

**INTEGRATION OF STUDENTS WITH PHYSICAL DISABILITIES IN INCLUSIVE
EDUCATIONAL ENVIRONMENT THROUGH SPORTS PARTICIPATION**

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Abstract

In Nigeria, as in many parts of the world, inclusive education has gained significant attention as a means to provide equitable access to education for all students, including those with physical disabilities. However, the effective integration of students with physical disabilities into mainstream educational environments remains a challenge. This paper seeks to explore the role of sports participation in fostering the integration of students with physical disabilities into inclusive educational environments in Nigeria. Through a review of existing literature, this paper examines the concept of sports, physical impairments, types of physical impairment and causes of physical impairment. It also, examines the benefits of sports participation for students with disabilities, explores the challenges and barriers to inclusive sports participation in Nigeria, and proposes strategies to enhance the integration of students with physical disabilities through sports in educational settings. A survey research design was adopted for this study, in which data was collected and analyzed by the researcher.

Keywords: Inclusive Education, Physical Disabilities, Sports, Integration, Students with Physical Disabilities.

Introduction

Inclusive education entails the provision of equal opportunities for all students, including those with disabilities to access quality education within mainstream educational environment. In Nigeria, as in many other countries, there has been a growing recognition of the importance of inclusive education in promoting social cohesion and equity. However, the integration of students with physical disabilities into mainstream educational settings remains a challenge. One avenue through which integration can be facilitated is sports participation. Sports offer numerous benefits for individuals with disabilities, including improved physical health, enhanced social interaction and increased self-confidence.

Sport is an organized, competitive and a skillful physical activity which seeks for devotion and fair play that is regulated by rules. Physical activity includes movement of people, objects or equipment for the purpose of achieving a goal (Barton, 2017). Sports also include; noncompetitive activities like; jogging, running, exercising and swimming which are usually classified as recreation. Sports help to improve the physical, health and mental abilities of the individual. Beckett (2016) stated that sport is a social-cultural system which has a high level of development in different segments of its action. In this 21st century, sport, especially group sports, like football, basketball, hockey, volleyball, baseball, tennis and athletics have attracted the participation of persons with physical disabilities (American Psychological Association, 2012). An understanding of how sport functions as an inclusive game depends on how sporting activities are organized. The field of sports consists of diverse activities that persons with physical disabilities can be engaged in on individual or group bases (Albrecht, Seelman, & Bury, 2011). This implies that sporting activities might have different meanings and interest to different people to be able to attach self to any of the activities based on the ability and capacity of an individual.

The main aim of this research study is the Integration of Students with Physical Disabilities in Inclusive Educational Environment through Sports Participation.

The specific objectives were to ascertain the following: to determine the types of sports that is available for pupils with physical impairment in an inclusive school setting; to determine what restricts or facilitates participation in sports for pupils with physical impairment in an inclusive school setting; to determine what facilitates participation in sports for pupils with physical impairment in an inclusive school setting; to find out if effective sports is adapted to suit specific

needs and attain therapeutic goals of pupils with physical impairment in an inclusive school setting.

This study is guided by the following research questions: What are the types of sports that are available for pupils with physical impairment in an inclusive school setting? What restricts participation in sports for pupils with physical impairment in an inclusive school setting? What facilitates participation in sports for pupils with physical impairment in an inclusive school setting? To what extent are sports adapted to suit specific needs and therapeutic goals of pupils with physical impairment in an inclusive school setting?

Methodology

A survey research design was adopted for this study, in which data was collected and analyzed by the researcher. Survey research design is a procedure of quantitative research in investigating a sample or to the entire population of people to describe the attitude, opinions, behaviours, or characteristics of the population. It also involves the analysis, assessment of the opinion, attitudes, and preferences of a targeted population on the topic of interest to the researcher. This research design is of relevance to this work which will help in knowing the opinions and characteristics of the targeted population which in turn gave more accurate samples to get targeted results in order to draw conclusions and make important decisions. The population used for this included thirty (30) pupils from primary 4-6 in both Special Education Centre Pankshin and thirty (30) pupils from Demonstration centre federal college of education Pankshin, consisting of sixty (60), pupils with physical impairment. The sample size for the study consisted of 44 pupils cut across two (2) schools namely: Federal College of Education Demonstration Centre Pankshin and Special Education Centre Pankshin which was drawn from the population of 60 pupils attending both schools in Pankshin. According to Research Advisor (2006), a population of more than 60 the sample size for the study is 44 at 5% margin of error and 95% confidence interval. For fair representation 22 pupils were used in each schools with a total samples of 44, in Special Education Centre Pankshin the researchers selected eight (8) from primary four (4) pupils, six (6) from primary five (5) pupils and seven (7) from primary six (6) pupils totaling twenty (22) pupils. Then in Federal College of Education Demonstration Centre Pankshin, twenty (22) pupils were selected cutting across primary 4 to 6 numbering ten (10) pupils from primary four (4) and five (5) from primary five (5) and seven (7) from primary six (6) for this study.

The sampling technique used for this study was simple random sampling technique. Respondents were selected via the use of lottery method in which pieces of papers were cut and 'yes' or 'no' were indicated on the pieces. The papers were squeezed and mixed on a tray and respondents were asked to pick one paper per person. Those who picked 'yes' constituted the sample size and those who picked 'no' were not part of the study sample.

The instrument which was structured in form of Likert questionnaire consisted of two sections A and E. Section A seek for respondent's personal information, while section B-E required the respondents to respond to a four modified Likert-scale format. The responses were Agreed (A), strongly agreed (SA), Disagreed (D), and Strongly Disagreed (SD).

To ascertain the reliability of the instrument, a pilot test was carried out in EKAN rehabilitation primary school Mangu, a simple random sampling was used to select ten (10) pupils from the school. The choice of the school for pilot testing of the instrument was because it did not fall in the area where the main study was conducted. The data obtained were statistically analyzed to specifically determine the reliability of the research instrument and find out whether the items in the questionnaire were appropriate or not. Thus, a total of ten (10; 100%) responses were received from the respondents by the researchers and used for analysis. Hence, the Cronbach's Alpha was used to determine the validity and the reliability. The statistical analyses showed Cronbach's Alpha correlation coefficient of 0.80 this value, according to Stevens (2006), the closer the calculated reliability coefficient is to 1, the more reliable is the instrument. Thus, the instrument was considered reliable for this study.

Data collected by the researchers was analyzed using simple descriptive statistics in which information collected was presented using mean.

Concept Physical Impairment

Physical impairment is considered a limitation in physique. It also means any physical disorder or condition, cosmetic disfigurement or anatomical loss that affects one or more of the following body systems such as; neurological, musculoskeletal, special sense organs, respiratory organs, speech organs; cardiovascular and reproductive system. WHO (2000) expressed that the term physical impairment is a disability that limits a person's physical capacity in performing routine activities such as; physical and motor tasks, daily movement, daily living functions, dexterity or stamina. Physical impairment leads to incapacitation or difficulty of ease of movement or bodily

maneuver for daily life's functions (Ozoji, Chidi, Unachukwu & Kolo, 2016). This shows that once physical impairment sets in, it makes the individual incapacitated.

Types of Physical Impairment

physical impairment according to Onwubolu (2007) are classified into the following:

- a. Orthopedic impairment:** refers to disorders of the bones, joints, limbs and associated muscles. The term includes impairments caused by amputations, a congenital anomaly and impairment caused by bone tuberculosis, brittle bones, fractures or burns that cause contractures, scoliosis,
- b. Amputation:** This is the cutting off of the limb (hands or legs). Amputation can be congenital and occurs when a child is born without the whole limb or incomplete development or deformed limbs. Acquired amputation occurs due to an accident that can lead to the removal of the limb.
- c. Arthritis:** This is an inflammation of the joint which makes movement difficult and painful Arthritis can be temporary or permanent. Temporal arthritis last for a few weeks or months, while permanent ones are chronic and can last throughout one's life
- d. Brittle Bones:** This is a congenital condition which manifest by frequent and repeated fracture of the legs or arms. The condition can be mild or severe. Some children are born with fractures due to the brittle nature of their bones. Students with this problem can break their arms and legs through simple activities like playing, minor falls and turning in bed.
- e. Scoliosis:** This is another form of orthopedic impairment. Scoliosis is a curvature of the spine which leads to a change in the normal position of the head. There are also differences in shoulder levels, one being higher than the other or prominence of one hip. It is usually more in girls than in boys. It limits the student movements in severe cases.
- f. Neurologic Impairment:** This is another type of physical impairment. Neurologic impairment is a disorder of nervous system. The impairment is associated with incomplete development and injury to the nervous system which result in physical impairment (Okobah & Onwubolu, 2012). Neurological conditions include impairment caused by the following conditions:
 - i. Sickle cell Anaemia:** This is a hereditary blood disorder in which the red blood cells assume a sickle shape and fail to perform their functions of carrying oxygen to the

tissues. When this happens, it causes severe pain in the abdomen, legs and arms. The condition can equally result in low vitality and interference with cerebral nutrition to cause mental retardation. It can lead to death when it is severe. Treatment at times involves blood transfusion. Students with sickle cells should avoid stressful situations and being exposed to cold and stress.

- ii. **Poliomyelitis:** This is a contagious disease caused by virus which affects the throat and intestine. Poliomyelitis is also known as polio or infantile paralysis. The virus attacks the motor cells in the spinal cord resulting in the weakened muscles or paralysis of the lower limbs. The trunk may also be affected causing a curve in the spine, which may be severe leaving the person muscularly weak or spastic. This usually occurs during infancy. The effect could be mild or severe.
- iii. **Epilepsy:** This is another neurological impairment. It is a convulsive disorder characterized with seizures. Seizures occur as a result of excessive electrical discharges released in some nervous cells of the brain. When this happens, the brain loss control over the muscles senses and thought for a short while.
- iv. **Spinal Bifida:** This is a congenital malformation of the spinal cord caused by incomplete closure of the vertebral column, which often allows protrusion of the spinal cord into a sac like at the base of the spines. This indicates that the problem is due to developmental defect of the central nervous system. It is characterized by incomplete closure of the bony encasement of the spinal cord. It occurs during pregnancy when the spinal column of the foetus is being formed. The individual affected may lose bowel and bladder control and may have sensory loss of the affected side.
- v. **Hydrocephalus:** Hydrocephalus is a neurological condition that occurs when the cerebrospinal fluid is not absorbed in the blood stream. When this happen, the head of the affected child grows out of proportion with the body.
- vi. **Cerebral palsy:** This is damage to the motor areas of the brain prior to brain maturity. It occurs before birth, during birth or as a result of traumatic brain injury after birth. It affects muscle coordination and body movements. Cerebral palsy manifests itself in conditions such as: Spasticity (stiff and jerky movement), Ataxia movement, that is a disturbed sense of balance and coordination, Athetiod:

(involuntary, uncontrolled motion), Rigidity (simultaneous contraction of both muscles group) and Tremor: (uncontrollable nervousness or shaking.)

Causes of Physical Impairment:

The possible causes of physical impairment include the following;

Inherited or genetic disorder such as muscular dystrophy: Traits of abnormal gene can be passed from parents to offspring. Muscular dystrophy is a genetic condition where the body muscular fibres gradually weaken over time. The most common types of muscular dystrophy in children is Duchene muscular dystrophy, which occurs mostly in boys. The first symptoms of muscular dystrophy may appear as a difficulty climbing stairs, difficult getting up from a sitting position, which are forms of physical impairment.

congenital such as spinal bifida: Spinal bifida is a birth defect which occurs when bones of the spine do not form properly, that is the nerves that runs down the spine that do not develop normal during pregnancy.

Meningitis: This is another cause of physical impairment. It is an inflammation of the meninges. The meningitis is the collective name for the three membranes that surrounds the brain and spinal cord. Meningitis is marked by intense headache, fever, muscular rigidity, stiff neck. When an individual has meningitis, it affects the brain nerves or brain muscles which can lead to paralysis or stroke.

Spinal cord injury: Physical impairment can also result from permanent injuries or damage to the spinal cord either through accident or diseases condition.

Brain injury: Physical impairment can result from permanent injuries to the brain due to injuries sustained through accident such as falling from a height. Ozoji et al (2016) stated that the causes of physical impairment include: Motor vehicle accidents, water and diving accidents, gunshot wounds, sports injuries and child abuse

Participation in Sports by Students with Physical Impairment

Participation of students with physical impairment in sporting activities is very low compared to people without physical impairment. In the United States, for example, 44% of students with physical impairment participate in sports (Howe, 2012). In Nigeria, students with physical disabilities have 27 percentages in sports participation, (Adeyenju, 2013) Students with physical disabilities should be included in all sporting activities. Sports help to reduce chances of heart disease, obesity and type 2 diabetes in participants (Healthy People, 2014). Sporting activities

help students with physical disabilities to maintain better balance and psychosocial benefits such as; fun, social contacts, acceptance of the disability and improved self-confidence (Maher, Kinne & Patrick, 2016), Dr Ludwig Guttmann (neurologist of the Spinal Cord Injuries Centre at the Stoke Mandeville Hospital, United Kingdom) once stated that:

“If I ever did one good thing in my medical career it was to introduce sports into the rehabilitation of disabled people.” (Guttmann, 1944)

Today, sporting activities are part of the school program to socialize all students including those with physical disabilities in the school (Bragaru, Dekker, Geertzen, & Dijkstra, 2011). For example, Paralympic games in London in 2012 were more popular and attended by 2.7 million spectators who watched the games. This exceeded the Paralympics Games of Beijing in 2008 where 900.000 spectators watched the games. Today, more persons with physical disabilities participate in both local and international sports. In schools, Paralympic games are introduced in schools, especially in Nigeria.

Benefits of Participating In Sporting Activities by Students With Physical Disabilities

There are numerous benefits of participating in sport activities by students with physical disabilities. Hutzler & O'Reilly (2018) stated that participation in sports helps to improve physical fitness, motor skills and overall health among persons with disabilities. Sports serve as a catalyst for social inclusion, it helps students with disabilities to develop friendships, build social networks and enhance their sense of belonging within the school community (Shapiro & Gorin, 2020). Additionally, engaging students with physical disabilities in sports can have positive effects on their academic performances. It promotes the student's self-discipline, goal-setting and teamwork skills that can be transferred into the classroom activities (Sit 2019). Sport helps to enhance the psychological well-being of the participants by boosting their self-esteem, confidence and social skills (Hutzler & Sherrill, 2016). Through sports, students with physical disabilities can also develop important life skills such as leadership and resilience which can be transferred to academic and other professional settings (Goodwin & Watkinson, 2018).

Regular physical activity has been linked to improved cardiovascular health, muscle strength, communication skills and coordination among persons with disabilities (Shields, 2021). Additionally, participation in sports can enhance social skills and promote inclusion by providing opportunities for interaction with peers and integration into the community of beings.

Barriers to Inclusive Sports Participation in Nigeria

Despite the benefits of sports participation for students with physical disabilities, there are several barriers that hinder the integration of students with disabilities into inclusive sports programs in Nigeria. These barriers include inadequate sporting facilities that are not easily accessible to individuals with disabilities, lack of trained personnel to support inclusive sports programmes, social stigma and discrimination towards individuals with disabilities (Ojo & Asogwa, 2019). Lack of awareness and understanding among educators, policymakers and the general public about the importance of including students with disabilities into sporting activities. Attitudinal barriers, such as stereotypes and misconceptions about disability also hinder the full inclusion of students with disabilities in sports activities (Block & Obrusnikova, 2015). Others according to Haegele & Sutherland (2015) includes:

Lack of information on Disabled sports: The English Federation of Disability sports (2004) stated that lack of information on disabled sports was one of the main reasons for poor participation amongst students with physical impairment. Students with physical impairment do not know what type of sports is available for them to participate in and do not know how to find out about what sport would best suit them, bearing in mind their impairment.

Lack of Opportunities for participation: Despite large number of students with physical impairment in Nigeria, students with physical disabilities are not cared for in sports and are not provided with opportunities to participate in sports in the society. These students simply do not have the same opportunities to participate in sport as their able-bodied peers (Sport England, 2001).

Lack of specialized sports coaches: Lack of specialized sports coaches for students with physical impairment remains a significant barrier to participation in sports by students with physical impairment (Fitzgerald & Kay, 2004) without sport coaches' students with physical impairment can nor participates in sports.

Fear of rejection: Students with physical impairment often do not participate in sports because of fear of rejection by their peers for incapability (Bilard & Delignieres, 2005).

Lack of special adaptive aids: Lack of special adaptive aids such as specialized wheelchairs, hand-cycles and specialized three wheeled cycles are serious hindrances to persons with physical disabilities in the sport participation.

Lack of financial support: Lack of finance has been identified as one of the main barriers to participation in sports by persons with physical disabilities in Nigeria. Attending sports clubs and buying special sport aids is costly and not all parents of students with physical impairment can afford.

Need For Integration of Students with Physical Disabilities in Sports

Integrating students with physical disabilities in sports requires a multi-faceted approach that involve various stakeholders, such as government agencies, educational institutions, non-governmental organizations (NGOs) and community members. Firstly, there is a need to invest in accessible sporting infrastructure and facilities to ensure that individuals with disabilities participate actively in sports activities safely and comfortably. This may involve retrofitting existing facilities to make them accessible or building new facilities that are inclusive for such students. Secondly, there is a need for the provision of adaptive sports equipment and assistive devices to enable individuals with disabilities to fully participate in sports programmes. Thirdly, there is a need for training and capacity building for educators, coaches, and other personnel involved in sports programmes to ensure that they have the knowledge and skills to support students with disabilities effectively. This may include training coaches on disability awareness, inclusive teaching practices and adapted sports techniques. Additionally, there is the need for advocacy and awareness campaigns to challenge stigma and discrimination against individuals with disabilities and promote the value of inclusive sports participation.

Results and Discussion of findings.

Research Question 1: What are the types of sports that are available for pupils with physical impairment in an inclusive school setting?

Table 1: Mean Scores of Responses on the Types of Sports Available for Pupils with Physical Impairment in an Inclusive School Setting

S/no	Items	N	Mean	SD
1	Bean bags	44	2.80	0.96
2	Frisbees	44	2.54	0.95
3	Play parachutes	44	1.90	1.15
4	Table Tennis	44	3.25	1.06
5	Football	44	4.55	0.98
6	Cricket	44	2.36	1.00
7	Sport stacking	44	2.70	1.01
8	Athletics	44	4.29	0.97
9	Throw ball	44	3.04	0.98
10	Basketball	44	3.04	0.98
	Aggregate mean score		2.98	1.00

Table 1 shows that the respondents disagreed with the availability of types of sport for pupils with physical impairment in an inclusive school setting as half of the mean scores of responses were below 3.00. The most desired types of sports that are available in an inclusive school setting as reflected in items 4, 8, 9 and 10 are: table tennis, football, athletics, throwball and basketball respectively. However, the non-available types of sports in an inclusive sports setting in Pankshin are reflected in items 1, 2, 3, 6 and 7 which are bean bags, Frisbees, play parachutes, cricket and sport stacking respectively. The aggregate mean score of 2.98 and SD of 1.00 indicated that there are no available types of sports for pupils with physical impairment in an inclusive school setting in Pankshin.

Research Question 2: What restricts participation in sports for pupils with physical impairment in an inclusive school setting?

Table 2: Mean Scores of Responses on the Restricts what Participation in Sports for Pupils with Physical Impairment in an Inclusive School Setting

S/no	Items	N	Mean	SD
1	Inadequate training for teachers and coaches	44	2.20	0.96
2	Lack of financial support	44	3.20	1.97
3	Limited/poor adaptive aids	44	2.60	0.88
4	High cost of sports facilities and equipment	44	3.40	1.07
5	Limited opportunities for participation in sporting activities	44	2.40	0.89
6	Negative attitude of the regular teachers towards pupils with physical impairment	44	2.80	0.94
7	Lack of information on sports for pupils with physical impairment	44	2.60	0.91
8	Lack of specialized sports coaches	44	2.60	0.94
9	Lack of sport practice by pupils with physical impairment	44	2.50	0.98
10	Inadequate knowledge of the important of sports by pupils with physical impairment	44	2.40	1.07
Aggregate mean score			2.67	1.06

With regards to what restricts participation in sports for pupils with physical impairment in an inclusive school setting, Table 2 reveals that the respondents are restricted to participation in sports as most of the mean scores of responses were below 3.00. However, all the items except items 2 and 4 have positive responses that lack of financial support and high cost of sports facilities/equipment restricts them from participation in sports activities. The respondents

disagree that in their schools teachers and coaches are inadequately trained (2.20), limited/poor adaptive aids (2.60), limited opportunities for participation in sporting activities (2.40), negative attitude of the regular teachers towards pupils with physical impairment (2.80), lack of information on sports for pupils with physical impairment (2.60), lack of specialized sports coaches (2.60), lack of sport practice by pupils with physical impairment (2.50) and they also disagreed with inadequate knowledge of the importance of sports by pupils with physical impairment (2.40). The aggregate mean score of 2.67 indicated that pupils with physical impairment are not restricted to participation in sports activities in an inclusive school setting in Pankshin.

Research Question 3: What facilitates participation in sports for pupils with physical impairment in an inclusive school setting?

Table 3: Mean Scores of Responses on what Facilitates Participation in Sports for Pupils with Physical Impairment in an Inclusive School Setting

S/no	Items	N	Mean	SD
1	My teachers encourage us to participate in sporting activities in our school.	44	2.97	0.94
2	Organization of sporting activities for pupils with physical impairment	44	3.50	0.83
3	Adequate financial support to enhance sports participation of pupils with physical impairment	44	2.20	1.03
4	Provision of therapy support to improve the physical functioning of pupils with physical impairment	44	3.60	0.81
5	My parent encourage me to participate in sporting activities in school	44	3.30	0.97
6	My school create an enabling environment for us to participate in sports activities	44	3.20	0.81
7	We always participate in sporting activities with my friends in school	44	3.84	0.91
8	Sporting facilities in my school motivate us to participate in sports	44	2.65	0.10
9	While participating in sports in my school, medical personnel are always with us	44	2.90	0.93
10	In my school, during sporting activities pupils are not rejected in participation.	44	3.30	0.92
Aggregate mean score			3.15	0.83

Table 3 the respondents agree that there is an organization of sporting activities in their schools, provision of therapy support to improve the physical functioning of pupils with physical impairment, parents encouraging them to participate in sporting activities in school, school create

an enabling environment for them to participate in sports activities, they always participate in sporting activities with their friends in school and in their school during sporting activities pupils are not rejected in participation friends respectively (3.50, 3.60, 3.30, 3.20, 3.84 and 3.30). While, the respondents disagreed with items 1, 3, 8 and 9 respectively which shows that teachers do not encourage them to participate in sporting activities in their school, no adequate financial support to enhance sports participation of pupils with physical impairment, sporting facilities in their school did not motivate them to participate in sports and during participating of sports in their school medical personnel are always not with them. The aggregate mean score of 3.15 indicated that pupils with physical impairment are facilitates by their schools to participate in sports in an inclusive school setting in Pankshin.

Research Question 4: To what extent are sports adopted to suit specific needs and therapeutic goals of pupils with physical impairment in an inclusive school setting?

Table 4: Mean Scores of Responses on the Sports Adapted to Suit Specific Needs and therapeutic Goals of Pupils with Physical Impairment in an Inclusive School Setting Pankshin.

S/N	Items	N	Mean	SD
1	Sports activities will help to greatly improve the recreational and social life of pupils with physical impairment.	44	3.20	0.92
2	Sports activities will be used as a therapy to improve the physical functioning and respiratory fitness of pupils with physical impairment	44	3.80	0.94
3	Sports activities are means of correcting my physique	44	3.20	0.90
4	Sports activities allow blood circulation in my body	44	3.38	0.93
5	Sport activities allow assimilation of knowledge	44	3.30	1.04
6	Sports activities gives room for proper functioning of impulse in my body	44	3.27	0.90
7	Immune system are boast when I participate in sports activities	44	3.15	0.90
8	I always felt sick when I participate in sports activities	44	2.55	0.94
9	Injuries always occur when I participate in sports activities	44	2.20	0.81
10	I feel excited when I participate in sports	44	3.18	0.58
Aggregate mean score			3.12	0.89

Table 4 reveals that the respondents agreed that sports adopted suit their specific needs and therapeutic goals in an inclusive school setting as the mean scores of responses were above

3.00 which means that the participants agree that sports activities help to greatly improve the recreational and social life of pupils with physical impairment (3.20), sports activities is used as a therapy to improve the physical functioning and respiratory fitness of pupils with physical impairment (3.80), sports activities are means of correcting their physique (3.20), sports activities allow blood circulation in their body (3.38), sport activities allow assimilation of knowledge (3.30), sports activities gives room for proper functioning of impulse in body (3.27), immune system is boast when one participate in sports activities (3.15) and they always feel excited when they participated in sports (3.18). However, the respondents disagreed that they always feel sick when they participate in sports activities (2.55) and injuries always occur when they participate in sports activities (2.20). The aggregate mean score of 3.12 indicated that sports participation for pupils with physical impairment suit their specific needs and therapeutic goals in an inclusive school setting.

Discussion of Findings

This study investigates the analysis of sports participation of pupils with physical impairment in inclusive school setting in Pankshin Local Government Area. It was discussed in four parts: Types of sports that are available for pupils with physical impairment in an inclusive school setting, restriction of participation in sports for pupils with physical impairment in an inclusive school setting, Facilitation of participation in sports for pupils with physical impairment in an inclusive school setting and the extent to which sports are adopted to suit specific needs and therapeutic goals of pupils with physical impairment in an inclusive school setting.

The results from research question one, presented in Table 3, reveals that pupils with physical impairment in inclusive school settings have no available types of sports with a mean score of 2.98. This finding is in line with Hehir (2017), who discovered that disability sports promote the practice of reverse integration, which includes the participation of pupils without disabilities in sports specifically designed for pupils with disabilities. The sports have the potential to transform the way in which skill-based competencies are evaluated by exposing children to sports played by pupils with limited physical functioning. DePauw and Gavron (2015), revealed that beanbags are a very useful piece of sport/play equipment; they are easier to catch than balls because they don't bounce or roll. Used in throwing and catching activities they can also be used in balancing activities. Unfortunately beanbags are not commercially available

in Nigeria although they can easily be made locally using cloth and beans or seeds (although care must be taken to keep them dry).

The results from research question two in Table 4 shows that pupils with physical impairment in inclusive school setting are not restricted to sports participation in their schools with a mean score of 2.67. The finding concur with Thomas and Smith (2018), which revealed that despite the benefits of physical activities, pupils with disabilities are not restricted in their participation, they have lower levels of fitness, and higher levels of obesity than their peers without disabilities. Pediatricians and parents may overestimate the risk or overlook the benefits of physical activities in children with disabilities. Pupils with disabilities have lower levels of cardio respiratory fitness, lower levels of muscular endurance, and higher rates of obesity than typical children. In addition to the physiologic benefits of decreased body fat and increased fitness overall, regular physical activity for pupils with disabilities has been shown to help in controlling or slowing the progression of the chronic disease, improving overall health and function, and mediating the psychosocial impact of the condition on pupils and their families (Rimmer, 2017). Pediatricians and other medical home professionals may overestimate the risks or overlook the benefits of physical activity in pupils with disabilities but Parents should often seek information about recreational opportunities.

Research question three, presented in Table 5 shows that the respondents agreed that there are facilitated to participate in sports in an inclusive school setting with the mean scores of 3.15. The finding of this study is in line with Carlon, Shields, Dodd and Taylor (2013), which revealed that pupils with disabilities engage more in physical activities because of the support they have from their school compared to their typically developing peers. Regular participation in physical activity by pupils, including those with disabilities, enhances body composition (LeMura & Maziekas, 2012), bone health (Bradney, Pearce, Naughton, Sullivan, Bass, & Beck, 2016), psychological health (Wilkinson, 2014), and promotes social engagement (Jobling, 2011). There are additional therapeutic benefits to participation in regular activity for children with disability (Damiano, 2016). They often have delayed gross motor development, less proficiency in balance and coordination and poor cardiovascular fitness compared to their peers with typical development (Horvat, Pitetti, Croce, 2015), all of which could potentially be improved by participation in physical activity (Jobling, 2011). Sport and physical activities are important components in a healthy lifestyle for children. Physical activity contributes to developing healthy

bones, efficient heart and lung function, and can positively impact on the functioning of the body's immune system. Sport and physical activity contributes to the prevention of chronic diseases such as cardiovascular disease, diabetes, hypertension, obesity and osteoporosis. All pupils, including those without disabilities, are becoming increasingly sedentary, due to changes in lifestyle (Increased use of TV and the internet), family pressure to study harder and many others. Obesity rates in Nigeria are rising - 0.4 as millions of school children are thought to be overweight in Nigeria (2013) (Fung, 2014).

The results from research question four in Table 6 show respondents agreeing that sports adopted suit their specific needs and therapeutic goals in an inclusive school setting with the mean scores of 3.12. This finding conforms to those of Bragaru, Dekker, Geertzen and Dijkstra (2011), that neurologist also developed rehabilitation sports into recreational and competitive sports by organizing the first Stoke Mandeville Games in 1948, which eventually evolved into the Paralympic Games. Today, sports are still part of the rehabilitation program, to familiarize patients with physical disabilities with different sports possibilities and increase their physical fitness and quality of life. The Paralympic games of London in 2012 were more popular than ever with 2.7 million spectators to watch the games, which exceeded the Paralympics Games of Beijing (2008) with 900.000 spectators. In total 4,237 athletes from 164 different countries competed in 20 sports compared to 3,951 athletes from 146 countries in Beijing (International Paralympics Committee, 2011). With more (international) interest in Paralympics sports than ever, one would expect that the sports participation of pupils with physical disabilities in general might also increase.

Despite the presence of sports in the rehabilitation program and the growing attention for Paralympics sports, majority of pupils with physical disabilities are still not physically active. In order to increase sports participation of pupils with physical disabilities, it is important to understand what withholds them from participating and how they can be stimulated to become active in sports. Even though the United States and the Netherlands show similar percentages for sports participation of pupils with physical disabilities, Hehir (2017), little information is known whether these percentages also represent percentages in other countries or continents. The functioning of pupils with a physical disability depends on the environmental context they live in.

Conclusion

The purpose of this study was to investigate the analysis of sports participation of pupils with physical impairment in inclusive school settings in Pankshin Local Government Area. To achieve the purpose of this study, four research questions were raised. They were aimed at investigating the types of sports that are available, restrict participation in sports, and facilitates participation in sports and to the extent to which sports are adapted to suit specific needs and therapeutic goals of pupils with physical impairment in inclusive school setting. Two primary schools were randomly selected for this study from Pankshin Local Government Area of Plateau state, Nigeria. Forty-four (44) pupils with physical impairment were drawn through simple sampling technique in Pankshin Local Government Area were used in the study. A self-researcher-structured questionnaire was used for the purpose of data collection. The reliability index of 0.80 was ascertained. The result of the major findings of the study are summarize as follows:

1. There are no available types of sports for pupils with physical impairment in inclusive school settings in Pankshin.
2. Pupils with physical impairment are not restricted to participation in sports activities in inclusive school settings in Pankshin.
3. Pupils with physical impairment are facilitates by their schools to participate in sports in inclusive school settings in Pankshin.
4. Sports participation for pupils with physical impairment suit their specific needs and therapeutic goals in inclusive school settings.

In conclusion, the results of the findings showed that there is a positive result in the sport participation of pupils with physical impairment in inclusive setting that will improve social integration and physical wellbeing. Pupils who attended a special school before enrolling at primary school were not likely to participate in sports in the special school that they attended or the primary school that they moved. Therefore pupils with physical disabilities are not likely to participate in sport if they attend a special primary school compared to ordinary primary school. When considering the factors that would facilitate participation in sports, more financial support and human resources were identified by primary schools as the two main factors that would facilitate increased participation in sports for pupils with physical disabilities in primary schools.

These factors were closely followed by more information on disabled sports, training for teachers and sports coaches, more sports fields and better therapy support as facilitators for participation. When identifying the perceived barriers to participation in sports for pupils with physical disabilities; a lack of special adaptive aids and a lack of sports fields were considered the most significant barriers preventing participation in sports. For schools and pupils, pupils' perceived inability to participate in sports was found to be the most commonly identified psychological barrier, and a lack of trained sports coaches and therapists to assist pupils was the most commonly identified social barrier.

Recommendations

Based on the findings of this study the following recommendations are made:

1. There should be different types of sports in inclusive school for pupils with physical impairment
2. Pupils with physical impairment should be encouraged to always participate in sporting activities.
3. Government at all levels should pass a law that will make it mandatory for ministry of education and ministry of sports to include in the curriculum the full participation of pupils with physical impairment in sport activities.
4. Sport facilities should be made available in all inclusive schools in order to encourage participation in sports activities of pupils with physical impairment.

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