



Physical Education's Role in Public Health

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Abstract This paper explores the integral role of physical education (PE) in promoting public health and well-being. As societies grapple with escalating rates of sedentary lifestyles and associated health issues, understanding the multifaceted contributions of PE becomes paramount. Drawing on a comprehensive review of literature, this study examines the impact of PE on physical, mental, and social health outcomes across various age groups and populations. It delves into the physiological benefits of regular physical activity, emphasizing the role of PE in preventing chronic diseases such as obesity, cardiovascular disorders, and mental health issues.

Furthermore, the paper investigates the educational aspects of PE, discussing how it cultivates essential life skills, including teamwork, discipline, and resilience. The social dimension of PE is explored, emphasizing its potential to foster inclusive communities and reduce health disparities. The paper also addresses contemporary challenges faced by PE programs, such as limited resources and evolving educational priorities, and proposes strategies for overcoming these obstacles.

Ultimately, this research underscores the critical position of PE in public health initiatives, advocating for increased investment, innovative curriculum design, and collaborative efforts between educators, policymakers, and health professionals. By recognizing and prioritizing the role of PE, societies can proactively address public health challenges, promoting healthier lifestyles and enhancing overall well-being.

Keywords Physical Education, Public Health

Introduction

The possible benefits of school physical education on children's health are attracting the attention of the public health community more and more. Since up to 97% of primary school students participate in some kind of physical education program, schools are seen to be the perfect place to promote regular physical exercise. School physical education programs should educate kids for a lifetime of physical activity for the greatest possible benefit to the public's health. This physical education public health aim could necessitate a few adjustments to present practices. It is the responsibility of physical educators to work in tandem with public health specialists to design and assess school-based physical education programs that will enhance the health of the country's kids.

"Education through the physical" is what physical education is. It aims to raise students' level of physical competency, movement awareness, and safety comprehension as well as their ability to use these skills to participate in a range of activities related to the encouragement of an active and healthy lifestyle. It also improves students' overall abilities and self-esteem, especially in collaboration, communication, creativity, critical thinking, and aesthetic appreciation. These provide kids with a strong foundation for lifelong learning and holistic development in addition to helping them form positive attitudes and values in physical education. One subject that focuses on



improving bodily motions is physical education. It regulates and preserves an individual's physical and mental well-being.

This discipline can be viewed as a competitive, recreational, instructional, or therapeutic endeavor. It promotes harmony, fun, and camaraderie among the participants. Physical education is required for students in both elementary and secondary education levels. A professional who has completed a higher physical education course oversees this field. It includes information about the human body, health, and biological sciences.

Childhood Obesity Prevention

The number of children and teens suffering from obesity is rising. Physical activity (PA) is a key element in the battle against excess body mass in youngsters. The public health criterion for physical activity is not met by a sizable fraction of the pediatric population, and children who engage in more PA often have lower body fat percentages than their less active peers. Although there are several elements that contribute to the development of juvenile obesity, a reduction in energy expenditure is regarded to be one of the primary aspects that determines excessive body weight. The excess body weight remains constant from infancy through childhood, adolescence, and maturity if nothing is done. Therefore, public health activities are needed to raise the level of PA in the pediatric population. The task force from the European Childhood Obesity Group and the European Academy of Pediatrics developed a consensus statement after examining English language meta-analyses, systematic reviews, randomized clinical trials, and observational studies from PubMed/MEDLINE, Cochrane Library, Science Direct, MEDLINE, and EBSCO databases between 2018 and August 2020. This statement outlines the role that physical activity (PA) plays in avoiding excessive body weight and offers age-appropriate recommendations for parents, guardians, school-based interventions, and PA.

The role that physical education and schools play in fostering health, building a "healthy nation," and battling obesity has come to light more and more in recent years. This is shown in England by a multitude of government policies, activities, and responses that highlight the vital role that schools play in treating health concerns in general and obesity in particular. Furthermore, it seems that local educators and schools are addressing the obesity problem in a variety of unique methods. However, the conversation around obesity and some of the reports, messages, policies, and actions being done to address it, in our opinion and the opinion of other academics, are deceptive, incorrect, and may cause more damage than benefit. In addition, we feel obligated to take action since, as physical educators, we are dedicated to the well-being and growth of the youth. We argue that "every child of every size matters" and that regular participation in physical education and exercise can be beneficial. We also believe that it is our duty as professionals to provide all young people—regardless of size—meaningful, pertinent, and enjoyable experiences in these areas. In light of this, we explore the practical, sensible, and safe role that physical education can and should play in tackling youth obesity and overweight. First, some of the most important "facts," problems, and discussions around obesity are examined, and the approach taken to handle the problem in many schools is criticized. After giving a quick overview of some of the official guidelines and suggestions on obesity that are accessible to schools, we close with some helpful advice to help physical education instructors effectively encourage all students to engage in physical exercise both within and outside of the classroom.

A significant risk factor for non-communicable diseases, insufficient physical activity (PA) causes around 5.3 million deaths every year. Less than 20% of teenagers globally are estimated by the World Health Organization (WHO) to be physically active enough. Studies indicate that a reduced level of physical activity (PA) is a major factor in the rise in the prevalence of childhood obesity. Over 41 million children under the age of five were expected to be overweight worldwide in 2016. Less than 10% of children under the age of ten in northern Europe were classified as overweight or obese, compared to over 40% in southern Europe. Generally speaking, females were more likely than boys to be overweight (21.1 vs. 18.6%).

Obesity is a complicated, multidimensional illness, but an imbalance in energy intake and expenditure is its primary cause. PA is a potent lever to influence the energy balance equation since it is the most changeable component of energy expenditure, making up around 25% of total energy expenditure. Therefore, raising the PA level may help with better weight control. Several cross-sectional studies show a negative correlation between school-age children's overweight status and their PA level. Additionally, data from the Finnish Twin Cohort research showed that even after adjusting for genetic and environmental variables throughout development, keeping a greater level of PA is



linked to lower body mass. According to the study, cotwins with greater levels of PA had significantly less visceral and hepatic fat than their less active cotwin, as well as lower body mass, body mass index (BMI), and body fat.

Goals of physical health

Teaching Essential Body Management Skills

While encouraging activity is the most well-known objective of any physical education program, more is required to assist children in overcoming a sedentary lifestyle. Children will learn lifelong skills in physical education sessions. Physical education programs provide an opportunity for younger children to learn about the connections between health, exercise, and nutrition. They also teach fundamental body management skills like:

- The capacity to identify body parts
- The ability to stop and start on a signal
- Spatial awareness
- Balance and control

Even though these abilities might not appear as important as reading and math, their lack might cause kids to become sedentary and feel too "clumsy" to participate in any kind of regular activity. Over time, a lack of developed motor skills might lead to inactive adults who lack confidence or fail to reach their employment goals.

Promoting Physical Fitness as Fun

Children who get quality teaching from committed teachers are better able to acquire basic motor patterns. Teaching pupils that being active can be a pleasurable and organic habit is also crucial.

The likelihood that young pupils will be involved in fitness as they become older and lead healthier lifestyles increases with the degree to which they view physical exercise as an inherent component of their daily routine. Children who love physical activity are the ones who are most likely to be active in the future. Sedentary childhoods and excessive screen time have contributed to an increase in overweight and obese children in America.

Although it's not the only thing encouraging kids to be active, physical education may be a helpful tool in helping them learn new skills and find hobbies. Physical educators provide students the opportunity to discover the sport or fitness regimen that most interests them by introducing them to a variety of options, such as gymnastics, jogging, and climbing. This way, kids may develop their own unique toolkit to combat obesity.

Developing Teamwork, Sportsmanship, and Cooperation

Since physical education promotes collaboration through group activities and teamwork by having students identify as a member of a team, it enables kids to engage in healthy social relationships. Children who possess these social skills throughout their lives are more likely to take on leadership responsibilities, integrate into their communities, and form enduring connections. Social skills support academic achievement, mental health, and confidence development.

Students who are under stress find it difficult to concentrate and control their emotions. Engaging in physical activity promotes mental well-being and improves learning capacity, which reduce stress. While it's common to justify cutting back on physical education time by arguing that it would allow children to spend more time in class, research has linked regular school-day physical activity to improved focus, more poised conduct, and happier students.

Mental Health Benefits

Engaging in physical activity is beneficial not only for your body but also for your mind.

Being physically active causes your brain to create feel-good hormones that improve your mood, concentration, self-esteem, and quality of sleep. Not bad for a free task that many of us can perform!

Being physically active doesn't have to include signing up for a pricey gym membership or training for a marathon. Discovering a hobby or pastime you love may help you feel purposeful and set goals. It may also be a fantastic opportunity to make new friends, take a vacation from everyday life, and boost confidence. A



sense of accomplishment, increased attention and drive, a reduction in tension, stress, and mental exhaustion, a healthy appetite, feeling less irate or agitated, and having fun are some other advantages.

If you can exercise outside, that's even better. According to research, spending time in nature may lower our levels of anxiety and despair and increase our sense of happiness and value in life. Nature doesn't only have to be national parks or woods; you may improve your mental health by taking a stroll around the neighborhood green, going to a friend's garden, or just taking in the trees and flowers that are planted by the side of the road.

Being active might be challenging for some of us, maybe as a result of a physical or mental illness or impairment. You might find our list of considerations for starting a fitness program useful. The NHS offers guidance on becoming active if you have a disability or medical condition. This includes how to identify accessible activities and programs and incorporate fitness into your daily routine. It might be discouraging to exercise when a handicap prevents you from engaging in the activities you would like to or are accustomed to, but it's crucial to listen to your body. Major public health issues include anxiety and depressive disorders, for which desired lifestyle modifications like physical activity may be very effective in both prevention and therapy. There is mounting evidence that those who engage in physical activity have a lower chance of experiencing depression, and that exercise therapies have a major positive impact on individuals suffering from mild to severe depression as well as lowering anxiety. Because of these results, it has been suggested that exercise might be used in addition to or instead of more conventional kinds of therapy.

Depression and anxiety disorders are among the most prevalent mental health conditions, and they pose serious public health issues. These are the main causes of disability benefits and sick leave, along with musculoskeletal conditions. Both pharmaceutical and psychological therapies have well-established results, with cognitive-behavioral therapy (CBT) having the most research of any psychological intervention. Given the scope of the issue, it is clear that the healthcare system will never be able to treat everyone who needs therapy. This creates room for self-help tactics that individuals can use on their own or with assistance from others; one such tactic has been suggested: physical activity.

Disease prevention and Management

Engaging in regular exercise can enhance your well-being. Moreover, it can aid in the prevention of long-term conditions like diabetes, cancer, heart disease, asthma, and arthritis.

There are 3 levels of disease prevention:

1. Primary Prevention
2. Secondary Prevention
3. Tertiary Prevention

Primary Prevention

Primary prevention is maintaining a healthy lifestyle in an effort to stave off illness. This might involve engaging in physical exercise, maintaining a healthy diet, getting adequate sleep, managing stress, scheduling routine checkups with the doctor, and making an effort to avoid dangerous drugs and environmental hazards.

Secondary Prevention

At the secondary preventive stage, our goals are to identify potential hazards, detect diseases early, and stop the disease and its symptoms from getting worse. Blood pressure, blood glucose, cholesterol, bone density, body mass index, waist-to-hip ratio computations, and fitness evaluations are a few of the tests that are used to detect concerns. A specific examination called the Canadian Physical Activity, Fitness and Lifestyle Approach (CPAFLA) identifies strategies for enhancing physical fitness connected to health. The components of physical fitness that have to do with your health are included in health-related fitness. It focuses on how well your lungs, bones, muscles, joints, and heart are nourished, protected, and robust.



Tertiary Prevention

The focus of tertiary prevention is on those who are afflicted with an illness already. The objective is to enhance your quality of life by function restoration, limitation or postponement of problems, and reduction of handicap. Rehabilitative care and illness treatment are used to achieve this. Your physician, a medical expert, a certified exercise specialist, an occupational therapist, a physiotherapist, and a licensed exercise professional can all be a part of the therapy team.

Overcoming Barriers to Physical Activity

There can be some obstacles because of your health. Discuss any worries or obstacles you may have with a trained fitness expert or your healthcare physician, along with strategies for overcoming them.

Types of Activities

There are 3 types of activities to keep your body healthy:

- Exercises that build strong muscles and bones
- Exercises for secure and robust muscles and joints
- Exercises to maintain a robust and healthy heart and lungs

Generally speaking, you may work your way up to 30 minutes or more of moderate activity five to seven days a week if your treatment team gives the okay. The exercise can be done for ten to fifteen minutes at a time. Find out from your healthcare professional what kinds and quantities of exercise are most beneficial for you. Find out if increasing your physical activity level will have an impact on the medications you take. Additionally, ascertain whether any of your drugs influence your response or your capacity to engage in safe exercise. In that case, chair workouts could be preferable.

Lifelong habits and healthy aging

The easiest activities to maintain and have the most effects on your general health are those that include a variety of physical exercise with pleasurable social contacts and educational possibilities. Some good examples are:

- Games: In addition to team sports like a pick-up game of basketball, playing tennis, pickleball, golf, or disc golf are other excellent ways to develop friendships and stay in shape. Additionally, games offer an additional mental challenge that strengthens the brain.
- Dancing: Dancing to music you love with people you like is fun and doesn't feel like a workout, whether you're ballroom, hip-hop, or line dancing.
- Explore: Going outside is fantastic for you and better for your health than using a treadmill or stationary cycle at the gym. You may go for a stroll around the block, a hike, a bike ride, or even go skiing. Consider your surroundings with curiosity and familiarity.

Select the ideal site for your fitness center. Your chances of going to the gym regularly increase with its proximity to your house (if you work from home) or workplace (if you work from home). Selecting a gym that requires commuting might undermine your days of low energy.

Track your fitness. Not only can using a fitness tracker help you identify your improvement and development, but it also serves as a strong incentive to stay to your plan since you can compete with friends, work in teams, and share your findings.

Make an appointment. Schedule your trip to the gym just as you would any other scheduled activity, as opposed to just deciding to go there at a certain time of day. You are more likely to develop a long-lasting habit of going to the gym before or after work if you schedule the time into your schedule and commute.



Use an app. Just like anything else, it can be done using an app. Pact, HealthyWage, and Wellcoin are a few examples of apps that assist you in setting objectives, monitoring your advancement, and even earning incentives. Find the best app for you if the thought of investing some money in the game excites you or gives you more motivation.

Choose your entertainment. Some bright folks have discovered a good method to reward and motivate themselves. These individuals discovered captivating audio books and restricted their listening to throughout their workouts. The outcome? Participants in the study visited the gym 51% more often. See if you can combine your favorite TV show, podcast, or audiobook with your exercise regimen.

Integrating fitness into your daily routine stops the emotionally destructive cycle of Resolution and Disappointment and supports lifelong health. Take better care of your entire body, mind, and soul by using these guidelines.

Conclusion

In conclusion, the exploration of physical education's role in public health highlights its multifaceted significance in promoting holistic well-being. The evidence presented underscores the pivotal contributions of physical education to physical, mental, and social health outcomes across diverse populations. From mitigating the risks of chronic diseases to fostering essential life skills and building inclusive communities, PE emerges as a powerful tool in the public health arsenal.

Despite its proven benefits, challenges such as resource constraints and evolving educational priorities pose hurdles to the effective implementation of PE programs. However, recognizing these challenges opens avenues for innovative solutions and collaborative efforts among educators, policymakers, and health professionals. Investing in comprehensive and sustainable physical education initiatives becomes imperative to address the pressing public health issues associated with sedentary lifestyles.

As we move forward, it is crucial to prioritize the integration of physical education into broader public health strategies. This involves not only bolstering the educational aspects of PE but also advocating for policies that support its inclusion in schools and communities. By doing so, societies can foster a culture of regular physical activity, instill valuable life skills, and contribute to the prevention of chronic diseases. The holistic approach to health through physical education ultimately empowers individuals to lead healthier lives and cultivates communities that prioritize well-being. In essence, recognizing and prioritizing the role of physical education is an investment in the long-term health and vitality of our societies.

References

- [1]. Sallis, J. F., McKenzie, T. L., Beets, M. W., Beighle, A., Erwin, H., & Lee, S. (2012). Physical education's role in public health: Steps forward and backward over 20 years and HOPE for the future. *Research quarterly for exercise and sport*, 83(2), 125.
- [2]. Wszyńska, J., Ring-Dimitriou, S., Thivel, D., Weghuber, D., Hadjipanayis, A., Grossman, Z., Ross-Russell, R., Dereń, K., & Mazur, A. (2020). Physical activity in the prevention of childhood obesity: the position of the European childhood obesity group and the European academy of pediatrics. *Frontiers in pediatrics*, 8, 662.
- [3]. Pandita, A., Sharma, D., Pandita, D., Pawar, S., Tariq, M., & Kaul, A. (2016). Childhood obesity: prevention is better than cure. *Diabetes, metabolic syndrome and obesity: targets and therapy*, 83-89.
- [4]. Caroli, M., Argentieri, L., Cardone, M., & Masi, A. (2004). Role of television in childhood obesity prevention. *International Journal of Obesity*, 28(3), S104-S108.
- [5]. Caroli, M., Argentieri, L., Cardone, M., & Masi, A. (2004). Role of television in childhood obesity prevention. *International Journal of Obesity*, 28(3), S104-S108.
- [6]. Bleich, S. N., Segal, J., Wu, Y., Wilson, R., & Wang, Y. (2013). Systematic review of community-based childhood obesity prevention studies. *Pediatrics*, 132(1), e201-e210.
- [7]. Showell, N. N., Fawole, O., Segal, J., Wilson, R. F., Cheskin, L. J., Bleich, S. N., Wu, Y., Lau, B. & Wang, Y. (2013). A systematic review of home-based childhood obesity prevention studies. *Pediatrics*, 132(1), e193-e200.



- [8]. Kyriacou, C. (2018). *Essential Teaching Skills Fifth Edition Ebook*. Oxford University Press-Children.
- [9]. Harden, R. M., & Laidlaw, J. M. (2020). *Essential skills for a medical teacher: an introduction to teaching and learning in medicine*. Elsevier Health Sciences.
- [10]. Gaiser, R. R. (2000). Teaching airway management skills: how and what to learn and teach. *Critical care clinics*, 16(3), 515-525.
- [11]. Louise Bush, P., Laberge, S., & Laforest, S. (2010). Physical activity promotion among underserved adolescents: "make it fun, easy, and popular". *Health promotion practice*, 11(3_suppl), 79S-87S.
- [12]. Ha, A. S., Ng, J. Y., Lonsdale, C., Lubans, D. R., & Ng, F. F. (2019). Promoting physical activity in children through family-based intervention: Protocol of the "Active 1+ FUN" randomized controlled trial. *BMC Public Health*, 19, 1-12.
- [13]. Sanchez, R. D., Hanrahan, T., & Concannon, J. (2021). Promoting sportsmanship awareness: An application of teaching a personal and social responsibility model in middle school physical education. *Journal of Physical Education and Sport Management*, 12(1), 19-33.
- [14]. Saxena, S., Van Ommeren, M., Tang, K. C., & Armstrong, T. P. (2005). Mental health benefits of physical activity. *Journal of Mental Health*, 14(5), 445-451.
- [15]. Tillmann, S., Tobin, D., Avison, W., & Gilliland, J. (2018). Mental health benefits of interactions with nature in children and teenagers: A systematic review. *J Epidemiol Community Health*.
- [16]. Cole-Lewis, H., & Kershaw, T. (2010). Text messaging as a tool for behavior change in disease prevention and management. *Epidemiologic reviews*, 32(1), 56-69.
- [17]. Beaglehole, R., Epping-Jordan, J., Patel, V., Chopra, M., Ebrahim, S., Kidd, M., & Haines, A. (2008). Improving the prevention and management of chronic disease in low-income and middle-income countries: a priority for primary health care. *The Lancet*, 372(9642), 940-949.
- [18]. Honório, S., Santos, J., Serrano, J., Rocha, J., Petrica, J., Ramalho, A., & Batista, M. (2021). Lifelong Healthy Habits and Lifestyles. In *Sport Psychology in Sports, Exercise and Physical Activity*. IntechOpen.
- [19]. Owen, F. K., & Çelik, N. D. (2018). Lifelong Healthy Lifestyle and Wellness. *Current Approaches in Psychiatry/Psikiyatride Guncel Yaklasimlar*, 10(4).

