

Review Article

Physical Education: A Catalyst for Transforming Public Health Systems in Schools

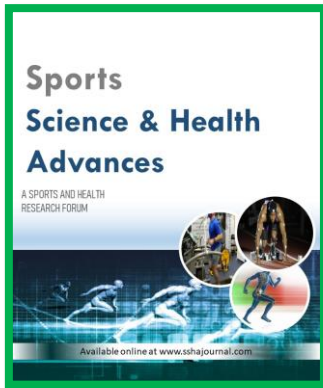
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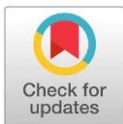
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Abstract

This paper examines the transformative capacity of Physical Education (PE) as an essential tool in promoting public health through school-based initiatives. By incorporating health education into PE curricula, schools can develop healthy habits that promote lifelong engagement in physical activity for good health. These initiatives not only tackle the increasing incidence of non-communicable diseases (NCDs) such as obesity, diabetes, and cardiovascular disorders but also contribute to the mental well-being of students. The paper outlines strategies to enhance the role of PE teachers in public health, including curriculum reform aimed at improving health literacy, fostering community partnerships to increase engagement, and advocating for policies that ensure the sustainability of PE programs. By capitalizing on the unique position of schools and PE teachers, this article also emphasizes the potential of PE as a catalyst for public health and advocates for a more integrated approach within school environments to improve societal health outcomes.

Keywords: school; physical education; health; awareness; public health

Introduction

Physical Education (PE) as a subject has the potential to shape the nation's healthcare in different ways. Therefore, globally PE is associated with the term health or health education in various countries' school curricula. Education, public health, and school health sectors advocate for stronger alignment, integration, and collaboration to enhance each child's cognitive, physical, social, and emotional development (*Whole School, Whole Community, Whole Child, n.d.*). A similar model that encompasses PE and public health components is needed in Indian schools with the inclusion of sports-based teaching to the more student engagement. According to a toolkit published by the World Health Organization (2021) regarding the promotion of physical activity within educational institutions, schools are recognized as pivotal environments for addressing a wide array of public health issues. It is imperative to integrate physical activity across all contexts in which children live, study and play.

Shirotriya and Beighle (2023) assert that PE is a fulcrum between an unhealthy nation and a nation of thriving movers. PE possesses a significant transformative potential that extends beyond the confines of school playgrounds; it serves as a powerful yet underutilized instrument in the pursuit of public health enhancement. In a context characterized by a rising prevalence of non-communicable diseases (NCDs) such as obesity, diabetes, and cardiovascular conditions, PE emerges as a vital intervention capable of fostering lifelong habits related to physical activity, mental well-being, and health-conscious behaviours. By effectively bridging the divide between education and public health, PE provides individuals, starting from a young age, with the essential knowledge and motivation necessary to adopt healthier lifestyles.

Public Health

Public health can enhance the quality of human life, foster the well-being of children, mitigate human suffering, and contribute to cost-saving treatments. According to Edemekong and Tenny (2022), public health initiatives encompass the prevention of injuries as well as the dissemination of knowledge regarding behaviours that contribute to adverse health outcomes. From the perspective of a public health expert, the significance of early life interventions, particularly the promotion of physical activity among school-aged children, is essential. Public health initiatives are most successful when they prioritize preventive measures, and childhood represents a crucial period for the establishment of healthy behaviours.

Implementing early interventions not only aids in alleviating the risks linked to obesity, physical inactivity, and mental health issues but also plays a vital role in decreasing the long-term healthcare expenditures associated with the management of preventable chronic diseases. By proactively addressing these issues, we can substantially mitigate the burden of non-communicable diseases (NCDs) for future generations, a matter of increasing concern in India due to the rising prevalence of such conditions.

From a public health standpoint, educational institutions present a distinctive opportunity to engage a large and diverse population of children, thereby ensuring that health promotion initiatives are both equitable and effective. Public health professionals recognize the importance of implementing systemic changes within environments frequented by children, positioning schools as optimal venues for fostering lifelong healthy habits. By integrating physical activity into the school curriculum, we can positively influence not only the students but also their families and communities.

Linking Public Health with Physical Education: A Literature Journey

Scouring through the literature reveals that the integration of PE within public health initiatives commenced in the early 20th century (Allen, 1937). Although the emphasis on PE has evolved, the necessity for a public health perspective in PE is not a novel concept. Sallis and McKenzie (1991) and Sallis et al. (2012), in two seminal publications separated by two decades, advocated for a public health strategy that positions PE as a vital educational instrument for the promotion of physical activity. Additionally, Hills et al. (2015) argue that the school setting and PE teachers must embrace their role in public health by offering some interesting programs. Furthermore, Ennis (2017) identifies three distinct types of PE programs in educational settings: the recreational approach, the public health approach, and the educational approach.

In the aftermath of the COVID-19 pandemic, there is a pressing need to further investigate the public health approach to ensure the delivery of high-quality PE programs for instance An (2020) underscored the pressing need for public health initiatives designed to promote active lifestyles and enhance physical activity engagement among children, especially in response to the detrimental impacts of COVID-19 on unhealthy weight gain and childhood obesity. More recently, UNESCO and Loughborough University (2024) published a report on the global status of play which captures PE's importance in public health. This report also suggests that PE has long been seen to make a valuable contribution to public health and health promotion. Similarly, the United Nations Report on Sport for

Development and Peace (2024) also highlights participation in sports and health-enhancing physical activity (PE components) for sustainable development.

The Problem

In India, the health status and levels of physical activity among school-aged children have become increasingly concerning. The rise in urbanization, coupled with sedentary lifestyles and heightened academic pressures, has resulted in many students engaging in reduced physical activity. This decline in activity is associated with an escalation in health problems, including obesity, diabetes, and mental health issues, emerging at an early age.

In India, the subject PE comes with health education in major academic boards. Conversely, the physical health of students is not in good condition for instance the Physical Activity Report Card of India by WHO 2022 reveals that 72% of males and 76% of females aged 11 to 17 years were physically inactive. Similarly, Kumari and colleagues (2024) reported that the status of physical activity among students was unsatisfactory. Here, it is imperative to note that the status of PE in India is similar to that in many other countries; students, parents, and schools typically do not regard it as important. Consequently, PE rarely receives the recognition it deserves in India. (Khandare, 2016; Shirotriya et al., 2023). It appears from these findings that PE with health education in schools needs some attention for curriculum refinement.

Videto and Dake (2019) point out that schools have historically been recognized as effective platforms for the promotion of health and the dissemination of health education. Similarly, Abildsnes et al. (2015) emphasize the important role of schools in promoting health literacy within a population, highlighting their contribution to the attainment of public health objectives alongside their educational responsibilities. In this vein, Pothamsetty (2019) emphasizes the importance of perceiving PE as a public health instrument aimed at educating students and empowering children to engage in activities of their choice. However, despite growing interest in the field and a voluminous body of literature, the integration approach between public health and PE is non-existent in schools.

Way forward: Empowering PE Teachers as Public Health Advocates

The systematic approach with the inclusion of a multi-stakeholder such as a school committee, community, and health department can improve the teaching practices of PE that support PA as an essential component of health promotion in Indian schools. It is important to acknowledge that structured PE in schools serves as a powerful tool for enhancing public health. In this context, we believe that PE teachers can play an important role in this, although these are just thoughts, still therefore, this paper aims to suggest ways for PE teachers to promulgate public health awareness while teaching PE in schools.

According to McKenzie and Lounsbury (2013), the future of PE rests on the effectiveness of PE teachers to utilize within a public health context. It appears from this that PE teachers are integral in this process, actively promoting health concepts in the face of rising obesity rates and related health challenges. However, aligning PE with public health goals requires a multifaceted approach that emphasizes collaboration, innovation, and community engagement. Therefore, we are suggesting the following ways to spread the essence of public health by offering PE activities:

Reforming the curriculum to enhance health literacy

Peralta et al. (2022) contend that health literacy is an essential competency for adolescents to cultivate, as it significantly influences their health outcomes. Health literacy can be understood as an individual's ability to gain access to, understand and use health information and services in ways that promote and maintain health and well-being. Reforming the PE curriculum to enhance health literacy involves integrating health concepts into PE promoting a holistic understanding of wellness. This can be achieved by strengthening the PE curriculum. The ground activities (sports and fitness) can be

organized in such a way that students can get their health-related data which may be used for further evaluation. However, to do this, the timing and value of PE is warranted.

Partnerships with health and wellness promoting agencies

Collaborations between PE teachers and health and wellness-promoting agencies can significantly enhance students' physical, mental, and social well-being. These partnerships offer a holistic approach to student health by expanding resources, integrating wellness programs, and providing community support. PE teachers can enhance public health by building community partnerships with local health organizations, fitness centers and health departments. Collaborating on initiatives like health/fitness shows, family fitness events, and after-school programs fosters an active lifestyle among students and families.

Policy Advocacy

Sykes et al. (2023) assert that advocacy is essential in the realm of public health, as it facilitates the incorporation of health-related considerations into diverse policy domains. The advocacy efforts of PE teachers are crucial for enhancing both the quality and accessibility of PE programs. For advocacy to be effective, PE teachers must possess a comprehensive understanding of state and national health standards and foster collaborations with relevant stakeholders. Furthermore, engaging in policy advocacy such as formulating supportive health policies and obtaining funding for programs from local health departments or non-governmental organizations is critical for ensuring the sustainability of these initiatives.

Promote recreational activities

Recreational activities are important for promoting public health as they encourage physical activity. PE teachers can foster health awareness among students by implementing a variety of recreational activities, including fun runs, sports tournaments, and fitness challenges. Additionally, outdoor events, adventure weeks and workshops focused on healthy living can effectively integrate physical activity and should be offered as a good way to enhance recreational aspects during this time, PE teachers can organize dance parties and ground-cleaning activities to promote health-related aspects in students.

Develop healthy and active school initiatives

Advocating for a healthy and active school environment as a PE teacher involves several key strategies such as creating awareness through educational workshops for students, parents, and other school staff about the importance of physical activity and healthy lifestyles is essential. Integrating public health education concepts into the PE curriculum. Promoting physical activity with active breaks during classes and establishing before- and after-school programs can further encourage participation. PE teachers can take the initiative to organize a health camp to the assessment of the students and community's physical activity levels and other health parameters such as cardiovascular respiration and body mass index. The Khelo India fitness assessment can serve as the standardized metric for evaluating students' fitness and physical activity levels, providing them with a comprehensive report card.

Professional development for the PE teachers

Marques et al. (2023) emphasize the significance of PE teachers' understanding of physical activity and health guidelines in promoting healthy lifestyle practices among students. They advocate for the encouragement of PE teachers' participation in ongoing professional development to acquire new competencies pertinent to health promotion. However, Birch et al. (2017) points out that for school health education to achieve its fullest potential, it must be delivered by dedicated and adequately trained teachers who possess certification in health education and engage in ongoing professional development. This underscores the need for the professional development of PE teachers in the context of

public health promotion. Even though PE teachers are already involved in promoting physical activity and wellness among students, additional training in public health enables them to be more effective in this area.

Cale (2023) posits that the role of PE in health should be one of physical, health, and physical activity 'education' with an emphasis on facilitating learning. To facilitate PE teachers' roles as health promoters, a comprehensive capacity-building initiative is required. This initiative can include workshops conducted by public health professionals, addressing topics such as health management, and inclusive fitness practices within the routine work. Such training ensures that PE teachers adopt a holistic approach to promoting physical activity, thereby enhancing their capacity to motivate students and customize activities to meet individual needs.

Conclusion

PE can play a pivotal role in strengthening public health systems. By incorporating health education into the PE curriculum, students are equipped with vital knowledge about physical activity, balanced nutrition, and healthy lifestyle choices. This proactive approach aids in the early identification of health risks, reducing the incidence of NCDs, while fostering lifelong healthy habits. Moreover, it enhances mental well-being and drives positive health outcomes in communities. With continuous curriculum updates, community outreach, and advanced training for PE teachers, PE can bridge educational efforts with public health goals, making schools vital spaces for health promotion and advocacy. However, for PE to exert a significant influence, it must be acknowledged by both parents and society as a fundamental component of students' holistic well-being and development.

Declaration

This paper utilized OpenAI's ChatGPT as a tool to generate concepts and refine the clarity of the text.

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