**Title:** **Technology as a Mediator of Physical Activity Consumption Practices Among Disadvantaged Young Women**

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**Introduction**

The purpose of this research was to explore the decreased physical activity levels exhibited by individuals who are both female and residing in areas of social and economic disadvantage. More specifically, this paper describes the mediating role of technology as an anchor of practice for girls which could both facilitate or inhibit physical activity participation in different instances. Given the significant levels of inactivity in today’s society, it is crucial that providers both understand and utilise technology to maximise its potential as a facilitator of participation, whilst simultaneously limiting its force as an anchor of sedentary practice.

**Background Information**

Increased mechanisation of everyday tasks, as well as increasing opportunities for sedentary forms of leisure have contributed to a ‘pandemic’ of physical inactivity. Increasing physical activity levels has subsequently become a global health priority. Despite the increasing focus on promoting participation, statistics show that large portions of society are not sufficiently active, and this is more pronounced in certain groups including young women from disadvantaged areas, framed as the ‘double jeopardy’ (StreetGames, 2017). A large body of research has been conducted into the barriers to physical activity for both females and disadvantaged populations, along with intervention studies based upon those findings (Whitehead and Biddle, 2008; Collins and Kay, 2014). Interventions have frequently been based upon behaviour change models such as the Transtheoretical Model (TTM) (Prochaska and DiClemente, 1983) and ABC framework (Shove, 2010), where specific barriers are relieved in order to increase engagement. The success of such interventions, however, is at best partial (Camacho-Minano, LaVoi and Barr-Anderson, 2011). This research argues that the moderate success is due to the framing of change within the realm of static relationships between structures and agents. The limited focus on the interaction between the two has resulted in an over-emphasised model of agency which insufficiently accounts for the ‘social, affective, material and interrelational features of human activity’ (Cohn, 2014, p.159). To address this shortcoming and provide a more sophisticated account of the social world which can access the aforementioned aspects, this research adopted practice theory as its theoretical lens.

Practice theory seeks to bridge the gap between structure and agency by understanding social order as embedded in collective symbolic, cognitive and practical structures incorporated by individuals (King, 2004; Hopkins et al., 2020). It exists as a family of theories with shared concepts, all of which prioritise practice as the site, nexus and interface between the individual and the social, and consequently the unit of analysis when studying the social world. Practices are made up of several elements and the existence of any one practice depends on the co-existence and interconnectedness of these elements (Reckwitz, 2002). This research adopted Shove, Pantzar and Watson’s (2012) three elements model, whereby practice consists of interdependent relations between materials, meanings and competencies. For Shove et al., practices emerge, persist, shift, and disappear when links between elements are made, sustained or broken. The framework was thus well-suited to identify the granular elements of everyday life and in this case, trace both the facilitative and inhibiting effects of technology on physical activity consumption.

**Research Approach**

The research adopted a qualitative methodology. Three community settings were identified with varying commitment to physical activity provision. Participant observation was utilised to examine collective practice in each setting, with key commonalities and differences in practice emerging. Following observations, 11 interviews were conducted with young women in the clubs to understand how and why practices were carried across space and time, and how practices such as using technology ordered or *anchored* participation (Swidler, 2001). In addition to querying practice among girls, interviews were conducted with club leaders and employees from their governing organisations, including British Gymnastics, Sport Wales and StreetGames. The purpose, to identify agreements and conflicts in the desired nature of physical activity provision and identify the most fruitful areas for intervention; one of which being the incorporation of technology. Observations were written up and interviews transcribed verbatim. These were subsequently coded using thematic analysis via ATLAS.ti software (Braun and Clarke, 2006), with a number of key themes emerging.

**Findings and Discussion**

Across each setting, technology, and specifically smartphones, were a significant anchor of practice. They mediated participation in varying ways, including as tools for performance analysis and coaching, to monitor lifestyle behaviours, to craft identities online and to capture media content. The key difference between settings (and the nature of commitment to exercise in each setting) was the degree to which the girls would allow technology to anchor their participation in physical activity. Girls who were more engaged and regularly participated would mostly use smartphones as tools to enhance participation and performance by filming and analysing skill execution and using apps to progress their fitness. Meanwhile, despite being in active environments (such as in the gym, or on a running route), the less engaged participants in the more informal clubs would frequently be seen scrolling social media, taking photographs or generally using their smartphones to such a degree that little to no exercise was occurring. In this way, technology was anchoring practice to more inactive forms of consumption compared to the active participants, who were anchored by the exercise and merely used technology as a facilitative tool.

Interviews revealed that the emerging connection to technology was something club leaders and policymakers were acutely aware of, and there was an appreciation that it would be more beneficial to adopt it rather than fight it. The issue, however, was determining how to utilise technology in the most effective way to get young people sufficiently active. Analysis highlighted the positive impact of Covid-19 on organisations’ use of technology, with both providers and policymakers forced to quickly adapt to digital provision and communication. The leaders maintained, however, that there was still work to be done in terms of combatting digital inequalities, safeguarding young people online, upskilling staff competency, upgrading organisational resources and maximising the reach of social media via the use physical activity influencers.

**Conclusion**

The paper outlines empirical findings surrounding how technology is used among young women to both facilitate and inhibit physical activity participation. The research is underpinned by practice theory, which offers a new lens with which to examine the ‘wicked problem’ of physical inactivity. In today’s society, the rapid expansion of digital technology into all realms of life has resulted in competition with, and in many cases, displacement of physical activity in employment, domestic and leisure roles, contributing to increased levels of inactivity (Woessner et al., 2021; Kumareswaran, 2023). Whilst the associations between increased technology use and inactive behaviour are well-documented and indeed were evident in this research, technology has also been shown to have facilitative effects in supporting participation. For example, studies by Connelly et al. (2013) and Bond et al. (2014) demonstrate the positive influence technology can have in increasing physical activity consumption. This suggests that, used effectively, the incorporation of technology can have advantageous intervention effects, as well as in generally facilitating physical activity participation. It is crucial, therefore, to understand how young people consume and would like to consume technology, to manage provision in the most effective way.

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