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From confusion to clarity: A comprehensive study on misconceptions in physical education

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Abstract

This article emphasizes the widespread existence of misunderstandings regarding physical education practices among educators and mass people. These misconceptions include the notion that physical education solely revolves around sports competition, the perception that it holds less significance than academic subjects and the belief that physical education teachers only require proficiency in sports. The article highlights the importance of adopting a holistic strategy to enhance the standard of physical education. This involves diversifying teaching methods, promoting engagement in sports activities, and developing curriculum designs tailored to the specific requirements of teacher education in different settings. The principal causes of confusion regarding physical education activities are the scarcity of professional teachers in early childhood education and inadequate pedagogical skills. The paper proposes that educators and stakeholders implement remedial actions, such as offering professional development programs, employing interactive interventions, and integrating technology-based platforms, to rectify these misconceptions. By implementing this approach, instructors can establish an all-encompassing and hospitable atmosphere that fosters comprehensive growth, analytical reasoning, and enduring engagement in physical pursuits. The essay asserts that rectifying misconceptions regarding physical education is vital to fostering its genuine worth and purpose in kids' lives.

Keywords: Physical education, misconception, educator, exercise, movement skills, pedagogy

Introduction

Physical Education is responsible for spreading awareness about exercise and cultivating basic physical abilities in students. The number of articles in the various fields has also been deduced from where they are published ^[1]. However, despite its significance, there are many misunderstandings about physical education practice. Many of these can be traced back to misunderstandings or incomplete knowledge, adversely affecting the quality of PE programs. Physical education myths A recent study, written up and directed by Morton, shows widely held misconceptions regarding physical exercise practice. Violent exercise Previously, Kay (2008) and his colleagues investigated whether common misconceptions about sports were prevalent among counseling students in a course on the science of exercise. The study also gave them 10 multiple-choice questions to check their comprehension and pointed out the correct answer in its article. The case above is not unique among sports exercise science students; many others have similar misunderstandings about physical education. Other research has also shown that in-service and pre-serve teachers contain misconceptions about their future beliefs about how to teach PE ^[2]. They cause problems for students in learning movement techniques and can result in misunderstanding the concepts taught. In addition, misconceptions like these can perpetuate poor teaching practices and detract from the overall quality of physical education instruction.

Meaning of physical education

An instance of this is physical education, which frequently comes into contact with students' attitudes towards exercise. It looks as if youth choose to take up or avoid exercise according to the situation in PE, and this shows how privileged we are compared with young people

struggling for survival. Sprake & Walker (2015) point out that such a view of physical education emphasizes its social significance during value formation years. Marinšek and his team conducted a study that discovered that in-service preschool teachers' beliefs towards teaching PE generally did not match their actual practice or those of pre-service teachers. The study also pointed out several pedagogical content knowledge obstacles (including lack of content knowledge, confidence, interest, and training) that can interfere with movement sessions and some negative personal experiences related to PE. In addition, it stressed the need for contextualized preschool PE teacher education [3].

In addition, we need to realize that there is no way that any single well-intended measure can eradicate misconceptions. Thus, teaching methods based on such studies should be adopted by virtually all in-service teachers and ideally incorporated into the course material for pre-service teachers to prevent these misconceptions. Since capital misconceptions may be due to pedagogical factors, educators ought to train awareness and careful instruction that can prevent or correctly identify such misunderstandings.

There is an urgent need for a complete and systematic response to the problem of physical education MIS-confusions, from teacher in-service training and pre-teacher teaching courses to generating awareness about issues regarding movement among children up until developing well-structured intermediate-level sports instruction activities. What are some of the absurdities to which physical activities in our society have fallen victim?

I am talking about various common misunderstandings in physical education practices. Secondly, most people still mistakenly feel that physical education means sports competition. Although physical education emphasizes sports and competition, this aspect of the subject is more limited. Additionally, physical education includes fitness, health promotion, and motor skill development. The other myth reflects the idea that physical education outranks academic courses. People tend to think physical education does not rate on par with academic subjects but increases the students' overall well-being and develops an attitude toward exercise [4]. A further misconception must be dispelled to recognize the primary role of physical education in a comprehensive educational system.

Also, people mistakenly believe that physical education teachers must be good at sports and exercise. These three are essential factors, but the most fundamental prerequisite to becoming an effective physical education instructor is a thorough knowledge of pedagogical methods unique to this subject. Movement education means combining movement activities and physical development in a manner helpful to healthy growth as well as children's educational lives.

Targeted curriculum modules that would teach preschool teachers how to better integrate comprehensive strategies into what they do are needed to counter these misconceptions. This would upgrade their pedagogical model of utilizing early childhood education to develop children's physical health [5].

This values-oriented, integrated approach to eliminating misunderstandings in physical education and incorporating such effective methods into teacher training courses will improve PE quality and a curriculum for proper movement skills.

They promoted a multifaceted, multi-dimensional view of the importance of children's all-around development in organized physical activities such as school sports and games. Studies have demonstrated that the influence of physical exercise

depends on conditions such as intensity, range, and length in terms of whom it is exercised [6]. Thus, physical education teachers must actively seek new teaching methods to promote students' interests.

Many educators misunderstand the importance of physical education in students' lives. When kids are away 'running around' or 'playing in the gym,' with a coach yelling instructions at them, teachers perceive physical education as an opportunity to gain time to plan for other subject areas, eat lunch, or take a quick break. Hills, Dengel, and Lubans (2015), on the other hand, noted that "The health benefits of physical activity (PA) are well documented, and include improved composition of the body and the prevention of overweight and obesity, as well as improvements in skeletal, metabolic, and cardiovascular health [7]."

Moreover, encouraging schoolchildren to commute actively in their daily activities and integrate sports substances into natural surroundings can help students achieve comprehensive development. Apart from benefiting physical health, all these efforts have engendered fairer and more inviting educational environments that encourage active involvement in learning rather than blindly following the leader.

This stresses that physical education should be essential to early childhood education. Research shows that it would be of pedagogical value for physical education teachers to get into the habit of conquering space in everyday practice. It seeks to promote interest and habit in physical exercise among students. These standards need to be met by kindergarten PE instruction program content and correspond with preschool teachers' professional needs.

In addition, the Bologna Process has given pre-school teachers highly professional qualifications, but there is not adequate background training or pedagogical skills related to physical activity education. Therefore, early childhood educators need to strengthen preschool teacher education systems with special courses to help foster children's physical development.

Finally, we conclude that a systematic and focused series of efforts is needed to improve the quality and direction of physical education to maintain students' proper movement habits. It emphasizes broadening teaching techniques, encouraging participation in sports activities, and offering course designs based on the needs of a particular environment for teacher education. This will help to ensure that students are healthy and develop holistically.

Some Common misconceptions about Physical Education

Common mistakes in physical education usually result from outmoded information, cultural myths, or misconceptions. Here are some common misconceptions in the field of physical education.

- Physical Education is only about sports**
Misconception: Most people believe that physical education refers to sports like basketball, soccer, and football.
Reality: Physical education, for example, is a vast field comprising dance and gymnastics as well as fitness training and outdoor activities. It is intended to encourage general physical health and a sound lifestyle.
- Physical Education is only for athletes**
Misconception: Some even think that physical education is mainly for those with an aptitude for sports and exercise.
Reality: The physical education system is for everyone, not just the athletically gifted. It is beneficial to physical

fitness and health for all.

- **The importance of physical education diminishes with age**
Misconception: Still others hold that as students grow older, academics become more of a priority, and the effect of physical education declines.
Reality: Physical education is necessary all of one's life. A healthy body Eggshell attack No matter the age, exercise is essential to health ^[8].
- **Physical Education is an easy subject**
Misconception: Perhaps some people think that physical education is a particular subject and does not compare with the others, which are more academic.
Reality: The theoretical part of physical education includes anatomy, physiology, and principles of exercise science. Both practical skills and theory are needed.
- **Fitness is only about physical appearance**
Misconception: Some even confuse fitness with being thin and believe that fit people must be healthy.
Reality: There are several aspects to fitness, including cardiovascular endurance, muscular strength, flexibility, and composition. It is not just about image but also health.
- **Physical education is only for weight loss**
Misconception: Some people even think that reducing body weight or fat is the main objective of physical education.
Reality: Yet while physical education may help develop an ideal body type, it is more a means of fostering comprehensive health, cardiovascular fitness, muscular strength, and good mental humor ^[8].
- **All physical activities are safe for everyone**
Misconception: They think that if people do any sport, anything goes. All physical activities suit all individuals regardless of their condition or fitness levels.
Reality: Physical education also places great stress on safety. Individual abilities should be considered when introducing activities; injuries must also be avoided.
- **Physical education is only for the fit and healthy**
Misconception: Some people feel that physical education is inappropriate for all; only the already healthy need applies.
Reality: Physical education can be designed to fit the interests and abilities of all participants regardless of their fitness levels. No matter the starting point, it is a way of achieving better health and fitness.
- **Sports specialization is the only way to excel**
Misconception: Some think that if a person wants to excel at athletics, he or she must specialize very early on.
Reality: Early specialization often results in overuse injuries and burnout. A comprehensive physical education curriculum promotes exposure; people can see what they like and are good at.
- **Physical education is not intellectually challenging**
Misconception: Physical education, of course, is less academic and not as demanding intellectually.
Reality: The subject matter is anatomy, physiology, biomechanics, and sports psychology. Students are forced to take a hard, critical look at movement, health, and well-being.
- **Fitness can be achieved only through intense workouts**
Misconception: Another myth is that fitness goals can only be attained through intensive movement.
Reality: Walking, swimming, and cycling can be

combined to reach a moderate fitness level. However, a balanced approach is much more durable.

- **Physical education is not essential in the age of technology**
Misconception: Since the advent of technology and sedentary lifestyles, perhaps some would say that physical education has become superfluous.
Reality: Inactivity and sedentary lifestyle are both associated with ill health. It emphasizes the need for physical education to encourage an active lifestyle and counter sedentary behavior.
- **Body weight is the sole indicator of fitness**
Misconception: Some people think one can assume that the thinner someone is, the fitter they must be; conversely, high body weight means poor health.
Reality: Fitness means overall health, cardiovascular fitness, muscular strength, flexibility, and body composition. Body weight alone is insufficient to give a complete picture of well-being.
- **Physical education is only about competition**
Misconception: People think physical education is about competitive sports activities and winning.
Reality: Physical education stresses cooperation, group work, and the development of skills. After all, competition is only part of it; individual development and physical health are at least as important.
- **Physical education hampers academic**
Misconception: People think this subject is all about physical activity, and it distracts the students from focusing on other subjects.
Reality: A student's physical health is related to the student's academic performance. Students have a better chance of academic achievements if they engage more in physical activities.

Exploring the Origin of Mistakes

If such misconceptions are to be identified and eliminated, the origins of these practices must first be determined. I think of several potential misconceptions about physical education treatment.

Sources of misconceptions in physical education

The lack of specialized teachers in early childhood education is nothing new. The lack of a particular teacher for physical ed in early childhood education is one of the primary causes of misunderstandings about physical education practices ^[9]. In early childhood education, although physical education is a required curricular element, the law cannot even ensure that there will be time for gym class. The importance of having a regular presence in early childhood education has been pointed out by studies emphasizing how physical education is intimately tied to a teacher's pedagogical value. This absence of specialized teacher presence must be addressed if misconceptions about the role and value of physical education in childhood pedagogy are to change ^[10].

Insufficient Pedagogical Knowledge

The other important source of misunderstandings is that teachers lack pedagogical content knowledge and training. Part of this is inadequate content knowledge, confidence, interest, and unfavorable personal experiences with physical education. These gaps should be tackled at the level of pedagogical content knowledge, with specific modules and continuous training for teachers. In this way, teachers can successfully implement comprehensive measures in their

everyday work and ensure the correct movement methods of students as well as their physical development^[11].

Lack of awareness and understanding

Moreover, misunderstandings about physical education usually stem from a lack of appreciation and knowledge of the comprehensive nature of physical education. Another common myth is that physical education equates to sports and competition, with its broader aims of fitness maintenance and promotion of health being forgotten. Removing these preconceptions will require educating teachers and the general public^[12]. In other words, it's necessary to make people understand that physical education has many dimensions and is an indispensable part of a comprehensive educational framework.

Specialized pedagogical tactics

Lastly, there are misunderstandings about the lack of special pedagogical techniques designed exclusively for physical education. Integrated movement activities or fostering physical development should be emphasized to serve healthy children and educational goals. If educators can improve this misperception and offer better orderly guidance, then eventually, the true significance of physical education will be able to penetrate educational practices^[13].

In order to give students an authentic appreciation of the true value and function in their self-cultivation, we must first understand these erroneous conceptions for how they can be specifically corrected by physical education intervention. Through specially designed modules and continuous professional education, pre-service and in-service teachers can strengthen their pedagogical content knowledge on physical education. This will allow them to draft and teach a physical education curriculum that focuses on sports and includes basic movement skills, tactics, and concepts designed to upgrade students' movement abilities^[14]. Secondly, changes that improve health are directly influenced by educational aims; physical education activities can only be made to fit with a school's philosophy when they suit its curriculum and environment^[15]. If, by allowing family and community participation in planning and implementing these methods, we can make the physical education approach to health even more well-rounded, then this will be even better. Analyzing and rectifying misunderstandings in physical education teaching is all the more important so that students understand its full scope. In order to rectify them, we have to shift the attention to pre-service teacher education and prioritize physical science training. Making such changes requires strengthening their understanding of how school students understand physics^[16]. What's more, research suggests that interventions that connect the concepts with physical activity have positively affected their learning^[17]. To redress these misunderstandings, there is no easy one-size-fits-all solution. Educators and families need to work very closely with early childhood centers. What's also important is that teachers of physical education must encourage students' physical activity and healthy development. Furthermore, they have an important job: encouraging students to exercise and using them as examples of healthy behavior and relationship building^[18]. Nevertheless, by eliminating unfounded concepts about physical education practice, educators can help to increase students' understanding of the purpose and significance of sports in their overall development.

Effects of misconceptions on physical education

Incorrect ideas about physical education have a serious influence on students' education. In addition, these misconceptions may cause students to lose their basic sense of movement and be unable to grasp critical concepts in physical education. For instance, if students get the impression that physical education is only concerned with sports and game-related activities, they won't encounter enough different types of movement or have a broad appreciation for fitness and well-being. This narrow definition of physical education can only confine the scope for students' education, exercise, and general condition^[19]. In addition, the twist about the function of physical education can also influence students' future attitudes toward exercise. All of this can depress the will to engage in exercise and plant a seed of ignorance about lifelong health. Indeed, students may not perceive the value of general health and physical education they would obtain from outside of sports. The result is an incomplete picture that affects their willingness to participate at school and elsewhere, which negatively affects life-long health and well-being.

In addition, misunderstandings about physical education often translate into teachers' approaches to teaching and the standard of physical education programs. Some mistaken educators, however, are disgusted with the aspects of sports and place more emphasis on activities based around playing games^[20]. This often means the loss of chances for students to develop their movement ability, overall fitness, and personal qualities. Moreover, the fact that there are no special pedagogical methods in place for reasons of misunderstanding makes it difficult for teachers to encourage physical development and tailor learning activities to students' abilities.

Educators and interested parties should counter these influences by emphasizing appropriate interventions to change misconceptions such as this and continual professional training. By providing educators with the relevant pedagogical content knowledge and methods, they can offer complete physical education that emphasizes holistic development, a welcoming environment, and well-being over an entire lifetime^[21]. Moreover, building understanding among students and parents about the many dimensions of physical education can eliminate preconceived notions that cause so much misunderstanding. Perhaps this is how we win more openness for constructing a healthier approach to physical education.

In sum, understanding the effects of physical education is essential if students are to recognize and accept its true meaning for their overall development. Through targeted efforts to correct these misunderstandings, it should be possible for parents and all those engaged in education (including teachers) to help achieve the goal of truly promoting holistic physical development.

Methods for Correcting Misconceptions

There are several approaches that can be taken to correct the mistakes that exist in physical education. He believes that educators should begin by thoroughly assessing their attitudes and methods to find out if there are any myths they cling to. Through professional development, educators must have a chance to reflect on these issues and learn reliable information about the principles of physical education and inclusive practices. Additionally, educators can employ the following

strategies to address and correct misconceptions in physical education practices.

Engage in ongoing professional development

The article states that access to professional development opportunities of appropriate quality can give educators the power they need to dispel misconceptions. In addition, they ought to actively attend workshops and courses that deal exclusively with inclusive physical training methods or refute misconceptions [22].

Integrate hands-on and experiential learning activities

Allowing students to participate in physical education and practical exercises can also help them overcome misunderstandings. Activities can range from group discussions and problem-solving tasks to simulation exercises that put theory into practice, exploding past misconceptions [23].

Provide clear and accurate information

Educators must take steps to guarantee that the material they present in physical education is valid, up-to-date, and meets standards. It can be done through the use of new textbooks, accurate and informative websites, and guest lecturers who are expert physical educators. Moreover, educators ought to actively solicit student feedback so as not to hear about the persistence of any misconceptions that may be planted in their students' minds [24].

Implement formative assessments

Formative examinations, including quizzes, discussions, and peer evaluations, can reveal the students' misunderstandings so that educators know where their support is needed. Educators can adopt the practice of checking for understanding and misconceptions, thereby adjusting instructional methods to suit their students. The educational results will be better as a result [25].

Foster a collaborative learning environment

Only by fostering a classroom atmosphere that is inclusive of all students and welcoming to their ideas can misconceptions be broken down. Peer-to-peer discussions and activities that allow students to work through problems together can facilitate discussion and eliminate inaccuracies [26].

Utilize technology and multimedia resources

Using technology and multimedia resources to instruct in physical education can provide different points of view, giving students a deeper understanding. Interactive simulations, educational videos, and online platforms can be employed to convey accurate information with alternatives that defy previously held notions [27].

Establish partnerships with families and the community

Joint efforts with families and society as a whole can also help to dispel misunderstandings about physical education. Educators, however, can introduce discussions on the all-round effects of physical education and its coordination with child development. Also, developing cooperation with community organizations and the health care system can help bring perspectives from various sources to bear on promoting correct concepts about physical education [28].

With these techniques, physical education teachers can successfully deal with and correct commonly held conceptions about their work in a step toward greater

understanding between users and providers of information. By continuing to break through these misconceptions, physical education can live up to its ideal of contributing to the students' whole-person development and lifetime health.

Case Studies: Practical Success: Correcting People's Perceptions

The key to this is addressing the misconceptions of physical education. To compare, let's look at some case studies.

The study by Johnson *et al.* sought to dispel high school students' misconceptions about the benefits of exercise. The research team came up with a program of several-day visits featuring interactive dialogue, practical exercises, and lectures from specialists in physical education. In the final analysis, the study results showed that students' initial misconceptions about physical activity can be challenged through a combination of concentrated interventions and hands-on learning opportunities. This successful case study demonstrates the effectiveness of interactive discussion and practical exercises in countering misconceptions among students.

Another case study by Garcia and Patel described how team-taught activities helped correct misconceptions about the principles of physical education. Students can discuss their experiences and work together in group activities, thus moving towards critical thinking through practically oriented pre-N apparatus learning. The significance of this case study lies in the efforts made to establish an environment for collaborative learning to reflect and correct misunderstandings about physical education.

In addition, a follow-up study by Lee and others also brought into focus the influence of continued professional advancement and precise information provided in team sports courses. Participants in these professionally oriented professional development activities were more prepared to rectify misunderstandings and present material that reflected the latest research methods. This research showed that it is necessary to give educators accurate information and resources to overcome misunderstandings about physical education.

All these case studies prove the effectiveness of a variety of techniques towards eliminating misconceptions in physical education. In both general education and physical education, from interactive interventions or collaborative learning environments to follow-up professional development programs or the provision of accurate information, educators have a variety of methods at their beck and call with which they can break down misconceptions in order to create niches for knowledge among all parties concerned. Besides this, a meta-analysis by Smith *et al.* [29]

But it also raises the question of how to use technology, including Physical Education-integrated applications, to better correct misconceptions and get children more interested in and motivated about physical education [30]. With the help of technological tools and platforms, educators can build active learning environments that directly confront misconceptions and encourage critical thinking. These results serve to point out the urgent need to use instructional methods supported by evidence and keep up with research trends in physical education. To sum up, physical education practice should also be clear about rectifying mistaken views and provide students with an overall understanding.

Research design myths shaping the future directions

Yet it seems while there have been major breakthroughs in

appreciation of and adjustment to concepts involved with physical education, there is still room for study. Secondly, which misconceptions are present in physical education, and why do they exist? Future studies will have to address these questions. This can be done through case studies and surveys of prospective, in-service teachers and students from physical education programs. Furthermore, follow-up studies should explore which tactics work best in dispelling those misconceptions. For instance, a comparative study could be undertaken to examine the effectiveness of interactive interventions compared with more traditional forms of instruction. Do such things have an impact on students' misconceptions about physical education? In addition, it is worth looking into how teacher education programs can help resolve misconceptions about physical education. For example, it could mean examining the curriculum of physical education courses to see where misconceptions need to be included and how methods for dealing with them can best prepare pre-service teachers (Mataka & Taibu 2019). Further research is also needed into how app-integrated Physical Education can dispel misconceptions and help students gain an in-depth understanding of physical education.

Physical education is closely related to physiology. How can physical educators build upon this knowledge base? Integrate technology in order to reduce misconceptions.

That's why incorporating digital technology into physical education can be employed as an effective way to address and correct misconceptions. Studies indicate that using app-based Physical Education can enhance student participation and interest and allow students to break down many fallacies about physical activity and health. Using technology in education means helping to establish an interactive learning environment that can directly and actively address students' misconceptions about physical education concepts.

On the other hand, empirical research has applauded digital technology's ability to extend direct physical activity during lessons. Through app-integrated Physical Education, teachers can take full advantage of technological aids to give students hands-on and engaging experiences that will correct many misconceptions and stimulate active learning. In addition, the attainment of study contents can be assessed with digital technologies, and students' misconceptions about physical education knowledge are addressed on a one-to-one basis.

Educators must keep up with the most recent developments in the field and adhere to principles substantiated by scientific evidence. This is particularly true of how digital technologies are used in physical education today. However, by using innovative technological tools and taking advantage of every moment to help correct misconceptions through discussion or activity, educators can turn what is normally considered pure entertainment into an environment for learning.

Overall, using technology to aid physical education by correcting and dissolving common misconceptions is a historic opportunity for students' appropriate understanding. With evolving digital technologies, research and practice in physical education remain vital in developing evidence-based strategies for dealing with misconceptions that can facilitate student learning.

Conclusion

From the combined results of several studies and research in this area, it is clear that correcting false notions is one way to foster proper acceptance among students. Educators should play a critical role in changing and abating such misconceptions by providing opportunities to study together,

keeping up with current research findings, and using new technologies in teaching.

Accurate information coupled with continuous professional training has been proven effective in providing teachers with the tools to correct misconceptions and prepare them to teach content based on evidence-based methodology. In addition, technology (for example, app-integrated Physical Education) has proven effective at combating misconceptions while encouraging student participation and motivation to strive for a deeper understanding of physical education principles.

As a result, it is essential in the future to research which misconceptions exist among physical education students and how effective corresponding counter-intervention methods can be. Also, using technology in physical education could provide a concrete basis for students to counter misconceptions and improve understanding actively.

To conclude, setting the record straight in physical education means eliminating misconceptions and bringing about a complete view of things. Educators, researchers, and stakeholders should all work together collectively to promote evidence-based teaching practices in physical education; they need to keep up with new developments for better student instruction.

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