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Mini Review

The Role of Physical Literacy in Staying Physically Active-Lesson from Pandemic: A Mini Review

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Abstract

This mini review explores the potential of physical literacy to promote physical activity and highlights its role in promoting health resilience, especially in restricted settings like pandemic. Building on the recent studies, the review also discusses the availability and potential of digital resources for physical literacy and introduces "ePhysical literacy" as a way of development of necessary skills for physical activity engagement options when traditional avenues are inaccessible.

Keywords: Physical Literacy; Physical Activity; Pandemic; Health Resilience; ePhysical Literacy

Introduction

The global COVID-19 pandemic has profoundly impacted every aspect of our lives, from social interactions to daily routines. During this time physical activity has been greatly reduced among people due to the pandemic and associated restrictions, such as stay-at-home orders. Physical inactivity owing to mobility restriction during Covid 19 pandemic had a profound impact on physical and mental well-being as well regardless of contraction of the disease [1]. Physical activity offers a multitude of benefits, encompassing from enhancing industrial productivity and academic achievements to health benefits both physical and mental well-being. According to the recent report by World Health Organization [2], physical inactivity is one of the leading risk factors for the top comorbid conditions causing death worldwide. It increases the risk of cancer, heart disease, stroke, diabetes, and negative mental health outcomes like anxiety, depression, and suicidal behavior [3]. Access to cost-effective, reliable, and suitable physical activity is limited for many disadvantaged groups, including people with movement difficulties like elderly, pregnant women, movement disorder, and people living in a restricted time or place like during the pandemic/epidemic, refugee housing, prison etc. Most recently, Covid 19 has shown us that the pandemic and associated restrictions have led to decreased physical activity at all levels. In this context, the concept of physical literacy emerged as a critical factor in maintaining resilience and coping with the pandemic's effects [4].

Physical literacy, which encompasses the knowledge, motivation, confidence, and physical competence to engage in physical activities throughout life [5], plays a vital role in keeping physically active and overall well-being [6]. Physical literacy has been proposed as a protective factor against physical inactivity. This mini review explores the potential of physical literacy to combat physical inactivity including in restricted settings like stay home order due to pandemic. This review synthesizes findings from recent observational studies, systematic reviews, randomized controlled trials, and longitudinal studies on physical literacy and its impact on physical activity. Physical literacy and key concepts related to physical literacy, such as motivation, confidence, and physical competence are examined in the context of physical inactivity prevention.

Impact of Physical Literacy on Physical Activity

Physical literacy serves as a precursor to physical activity, implying that individuals may not engage in physical activity without possessing physical literacy, yet participation in physical activity can foster the development of physical literacy [7]. This relationship can be bidirectional, with physical literacy also being cultivated through involvement in physical activity [8]. Those with higher levels of physical literacy exhibit greater confidence and competence in various physical activities, whereas those with lower levels tend to exhibit fewer physical activity behaviors [9]. This holds particular significance in the context of the pandemic, as research indicates higher pre-pandemic physical literacy served as a protective factor for children against pandemic-related reduction in physical activity [10].

While physical literacy can develop and improve physical competencies through challenge taking, it boosts confidence and develops intention for and action to be a physically active individual [11]. Studies have also found that motivation is one of the core precursors for physical activity [12, 13] and movement competencies can mediate the motivation to engage in physical activity and therefore, foster physical activity level [14]. Physical literacy has cognitive, affective, physical, and behavioral elements as recognized by International Physical Literacy Association (IPLA) [15], and nurturing on these elements is found to serve as a buffer against physical inactivity in different controlled trial and longitudinal study [16, 17]. Individuals with high physical literacy are more likely to feel confident in their abilities to stay physically active and maintain motivation to engage in physical activity even in the face of challenges.

Promotion of Physical Literacy for Health Resilience

The cultivation of physical literacy could be a valuable strategy in promoting health resilience. Since physical literacy and resilience share common elements in overcoming challenges, it plays a key part in lifelong physical activity engagement as well as health resilience [18]. By integration of physical literacy to physical education of all levels, developing interventions that enhance physical literacy and assessing their effectiveness in reducing physical inactivity may help promoting physical activity from early life.

Effective virtual resources might be helpful in times like pandemic when formal resources for staying physically active like gym, sports, public parks are not accessible. If properly tailored, this can be also relevant for people with mobility difficulties, disabilities and chronic condition like muscle disorders, stroke rehabilitation, etc. This is an important research gap because in special physical education settings, studies have often reported lack of staff knowledge to educate the participants with disabilities who are at more risk of physical inactivity [19].

On a second note, it is encouraging that some online resources like PLAY Builder (Canada), SIMPLE Movement (UK), Appetite to Play (Canada) are activity learning platforms [20] available for people to navigate and learn. However, eLiteracy comes into play when we are onboarding such digital platforms to promote physical literacy. Similar to "eHealth literacy", "ePhysical literacy" terminology can be coined as to describe the ability to effectively seek physical activity information from credible online sources and to utilize this information for staying physically active. There is a need for interventional promotion of ePhysical literacy as well as a subjectively measurable scale to measure ePhysical literacy in this world of technology. By advocating a multidimensional approach at policy level, physical literacy can be integrated to lifestyle of the people for a more sustainable and healthier living environment.

Conclusion

WHO's Global Action Plan on Physical Activity 2018–2030 has the target of 15% relative reduction in the global prevalence of physical inactivity in adults and in adolescents by 2030. Policy action of physical activity can directly contribute to UN Sustainable Development Goal (SDG) 3: good health and well-being and at least 12 other SGD goals [21]. Fostering physical literacy at public health policy level can be an effective step to meet this global agenda. More research on the recommended approaches is warranted for optimal interventions through stakeholders at the micro level of the community.

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Conflict of Interest

No conflict of interest.

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