



Examination of factors influencing students with disabilities participation in physical activities and sports: A phenomenological study

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ABSTRACT

The major benefits of physical education participation by students are to provide them with holistic knowledge about physical activities, unearth their potential sporting talents, and also develop in them positive attitudes required for healthier lifelong participation in physical activities. Everyone especially students with disabilities in special schools should be encouraged to experience education systems that provide them with sound and healthy physical activity engagement as their deservedly human rights. This study, therefore, examined the underlying factors influencing students with disabilities' participation in physical activities and sports. This study used a phenomenological research design to collect qualitative data using interviews with nine students with disabilities and three teachers in three public special schools. Participants interviewed were selected through a purposive sampling technique. The data collected were openly coded and constantly compared to obtain patterns and themes and were analyzed thematically. The findings of the study revealed inadequate disability-user-friendly sporting facilities and equipment, discriminatory attitudes towards disabilities and financial constraints as the major challenges. The results of this study augment the literature examining the underlying factors influencing physical activities and sports participation among students with disabilities. It was, therefore, recommended that authorities in education should prioritize physical education at special schools by providing disability-user-friendly sporting facilities and equipment, adequate and prompt financial support, good government policies, and education on positive attitudes to assist, educate, encourage, and improve students with disabilities participation in physical activities and sports.

Keywords: disability, participation, physical activity, sports

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INTRODUCTION

Ghana's Persons with Disability Act, Act 715, mandates the provision of free education for persons with disability by the state through the establishment of special schools. It is stipulated in the same Act, that persons with disability should not in any way by the state deprive them of their fundamental human right to participate in important activities such as economic, political, social, and recreation, and that, any necessary facilities and equipment needed to enhance their participation in these activities should be provided. Students with disabilities' participation in sporting activities has been a topical issue, hence, Act 715 promoting their involvement. This, perhaps, could be due to the benefits of physical activities and sports offered to persons with disabilities. Physical activities and sports participation by people have enormous benefits to participants' well-being, especially students at the early stages of life. Continuous physical activities and sports that involve less vigorous physical exertion due to insufficient physical

health relatively improve the health conditions of participants including those with disabilities; as the source of intrinsic motivation and external reward (Clements et al., 2024; Woods & Butler, 2020). The major benefits of physical education participation by students are to provide them with holistic knowledge about physical activities, unearth their potential sporting talents, and also develop in them positive attitudes required for healthier lifelong participation in physical activities (Ministry of Education [MOE], 2010).

Physical education and school sports participation are integral and beneficial to educational actualization and attainment (Laurent et al., 2021) and help promote the cognitive development of children at the early stages of their lives. Children's physical health, particularly their physical fitness, is associated with improved confidence and social engagement, increased attention, and reduced problems related to their health (Sivrikaya, 2018). In a rapidly changing world, children in both primary and secondary schools through participation in physical activities and sports benefit from a wide range of personal and social

skills such as peer relationship skills, social behaviors, leadership skills, problem-solving skills, personal and social responsibility skills (Barbosa et al., 2020; Mawena & Sorkpor, 2023). When these personal and social responsibility skills are developed, the children not only become more successful learners but also become physically fit for a successful transition to adulthood (Barbosa et al., 2020; Wright & Craig, 2011). It is of no surprise that during rehabilitation, sports are often made part of the treatment to familiarize people (including those with physical disabilities) with sports. However, only a few people with disabilities stay physically active after completing their rehabilitation process (Smith & Wightman, 2021).

Factors that may influence these categories of persons' continuous participation in sporting activities may not be known especially in Ghana, hence, this study will be the first to examine the underlying factors that influence students with disabilities in special schools' participation in physical activities and sports. Studies on students with disabilities' participation in physical activities and sports have been a topical issue globally (Clements et al., 2024), however, little attention has focused on examining the underlying factors influencing students with disabilities' participation in physical activities and sports from students and teachers perspectives, especially from students with multiple disabilities at the early school age (basic school level). Thus, this study examines the underlying factors influencing students with disabilities' participation in physical activities and sports from the interpretivist worldview.

LITERATURE REVIEW

Benefits of Physical Activities and Sports to Students with Disabilities

According to Smith and Wightman (2021), sports is a physical activity that involves physical exertion with or without a game or competition elements. Liu and Lachman (2021) asserted that physical education and sports are fundamental human rights, and are tools that can be used for effective socialization thereby placing everyone on an equal social footing (Abbasi et al., 2020). On the other hand, sports also help to change how people living with disabilities perceive and value themselves. Consequently, sports participation presents people living with disabilities with positive social inclusion opportunities (Mawena & Sorkpor, 2024). This was affirmed by Nhamo and Sibanda (2019) that sports for people living with disabilities have played a significant role in modifying the attitudes toward disability and speeding up the social inclusion agenda.

Carty et al. (2021) espoused that physical education, and sports play a typical role in the lives of the whole community and for people with disabilities, the same as it does for people without disabilities (Aho et al., 2021; Van den Broek et al., 2021). These activities may include play, exercise, recreation, and organized, and non-organized competitive games that contribute to physical fitness, mental well-being, and social interactions (Harlow et al., 2020). Commitment to quality physical education entails the belief that each student (with or without disabilities) can learn and succeed, that diversity enriches everybody (Cseplö et al., 2022), that students learn better through involvement in thoughtful and caring for colleague learners, that each student has strengths and weaknesses, and that collaborative efforts of everyone yield effective learning (Pangrazi & Beighle, 2019).

American Academy of Pediatrics (2001) views sports participation enhance the psychological well-being of children with disabilities through the provision of opportunities to form friendships, express creativity, develop a self-identity, and foster meaning and purpose in life. Kartini and Aprilia (2021) indicated that special olympics participants show heightened self-esteem, perceived physical competence, and peer acceptance. Nhamo and Sibanda (2019) again indicated that physical activity has beneficial effects on both the physical and mental health of children. In addition to health benefits, sports participation also promotes personal autonomy, community integration (Van den Broeck et al., 2021), and life satisfaction of children with physical disability (Diaz et al., 2019). Regular participation in physical activity develops body composition, skeletal health, and contributes to the prevention or delay of chronic disease. It improves several aspects of psychological health including self-esteem and promotes social contacts and friendships.

Currently, a wide variety of physical and sporting activities such as showdown, and goalball are accessible to children with disabilities (Mawena & Sorkpor, 2024) and guidelines are available to assist children in recommending activities appropriate for children with specific conditions (American Academy of Pediatrics, 2001). Properly designed and implemented programs of sports and physical activities for children with disabilities should target cardiovascular endurance, flexibility, balance, agility, muscular strength and accessibility, safety, and enjoyment (Dasso, 2019). To Carty et al. (2021), regular physical activity is essential for the maintenance of normal muscle strength, flexibility, joint structure, and function and this slows the functional decline often associated with disabling conditions. There is a wealth of evidence to support participation in sports and physical activity for people with disabilities concerning trends and benefits of participation.

Hindrances to Physical Activities and Sports Participation

World Health Organization [WHO] (2011) indicated disability as a term that covers all sorts of impairments, activity limitations, and participation restrictions. An impairment is a problem in body functioning or structure; an activity limitation is a difficulty usually encountered by an individual in executing or performing a task or action while a participation restriction is a problem experienced by an individual in involvement in life situations (WHO, 2011). Disability is both a social and individual problem. Primarily it is a social problem, because disability stops the disabled person from contributing his/her quota in advancing societal development. Disability thus, is not only just a health problem but it is also a complex phenomenon that reflects the interaction between features of an individual's body and that of the society in which he or she lives. While social exclusion is an unavoidable menace in every society, sports can be used as a tool to change and eliminate this phenomenon by modifying societal mindsets, feelings, and attitudes toward people living with disabilities (Abbasi et al., 2020). Inclusive education policies have been accepted and adopted by governments internationally over the past two decades (WHO, 2011). The right to education is a fundamental human right of every child (Willems & Vernimmen, 2018).

Children with disability engage in less physical activity compared to their typically developing peers, those with different and multiple kinds of disabilities do find it very difficult to integrate into society and also participate in different physical activities as compared to their peers without disability due to the barriers they encounter while participating in physical activities (WHO, 2016). However, most children living with

disabilities hardly participate in sporting activities as compared to their non-disabled counterparts (Petersen et al., 2024).

Physical inactivity is growing significantly among young people, partly due to the rise in school-related sedentary behaviors (Barbosa et al., 2020; Smith & Wightman, 2021). The current epidemic of obesity associated with inactivity is a global healthcare concern for all children, including those with disabilities (American Academy of Pediatrics, 2006). Children with disabilities are more likely than other children to be sedentary, placing them at higher risk of obesity and its associated health conditions. Children with certain developmental disorders have a higher prevalence of being at risk of overweight and being overweight than children without developmental disorders (Bertapelli et al., 2016). Furthermore, a study by Segal et al. (2016) revealed that obesity is found to be much higher among people with disabilities compared to the general population. One of the main reasons attributed includes the lack of physical activity. Therefore, regular and effective physical activities are found to be good intervention strategies to help disabled groups of people reduce their body mass index (Segal et al., 2016).

Many studies have revealed students with disabilities participate in fewer physical activities and sports (Bantjes et al., 2015; Barbosa et al., 2020; Carlon et al., 2013; Cudjoe, 2015; Martin Ginis et al., 2016; Segal et al., 2016; Smith & Wightman, 2021) as compared with their colleague students without disabilities. For instance, in Australia, a qualitative study by Shields and Synnot (2016) on perceived barriers and facilitators influencing children with multiple disabilities (such as cerebral palsy, autism spectrum disorder, intellectual disability, and vision impairments) participation in physical activity. The findings of the study revealed that children with disabilities engage in less physical activity compared to their typically developing peers. Another study in the Netherlands by Bloemen et al. (2015) explored the factors that influenced youth aged between 8-18 years with disabilities' (spina bifida) participation in physical activities. Participants of the study included the whole range of elementary and secondary school up to young adulthood; children and adolescents with SB (4-18 years) of age. Bloemen et al. (2015) reported that youth with cerebral palsy encountered both personal and environmental factors as barriers associated with physical activity participation resulting in their less active lifestyle. Bloemen et al. (2015) therefore, concluded based on the findings of the study that, accessible playgrounds and sports facilities were the major barriers that hindered participants in physical activities, hence suggesting the availability of these facilities could help encourage and improve participants' participation in physical activities.

A similar study in South Africa conducted by Bantjes et al. (2015), investigated the perception of people with cerebral palsy about the relevance of sports participation. The findings of the study showed students benefit more from sports participation. Again, a more recent study in South Africa by Mthombeni et al. (2023) involving former Olympians between the 1992 and 2016 olympic games reported amongst others inadequate financial support, a dysfunctional school system, and a lack of sports facilities, equipment, and transport systems to be the major factors that hinder the promotion of sporting activities among athletes. The study by Mthombeni et al. (2023) is revealing, because the study only involved adult olympians, however, factors that influence students with disabilities were not considered in their study. It will be, therefore, appropriate to consider such a study from the perspectives of students with disabilities—the focus of this current study.

Furthermore, a cross-sectional survey conducted in Ghana by Cudjoe (2015) revealed the positive effects of regular participation in physical activities and sports on the general well-being of 520 adults living with physical disability within Kumasi Metropolis, a city in Ghana. The study revealed that barriers such as a lack of disability-user-friendly facilities for training; influenced their sedentary lifestyle and decreased their regular physical exercise making them less active. These inactive lifestyles made them live a stressful and unhealthy life (Shields & Synnot, 2016). Another study in Ghana by Ackah-Jnr and Danso (2019) revealed an unfriendly physical environment condition of an inclusive educational institution for sports participation, thus influencing students' participation in sports and physical activities. This phenomenon seems worrying and does not augur well for these people with disabilities especially as the benefits of physical activities to students are enormous and beneficial to them.

Conversely, a recent study conducted in Ghana by Mawena and Sorkpor (2024) revealed students with disabilities frequently participate in physical activities and sports on provision that opportunities are provided and the necessary conditions for successful participation are made available. Again, the findings of Mawena and Sorkpor (2024) showed that students' participation in physical activities and sports is improved when a conducive environment, and facilities and equipment for participation are provided. However, Mawena and Sorkpor (2024) in their study, failed to report on the underlying factors that could challenge and influence students with disabilities' participation in physical activities and sports. There is a need for such a study in a developing country like Ghana, to pay more attention and channel adequate sporting resources to special schools to not only help improve the health conditions of these students with disabilities but also motivate them to frequently participate in physical activities and sports.

While we acknowledge that children with physical disabilities have special needs that need to be met to enable them to participate actively in physical activities to enhance and encourage their participation (Carlon et al., 2013), the findings of Razmjou et al. (2018) reiterated that barriers to sports participation differ based on whose views are elicited. For instance, in their study children with disability tend to focus on personal and environmental factors, while parents focus on familial, social policy, and program factors. Gay et al. (2018) also identified barriers to physical activities and sports participation by children and young people with disabilities in organized sports, including personal, social, psychological, and environmental barriers. Physical activities and sports have been identified as important factors in helping people with disability become integrated into society (Kitchin & Crossin, 2018).

Subsequently, the findings of a recent study by Boucher et al. (2023) involving children with autism and intellectual disabilities and their caretakers using questionnaires and interviews revealed that intrapersonal (within-person facilitators) and interpersonal (between-person barriers) were the barriers and facilitators that affect children's involvement in physical activities. In their study, Boucher et al. (2023) involved only children with autism and their caretakers. There is a need for a study to examine the underlying factors influencing students with various disabilities (visual, hearing, and intellectual and developmental difficulties [IDD]) using a qualitative approach from the perspectives of teachers and students to help understand their day-to-day experiences of physical activities and sports participation.

The studies reviewed above mainly focused on either investigating adolescents' and adults with disabilities' participation in physical activities and sports using quantitative research approaches or children with autism and intellectual disabilities. However, none of these studies has neither considered using a qualitative research approach to examine the underlying factors influencing students with disabilities' participation in physical activities and sports at the basic school level nor examine students with different disabilities (visual, hearing, and IDD) to obtain an in-depth understanding of the phenomenon from teachers' and students' perspectives. Again, the literature reviewed has shown that researchers in this field have not conducted a study to examine students with visual, hearing, and intellectual and developmental disabilities participation in physical activities and sports concurrently in a single study, especially at the basic school level. Thus, it is appropriate and needful for this study to examine the underlying factors influencing these students' participation in physical activities and sports at the basic school level from the interpretivist worldview.

THEORETICAL FRAMEWORK

The theories underpinning this current study are self-determination theory and cognitive evaluation theory (CET). Self-determination theory distinguishes among three types of behavioral regulation that are associated with varying degrees of self-determined motivation. One form of motivation is intrinsic motivation which refers to those circumstances in which individuals freely engage in activities that they find to be interesting and enjoyable, and which provide the opportunity for learning (Deci & Ryan, 1985). According to Ryan and Deci (2017), human behaviors are influenced to a greater extent by personal and contextual motivational factors.

According to Deci and Ryan (2002), self-determination theory proposes that humans have three fundamental needs that must be satisfied in the social context. The self-determination continuum comprises both intrinsic and extrinsic components. SDT defines intrinsic and several types of extrinsic motivation and outlines how these motivations influence situational responses in different domains, as well as social and cognitive development and personality. Consequently, Redman (2016) viewed SDT to distinguish between intrinsic and extrinsic types of motivation regulating a person's behaviour. Rheinberg and Engeser (2018) defined intrinsic motivation as a person's participation in an activity because of its inherent satisfactions. An intrinsically motivated person experiences great feelings of enjoyment, personal accomplishment, and excitement (Rheinberg & Engeser, 2018). To some larger extent, recreational sports and exercises can certainly be performed by the intrinsically motivated person for their associated enjoyment or for the challenge of participating in an activity. People who are intrinsically motivated are engaged in specific activities for their own sake and the pleasure, fun, and satisfaction inherent in their participation (Deci & Ryan, 1985; Rheinberg & Engeser, 2018). Locke and Schattke (2019) revealed that there are three types of intrinsic motivation for sports participation that correspond to the motivation for stimulating experiences, gaining knowledge, and accomplishing things.

A type of motivation that is in sharp contrast to intrinsic motivation is extrinsic motivation. For this type of motivation, individuals engage in activities because they value the associated outcomes. Chirkov et al. (2003) indicated that extrinsic motivation

refers to one's participation in an activity for instrumental reasons or to obtain some outcome separable from the activity. For instance, an extrinsically motivated person usually engages in an activity to gain a tangible or social reward or to avoid disapproval. SDT, however, conceptualizes qualitatively different types of extrinsic motivation, which differ in terms of their relative autonomy. Such outcomes could include extrinsic rewards, and public recognition and praise. Extrinsic motivation itself lies on a continuum that reflects the internalization process that varies from the more self-determined to the less self-determined (Chirkov et al., 2003). These expressions all involve external forms of regulation.

In each circumstance, people act in such a way to attain a desired outcome, such as a tangible reward or to avoid a potential punishment. On the continuum of extrinsic motivation, external regulation is the least self-determined form of motivation because externally regulated behavior is motivated by rewards and punishments and driven by feelings of the need to comply.

Introjected regulation is somewhat more self-determined in that this expression of extrinsic motivation depends upon self-control and the individual's goal is to avoid negative feelings such as guilt and anxiety, as well as to experience positive ego-related feelings such as pride (Redman, 2016). Howard et al. (2016) reiterated that, with introjected regulation, external source of motivation is internalized and is reinforced through internal pressures such as anxiety or emotions and the person feels that they engage in a behavior because they must or have to. Identified regulation occupies the next place on the continuum and motivation centers on feelings of personal importance and the value of engaging in the activity. Identified regulation refers to motivation stemming from personal values and endorsement of a behavior or its outcomes (Deci & Ryan, 2002).

The most complete form of internalization in extrinsically motivated behavior is known as integrated regulation (Deci & Ryan, 2002). Integrated regulation represents reasons for behavioral enactment that align with one's identity and core values. Individuals who have integrated regulation are motivated to engage in activities because their involvement in such tasks provides harmony or coherence with other aspects of their values and their identity (Deci & Ryan, 2002). In addition, Deci and Ryan (2002) also indicated that this type of motivation does not only identify with the relevance of the participating activity but also the desire to integrate this sense of identification with other aspects of the self. Grootens-Wiegers et al. (2017) indicated that integrated regulation does not typically appear until people are sufficiently mature. Specifically, integrated and identified regulations, although extrinsic motivations are highly self-determined regulatory styles.

Another category of motivation is amotivation. Ryan and Deci (2017) identified amotivation as a state in which individuals lack any type of intention or motivation to engage in a given behavior. Amotivation constitutes a psychological state in which people lack either a sense of efficacy or a sense of control concerning attaining a desired outcome (Ryan & Deci, 2017). In other words, amotivated people are not able to regulate themselves concerning their behavior (Howard et al., 2016). In this circumstance, the individual does not feel in control and the locus of control is external (Redman, 2016). Lack of motivation can broadly be explained by two factors. First, people may not be sufficiently interested in exercise or value its outcomes enough to make it a priority in their lives (Ryan et al., 2009). Many individuals

experience competing demands on their time from educational, career, and family obligations, possibly at the expense of time and resources that could be invested in exercising regularly. Second, some people may not feel sufficiently competent at physical activities, feeling either not physically fit enough or skilled enough to exercise, or they may have health limitations that present a barrier to their participation in physical activity (Korkiakangas et al., 2009). Large numbers of individuals are either amotivated or not sufficiently motivated enough to be physically active or are motivated by other types of externally-driven motivation (such as inadequate equipment and facilities) that may not lead to sustained physical activity (Howard et al., 2016).

In conclusion, SDT promotes exercise behavior which plays a beneficial role in developing autonomous self-regulation, be it predominantly via autonomous forms of extrinsic regulation (identified and integrated regulation) or enhanced intrinsic motivation (Korkiakangas et al., 2009). This, however, enhances and improves the exerciser's health conditions and subsequently reduces or minimizes their risk of being ill.

CET is a sub-theory of the self-determination theory which further explains the relationship and the distinction between intrinsic and extrinsic motivation. Individuals experience intrinsic motivation when they engage in behaviors they perceive as inherently interesting, satisfying, gratifying, enjoyable, and fulfilling (Hagger & Hamilton, 2021). However, individuals experience extrinsic motivation, when, they are engaged in behaviors merely because of the objective consequences they might attract, such as tangible rewards or praise Hagger and Hamilton (2021), Matarazzo et al. (2010) posit that individuals are intrinsically motivated when they are engaged in tasks that seem interesting and challenging to them. Again, in contrast to extrinsic motivation, intrinsic motivation tends to enhance persistence, well-being, and creativity (Matarazzo et al., 2010).

Locke and Schattke (2019), revealed that CET seeks to describe how both internal and external events affect people's intrinsic motivation. Locke and Schattke (2019) viewed intrinsic motivation as a person's engagement in activities out of enjoyment and interest rather than for the consequence or incentive attached to the behavior. Intrinsic motivation occupies the most self-determined end of the continuum and involves motivation derived from the sheer pleasure and satisfaction of engaging in the behavior itself (Cooke et al., 2016). Redman (2016) reiterated that intrinsic motivation is non-instrumental; when people are intrinsically motivated, they are not concerned with the outcome that will be received or avoided by engaging in those actions. Rather, they perform the behavior because it inherently satisfies and interests their inner being. In contrast, extrinsic motivation is fundamentally instrumental. People are extrinsically motivated when they are concerned with acting because of the consequence associated with it; behavior is contingent upon receiving or avoiding an outcome that is separable from the behavior in question (Redman, 2016).

In addition, Locke and Schattke (2019) posited that intrinsic motivation can be enhanced or undermined, depending on the degree to which external events (such as rewards and punishers), interpersonal contexts (such as criticism or praise from a relationship partner), and internal proclivities (such as one's trait-level tendency to feel task-engaged) affect the individual's self-perceptions of autonomy and competence. Autonomy is the innate need to feel self-direction and self-endorsement in action, as opposed to feeling controlled, coerced, or

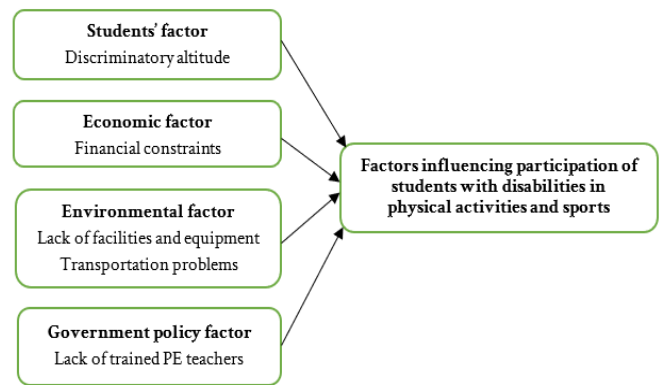


Figure 1. Conceptual framework on students with disabilities participation in physical activities and sports (Source: The authors' construct, 2024)

constrained, whereas competence is the need to feel effective and masterful as though one's actions are useful in achieving desired outcomes. Competence underlies the seeking out of optimal challenges and the development of capacities. When external conditions, social/interpersonal, and internal conditions facilitate satisfaction of the individual's needs for autonomy and competence, then intrinsic motivation is increased and enhanced.

In conclusion, the SDT and CET theories underpinning this study, point to the fact that external, interpersonal, and internal conditions greatly influence an individual's participation in physical activities and sports either motivating or amotivating participation.

CONCEPTUAL FRAMEWORK OF THE STUDY

The framework in **Figure 1** was designed as a guide to the study. It was used to indicate the factors influencing the participation of students with disabilities in physical activities and sports. Students with disabilities' participation in physical activities and sports is influenced by student factors, economic factors, environmental factors, and government policy factors. Students' factors such as interpersonal (between the students such as discriminatory attitudes). Economic factors like lack of financial resources/support. Environmental factors such as transportation problems, and inadequate sporting facilities and equipment. Government policy factors such as lack of trained physical education teachers affect students with disabilities participation in physical activities and sports.

MATERIALS AND METHOD

This current study was taken from a larger study conducted by the first author that examined factors that influenced the participation of students with disabilities in physical activities and sports. In this study, we employed a qualitative (phenomenological) research design to collect qualitative data for an in-depth and better understanding of factors that influence students with [visual, hearing, and intellectual and developmental] disabilities' physical activities and sports participation. This study forms part of the qualitative dataset obtained from the mixed methods in the larger study. The phenomenological approach was used because we aimed to describe the experiences and also to understand the phenomenon through the investigation of the everyday experiences

of the informants (Sundler et al., 2019) as they appear rather than things of their mind (Patton, 2020). This qualitative approach also helped to capture the meanings students attach to their participation in physical activities and sports phenomenon to help provide essential information to help improve and enhance their physical activities and sports participation (Creswell, 2012).

Research Site and Participants

The study was conducted in a city located in one of the sixteen regions of Ghana, called Nyankodo Metropolis. Nyankodo Metropolis was selected for this study because is one of the few cities in the country that hosts three special schools. That is, two special segregated schools called Nyankopa School for the Deaf/Blind, Nyameye School for Special Needs, and the other was an inclusive school called Abusua Inclusive Basic School. Students at Nyankopa School for the Deaf/Blind were those with hearing difficulties (deaf) and visual-impairment (blind) whereas students at the Nyameye School for Special Needs were those with IDD. Students at the inclusive school are those with visual impairment. The presence of these special schools having students with disabilities made the Metropolis an option for studying as these students had similar characteristics to those in the other fifteen regions in the country. Again, Nyankodo Metropolis was unique because no city or town in the country had all these special schools, hence its selection for this study (note that all names used in this study are pseudonyms to maintain anonymity).

Two semi-structured instruments: student interview guide on students with disabilities' participation in physical activities and sports and the teacher interview guide on students with disabilities' participation in physical activities and sports were used for interviewing participants. To ensure the validity and reliability of the interview guides, they were given to physical education experts (the second author) to judge the content, and also cross-check the items for honesty and clarity. Through this process, the interview guides were validated, and experts' suggestions helped improve the quality of the two instruments. During the interview, the researcher strictly moved from one teacher to another and the same was done to the students. Again, during the interview section, the researcher made sure personal views and experiences did not influence the views and opinions of the teachers and students by not making suggestions to them. The researcher further avoided asking too many questions at a time and made it more interactive as well.

In all, nine students were interviewed (three from each of the three special schools) on a one-on-one basis. The students interviewed were audio-recorded. The students were purposively selected because

- (1) they were school prefects in charge of sports and
- (2) were athletes who were actively involved in physical activities and sports in the schools.

The students selected were in a better position to help the researcher obtain first-hand information for an in-depth understanding of factors that influenced their participation in physical activities and sports in the school. To ensure ethical issues were adhered to, students were briefed about the study and were made to understand that they reserve the right to discontinue participating when they feel it is right to. Many of the students agreed to be interviewed from the start but refused and declined later for the reason of shyness on the recording. These students were exempted from the study and replaced with those

who agreed and consented to partake in the interview process. During the interview session for students with hearing impairments, the researcher was assisted by teachers who could communicate with them through 'signing' (sign language).

Three teachers were interviewed one-on-one. The interview which took place in a quiet place for 30-45minutes was audio-recorded. All three teachers interviewed were trained physical education teachers teaching in the three special schools. The teachers were selected purposively for the interview because they were teachers of physical education and were in charge as supervisors during students' sports participation, hence were in a better position to contribute to the study. Thereafter, we transcribed the data, then made meaning of the information through open coding (texts were read and re-read repetitively). The transcribed data was open-coded and compared constantly to reduce them to patterns and themes. The themes were obtained inductively without any category being imposed on them by the researchers and then analyzed thematically. The final transcribed data was shown to participants (both teachers and students) to cross-check for trustworthiness from participants to ensure the exact meaning of what participants meant during the interview process. Sample statements from both teachers and students were used to support presentations under the inductively emerged themes.

Furthermore, field notes were taken by the researcher while interacting with the teachers and students. The field notes helped the researcher confirm or otherwise what teachers and students had stated/indicated earlier as factors influencing students with disabilities' participation in physical activities and sports in their respective schools. This also helped the researcher acknowledge the state and conditions of the available facilities and equipment used by students to participate in physical activities and sports in their schools.

RESULTS

Five themes inductively emerged from the interviews with physical education teachers and students with disabilities. The themes are presented and discussed in detail:

1. inadequate equipment and facilities which explains insufficient sporting materials that are used to facilitate and motivate physical activity and sports organization,
2. transportation means of moving students to participate in physical activities and sports,
3. financial constraints which explains lack of financial means of procuring disability user-friendly materials for sports organization,
4. government policies that refers to laid down programs available to enhance physical activity participation in special schools, and
5. discriminatory attitudes towards people with disability; which refers to the kind of attitudes exhibited towards students with disability by those without disability.

Theme 1. Inadequate Equipment and Facilities

In this theme, we reveal the inadequate sporting equipment and facilities needed to participate in physical activities. Inadequate sporting equipment and facilities were one of the major factors that came up during the interviews that influenced students with disabilities'

participation in physical activities and sports. These sporting equipment and facilities from the viewpoint of participants were facilities such as well-constructed football and athletic pitches; showdown and goalball, and equipment such as protective materials (shin guards, goalkeeper's gloves), well-furnished first aid boxes; balls for (soccer, volleyball, and handballs) and sporting missiles.

A teacher teaching at the inclusive basic school (Abusua) with 9 years of teaching experience stated that;

“as for PE we teach every week, but we are challenged with inadequate sporting equipment and facilities. Not only do we lack good facilities ... we also lack sporting equipment, the only game we usually play during physical education lesson is football, volleyball and handball and is so because we only have balls ... and even that, my blind students do not participate because of their conditions” (Agyabeng).

Most students with visual-impairment who were interviewed also expounded that their lack of participation in physical activities and sports was a result of inadequate sporting facilities and equipment. One of the students, from School Nyameye, expounded that

“the only sporting facilities available is showdown or goalball and even that, we only play that game or do that sports when we come to school (Nyankopa)” but when we come here to school, everyday our abled peers (those who can see) participate during PE lessons and only play the soccer during PE lesson. We can only play or do some activities with showdown or goalball when we go to (dormitory) and even that, they are only one at the school so there's so much pressure on you when playing” (school B, student 1).

Another teacher with 11 years of teaching experience at Nyankopa explained initially that, personally there are no challenges in teaching physical education, but later expounded that;

“due to inadequate or shortage of equipment and facilities in the school and again considering my students (hearing impaired) population, it will be less stressful for me if we are to have a lot of equipment like balls for soccer, volleyball, and handball and again for visually-impaired students presence of more balls at least two goalball and showdown each will ease the pressure and also allow a lots of them (visually-impaired) to participate” (Asiedu, teacher).

“we have a demarcated area where students play, which is for the cluster of schools around us, but we compete with them, and it is usually used by us when available. We lack a lot for instance, the table tennis is an improvised one, jerseys are in a very bad state ... in fact, some of these things demotivate us as teachers when training and preparing these kids for special games” (Agyabeng, teacher).

From School Abusua, a one-on-one interview through sign language, a student with hearing impairments corroborated with their teachers' assertion that inadequate equipment and facilities influence their participation in physical activities and sports. The student explained that

“sometimes myself and my friends wish to play for long time, but you have to stop for your friends to also play some due to limited number of materials present and even that, some are not in good conditions” (Asamoah, student).

My interactions with one of the physical education teachers are:

Researcher: Do you teach PE?

Teacher: Yes, I will say yes.

Researcher: How often do you teach PE per week?

Teacher: Once every week as stated on the timetable

Researcher: Please, how many hours is allocated for PE on the timetable.

Teacher: Please is one hour.

Researcher: So what do you do during your PE lessons?

Teacher: We mostly engage in some physical activities and sports.

Researcher: Please can you name some of these physical activities and sports you organize?

Teacher: Playing soccer, volleyball, handball, running, jogging, etc.

Researcher: So sir, do your students participate during these activities looking at their conditions?

Teacher: Yes but not entirely ... for the deaf they are very active as compared to the blind.

Researcher: Ok.

Teacher: But let me say that, if left the deaf students alone, they will spend the whole day and week playing, but unavailable and limited number of these facilities prevent them if not they will play for more than the 1 hour allocated for us. Again, sometimes at weekends, they wish to play and have fun but the lack and insufficient of necessary facilities sometimes hinders them.

Researcher: You said the deaf students, what about the blind?

Teacher: Hmmm, as for the blind students' goalball and showdown are the only games available for them apart from doing brisk walking or normal walking on their own. The problem of insufficient facilities and equipment to a large extent influence their participation in the goalball and showdown. This is because the whole school we have one of the goalball and the showdown as well, and because of that, there is always pressure on them. You know ... either sports (goalball or showdown) makes participants spend less time when playing or some of them wouldn't come here and play at all.

Researcher: OK, so what do you do in a situation like that ...

Teacher: Huh... I do not do anything, sometimes I try to engage them to encourage them to wait for their turn and participate. Most of the time, a few stay but the majority of them return to their classrooms to sit idle. It is not good for their health, but we have nothing to do.

From Abusua, an extract of an interaction with a physical education teacher on the concept of equipment and facilities is:

Researcher: How long have you been teaching PE?

Teacher: 6 years.

Researcher: Unlike your colleagues in other special schools, you do not have challenges with sporting equipment and facilities.

Teacher: Oh madam! You made me smile.

Researcher: Why?

Teacher: It is a challenge everywhere, but we try to manage it.

Researcher: How do you manage teaching students with intellectual and developmental difficulties without sporting equipment and facilities?

Teacher: Our situation is even worse because we do not have a football field.

Researcher: So where do your students play?

Teacher: They ... sorry, we go to the nearby school field and share with that school near us. For us, our school compound is very small or more or less we do not have. We have no space for any physical activities and sports participation. We have very few ordinary common balls for soccer, and volleyball, and that is a pity. Something needs to be done about this because these kids have to do exercises to help improve their health conditions for them to stay strong and healthy physically.

Theme 2. Problems with Transportation

Another challenge mentioned by all three schools was the problem of transportation. Participants complained that they were unable to access transportation during preparation for the annual Paralympic competitions. Students are often required to travel longer distances due to the lack of appropriate facilities within their schools in order to access user-friendly equipment and facilities (standard pitches). Whilst the schools have taken the decision to participate, often transporting students even to the venue for participation becomes a problem.

From school B, a teacher stated that

“transporting students from school to venues (stadia) for games become very challenging especially as we do not have vehicle on our own ... we have to go and rent and is very hell of a time and expensive.”

My interactions with one of the physical education teachers are:

Researcher: Do you organize sports?

Teacher: Yes.

Teacher: We train and prepare them for the various competitions.

Researcher: Please, where do you have the competitions?

Teacher: Usually in Accra (the capital city).

Researcher: How often are these competitions organized?

Teacher: It depends on special olympics. For instance, this year they said athletics, so we train our students accordingly.

Researcher: So what challenges do you encounter during your preparations?

Teacher: We spend a lot of money to transport these students to the venue when the time is due. Even though governments bring us money but not on time and are woefully inadequate.

Researcher: Really?

Teacher: Yes. We spend lots of money apart from the transportation. And because the money doesn't come early enough, we sometimes borrow to foot these expenses.

Some of the students interviewed indicated that;

“Sometimes we wait and wait for a very long time and the bus will not come early ... and sometimes we do not go for training because the bus will not come at all” (school C, student 1).

“... those days we used to go to the standard stadium where the facilities were available to train, but we do not because we did not have a school bus to send us there” (school A, student 2).

“... we are able to train for a longer time and very well whenever the bus send us to the field for training ... when it happens like that our training goes on very well without difficulties and that makes us to focus on our rehearsals during training sessions” (school B, student 1).

Theme 3. Financial Constraints

Financial constraint was a challenge facing students' participation. The teachers from the three special schools primarily attributed the challenges facing their teaching of physical education and students' participation in sporting activities to financial constraints. For instance, an extract of an interaction with a teacher in Nyameye:

Researcher: Did you say another challenge is financial constraints?

Teacher: Yes.

Researcher: Can you explain further?

Teacher: Yeah. Most of the challenges we face as special schools are lack of funds (finances) in the system. From lack of facilities and equipment that is our inability to purchase the necessary and user-friendly facilities and equipment, and money for transporting students for either training sessions or the main games mostly due to lack of money(funds).

Researcher: Okay.

Teacher: Yes, because even with these financial difficulties, we sometimes manage to produce very good athletes among our kids who do represent Ghana at the special olympics.

Researcher: Really?

Teacher: Yeah. In recent years we have had some of our students being successful at the national level in representing Ghana at the special olympics on the world stage.

From school B, the teacher was keen about financial difficulties as a major challenge to the teaching at the special school which subsequently affect students' effective involvement in physical activities and sports. One of the teachers indicated that

"lack of funds affects us especially when preparing for national special Olympics ... sometimes we solicit funds from elsewhere and when we are lucky we get some, other times too we do not. At times we go to the extent of borrowing" (school Nyameye, teacher).

All the teachers interviewed attested to the fact that almost every special olympic organized at the national level has one or two of their athletes performing extremely well hence they were selected to represent Ghana at world special olympics competitions. Students also affirmed this assertion by teachers.

The students had this to say;

"We need certain small things like football boots, balls, and protective clothes like shin guards for soccer, but the school is unable to buy them for us. This can protect us from injuring ourselves, but we do not have them" (school Abusua, students).

"availability of basic sporting things such as footballs, volleyballs ... and even training kits like jerseys help us ... when we have and wear them, it enables us to be different from one another as we easily identify ourselves ... this helps us a lot during training" (school Nyameye, students).

Theme 4. Government Policy

In this theme, we mean to discuss the need for good central government policy that will project and promote physical activities and sports among students with disabilities in special schools—as seen as relevant to other schools in the mainstream basic schools. This indicates policies and programs needed to help and facilitate students with disabilities' participation in physical activities and sports to unearth talents in these students. Among these government policies indicated were the prioritization of physical education at special schools, an increase in the number of trained physical education teachers in special schools, and an increase in time allocation on teaching timetables.

One of the trained physical education teachers explained that

"we are only two teachers who are trained in PE from the University teaching the entire school PE here, it is very tiresome work especially where we have to communicate with the students through sign language. We need more hands, we need more trained PE teachers" (Nyankopa, teacher).

From Abusua school, the teacher explained that;

"In this inclusive school I am the only teacher who is trained in PE thus there's more pressure on me. I am even more lucky that all the students with disabilities (blind) do not actively participate during PE lessons if not like I will suffer, even this I think we need more trained PE teachers here to help these blind students during PE lessons" (Asamoah, teacher).

A student added that;

"we need more PE teachers during games so that they can help us to also exercise because of our conditions. Sometimes I fear playing because I think I can hurt myself so if there are many here they can assist us" (school Nyankopa, student 1).

Another student added that

"I enjoy playing games and doing exercises so the time we spend playing is not enough. So, I think that the time on the timetable should be increased to more hours like three or even more so that we can enjoy PE lessons. Again, our teachers should pay attention to PE lessons for we the sick can also play" (school Nyankopa, student 2).

From School B, the teacher explained that;

"Government must prioritize PE and for that matter sporting activities for disabled students no matter the kind of disabilities he/she is suffering to make them very active to improve their well-being. This can be done by increasing the number of trained PE teachers in special schools to some of us because I am suffering here so that the time allocated for PE on the timetable can be increased" (Nyameye, teacher).

Theme 5. Attitude Towards People with Disability (Discrimination)

Attitude towards students with disability was another challenge. Two students with low vision visual impairment (that's those with partial blindness) at the inclusive special school attributed discrimination from their abled peers hinder their participation in physical activities and sports. An interaction with one of the students was;

Researcher: Did you say another challenge is the attitudes of your colleagues towards you?

Student: Yes, but but but ...

Researcher: Want to say something?

Student: Yes, but not my friends here with me here ooooo ...

Researcher: Not your friends here but who?

Student: Please those students who can see very well (sighted students).

Researcher: What attitudes do they exhibit towards you?

Student: Madam me and my friend, pointing at his colleague with low vision ... Madam, the two of us we can see you oooooo but not that clear like that ...

Researcher: Really?

Student: Yes, but not that very clear.

Researcher: Ok, there he started operating a mobile phone in his hand.

Student: As you can see me pressing numbers on my phone, I can see small, small just like my other friend sitting beside you.

Researcher: So, can you explain further what attitudes they show towards the two of you?

Student: Yes the two of us used to play football with them during PE lessons.

Researcher: You said you used to?

Student: Yes madam but we have stopped.

Researcher: Why?

Student: Sometimes they don't want their body to even touch us, and they insult us by calling us "blind boys" when we don't give them correct pass or do not pass them at all ...

Researcher: Ok.

Student: They behave like they will not be able to see like us if they touch us or if they have direct contact with us ... And also they don't give us pass when they get the ball ... usually they only play among "themselves" which is very bad.

Researcher: So have you reported them to your teachers before?

Student: No, there's no need to report them. We only stopped playing football again with them.

Researcher: So, what games do you play now?

Student: Showdown or goalball when we go to Nyankopa.

The other student added that

"madam me and my friend here (referring to his colleague with partial visual-impairment), we have stopped playing football long time because those boys (referring to their sighted peers) have being using some rough words (meaning unsavory words) to us and have also being calling us some names which is very bad ... So we have stopped playing with them. We only play with our colleagues with same conditions (visual impairment)"

DISCUSSION

The findings of this study have revealed that students with disabilities' participation in physical activities and sports is mostly influenced by student factors (interpersonal), environmental which as

lack of facilities and equipment, problems with transportation (Brecht & Burnet, 2019; Razmjou et al., 2018), financial constraints, and government policy factors. The findings of this study are consistent with Shields and Synnot (2016) who indicated negative discriminatory attitudes, societal stereotypes of disability and lack of acceptance by peers hinder and act as barriers to students with disabilities' participation in sporting activities. Again, this finding agrees with a report by WHO (2016) that children with different kinds of disabilities do find it very difficult to integrate into society and participate in different physical activities as compared to their peers without disability through discrimination (Buljevac et al., 2011).

Sports equipment and facilities greatly help athletes during the developmental stages of their talent nurturing. Thus, inadequate equipment and facilities for athletes hinder sports participation (Ayunita et al., 2024; Mthombeni et al., 2023; Musonda, 2023), and talent development, because they are the basic sporting materials needed to support athletes in their daily training sessions to make the development of their talents easier to help them reach optimal levels of their carriers (Ayunita et al., 2024). In the absence of these materials, athletes' hope of training to develop and grow their talents in sports will be in a difficult situation which to an extent could truncate their dreams and aspirations regarding their sports participation which will end up not experiencing the best they could get to in sports.

The findings of this study have shown that not only do inadequate equipment and facilities, and financial support affect adult Olympians' involvement in sporting activities (Mthombeni et al., 2023), but these factors also influence students with disabilities' participation in physical activities and sports. The findings of this study align with that of a study conducted in South Africa by Mthombeni et al. (2023) that inadequate financial support, a dysfunctional school system, and a lack of sports facilities, equipment, and transport systems affects and hinder former Olympians participation in sporting activities.

Transportation problems (poor transport systems) are one major factor that hinders sports development (Ayunita et al., 2024; Brecht & Burnet, 2019; Mthombeni et al., 2023; Razmjou et al., 2018). Indeed, it is one thing unearthing talents, and another nurturing it to bring out the best of the unearthed talents. It is necessary and important for sportsmen and athletes to train adequately to build the needed stamina and also polish their skills for sports participation—to achieve the ultimate goal, which is to win laurels in their participation in sporting events at the international level. These aforementioned issues could be realized when there are means of transporting athletes to standard sports stadiums with world-standard facilities for training, and the lack of vehicles to transport these athletes to these facilities hinders the potential development of talents and their participation in sports and physical activities. The findings of this study have revealed transportation problems as a major factor that hinders students with disabilities' participation in physical activities and sports.

Furthermore, it takes a well-developed sporting facility such as multi-complex stadiums that will accommodate athletes for their day-to-day training sessions to develop natural talents to help them reach their optimum heights in the field of sports. Again, well-planned and proper investment in sporting facilities pays off. That is, the allocation of funds to help purchase needed sports equipment, and resources helps facilitate sports development, especially among disability sports. It is, therefore, important for authorities [central government] to prudently invest in disability sports to help educate and promote sporting and

physical activities among students and people with disabilities. Lack of financial support for disability sports influences participants' participation (Mthombeni et al., 2023). Good investments in disability sports through the building of modern edifice for training and games would help promote such sports which will positively encourage and enhance people with disabilities' interest in physical activities and sports.

Subsequently, physical activities and sports participation among the youth especially those with disabilities can significantly be improved and promoted through well-formulated and effective policies from institutions, government, and communities (Teare & Taks, 2024), and well-generated sports policies greatly help influence and improve sports development (Truskewycz et al., 2024) as absence of such policies from the government does not promote and encourage physical activities and sports participation among students with disabilities. These policies such as the promotion of physical activities and training of more physical education tutors for special schools, when well taught-through and well implemented and supervised effectively, will educate (Grenier et al., 2023), encourage (Mawena & Sorkpor, 2024) and promote physical activities and sports participation—students will actively participate in sporting activities when they are made available (Mawena & Sorkpor, 2023, 2024). In addition, findings of this study have revealed government policies such as training of physical education tutors will help supervise and unearth talents among students with disabilities in special schools especially those in developing countries like Ghana.

Furthermore, findings of this study have showed that attitudes in the form of discrimination towards students with disabilities mainly due to their conditions demotivate and discourage these students from having an interest in physical activities and sports participation. Disability does not mean inability, therefore, it is necessary to discourage such negative attitudes, rather people with disabilities should be encouraged to participate in physical activities and sports according to their level of abilities without causing further injuries or harm to their conditions. Students with disabilities experience negative attitudes from their communities, colleagues mostly from those without disability, and their teachers (Beyazoğlu & Özbek, 2024; Tal-Alon et al., 2024) during physical activities and sports participation. Discrimination is a negative characteristic that when exhibited towards people especially those with a disability affects them psychologically, hence such attitudes need to be discouraged. The findings of this study have shown that discriminatory attitudes towards students with disabilities is a major factor that influences and hinder their participation in physical activities and sports.

Conclusively, this study affirms the fact that factors such as personal, environmental, economic, and government policy influence students with disabilities' participation in physical activities and sports. However, these factors seem not to mean that students are completely discouraged from participating in physical activities and sports in the face of these factors. This suggests that the findings of this study disagree with studies by (Bantjes et al., 2015; Carlon et al., 2013; Cudjoe, 2015; Martin Ginis et al., 2016; Petersen et al., 2024; Segal et al., 2016; Smith & Wightman, 2021) that students with disabilities less participate in physical activities and sports compared with their peers without disabilities. However, these findings point to the fact that these factors seem to limit how well and how often these students would like to participate in physical activities and sports (Mawena & Sorkpor, 2023, 2024) as this study has showed that students with disabilities very often

participate in physical activities and sports when the needed conditions are favorable.

CONCLUSIONS

This study employed an interpretivist research approach specifically, a phenomenological research design to examine factors influencing students with disabilities' participation in physical activities and sports at the basic school level to help understand the phenomenon from the experiences of the participants. The findings of the study have shown that factors such as inadequate equipment and facilities, transportation problems, financial constraints, government policies, and discriminatory attitudes influence students with disabilities participation in physical activities and sports. This study has augmented the existing literature about students with disabilities' participation in physical activities and sports that, factors of inadequate equipment and facilities, transportation problems, financial constraints, government policies, and discriminatory attitudes seem not to entirely discourage them from participating in physical activities. However, it is unfortunate to add that, because of these aforementioned factors participation in physical activities and sports by students with disabilities are hindered.

With the enormous benefits accompanied by participation in physical activities and sports, especially by students with disabilities, educators and researchers in this field would expect turnaround of events. That is, disability-user-friendly sporting facilities and equipment would be available in special schools to help facilitate and promote physical activities and sports, adequate and prompt financial support would be made available to help smooth running of special schools to make sporting activities more attractive and appealing to students with disabilities.

In conclusion, good government policies that prioritize and geared towards training of more PE tutors to assist and help students in special schools to promote physical activities among them (students) to help improve the health conditions of students and also education on positive attitudes towards people living with disabilities without discrimination and stigmatization should be a priority to help encourage students with disabilities to participate in physical activities and sports in their respective special schools for better attainment in their sporting endeavors.

Suggestion for Further Study

This current study examined factors influencing students with disabilities participation in physical activities and sports. However, the study did not consider students without disabilities level of participation and the possible factors that affect their participation in physical activities and sports.

It is, therefore, recommended that further research should be conducted on factors influencing students without disabilities' participation in physical activities and sports in mainstream schools.

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