SIGNIFICANCE OF PHYSICAL EDUCATION FOR SCHOOL STUDENTS

DR. SANTOSH KUMAR MISHRA*+
*Technical Assistant, Population Education Resource Centre,
Department of Continuing and Adult Education and Extension Work, S. N. D. T. Women's University,
Patkar Hall Building, First Floor, New Marine Lines, Mumbai - 400020, Maharashtra, India,
*Corresponding Author Ph: 022-22066892; Email: drskmishrain@yahoo.com

DOI: 10.26524/1319

Abstract
Physical education fosters personal and community wellness by empowering students to attain healthy, lifelong attitudes and behaviors through physical activity as part of the total educational experience. It:

promotes a physically active lifestyle;

- is a link to good health;
- is a preventative measure against disease;
- is a program for muscle strength and fitness;
- promotes academic learning;
- builds self esteem; and
- develops cooperation, teamwork and sportsmanship skill

The purpose of physical education is to instill in students, at an early age, the value of self preservation and choosing a lifestyle that is good for both the mind and body. Most physical education programs are holistic. The program allows student to interact together to a common goal and that is to win and excel physically. It brings out the competitive sides of students working both body and mind but also promotes sportsmanship. This paper primarily aims to give an insight into the health benefits of physical education programs for students within the school system. It also provides legislative / regulatory recommendations for the purpose of improving the quality of physical education. The paper concludes that by addressing the quality, quantity and intensity of physical education across the country (the educational as well as the activity component), policymakers will maximize children's potential for a lifetime of:

- physical activity,
- health, and
- wellness.

Key words: Physical education, school, students, active living, health, program, education, and strategies.

1. Introduction:
Quality, daily physical education in the nation's schools is an important part of a student's comprehensive, well-rounded education program and a means of positively impacting life-long health and well-being. The optimal physical education program will foster a lifetime commitment to physical activity as part of a healthy lifestyle. Ultimately, improved coordinated school health programs, of which physical education is a central component, will augment other prevention efforts and help to reverse the growing epidemic of childhood obesity which threatens to undo decades of progress in the fight against cardiovascular disease. Effective efforts made now will help children avoid a lifetime of chronic disease and disability [1–4].

Physical education develops the students' motor skills and hand-eye coordination. It also develops the upper body muscles through activities like doing pushups as well the lower body muscles (for instance, through stationary jumping jacks, running and jumping exercises, etc.). Programs usually have core training exercises also like doing abdominal crunches. Physical health allows students to function even better in classrooms. A good cardiovascular system developed from regular exercise promotes excellent blood and oxygen circulation. This means more nutrients circulate throughout the body which includes the brain. This circulation produces longer attention span during classes allowing longer concentration and absorption. Students who are active in physical activities like basketball, volleyball, martial arts and running just to name a few are more confident with themselves. It is because of the self discipline and dedication to excel in a sport that brings out the best in students. In school, the physical education program introduces these sport activities to students, allowing them to make choices to which sport areas they want to get involved in. This paper aims to give an insight into the health benefits of physical education programs for students within the school system. It also provides legislative / regulatory recommendations for the purpose of improving the quality of physical education.
2. Conceptual Framework of Physical Education:
Physical Education fosters personal and community wellness by empowering students to attain healthy, lifelong attitudes and behaviours through physical activity as part of the total educational experience. A Curriculum Framework for Physical Education: Adjusting the Focus builds on the belief that learners in a school setting have a fundamental need and desire for movement. This framework defines physical education as "that part of the educational experience which provides learners with the opportunity to become aware of and engage in physical activity that is whole-bodied, intrinsically valuable and personally meaningful within the context of the learners' social and environmental setting."

Physical education, in its broadest sense, contributes to the followings among school students:

- **Personal Development**: Students will be able to, for example:
  - make appropriate decisions in relation to physical activity and take responsibility for those decisions;
  - explore movement activities purposefully both independently and in groups;
  - demonstrate understanding of the relationship between health and an active lifestyle;
  - discriminate among a wide variety of active living career opportunities;
  - demonstrate leadership and interpersonal skills in relation to active living programs; and
  - reflect critically on personal-global issues in relation to active living.

- **Citizenship**: Students will be able to, for example:
  - demonstrate understanding of the importance of rules and regulations in society through the application of rules and principles of fair play in game situations;
  - demonstrate understanding of sustainable development and its implications for the environment;
  - demonstrate co-operative group skills; and
  - demonstrate understanding of the need for social interdependence.

- **Communication**: Students will be able to, for example:
  - explore, reflect on, and express their own ideas, learning, perceptions and feelings relating to movement;
  - demonstrate understanding of facts and relationships presented through words, numbers, symbols, graphs and charts, in relation to game or group activities;
  - access, process, evaluate and share information relating to health and active living;
  - present information and instructions clearly, logically, concisely and accurately for a variety of audiences;
  - interpret, evaluate and express data in everyday language; and
  - critically reflect on and interpret ideas presented through a variety of media.

- **Problem Solving**: Students will be able to, for example:
  - identify, describe, formulate and reformulate movement problems;
  - formulate tentative ideas, and question assumptions to solve movement problems individually and collaboratively;
  - acquire, process and interpret information critically to make informed decisions related to active living;
  - use a variety of strategies and perspectives with flexibility and creativity for solving problems;
  - frame and test hypotheses;
  - ask questions, observe interpersonal relationships, make inferences and draw conclusions;
  - identify, describe and interpret different points of view related to active living and distinguish fact from opinion.

- **Aesthetic Expression**: Students will be able to, for example:
  - use various movements as a means of formulating and expressing ideas, perceptions and feelings;
  - demonstrate understanding of the contribution of movement to daily life, cultural identity and diversity, and the economy;
  - demonstrate understanding of the ideas, perceptions and feelings of others as expressed in various movement forms; and
  - demonstrate understanding of the significance of cultural resources such as gymnasiums and outdoor recreational facilities.
Technological Competence: Students will be able to, for example:
- demonstrate understanding of and use existing and developing technologies relating to health and active living;
- locate, evaluate, adapt, create and share information relating to active living, using a variety of sources and technologies;
- demonstrate understanding of the impact of technology on health and active living; and
- demonstrate understanding of ethical issues related to the use of technology in a local and personal-global context.

Spiritual and Moral Development: Students will be able to, for example:
- demonstrate an understanding in game situations that rules of ethical conduct are for the good of society;
- demonstrate a commitment to an active living philosophy that is consistent with the pursuit of peace, social justice, and respect for the sacredness and dignity of human life; and
- demonstrate an understanding that their actions involve the good of others as well as oneself.

3. Rationale:
Regular physical activity is associated with a healthier, longer life and with a lower risk of heart disease, high blood pressure, diabetes, obesity, and some cancers. Current recommendations are for children to engage in at least 60 minutes of physical activity each day. Children spend over half their day in school, so it is reasonable to require that they should get at least 30 minutes of that time in school.

Physical education should be an important part of that requirement and does more than provide some minutes of moderate-vigorous activity. It also exposes students to lifetime activities and teaches students how to integrate exercise into their lives. Since childhood obesity rates continue to rise across the regions of the globe, there is public support for more physical education in schools. A study conducted by Opinion Research Corporation International for the National Association for Sport and Physical Education (NASPE) in 2003 indicated that 81% of adults believe that daily physical education should be mandatory in schools. In a systematic review of physical education programs that increased the amount of time that students were physically active, students’ aerobic and physical fitness increased. Additionally, modifying the school physical education curricula has been found to be effective across diverse racial, ethnic, and socioeconomic groups, among boys and girls, elementary and high-school students, and in urban and rural settings. Recent research shows that regular exercise can restore blood vessel function and improve cardiovascular risk factors in obese children. A six-month exercise program has been found to reduce:
- body mass index,
- diabetes risk factors, and
- low-degree inflammation.

Evidence from the Early Childhood Longitudinal Study published in 2004 showed that physical education programs do have an impact in combating childhood obesity, especially in young adolescent girls. Just an extra hour of exercise a week lessened obesity in young overweight girls.

Benefits extend beyond improvement in health status. Studies in California suggest that children who are more physically fit perform better on standardized mathematics and reading test scores. It has been discovered that:
- children who participate in school physical education programs do not experience a harmful effect on their standardized test scores, and
- higher grades are associated with vigorous activity.

The quality of the physical education program, not just the time spent being active during physical education, is the foremost concern. Physical education policy should prioritize quality while, simultaneously and/or subsequently, trying to increase the amount of time children spend in class.

The need for children and youth to engage in regular physical activity as a pre-requisite for achieving optimum health has long been recognized. Regular physical activity results in mental and physical well-being. The best documented evidence indicates that:
Active children have more positive attitudes toward physical activity, school and themselves, and academic performance improves significantly.

Children who participate in regular positive physical activity programs, especially aerobic activities, have a more positive self-concept and develop high levels of self-esteem. They exhibit better concentration, show improvements in discipline, and are less aggressive.

Regular physical activity can alleviate stress as well as teach children how to recognize and prevent stress.

Regular physical activity is positively related to muscle strength, size and endurance.

Regular physical activity generally results in an increase in lean body mass and a decrease in body fat, without any significant change in body weight.

Regular physical activity, started in childhood, can increase the peak bone mass of early adulthood, and delay the onset of osteoporosis (bone loss).

Active lifestyles are associated with an improvement of eating habits and with a decline in substance abuse such as smoking and drinking.

Physical lifestyles are associated with an improvement of eating habits and with a decline in substance abuse such as smoking and drinking.

4. Dimensions of Physical Education:
The term “physical education” evolved from the more restrictive phrase, “physical training,” which has been in use in North America since the turn of the 20th century. Physical education denotes that the subject is a bona fide field of study in the public school system. The subject matter of physical education is human movement. This content distinguishes physical education as a critical and essential component of school curricula. Physical education, as a school subject, is directed towards understanding human movement, including the human and environmental factors that affect and are affected by movement. The ways in which people use this ability is related to other aspects of their functioning as whole persons.

Human movement can be viewed in three dimensions:

- Education about movement involves the cognitive processes that are concerned with learning concepts, rules and procedures ranging from simple spontaneous movements to complex structured movements. Learners may draw upon games, sport, athletics, swimming, rhythms and dance, and outdoor pursuits in combination with other disciplines such as anatomy, physiology, physics, psychology, or aesthetics to conduct study and inquiry. At the primary or elementary level, the theme of “movement” might take on a project with references to pastimes and games. This may be conducted within a physical education unit or integrated with other subjects. Movement concepts such as running, jumping, throwing, catching, turning and twisting might be introduced, observed and practiced. At the intermediate and senior high levels, knowledge about movement may be broken down into specialty areas (anatomy, physiology, biomechanics, movement as culture, history of games) or integrated with other subjects. Education about movement is confined to the transmission and transaction of “movement knowledge.”

- Education through movement is concerned with the affective contribution of movement as a means to an end. In this dimension, movement is used to achieve outcomes such as moral values and conduct, aesthetic understanding and appreciation, social interaction and socialization, or the use of leisure time that may be extrinsic to any specific activity.

- Education in movement is concerned with the qualities that are an inherent part of movement itself. In this dimension, movement provides an opportunity to participate in activities that are intrinsically valuable, holistic, culturally significant, and an important source of personal meaning and knowledge. Education in movement has to do with knowing how to move, engaging in physical activities and having a direct, lived-body experience with movement that is intrinsic to any particular physical activity. While education in movement emphasizes the “learner-as-mover,” it relates to and draws upon the other dimensions at different times and in varying degrees according to the situation and setting. It is here, in movement, when the three dimensions meet, that education as transformation can take place in physical education.

Viewed within these three dimensions, physical education is a form of human knowledge in and about movement that emphasizes content and process (the what and how of education). Through movement, learners can strive to achieve physical education outcomes that foster citizenship. All three dimensions are inter-connected to encompass the entire physical activity experience. Physical education, as a school subject, contributes to the promotion and building of active living schools and communities.
5. Physical Education as a Medium for Active Living:

Physical Education as a medium for active living in a school setting engages the "whole person":

- **Physically**: through high level participation in appropriately selected activities,
- **Mentally**: through concentration and intensity while learning new concepts and skills,
- **Emotionally**: through the confidence that comes from enjoying established skills,
- **Socially**: through associating with others, and
- **Spiritually**: through satisfaction, contentment, and a sense of inner peace.

Active living contributes to individual wellness through the innate "experience of the moment" and is reinforced on a daily basis through the knowledge, skills and feelings of enhanced self-esteem and wellness that develop over time. Active living is a way of life in which physical activity is valued and integrated into daily living. Active living is anchored in three fundamental axioms that lead to the guiding principles for school physical education:

- **Individual**: It recognizes that people are active for all sorts of reasons: work, play, challenge and achievement, health and personal development, contemplation and relaxation, creative and cultural expression, and social interaction.
- **Social**: It focuses on the individual, but it also recognizes that social norms and values, available resources, influential learners and other factors affect our choices and opportunities for participation. Our choices, in turn, affect these factors.
- **Inclusive**: It provides essential ways to express who we are as individuals or groups. It is a right of all citizens, regardless of:
  a) **ability**,
  b) **age**,
  c) **gender**,
  d) **race**,
  e) **ethnic background**,
  f) **religion**,
  g) **socio-economic status**, or
  h) **educational achievement**.

6. Active Living is more than Personal Well-being:

An active living philosophy acknowledges learners as "being multidimensional persons in an interdependent world". Rooted in the active living axioms, a rationale for physical education must be conceptualized in a way that starts with a holistic view of learners within a societal and ecological context. This conception must identify the interdependence of personal health with societal health and environmental or ecological health. *On an individual level*, physical education, as an agent for health and wellness, can promote personal responsibility and control for active lifestyles.

_However_. equally as important, physical education must focus school students’ attention towards understanding the problems of the social environment that may inhibit them and others from pursuing active lifestyles. The challenge for physical education is to engage learners in experiences which require them to take personal responsibility for active and healthy lifestyles, while critically examining how society and the environment influences individual health in both positive and negative ways. As examples, provision for outdoor play space in a school yard provides opportunities for active living, while offering rhythmic activities to females only in a school prolongs stereotyping and restricts male access to valuable movement experiences. School personnel, as well as students, need to critically examine the social and environmental factors within their specific school-community settings that both facilitate and impede student participation in physical activity.

Socialization (defined as "the process by which individuals become involved in physical activity and the roles they adopt") surrounding physical activity appears to occur at a very early age, with males and females encountering differential treatment. Through study and inquiry in physical education, teachers can encourage students to confront and reshape cultural norms and values about physical activity, countering the socialization of students toward inequity and inactivity.
7. Suggested Strategies:
A high quality physical education program enhances the physical, mental, and social/emotional development of every child and incorporates fitness education and assessment to help children understand, improve and/or maintain their physical well-being. In this matter, following legislative and/or regulatory strategies can be recommended:

- **Require** all schools to develop and implement a planned, sequential physical education curriculum that adheres to national and state standards for health and physical education;
- **Hire** a physical education coordinator at the state level to provide resources and offer support to school districts across the state;
- **Offer** regular professional development opportunities to physical education teachers which are specific to the field and require teachers to keep aware of emerging technologies, model programs, and improved teaching methods;
- **Add** requirements for fitness, cognitive, and affective assessment in physical education that are based on student improvement and knowledge gain;
- **Assure** that programs have appropriate equipment and adequate indoor and outdoor facilities;
- **Require** that students are active in moderate-vigorous physical activity for at least 50% of class time;
- **Disallow** substitutions for physical education with activities such as marching band or school sports;
- **Do not allow** students to opt out of physical education to prepare for other classes or standardized tests; and
- **Require** physical education for graduation and count the physical education grade as part of students’ overall grade-point averages.

8. Conclusion:
Authentic physical education means the use of physical activity as a medium in, through and about which students are informed and their minds opened. Students who are comfortable with their bodies tend to exhibit a general boost in confidence and soon become more willing to take risks in other areas of school life, including their academic studies. Students need to understand that their world is socially constructed, that all knowledge is historically, culturally and socially situated, and linked to their own personal histories and experiences. Through the process of personal development, students become active agents in re-creating or transforming the social conditions in their lives on a personal and global level.

Physical education plays a vital role in the students' development and growth. According to recent medical studies, physical well being of a student is directly related to his or her performance whether in class or in the office. At least 50 percent of class time should be spent in moderate to vigorous physical activity. To sum up, “by addressing the quality, quantity and intensity of physical education across the country (the educational as well as the activity component), policymakers will maximize children’s potential for a lifetime of physical activity, health and wellness.” Physical education is a social construct, a selection from culture, which contains explicit and implicit values about appropriate missions, goals and objectives.

References:
[1] AA. Meyer, G. Kundt, U. Lenschow, P. Schuff-Werner, W. Kienast, Improvement of early vascular changes and cardiovascular risk factors in obese children after a six-month exercise program, *Journal of the American College of Cardiology*, 48 (2006) 1865-1870.
[2] A. Datar, R. Sturm, Physical Education in Elementary School and Body Mass Index: Evidence from the Early Childhood Longitudinal Study, *American Journal of Public Health*, 94 (2004) 1501-6.
[3] J.F. Sallis, T.L. McKenzie, B. Kolody, M. Lewis, S. Marshall, P. Rosengard, Effects of Health-Related Physical Education on Academic Achievement: SPARK, *Research Quarterly for Exercise and Sport*, 70 (1999) 127-34.
[4] D.P. Coe, J.M. Pivarnik, C.J. Womack, M.J. Reeves, R.M. Malina, Effect of physical education and activity levels on academic achievement in children, *Medicine and Science in Sports and Exercise*, 38 (2006) 1515-1519.