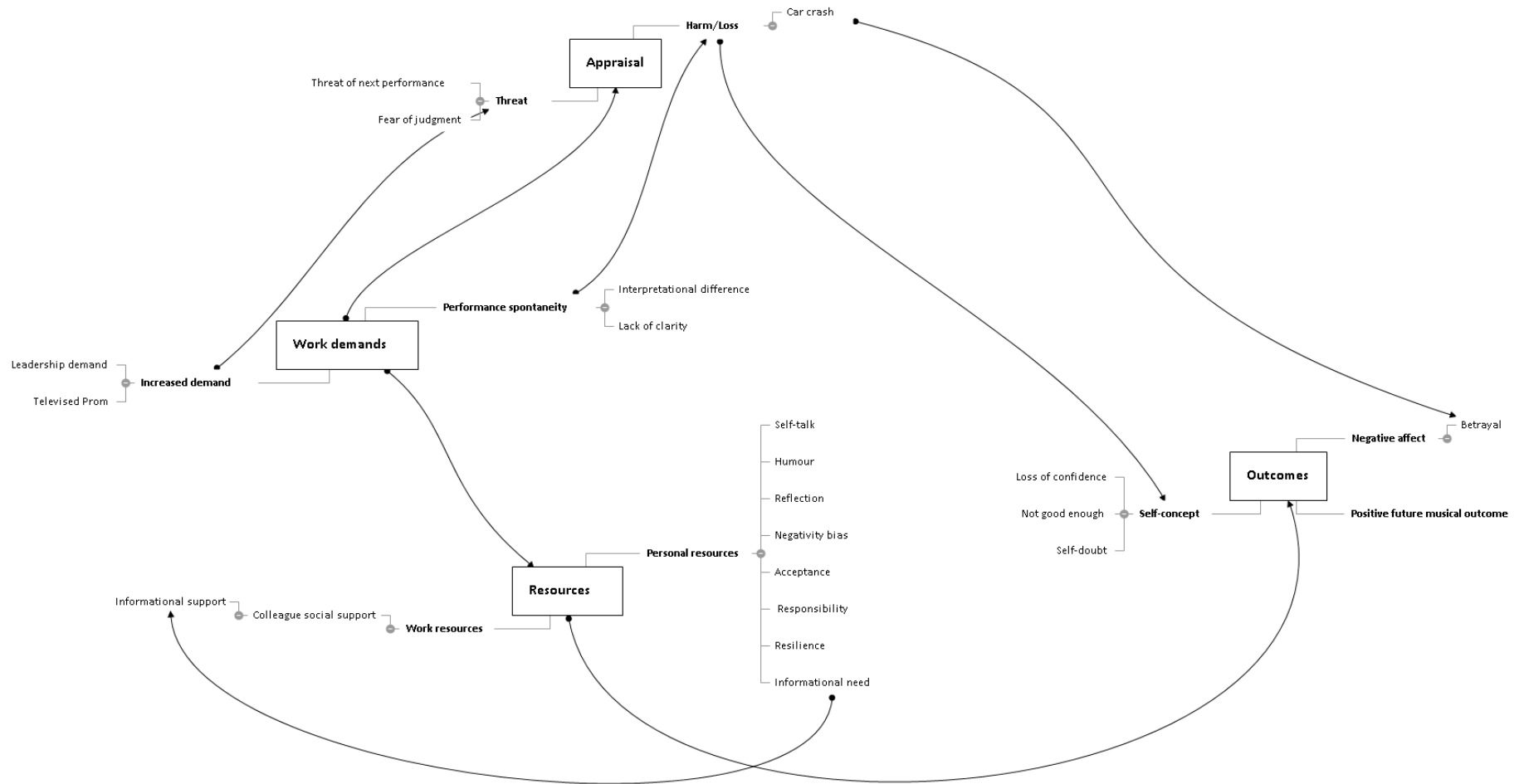**Figure T10**

Eva's demanding experience

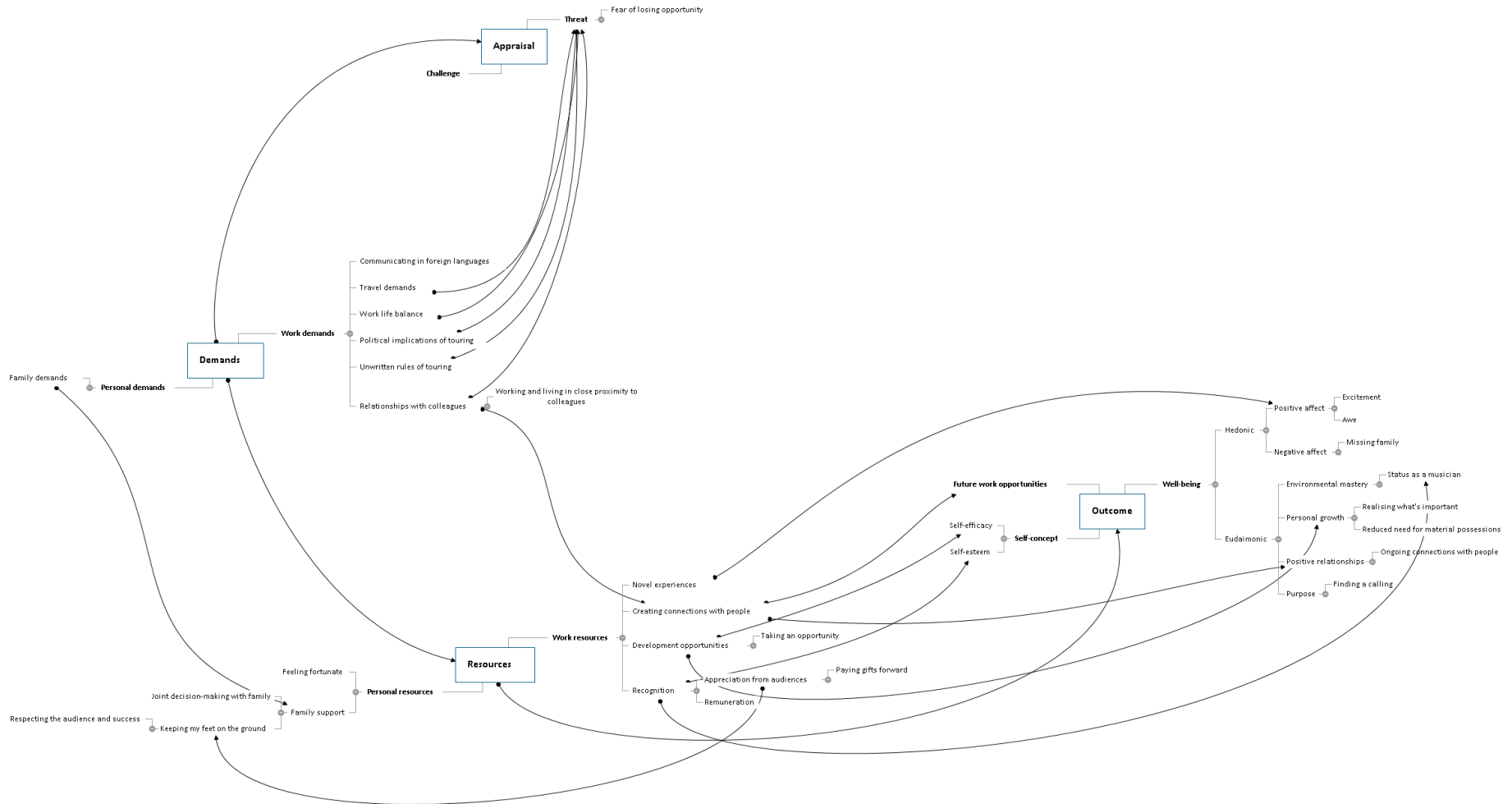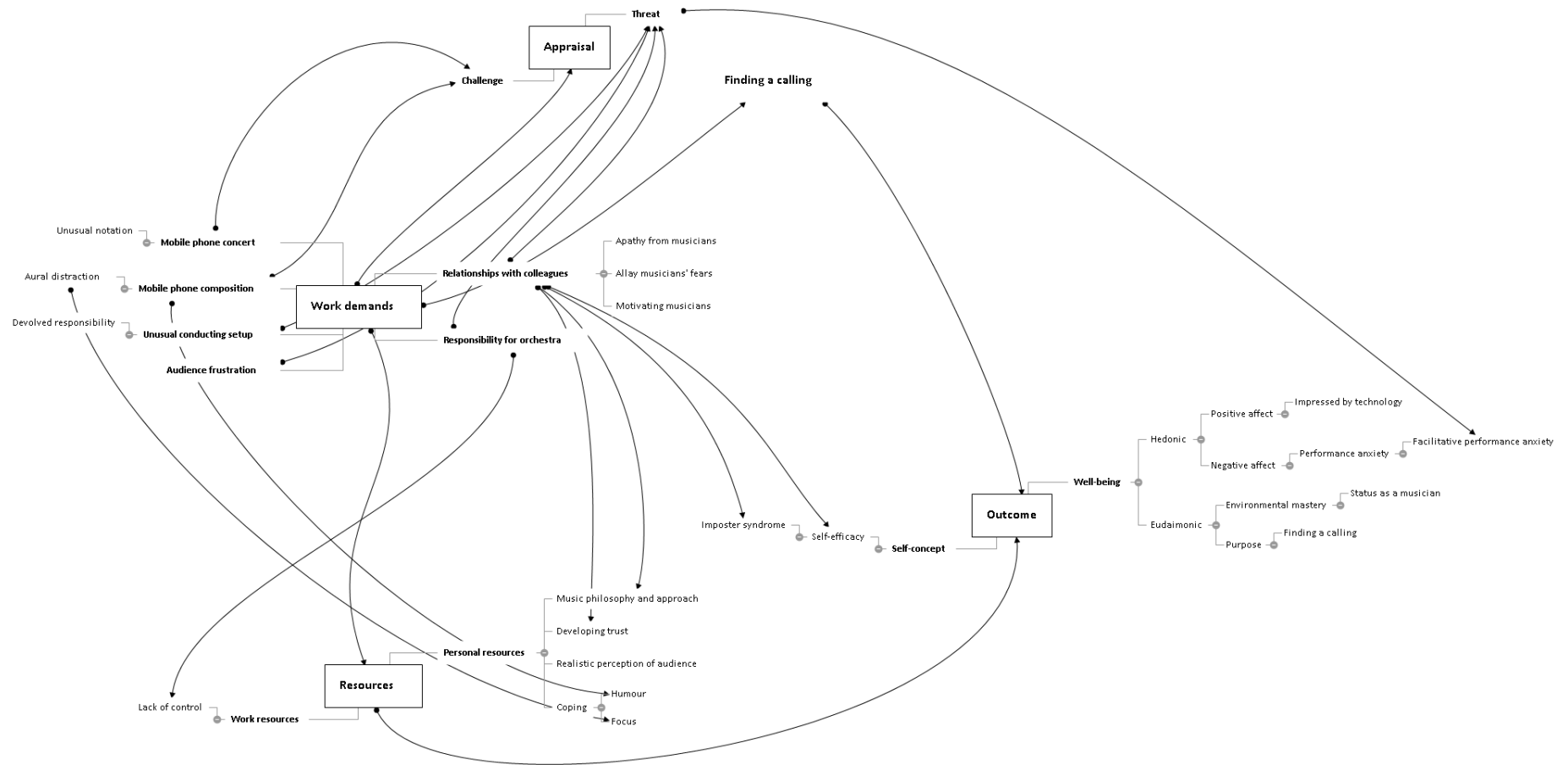**Figure T11**

Kieran's positive experience

Figure T12

Kieran's demanding experience

Mind maps of occupational demand themes and coping resources categories

Figure U1

Occupational demand themes for professional musicians
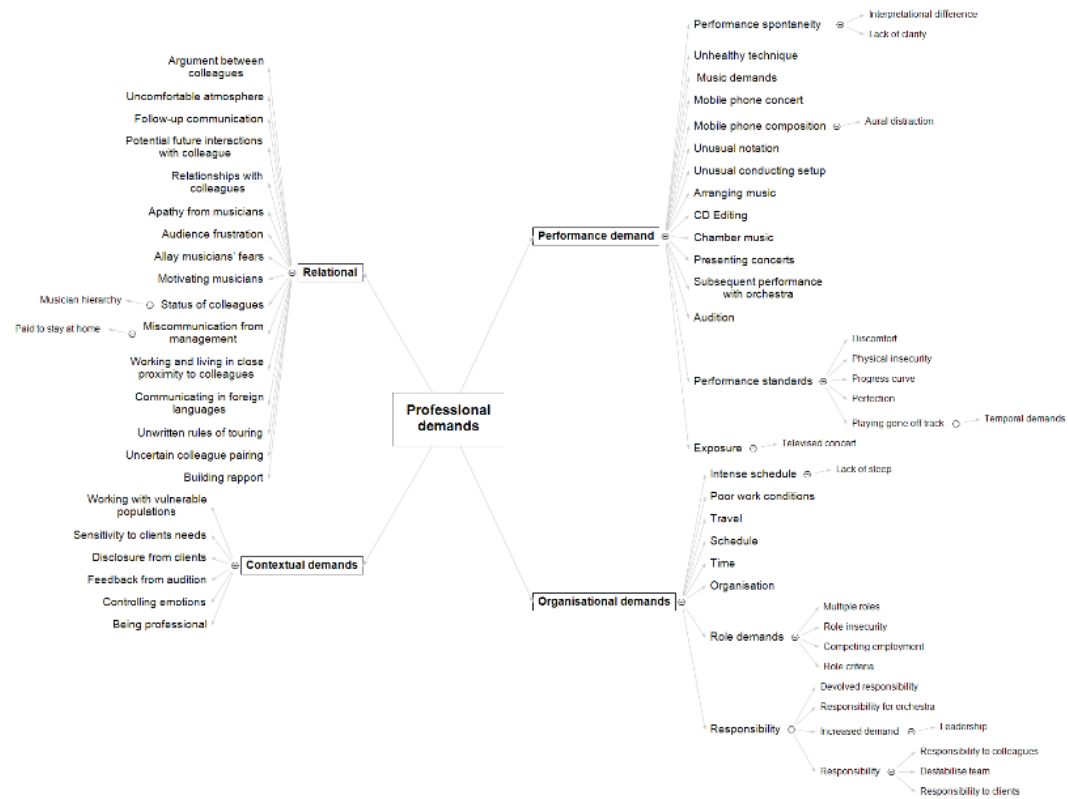
Figure U2
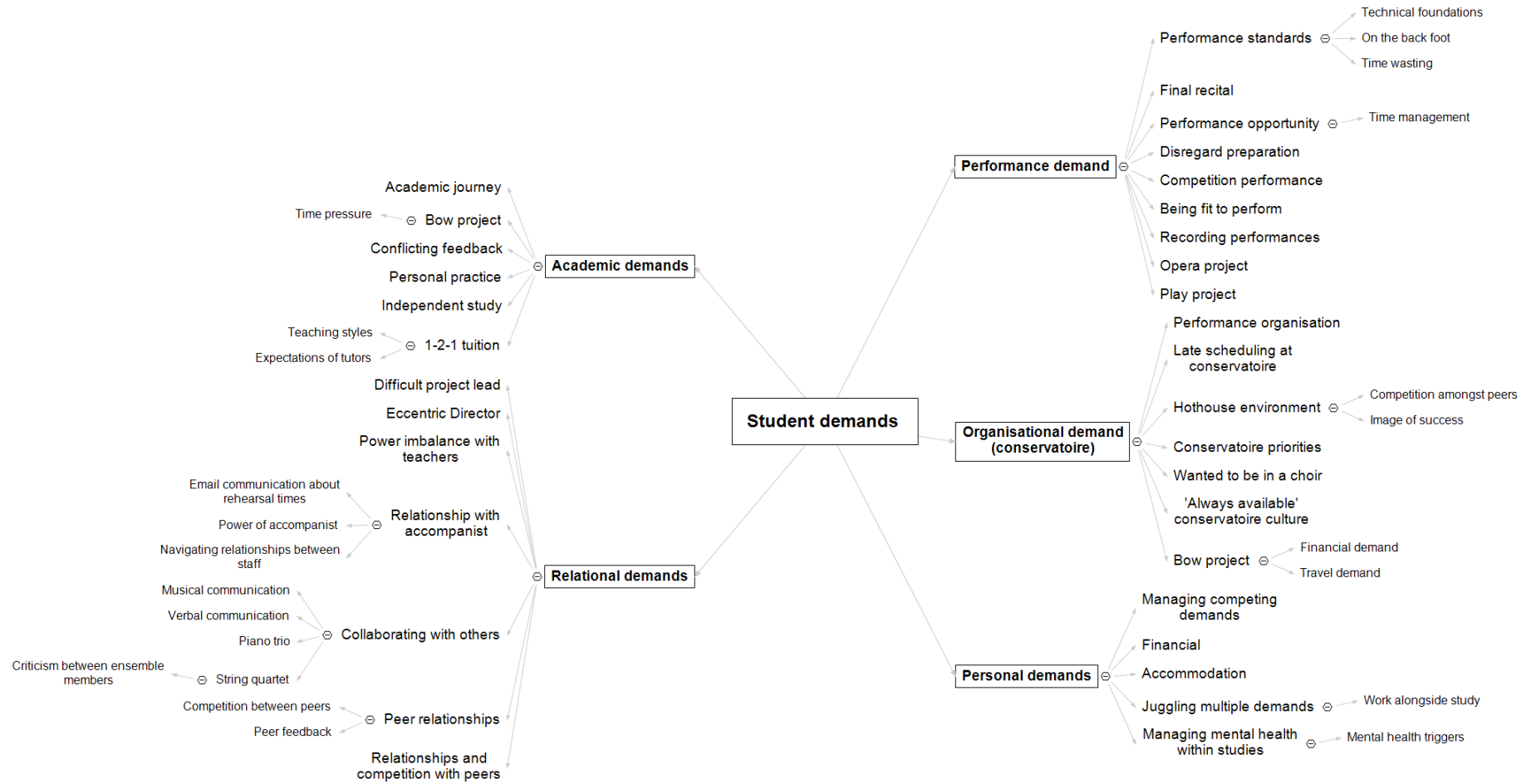
Occupational demand themes for student musicians

Figure U3

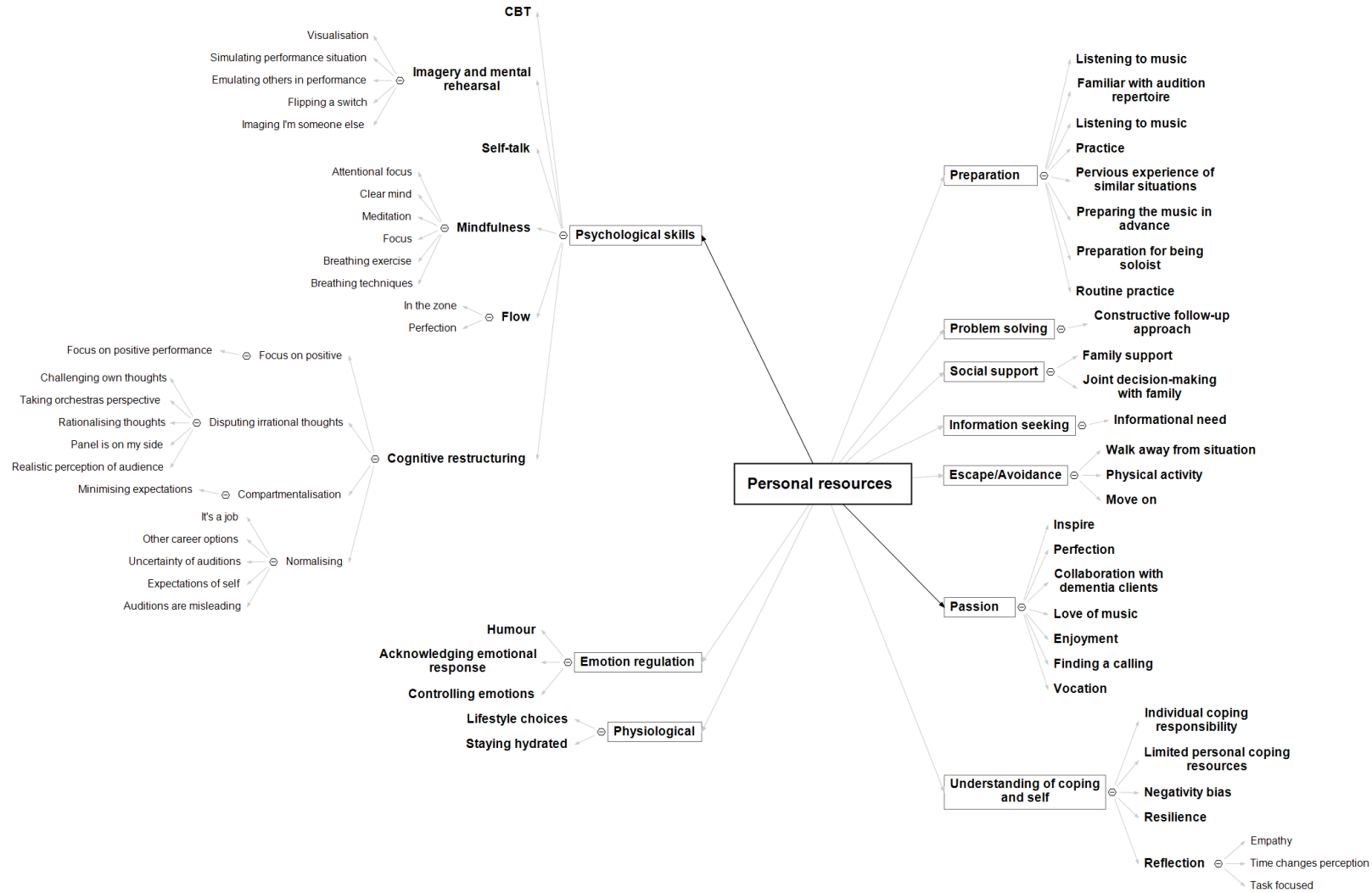*Personal resources for professional musicians*
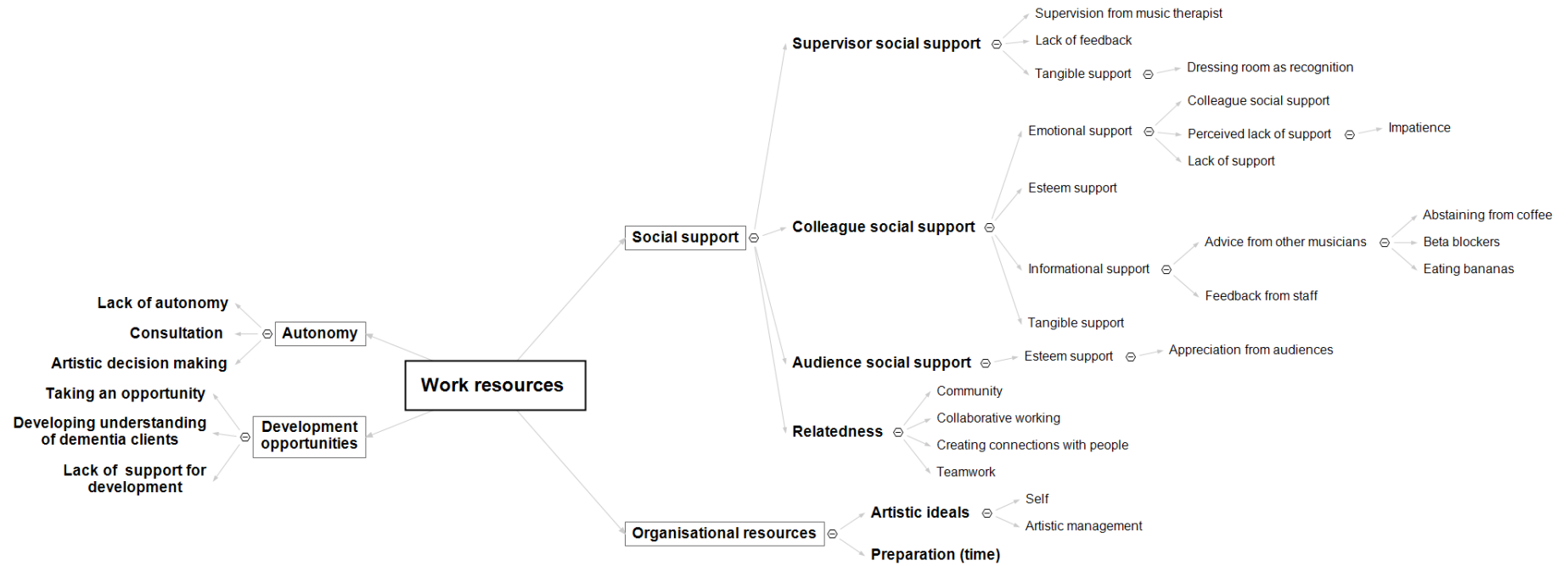
Figure U4

Occupational resources for professional musicians
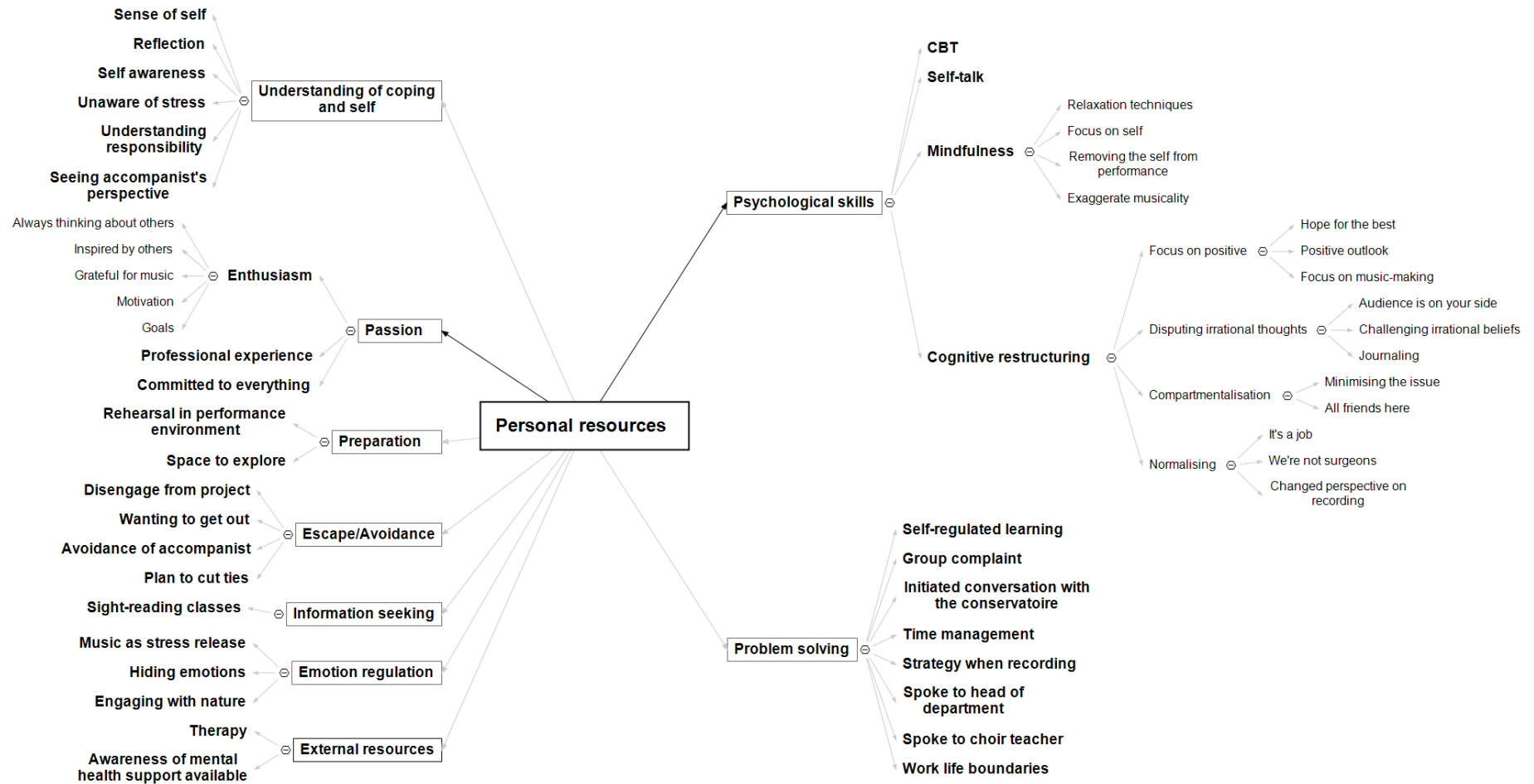
Figure U5

Personal resources for student musicians

Figure U6

Study resources for student musicians

Life coaching

Managing relationships with
conservatoire staff

Work opportunities and
professional development

⊖ Tangible support

⊖ **Teacher social support**

Emotional support

Emotional support

Open conversations with
colleagues

⊖ **Peer social support**

Mentor social support

⊖ **Other social support**

Social support

Assisting teacher

Teamwork

Shared experiences

Sharing performance energy

Camaraderie

Collaborative rehearsal
environment

Positive social relationships

Fitting in with peers (lack of
relatedness)

⊖ **Relatedness**

Creative ownership

⊖ **Autonomy**

Study resources

Development opportunity

Organisational resources

Bow project ⊖ Developed new skill

Career exploration

Competition opportunities

**Development of musical
abilities**

**Opportunity to be
involved in projects**

Networking

Counselling

Organisational policy

Mentor

Poor organisation

**Well organised rehearsal
schedule**

**Barriers to making
complaint** ⊖ Lack confidence in staff to
resolve issues

**Conservatoire counselling
experience** ⊖ Lack of follow up from HoD

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