
ROLE OF PHYSICAL EDUCATION IN COMBATING CHILD

OBESITY IN BANGLADESH

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1.1 Abstract

*Adolescent obesity is a growing public health concern in Bangladesh, which is constrained by urbanisation, inadequate diet and physical inactivity. The increasing rates of childhood obesity are especially troubling, as obesity and skipping breakfast puts the development of future chronic diseases such as type 2 diabetes and cardiovascular diseases at stake. They are arguing their case by presenting schools as critical institutions in children's daily habits and behaviour. Not only is physical education a way of getting students to participate in physical activities, but it also educates the students on the choices they need to make, which will make them healthy throughout their lifetime. This paper is focused on the importance of physical education in the reduction of obesity among children aged 10-12 years in Bangla and the possibility of modifying the effects of obesity through physical education. Another contribution of the paper is the assessment of challenges that may explain poor PE practice in the Bangladeshi context, including insufficient facilities, poorly qualified teachers, cultural beliefs on academics over the body, and poverty. Therefore, the following strategies are recommended by the writer in the paper that will improve the chances of PE in reducing childhood obesity; * Use of technology * Variety in activities * Community and parental support. Furthermore, special efforts are suggested, including the implementation of PE programs for schools in urban and rural areas, as well as raising the question of policy-based mandatory PE lessons. The Bangladeshi schools will be able to make an invaluable effect in decreasing the percentage of affected children, promoting lifetime physical activity, and eradicating one of the important public health threats in Bangladesh if they focus on quality physical education.*

Keywords: Childhood obesity, physical education, Bangladesh, physical activity, healthy lifestyle, school-based intervention, public health

1.2 Introduction

Child obesity has become an alarming public health problem in Bangladesh, like many other countries worldwide, from the LMICs. In light of the current observations, studies reveal that childhood obesity is on the rise in urban areas of Bangladesh, precisely due to changes in diet and lifestyle, which involve reduced physical activity. The obesity-friendly environment consists of higher accessibility to foods with more calories and fewer physiological activity options compared to a generation ago. All these lifestyle alterations have long-term effects on overall health, as the rates of chronic disease including diabetes, cardiovascular diseases, and some forms of cancers, rise increase.

Crucially, schools have a critical chance to manage childhood obesity by designing interventions within the institutions, including PE. Physical education programs give programming opportunities through which one can enhance physical activity among learners, healthy practices and outlooks, and fundamental values of exercise and physical fitness. Indeed, physical education in Bangladesh still poses a problem because of culture and institutionality. Schoolwork takes prime over other action, though many schools even provide few hours and little with few funds for physical education, the, the disparity between quality education in urban and rural regions makes it hard for rural schools to have hooks to k adequate facilities plus instructors trained enough to teach quality PE programs.

All the same, there is a lot that can be done in physical education in order to fight childhood obesity in Bangladesh. Many times, children in schools consume unhealthy food, have poor fitness levels and have high obesity-related health risks, but a structured PE curriculum helps improve this aspect. However, practising culturally infused and creative activities in the context of PE lessons may be helpful in countering factors that are considered barriers, including, but not limited to, lack of interest among students. Yet, to amplify the beneficial effects of PE, other aspects should also be considered, such as policy-level requirements for physical activity sessions during PE classes and the professional development of teachers as well as for the development of schools' material and technical facilities.

1.3 The objective of the Paper

Based on this background, the primary purpose of this paper is to examine the part played by PE in the fight against obesity among children in Bangladesh. It aims to:

1. **Examine the Effectiveness of Physical Education:** Evaluate the effects of physical education programs implemented in schools on obesity prevalence and improved health behaviours among Bangladeshi children.

2. **Identify Challenges:** Emphasize issues and conditions under which schools often perform physical education inadequately, such as time constraints, scarcity of facilities, and differences in school SES.
3. **Promote Innovative Solutions:** Interact with physical education teachers regarding the possibility of integrating technology and enhanced methods to enhance lessons on handling childhood obesity.
4. **Advocate for Policy and Program Improvement:** Offer suggestions for policymakers, educators, and schools to attend to and improve physical learning in Bangladesh, especially in terms of inclusivity, sustainability, and effectiveness for long-term health profits.
5. **Raise Awareness:** Physical education should be considered the easiest solution to address the problem of childhood obesity and to promote physically active lifestyles and a healthier future for children in Bangladesh.

1.4 Childhood Obesity

Child obesity is a complex interaction between genetics, behaviour and environmental factors. However, there are several of them: one of the leading main causes is improper dieting and the lack of physical activity. In recent decades, the easy, easy access, energy-dense, nutrient-poor foods have led highly towards the rising childhood obesity in Bangladesh. The guidelines also aspect of eating of eating unhealthy meals through the regular intake of sugary products and other foods such as fast foods as well as processed snacks to replace everyday nutritious meals, increasing the calorie intake beyond the normal recommended levels.

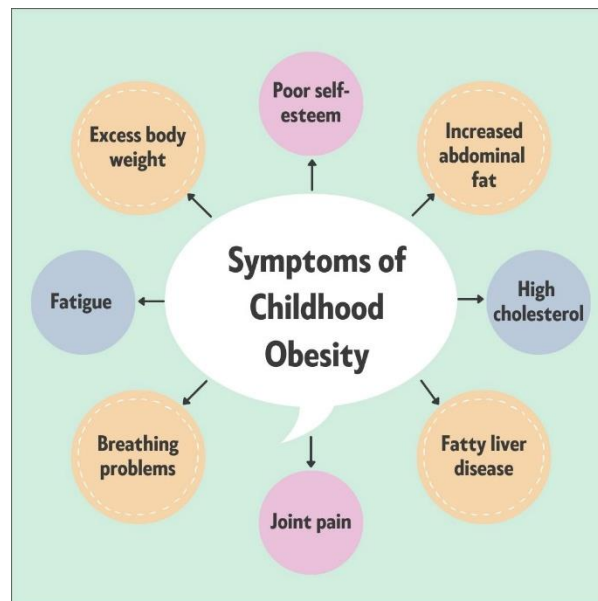


Figure 1: Childhood Obesity: Causes, Consequences, and Prevention

Lack of physical activity and increased dependency on technologies, including those available in urban Bangladesh, have also boosted this problem. As a result of an increase in screen time, children spend most of their time watching television, playing video games, and using mobile gadgets, and all these take up the better part of their free time than physical activities. This limited amount of physical activity displaces an energy gap, which is a primary cause of weight gain.

Although children can be born with genes that make them more vulnerable to obesity, environmental factors have much further-reaching and more direct effects in Bangladesh. Lack of access to safe recreational places, conjugated with an increasing tendency to reduce/eliminate a sufficient number of physical education classes in schools, reduces the ability of children to maintain regular physical activity. This is made worse by the socio-economic status of the family. Most families that cannot afford the basic needs cannot afford to get healthy foods or healthy environments for physical activity.

1.5 The Role of Physical Education in Combating Child Obesity in Bangladesh

PE in schools is a very effective weapon against childhood obesity because its availability is not questionable in Bangladesh. As a means of ensuring that students have a chance to participate in activities that ensure they get moderate to vigorous physical activity, PE has both short term and long term effects on health. As such, they enhance children's ability, knowledge, and desire to adopt an active and healthy lifestyle and increase physical activity at the same time.

Given the reality of today's Bangladesh, where the kids undergo early sedentary life due to urbanization and changes in lifestyle, getting PE right can be revolutionary. Bangladesh schools provide an opportunity by being able to cover a good number of children; therefore, physical education should be considered one of the most viable strategies in the fight against childhood obesity. In the context of Bangladesh, such as the case with many children in the developing world, PE might be the only activity that breaks their monotonous, sedentary, desk-bound life due to constant technological and academic pressures.

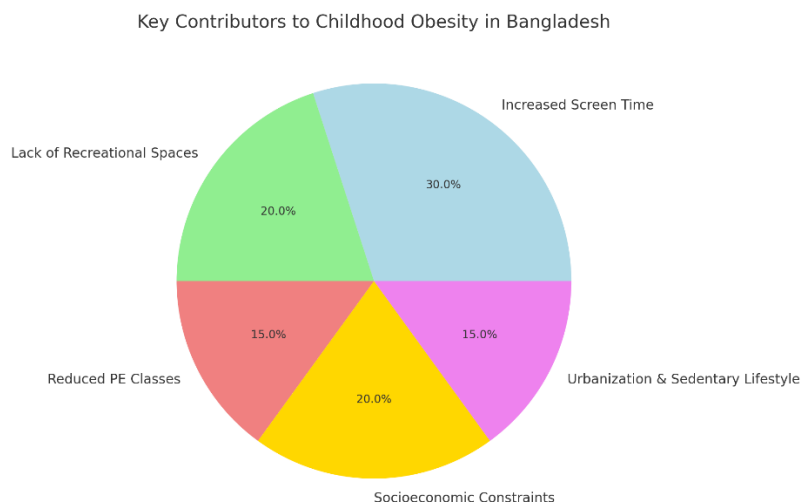


Figure: Key Contributors to Childhood Obesity in Bangladesh

With this view, the inclusion of comprehensive PE programmes in Bangladeshi schools means, by default, that policymakers have a clear solution for obesity and are in the process of remoulding the generations of the future. It is recommended that future developments of PE in Bangladesh be enhanced by the implementation of various new activities, solving the discrepancies between the urban and the rural schools, correcting infrastructure, and adequately training teachers. Lastly, more precisely, the significance of physical education lies in the struggle against the constantly increasing figures of child obesity in Bangladesh.

1.6 The Crucial Role of Physical Education in Combating Childhood Obesity in Bangladesh

In order to combat childhood obesity both globally and specifically in Bangladesh, Physical education (PE) carries a heavy responsibility since childhood obesity is on the rise due to growing urbanization, inactivity, and poor eating habits. The several PE classes in the structured learning environment enable children to exercise and effectively burn calories, improve cardiovascular systems as well as develop muscular strength. These components are basic tenets involved in watching the kind of weight one has on their body. In many schools in Bangladesh including the participating schools limited recreational opportunities are available and sedentary behaviors including screen time are increasing; therefore, PE has an important role in promoting physical activity and preventing obesity.

Studies have shown again and again the effectiveness of physical education in combating childhood obesity internationally, which is also applicable to Bangladeshi children. According to research, an overhaul of the duration and quality of PE sessions can be a way of reducing the forecast of obesity in children. Successful and enjoyable PE providing both movement and education on how to adopt a healthy lifestyle and diet have the biggest

potential. In Bangladesh many communities have little knowledge regarding proper nutrition and fitness education, physical education help children to gain the knowledge in this latter.

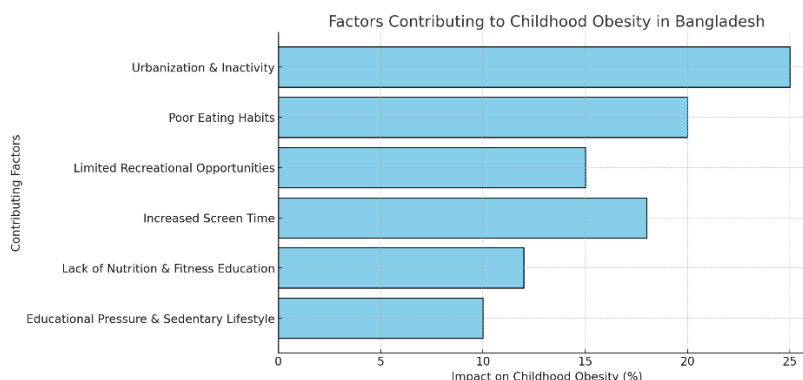


Figure 3 : Factors Contributing to Childhood Obesity in Bangladesh

Besides training the body, PE is a significant part in training a habit that will be useful in a lifetime. These ways prove that PE contributes to the development of a positive attitude regarding physical activity in the children in Bangladesh as the program introduces them to the basic principles of physical fitness and exercising, as well as sports. This makes a positive contribution to the risk that children will maintain activity levels throughout their lifetime to reduce obesity and chronic disease.

In the case of the country in the discussion, where children are caught up with urban life and educational pressures imply little to no body activity, PE is a chance to include exercise in a child's daily schedule. Children spend a lot of time in school, and therefore, schools are in a special category to shape their habits and behaviour. Therefore, if schools in Bangladesh are working at the same level as in the study, concern should be given to physical education to include both fitness activities and health education and help fight childhood obesity and the overall wellbeing of students.

Finally, the management of modern and creative PE sessions at schools can help to fight the growing threat of increasing childhood obesity in Bangladesh. PE not only helps offset the immediate health dangers but also indirectly contributes to establishing a healthier and more physically active next generation of the population.

1.7 Challenges Facing Physical Education Programs

Several challenges have been identified in the process of undertaking Physical Education (PE) for the prevention of childhood obesity in Bangladesh, most of which are inconveniences borne out of systematic, social, and economic constraints. These challenges negatively affect the quality implementation of PE programs, resulting in a reduced influence on the escalating trend of obesity among children in Bangladesh.

There is also limited time and physical space provided in schools for this important subject in the PE curriculum. In many schools of Bangladesh, the educational eth Relations: Academically oriented drama dominates the elementary focus, and health and adequate physical activity of the learners are neglected. When planning for children, parents, teachers, and policymakers make much of academic curriculum areas like maths, science, and language, ignoring or deeming physical education as less relevant or essential. For this reason, PE classes are typically unscheduled; they may meet at most once a week or are frequently excluded from the curriculum entirely. This lack of priority means that most of the students often do not get enough chances to perform physical exercises as required by experts in an effort to counteract sedentary activities and the illnesses that come with them. Another subject is that PE programs themselves vary significantly in the quality offered throughout different schools. In many schools, PE classes are ill-developed, and few principles attempt to get learners involved in purposeful physical activities. Consequently, the sessions are poorly planned, have no clearly stated goals and objectives, and do not involve developmentally appropriate practice, leading to unproductive and unmotivating contacts that do not meet the children's need for exercise. In addition, there is a perceived shortage of trainers who specialize in PE instruction quantity. A number of schools have pedestrian personnel or teachers with little or no professional input into physical education to conduct sessions that often lack the much-needed professional direction and creativity. Teachers with proper training are a requisite since possibly Sign, Language, or Jamaican Patwa-speaking PE instructors will not be as effective at encouraging positive attitudes toward fitness or managing childhood obesity.

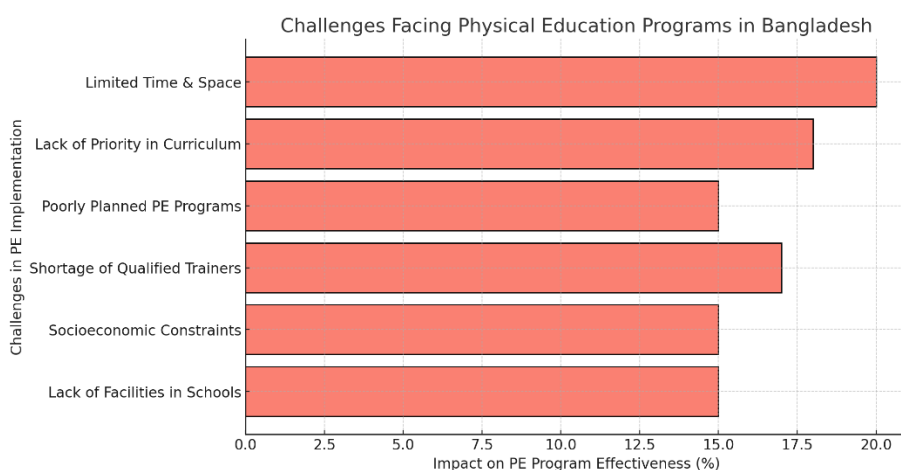


Figure 4: Challenges Facing Physical Education Programs in Bangladesh

Staying on top of these challenges is made even more difficult by issues of socioeconomic status. Schools in poor areas are widely known to be deprived of basic facilities like playgrounds, balls, and even space for children to run around. Here, PE development often suffers from cutbacks or the complete absence of PE programs because of the financial situation. Furthermore, students from needy schools may lack proper play arenas after school or any other time apart from school, hence the little chance they have to exercise. Such differences are huge, especially in urban cities of Bangladesh where the trend of childhood obesity is evidently connected with their sedentary lifestyles, inadequate and insufficient availability of healthy foods and their physically inactive nature.

Resolution of these challenges becomes important in order to realise PE's potential as an effective means of dealing with childhood obesity in Bangladesh. Failure to dedicate time, enhance the quality of, or address inequities in PE programs means that they will not effect positive change in the health of children within the nation.

1.8 Addressing the Challenges

Gola 5: Improve policy and school-level strategies for targeted increased use of PE to address child obesity in Bangladesh. To this end, a targeted strategic approach is required to emphasise the role of PE at the policy and school levels. Any policy makers of this nation should consider this as a very crucial factor for the comprehensive development of the students and that there should be standard set minimum PE hours across schools throughout the country. This can help, therefore, to confirm that children in Bangladesh are being provided with enough chances for physical activities within school time.

Schools should also ensure that there is quality enhancement in programmes that are offered by the schools in the form of physical exercise. These are Offering training for educators and ensuring that all teachers are capable of properly instructing students, along with establishing and implementing courses that include physically engaging movements alongside information about the right way to eat and live a healthy lifestyle. This method is also valuable for Bangladesh, where local culturally related sports and activities would be helpful in capturing children from different backgrounds.

Also, there is a vital need for schools in Bangladesh to develop a culture that supports physical activity at schools other than the period dedicated to PE. This may include providing after-school sports activities, increasing the provision and accessibility of playgrounds and game areas, and including physical activity during school breaks. Suppose Bangladesh solves

these challenges and improves the role of PE. In that case, the country will be able to reduce the problem of obesity in children significantly, as well as improve future generations' health.

1.9 The Role of Technology and Innovation in Combating Childhood Obesity

Technology is actually both a problem and a solution to childhood obesity. First, Screen time is established as having a positive and proportionate correlation with sedentary behaviours and weight gain, which are considered major causes of the increase in child obesity rates. For its part, innovative uses of technologies offer positive new avenues for encouraging exercise, excluding youths from sedentary activity, and confronting obesity proficiently. Importantly, technology can be used as a somewhat effective means for promoting changes in PE settings and encouraging a healthy way of life.

Long hours spent browsing screens have been known to prompt more sitting times. Kids nowadays spend more and more time in front of smartphones, tablets, gaming controls, etc. This new trend replaces many of the outdoor activities that require movement, which leads to energy expenditure and weight gain when energy expenditure is less than energy intake. In Bangladesh, the increasing availability of technology has become a problem in how much time children spend in front of the screen, which is more highlighted in the urban areas where children mostly lack recreational places. But while technology is to some extent a conduit for this misconception, it is also possible to use technologies to do something about it.

Examples include fitness applications with which children can interact, wearable fitness tracks, and video games involving movements. Exercise becomes fun through invitations to permanently installed applications for children where they can install fitness challenges, counting steps and rewards. Smart bands, smart watches or other simple pedometer devices help the students to self-monitor their activity level and set and meet their fitness goals. These tools can be invaluable in making fit and fun, and when a child gets it right, it feels perfect, so they are fit.

Other types of impact games are motion-based games that entail dancing games, virtual sports, and or fitness interactive challenges. The primary characteristic of these games is that they involve the physical movement of the participants, converting exercise into fun and a battle. For instance, children may perform dance competitions through electronics or may perform group activities form virtual sports in bid you are physically active. Children especially enjoyed this type of gamification, which has been known to increase fitness since the children would be more willing to go through a number of exercises.

Screen time and sedentary behaviour are now emerging phases in Bangladesh's contact with the country, and therefore, schools can assist in the use of technology in the course of their

PE programmes. For instance, teachers can wear gadgets and track amendments to improve activity during and after physical exercise lessons. The information collected can be used to monitor the advancement, look for patterns, and share information in PE programs for the students. When the information is used to develop individual fitness programs for use in schools, then student fitness levels, interests, and goals can be met in PE and achieve maximum effectiveness.

However, there are specific additional ways through which schools can even enhance the level of P.E classes: Gamification of P.E., Organizing step-counting competitions, or any other activities that you were giving rewards for in the classroom can encourage students to engage in different physical activities. Furthermore, combining movement activity games into the curriculum of physical education may cause students to run away from regular games or exercises. For instance, it became possible to apply VR equipment in classes by organising enjoyable physical activities, like lifting weights and imitating obstacles or team exercises mimicking sports.

Further, the use of technology in learner affairs makes it possible to cater for individual differences while teaching physical education. Teachers use these devices to develop fitness programs to suit individual needs in class, allowing them to immediately input what type of activity they engage in, how much they move around, their pulse rate, and the amount of energy they expend. Every child can set goals appropriate to their inactive lifestyle or health issues and work step by step towards a healthier lifestyle. Likewise, scholars can set higher targets of difficulty in practicals when they are more enhanced. It makes sure that even those who have the least fitness abilities in class will benefit from a physical education class.

Employing technology in conducting physical activities also brings other related changes, such as collaboration and participation of parents. Some activity data can be communicated to parents so that schools can encourage families to promote activity at home. With the same apps or trackers, parents can set goals for family fitness or engage in exercises with their children. This makes the obesity fight comprehensive and takes the impacts of physical education beyond the classroom.

Obesity trends are increasing among the children of Bangladesh due to the effects of urbanisation and changes in their physical activities, and this is why the implementation of the use of technology in PE has been made relevant. Child development and motor skill programs also offer a chance for schools to bring the more conventional hands-on elements of physical education together with the application of technological tools. Namely, employing technology in the process of engaging students with the process of exercising,

creating a fitness training program, and general monitoring of the results enable schools to make physical education classes more engaging, representative of the learners, and successfully meet their goals.

1.10 Conclusion

Physical education is a vital weapon in the fight against childhood; it offers children systematic exercise, education and regular healthy practices. In Bangladesh, where childhood obesity indicators are gradually increasing owing to the process of urbanisation and lifestyle transition, it is essential to focus on improving the teaching-learning process of PE programs. Nevertheless, for PE programs to have the most significant effect, they must change for the better to suit today's problems. This encompasses quality, teaching and learning issues, including inclusiveness, and the selective use of innovations, including the use of technology. The school can reduce physical activity inequalities by increasing resource availability, extending the time proposed for it, and solving the problems concerning physical education accessibility. Technology can even work when used in complement to PE lessons and help to make exercise more fun, interesting, and personalised for students. Projects like fitness-related games, bracelets for measuring activity, and sports that engage children are great for developing children's desire to work out and become more healthy.

Altogether, physical education should be recognized and promoted as one of the main preventive measures of childhood obesity and as an essential form-shaping health fundamental for people of all ages. Despite these findings, schools in Bangladesh can contribute to the betterment of the situation and the development of healthier future generations only through continued efforts to enhance the quality and implementation of PE programs and the inclusion of best practices.

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