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## The importance of physical education and sport in primary (Elementary) school

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### Abstract

**Aim and Scope:** This paper analyzes the importance of physical education and sport in primary (elementary) school.

Traditionally, physical education has been ascribed less value than other subject areas within an educational context. However, recent research has revealed that physical education plays a vital role in providing a well-rounded education. Physical education and sports are associated with a wide range of benefits. Firstly, physical education promotes overall physical and emotional health of primary school children. Additionally, physical education provides an opportunity for social growth and increased cultural competence among primary school children. Further, it fosters cognitive competence, leading to improved performance in examinations. Finally, physical education at the primary school level instills a positive lifestyle among students, encouraging them to adopt healthy habits throughout adulthood. In addition to these benefits, this paper delves into the pitfalls of taking children out of physical education during examination preparation, underscores the critical role of instructors in delivering physical education, and highlights the significance of having adequately trained and qualified educators in teaching physical education and sports lessons.

**Keywords:** Physical education, sports, primary school, academic performance, health, social wellbeing, educators

### Introduction

The United Nations Educational, Scientific, and Cultural Organization has classified education as a fundamental human right (UNESCO, 2023) [25]. This classification of education has been accepted by most countries worldwide. In Trinidad and Tobago, access to primary education is compulsory, a fact which stresses its perceived importance. The twin island Republic also offers free tuition up to university education, a practice which has propelled her to achieve a literacy rating which exceeds 98% (Freeman, 2022) [6]. Broadly, education encompasses what is learned in classrooms, such as mathematics, languages, and sciences. Physical Education (PE) however, despite being one of the subject areas in education, has traditionally been regarded as less important than the other classroom subjects.

Notwithstanding the above, advocacy for greater emphasis to be placed on physical education within the educational context has continued to increase. This is because physical education and sports are essential to the development of all students, including those in primary (elementary) school. The government of Trinidad and Tobago has continued to echo the importance of physical education in its school system. Through the Physical Education and Sport Division (PESD), the government has continuously facilitated the development of physical education and sport (Government of Trinidad and Tobago, 2020) [10]. This paper, split into four sections, will discuss the importance of physical education and sports in primary school children.

The first section of this paper analyzes the benefits of physical education and sports in primary school students; physical education has been associated with students' health, social, academic, and behavioral benefits. The paper's second section analyzes the errors in taking children out of sports and PE as they prepare for examinations; parents usually take their children out of PE and sports during examinations. While this practice is intended to increase the time spent in preparation for examinations, thus improving performance, research shows that taking a break from PE is counterproductive to performance in examinations.

The third section of this paper explores the critical role of PE teachers in the education system; in addition to facilitating PE sessions, teachers act as talent detectors in the students' early stages of development. Finally, the last section explores the need and importance of properly trained and qualified teachers for PE and sports. This is extremely important as all the benefits associated with PE and sports can only be fully realized if competent staff are engaged in the sessions' design, implementation, and evaluation.

### **Benefits of Physical Education and Sport in Primary School**

Physical education and sports have been associated with health, social, academic, and behavioral benefits. These benefits result in enhanced quality of health and a greater sense of wellbeing for persons of all ages. Children however, stand to experience the most benefits from engagement in physical education and exercises. Among primary school aged population; typically, between the ages of 5-15 years old; children undergo significant development in all growth spheres: physical, social, emotional, and psychological. As such, parents and educators must provide conducive environments and resources to foster optimal growth and development among this specified group. Physical education and sports represent one of the resources that may be provided to children to promote optimal growth.

Additionally, initiation of the same at an early age enables timely detection of abilities and skills among the children. As such, parents and educators can take necessary measures to hone these skills and talents. The benefits of physical education and sports are realized at the classroom level, in their daily lives, in their social experiences, and their futures.

### **Health Benefits of Physical Education**

Arguably, health benefits come to mind when the average person thinks about the impacts of physical education. This commonly held opinion is one which holds validity since physical education is associated with a myriad of health benefits. More specifically, for the primary school aged child, physical education is a crucial element as they undergo significant changes to their physical appearance during this stage of development. Physical education stimulates and enhances motor development in children, especially those in lower primary school (Rico-Gonzalez, 2023; Jarnig *et al.*, 2023) <sup>[19, 13]</sup>. Physical education also improves the growth of global and fine motor skills, balance, posture, coordination, as well as spatial and temporal organization among students. Achievement of the physical health benefits associated with physical education requires emphasis on strength/jump exercises and intensive interval training. These exercises involve challenging tasks, which result in increased physical fitness. Furthermore, improvements in motor, coordination, and balance skills are achieved through games that demand cognitive functioning rather than aerobic exercises (Kliziene *et al.*, 2021) <sup>[14]</sup>. Practice, repetitions, and creative body movements during physical education and sports promote the achievement of these physical health benefits. Additionally, engagement in physical activity is associated with developing healthy, strong bones and enables better sleep among primary school children. Aerobic activities conducted during sports and physical activity sessions have also been linked with improved heart and respiratory health.

Another recognized benefit of physical education and sports is its role in promoting healthy weight and body mass indices among primary school children. Overweight and obesity

represent the most significant challenges in maintaining optimal physical health among primary school children, especially in developed and developing countries. Increased access to junk and fast foods has contributed to an unhealthy lifestyle among children. An inclination to sedentary lifestyles among the general population has worsened the healthcare conditions of children (Habyarimana *et al.*, 2022; Gomwe *et al.*, 2022) <sup>[11, 9]</sup>. With technological advancements, children increasingly spend more time staring at digital screens instead of engaging in an active lifestyle (Wort *et al.*, 2021; Wiium, 2021) <sup>[27, 26]</sup>. Increased rates of overweight and obesity have a direct correlation to instances of diabetes, heart disease, arterial hypertension, respiratory disease, and high cholesterol. Engagement in physical education and sports among primary school children reduces periods of inactivity and promotes the achievement of a healthy weight. Consequently, children are protected from contracting diseases associated with obesity (Sacchetti *et al.*, 2012) <sup>[20]</sup>.

In addition to the health and weight benefits, physical education and sports also promote psychological wellness. Involvement in sports is associated with an increase in self-esteem. Physical education improves children's overall wellbeing, thus increasing their perception of themselves (self-esteem) (Villodres *et al.*, 2023) <sup>[28]</sup>. Increasing self-esteem is essential among primary school children who undergo significant physical transformations during this period of life. Additionally, engagement in physical activities increases the children's corporal consciousness. The children start recognizing their physical potential and limitations through exercises (Kliziene *et al.*, 2021; Jarnig *et al.*, 2023) <sup>[14, 13]</sup>. Consequently, students develop increased self-knowledge through participation in sports. Also, through knowledge of their potential, children can commence goal-setting to achieve individual targets. As a result, these students develop greater self-discipline and their achievement of the set goals contributes to increased self-confidence.

The health benefits of physical education are significant and consequential among children with special needs. Children with special conditions such as attention-deficit/hyperactivity disorder (ADHD) require physical activities to boost their physical and mental functioning. The classroom setting presents a challenging learning environment for children with ADHD (Taylor *et al.*, 2019) <sup>[24]</sup>. These children need help sitting still and concentrating entirely on listening to teachers or doing other classroom activities. Engagement in physical activities boosts the cognitive abilities and concentration spans of children with ADHD. As such, exercising assists in the mitigation of the symptoms of ADHD, making school a more pleasant and engaging environment. In their study, Li *et al.* found that cognitively engaging exercises improve attention among children with ADHD (2023). The full benefits of cognitive-engaging exercises are achieved when the physical activities are conducted thrice weekly.

Nonetheless, caution needs to be taken to provide physical education in addition to regular treatment interventions for ADHD for the affected children to realize all the benefits. Complete substitution of standard treatment with physical education will result in poor outcomes for the children. Added caution also has to be taken in realizing that children with ADHD have different symptoms and, hence, different needs. Instructors ought to provide physical education interventions based on the needs of the patients (Li *et al.*, 2023) <sup>[15]</sup>.

Notwithstanding all of the above-mentioned benefits, physical education has been found to reduce stress among people of all age groups. Despite children generally being perceived as

carefree, physical, family, and social issues present potential sources of stress (Strehli *et al.*, 2020)<sup>[22]</sup>. Changes in the body during adolescence may also result in the development of stress, especially among children who mature faster than their peers. Conflict at home among parents or with siblings may also be a source of stress (Mahfouz *et al.*, 2023)<sup>[16]</sup>. Issues at school, such as poor relationships with teachers or peer conflict, present another source of stress for primary school children (Kliziene *et al.*, 2021)<sup>[14]</sup>. Regardless of the source, engagement in physical education among primary school children releases emotional and physical tension. Moreover, students are provided with an avenue to maintain positive relationships with their teachers and peers, which promotes further stress reduction.

### Social Benefits of Physical Education

Physical education and sports encourage social development and understanding among primary school children. Interactions among students during physical education lessons are associated with increased appreciation, solidarity, and mutual respect (Cale, 2023)<sup>[1]</sup>. Additionally, primary school students experience increased affinity to teamwork, empathetic attitudes, and a greater appreciation for differences in physical expressions among the students. Working together to achieve common goals during PE sessions encourages the children to develop crucial communication skills and realize the importance of collaboration (Habyarimana *et al.*, 2022)<sup>[11]</sup>. Through engagement in competitive activities during sports and PE sessions, children also learn to navigate and resolve conflict constructively. Additionally, planning strategies in team games equips children with life skills such as problem-solving and leadership, which are beneficial in navigating the social sphere, both during and after formal education. Physical education increases children's awareness of their psychological limitations and those of their peers, fostering the development of self-respect and respect for others.

Improved cultural understanding, competence, and sensitivity among students from various backgrounds is another social benefit that has been linked to engagement in sports and physical education. Sports is widely considered a universal language, bringing together people from multiple origins, backgrounds, economic statuses, and religious beliefs (Drozd *et al.*, 2022)<sup>[4]</sup>. Physical education lessons in schools encompass students with an aptitude for sports development and involve all students in the classrooms. Intermingling during PE and sports sessions teaches young people about cultural sensitivity, mutual respect, and tolerance (Mahfouz *et al.*, 2023)<sup>[16]</sup>. Consequently, primary school children become culturally competent and potential ambassadors of cultural unity due to their engagement in sports and PE.

Moreover, physical education and sports promote social cohesion via utilization of energy. Primary school children are often very energetic, especially those who have entered adolescence. Left unregulated, this energy may challenge teachers and students alike (Cale, 2023)<sup>[1]</sup>. Excess energy reserves among the students may easily result in untoward behaviors in the school. As such, engagement in physical education and sports allows students to release extra energy in a productive and controlled manner. Consequently, the children overall become less irritable and frustrated. Additionally, the students experience improvements in general brain functioning and self-control, thus reducing the occurrence of poor class conduct and general misbehavior. Maintaining optimal energy levels allow the students to

maintain concentration in the classroom and avoid engaging in activities likely to disturb classroom performance (Garcia-Hermoso *et al.*, 2021)<sup>[8]</sup>. Consequently, the children maintain positive relationships with their teachers and peers alike.

In addition to the benefits above, physical activities provide students with an outlet for self-expression and creativity. According to one researcher, this medium provides a means of expression that contrasts with what is facilitated within a classroom setting (Cale, 2023)<sup>[1]</sup>. Through these sessions, children experience fun and creativity without the worry of competition or the concern for grades. Consequently, students who are not academically inclined can express themselves and discover innate abilities/intelligences that would have gone unnoticed. Through this channel, children are provided with a chance to showcase their personality and uniqueness. Additionally, children who are shy or introverted are supplied with an opportunity to interact with their peers in less threatening environments. Hence, these students develop increased self-confidence and the ability to make meaningful interactions beyond the physical education sessions (Villodres *et al.*, 2023)<sup>[28]</sup>.

### Academic Benefits of Physical Education

Among the benefits of physical education, enhanced academic performance is arguably among its most coveted. According to one study, physical education and sports stimulate cognitive functions involving attention, focus, reasoning, memory, and retrieval (Garcia-Hermoso *et al.*, 2021)<sup>[8]</sup>. Given this cognitive development, primary school learners experience a welcomed improvement to their overall academic performance. Engagement in exercises has increased oxygenation and concentration of neurotransmitters to the regions in the brain responsible for attention, reasoning, and memory. Physical exercises also improve general metabolism and blood flow to the brain, further improving brain functioning and neurological health (Habyarimana *et al.*, 2022)<sup>[11]</sup>. The hippocampus, the section of the brain responsible for learning and memory, is more significant in physically fit people than in less healthy individuals. Improved attention spans, sharper memories, and quicker processing skills associated with engagement in physical activities make academic learning easier among children.

Additionally, reduced stress and fatigue associated with physical activity boosts memory, attention, and concentration. Physical education among primary school children stimulates the production of endorphins. These endorphins improve energy levels and moods by reducing and managing anxiety and stress levels (Zhang *et al.*, 2023; Strehli *et al.*, 2020)<sup>[29, 22]</sup>. Moreover, physical education engagement is associated with improved sleep patterns and quality. Improved sleep enhances cognitive functioning, attention span, and mental alertness during the day, improving learning and grasping. Students who engage in regular physical activities develop language skills faster than their more sedentary peers (Sacchetti *et al.*, 2012)<sup>[20]</sup>. These developmental advantages indicate a positive correlation between academic performance and physical activity among students.

Notably, physical education classes break the monotony associated with regular classroom lessons, providing the added motivation for students to carry out school work. Physical education classes and sports are some of the most anticipated classes by children in primary school. These sessions fill children with positive energy, revitalizing students' engagement in various class work (Zhang *et al.*, 2023; Pavlovic *et al.*, 2023)<sup>[29, 18]</sup>. In their study, Daly-Smith



*et al.* found that students were more active and participative in lessons after PE sessions compared to lessons before the sessions (2021) <sup>[3]</sup>. Physical education lessons are often permeated with enjoyable tasks requiring concentration and/or sporting activities. Children with or without sporting talents increase their physical activity levels through these lessons and are therefore able to reap the benefits.

### **Behavioral Benefits of Physical Education**

Including physical education and sports in the primary school curriculum positively affects the development of interest and a lifestyle of physical activity among the students (Drozd *et al.*, 2022) <sup>[4]</sup>. Physical education promotes increased interest in sports among students by improving their awareness of the health benefits associated with exercising. During PE sessions, children are also educated about the importance of adequate rest, proper hydration, and balanced diets, improving their awareness of maintaining healthy lifestyles (Wiium, 2021) <sup>[26]</sup>. Children to whom the importance of physical activities has been introduced early are increasingly likely to engage in behavior which promote a healthy lifestyle even in their future lives.

Furthermore, physical education provides a platform where students face multiple challenges which they must overcome. Overcoming these obstacles teaches the children discipline, perseverance, and endurance (Gomwe *et al.*, 2022) <sup>[9]</sup>. Consequently, the children build and develop their resilience and discipline through engagement in PE and sports. These qualities are carried on into other spheres of life, even after school, encouraging the children to face their challenges head-on (Wiium, 2021) <sup>[26]</sup>. Additionally, the children are provided insight into the solutions to various problems by stressing the importance of teamwork and perseverance in physical activities during PE and sports.

### **Demerits Associated with Taking Children out of Sports and PE as they Prepare for Examinations**

Many parents take their children out of sports and physical education when preparing for examinations. Additionally, some teachers may cut into PE lessons as examinations approach to create more time for doing revisions (Tarp *et al.*, 2021) <sup>[23]</sup>. The general perception among such teachers and parents is that time spent in PE is wasted since it does not directly correlate to examination results. Parents perceive that their children make better use of time by engaging in revision/studies in preparation for the examinations. Despite this shared belief, numerous studies show that taking children out of sports and PE as they prepare for examinations is counterproductive (Zhang *et al.*, 2023) <sup>[29]</sup>; instead of providing more time for revision and facilitating the achievement of good grades, taking children out of physical education results in less impressive performances.

Cutting physical education in schools inhibits academic and personal success among the students. Physical education is associated with increased concentration levels, improved reasoning and memory, and better sleep quality (Garcia-Hermoso *et al.*, 2021) <sup>[8]</sup>. All these benefits are related to improvements in academic performance among primary school children. Consequently, taking children out of sports and PE as examinations approach robs them of these benefits. Spending every waking moment buried under books results in monotony and quickly causes burnout among the students. Consequently, children may spend the whole day reading books but need help to grasp meaningful content (Tarp *et al.*, 2021) <sup>[23]</sup>. On the other hand, spending 30 minutes in physical

education or sports activities may provide the brain with much-needed rekindling and facilitate subsequent understanding of content.

The termination of physical education and sports has negative implications for children's physical and mental health. Termination of physical education and sports is associated with missing out on benefits such as increased brain and memory functioning, improved mood and happiness, and fewer symptoms of depression (James *et al.*, 2023) <sup>[12]</sup>. These benefits are crucial for the children's abilities to effectively prepare for examinations (Zhang *et al.*, 2023) <sup>[29]</sup>. Additionally, students need to improve on problem-solving skills and competency associated with carrying out physical education and sports. Consequently, students forced to take breaks from PE and sports have an increased likelihood of poor performance in their examinations.

Relieving anxiety and stress is one of the perceived benefits of physical education. Conversely, the thought of examinations results in anxiety and stress among students. The presence of anxiety and stress alone is significant enough to prevent students from concentrating on revision, thus increasing the likelihood of failure in their examinations (Strehli *et al.*, 2020) <sup>[22]</sup>. Stress hinders the brain's ability to concentrate and process information. Less intensive physical exercises such as yoga may be performed during examinations to ease stress and anxiety. Parents who compel their children to take a break from physical education and sports deny them an opportunity for effective stress and anxiety management (Tarp *et al.*, 2021; James *et al.*, 2023) <sup>[23, 12]</sup>. Engagement in exercise produces dopamine and serotonin, creating higher moods among children. Additionally, these hormones help with the management of complex tasks during revision sessions.

### **The Critical Role of the PE Teacher**

The PE teacher is critical in providing physical education and sports at the primary school level. The PE teacher facilitates the above activities among the students. Proper and varied exercises are required for children to improve in various areas, including strength, flexibility, and endurance (Gadai *et al.*, 2020) <sup>[7]</sup>. School curriculums generally contain limited information on the physical activities that children require at different stages of development. Teachers must take this limited curriculum provision and combine it with their expertise in facilitating physical education and sporting activities.

Physical Education teachers are responsible for fostering a culture of physical exercise among the children and the entire school population. Traditionally, PE has been perceived as an optional class since it was deemed to be of lesser importance by students and other teachers (Gadai *et al.*, 2020) <sup>[7]</sup>. Since students perceive PE lessons as optional, these classes are regularly skipped. This practice has become even more common due to the flawed perception among students and teachers that PE classes are meant for sporty children. PE teachers are therefore tasked with building a culture of physical education and teaching its importance to 'sporty' and 'non-sporty' children. The teachers are mandated to increase advocacy for physical education lessons and discourage teachers of other subjects from 'stealing' physical education exercises (Pavlovich *et al.*, 2023) <sup>[18]</sup>. Additionally, PE teachers guide students during physical education lessons, creating a clear sense of direction and discouraging the students from bunking the sessions. These initiatives motivate students and other stakeholders to engage in physical

education activities.

PE teachers also engage with parents to build a culture of physical activities for their children. Engagement in physical education and sports on school premises while children engage in sedentary activities and poor nutrition at home is counterproductive. Consequently, PE teachers engage the wider school community in the promotion of active lifestyles both at home and in school (Wiiium, 2021; Drozd et al., 2022) [26, 4]. Additionally, the teachers assess available local resources and propose means through which the school administrations and communities may assist in engaging physical education among the children. For instance, the school may introduce wardens to help the children walk to school if the area around the school has heavy traffic. Also, the school community may introduce walking initiatives where children and parents walk in organized groups around the locality. Conducting physical education sessions around the school locality allows educators to perform these activities in nature (Gomwe et al., 2022) [9]. Nature provides an invaluable resource in the provision of physical education and sports. Physical education sessions conducted in nature are more attractive to students than activities undertaken in the built environment (Miller et al., 2022) [17]. Additionally, teaching physical education sessions in nature prepares the children to engage in outdoor activities such as camping and hiking.

Notwithstanding all of the above roles, the PE teacher acts as a talent detector for the students still in the early stages of development as they participate in the various activities in games and sports at the primary school level (Salters et al., 2022) [21]. These activities include wrestling, mixed martial arts, ball games, indoor games, gymnastics, and dance. Children who display talents in any of the sports and games have a short history of making careers out of these activities. Famous and accomplished athletes worldwide discover their talents while at elementary school and hone them to reach world-class standards (Gadai et al., 2020) [7]. The PE teacher is responsible for having a keen eye, detecting talent, and setting up measures to assist the children in developing these talents.

### **Need for Properly Trained and Qualified Teachers**

The need for properly trained and qualified Physical Education teachers is significant. However, this need must be preceded by a realization of its benefits among this group of educators. Physical education lessons in primary school settings involve rigorous and professional teaching methodology and objectives beyond mere games and sports. Physical education and sports activities potentially improve the skills and behaviors of children in primary schools. In addition to regular games and sports, physical education may also involve gymnastics, dancing, and adventure activities (Daly-Smith et al., 2020) [2]. Consequently, students at different stages of development may carry out an extensive range of activities. Trained and qualified teachers must facilitate and mediate all possible activities for their students to achieve all associated benefits.

Additionally, trained teachers are crucial in making physical activities fun and engaging to the students. Activities that are considered boring will likely result in a culture of dislike of physical activities among children (Dobell et al., 2021) [5]. Conversely, making these activities fun encourages the children to incorporate physical activities into their daily routines. Making physical activities engaging fosters a positive attitude rather than a negative one. Qualified teachers

can create this appeal by introducing multiple sports and activities (Pavlovic et al., 2023) [18]. By providing options, students are more likely to find something they enjoy. Furthermore, instructors may promote physical activities beyond PE and sports sessions. This can be achieved through the introduction of physical activity exercises that are gentler and less competitive during classroom lessons. Such an approach may prove useful in achieving the desired outcome. However, qualified and trained teachers are essential for the seamless integration of these exercises in classroom settings. Incorporation of such activities fosters the culture of physical education among students. Moreover, children experience similar benefits to what could have been achieved had they engaged in outside physical education and sports.

Children at the primary education level require an average of about 60 minutes of moderate to vigorous physical activities daily. However, the level and amount of necessary exercise are independent of the group (Daly-Smith et al., 2020) [2]. Under-exercising inhibits the realization of the full range of benefits associated with exercising among children. Conversely, over-exercising results in monotony and increased strain, which may discourage the children from participating in subsequent sports and PE sessions. Consequently, qualified teachers must provide their students with the correct amount of exercise, all the while understanding that students have different characteristics and needs (Salters et al., 2022) [21]. Teachers are responsible for assessing their students' needs and abilities before designing PE sessions. Children in primary school have a wide age range and are stimulated by different kinds of PE or sporting activities. Lower primary school children may be provided lessons involving living dead, hot potato, ball run, musical chairs, and jump rope exercises. Children in upper primary school are increasingly introduced to more demanding sports such as ball games, swimming, gymnastics, and board games (Pavlovic et al., 2023) [18]. Once assessed and ascertained, the PE lessons are designed based on the student's unique needs and abilities, an exercise that can only be performed by qualified teachers. Subsequently, the teachers implement the lessons and assess their effectiveness. Qualified teachers are necessary for carefully implementing and unbiased evaluation of PE and sports sessions. Evaluation provides a basis for improvements in PE lesson plans and the efficacy thereof.

In addition to age- and grade-related differences, academic-related outreach, and area-specific needs and strategies must also be considered in providing physical education and sports to primary school children. Students have different academic needs based on their grade levels and school curriculums (Pavlovic et al., 2023) [18]. Trained teachers are required to provide proper direction to satisfy the curriculum and grade requirements of the students. Additionally, qualified teachers consider the area-specific needs of the students. Despite primary school children generally learning similar concepts across various countries, some differences exist in the curricula in multiple areas of the world. Teachers ought to be trained based on the area-specific needs of their schools (Daly-Smith et al., 2020) [2]. Design and implementation of physical education sessions through consideration of area-specific needs increase the understanding and willingness of children to participate in sporting and physical education activities. For instance, in an area where a country is majorly in love with soccer, it would be wise to incorporate soccer sessions in physical education lessons. The children are usually already invested in the games, a fact which makes the associated benefits more attainable.

Trained and qualified teachers are especially required when dealing with special needs children such as those with ADHD. Moderate to high-intensity physical activities have improved cognitive functioning among children with ADHD (Taylor *et al.*, 2019) [24]. Nonetheless, physical education and sports with extensive periods of inactivity or activity may fail to maintain the attention of children with ADHD. Such students may require short sessions of mixed activities to stimulate and sustain the engagement and attention of the students. Teachers trained explicitly for managing ADHD and other special needs among children are essential in providing the required exercises at appropriate time intervals. These teachers can identify when to motivate the students to engage in exercises and when to stream off (Pavlovic *et al.*, 2023) [18]. Additionally, the teachers can study the students' moods and select when to change or stop the physical education activities.

Technological advancements have opened up opportunities for conducting school physical education and sports exercises. Modern technologies such as videos and the Internet provide teachers and students with ideas and instructions on performing various physical education exercises (Salters *et al.*, 2022) [21]. Another technology that may be used in physical education sessions in primary school children is wearable technology. Wearable technologies such as watches produce data on the impact of physical activities on the body (Wort *et al.*, 2021) [27]. Trained and qualified teachers are required to identify whether such technologies produce data that may be used in supporting and promoting physical education and sports among primary school children. Also, teachers ought to be competent enough to interpret the data produced from wearable devices (Dobell *et al.*, 2021) [5]. However, the teachers need to be capable of recognizing whether such devices are too distracting and cause physical education exercises to lose their meaning and purpose.

### Recommendations

Due to the benefits associated with using trained and qualified teachers in physical education and sports activities, school administrators and policymakers are tasked with providing relevant training to PE teachers. School administrators are tasked with assessing the existing physical education curricula, identifying strengths and weaknesses, and formulating a task force to achieve the desired levels and quality of physical education (Jarnig *et al.*, 2023) [13]. Additionally, the administrations are tasked with updating existing school curricula to include clear instructions to teachers on providing physical education and sports at the primary school level (Gomwe *et al.*, 2022) [9]. These instructions guide teachers on how to make physical education engaging, combine learning with physical education, and promote an active lifestyle among students.

In addition to the above, teachers in various institutions and academic districts are faced with multiple challenges. These issues include a need for more sufficient resources, training, and complete support from school administrations. As such, bespoke training sessions present a resource that may be utilized to provide teachers with training and support for physical education competency. These training sessions are generally custom-made to address specific needs and challenges (Miller *et al.*, 2022) [17]. Additionally, children with unique needs present a problem for instructors. Bespoke training sessions may be optimized to address all of these challenges, emphasizing the areas of most concern to the teachers (Daly-Smith *et al.*, 2020) [2]. Armed with the right

tools, the teachers can utilize their increased competency to improve the quality of physical education and sports provided to the children.

Moreover, comprehensive behavioral changes are required to adopt physical education and sports at a primary school level. Positive changes require the involvement of children and upstream interventions at family and societal levels (Kliziene *et al.*, 2021; Dobell *et al.*, 2021) [14, 5]. Consequently, an inter-collaborative approach between researchers, educators, parents, school administrators, and policymakers is necessary to achieve the benefits of physical education and sports among primary school children.

Notwithstanding the above, the finding of this review paper has elucidated several inadequately researched domains in Trinidad and Tobago that demand further scrutiny. Firstly, an empirical inquiry into the efficacy of the Physical Education curriculum implementation in primary schools in Trinidad and Tobago is warranted. This endeavor necessitates employing a multifaceted methodological approach, encompassing the analysis of curriculum documents, assessment of teacher qualifications, administration of surveys and interviews with educators, as well as direct observation of physical education classes. Furthermore, an investigation into the influence of physical education on academic attainment among primary school pupils in Trinidad and Tobago is recommended. This inquiry must encompass quantifiable attributes such as academic grades, attendance records, and behavioral patterns, both prior to and subsequent to the introduction of a structured physical education curricula. Finally, an evaluation of the attitudes and perceptions of primary school parents, educators, and students towards physical education is warranted. This multimodal inquiry can employ mixed methodology to delve into the perspectives of stakeholders, including their perceptions regarding the significance of physical education and diverse facets of its execution. It should be noted that the above in no way reflects a comprehensive list of gaps in the current body of research. Rather, it merely serves as a starting point that may add some much-needed perspective regarding physical education at the primary school level that is specific to Trinidad and Tobago.

### Conclusion

As evidenced from all of the aforementioned data, physical education and sports represent critical components in the provision of primary school education all over the world. Recent pedagogical literature shows that physical education has numerous benefits. These include the improvement of academic performance, social awareness, cultural competence, physical and emotional health, and lifestyle/behavioral modification. Physical education also improves cognitive functioning by increasing oxygenation and concentration of neurotransmitters in the regions of the brain responsible for memory and concentration. Moreover, physical education reduces stress and anxiety, improving primary school students' academic performance. It also brings students from different backgrounds together, encouraging social interactions and increasing cultural awareness. Additionally, shy and introverted students can express themselves through interactions engaged during physical education and sports activities.

In addition to the above, engagement in sport and physical education results in a wide range of healthcare benefits to children, from physical to emotional benefits. Physical activities encourage the achievement of healthy weight,



thereby reducing the probability of becoming overweight and developing obesity-related diseases such as hypertension and diabetes. Physical activity also has emotional benefits such as mood boosts and reduction of stress, anxiety, and depression. With all of the highlighted benefits of physical education and sports in primary school children, taking children out of sports as exams approach emerges as a counterproductive measure. This cessation of physical activity and the loss of its associated benefits results in reduced concentration, increased stress, and poor mood among primary school aged children. As a result, these children tend to perform poorly in the examinations.

With all of the potential benefits highlighted herein, teachers are essential to their realization within the primary school student population. Teachers facilitate the design, implementation, and evaluation of physical education sessions based on the student's age, grades, and other needs. The teachers must be appropriately trained and qualified to manage and provide the services effectively and competently. Also, teachers are responsible for detecting talent among the children early on, thus setting the stage for developing these talents into fruitful careers. As such, physical education teachers should be adequately trained and equipped with a comprehensive curriculum.

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