

Combining Sports and Performance Research in the Quest for Excellence

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Introduction

Sports training and music practice are two domains that offer numerous benefits in terms of the mind–body relationship, including mental sharpness, physical fitness, and emotional well-being (Karageorghis, 2017; Laukka & Quick, 2013). This poster explores the relationship between these disciplines and presents the findings of a narrative literature review conducted between 1 January 1968 and 31 December 2022.

Methods

For the literature review, articles were searched using Google Scholar, Medline, PsycINFO, PubMed, and SPORTDiscus for the period of 1 January 1968–31 December 2022 using Boolean logic and the following search terms of relevant keywords in relation to the combination of sports training and music practice: 'Music OR Rhythm AND Sports' AND 'Music AND Synchronisation OR motivation AND sports OR training OR exercise OR Practice' AND 'Music AND Athletic Performance' AND 'Music AND Synchronisation OR motivation AND sports OR training OR exercise OR practice' AND 'Rhythmical Auditory Stimulation AND Sports' AND 'Music AND Coordination AND Sports'. The review aimed to explore the ways in which these two disciplines can complement each other and enhance both physical and cognitive abilities.

Results

The findings indicate the potential benefits of integrating music practice into sports training and vice versa. Incorporating music into sports training enhances coordination, synchronization, and fine motor skills, leading to improved athletic performance (Terry et al., 2020). Novembre et al. (2014) emphasise the role of motor simulation in real-time joint actions, which necessitate the integration of simultaneous self- and other-related behaviors, similar to the concept of musical ensemble coordination. Similarly, sports medicine (Dick et al., 2013) and sports training help musicians develop greater physical consciousness and control over their instrument (Watson, 2006), contributing to enhanced performance (Ackermann et al., 2002; Andersen et al., 2017). It has been noted that strength, endurance, and flexibility exert a substantial influence on musicians' performance, as playing an instrument requires refinement of both physical and mental skills (Wilke et al., 2011). The experimental results presented in a paper by Karageorghis et al. (2018) suggest that music can redirect attention towards

sensory cues in the environment and prevent internal signals related to fatigue from entering conscious focus. Moreover, based on the research of Ballmann et al. (2021), individuals demonstrate improved performance during resistance exercise when they listen to music they prefer. Athletes could potentially enhance their motivation and performance in resistance-type exercises by having the opportunity to listen to their preferred music. As highlighted by Santos et al. (2016), the ability to make creative decisions in team sports is crucial for effective problem-solving in any game situation. Conversely, sports training helps musicians to cope with stress (Kenny & Ackermann, 2009) and perform better under pressure (Lubert & Gröpel, 2022).

Conclusions and Recommendations

The results of this review highlight the potential for synergies between sports training and music practice. Professionals working in sports and music, including athletes, musicians, coaches, trainers, and educators, can benefit from incorporating elements from both domains. The recommendations include:

1. Encouraging athletes to incorporate music as a motivational tool during training sessions (e.g., Pettit & Karageorghis, 2020; Karageorghis et al., 2021).
2. Integrating sports training techniques into music practice routines to enhance physical control and performance (e.g., Pecun et al., 2016; Tomporowski & Pesce, 2019).
3. Promoting interdisciplinary collaborations between sports and music professionals to explore innovative training methods (e.g., Berezan & Karageorghis, 2023; SoundRunner).
4. Incorporating music-based interventions in sports psychology to help athletes manage stress and optimise performance (e.g., John et al., 2012).
5. Enhancing awareness among educators and trainers about the potential benefits of combining sports and music in various pedagogical and training contexts (e.g., Santos & Morgan, 2019).

This poster offers valuable insights for athletes, musicians, coaches, trainers, educators, and professionals working in the fields of sports and music, showcasing the potential for interdisciplinary approaches to maximise motivation and performance.

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