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EDITORIAL

The Journal of Human Kinetics and Health Education Pedagogy (JOKHED) is an official journal of the Department of Human Kinetics and Health Education, Ekiti State University, Ado-Ekiti. With the consistent patronage by various researchers and the reading public, we are compelled to publish this latest edition of the Journal –Vol. 5, No 1, 2023,

The Editorial Board deployed appropriate logistics to screen and select articles with high quality and in conformity with the international best practices. Therefore, the articles in the journal are double blind peer-reviewed in line with international standard.

This edition contains the publication of articles from diverse segments of Sport for Fitness, Health, Wellness and Education pedagogy. We shall not relent in our avowed commitment to always put the journal in academic domain at least two times a year.

The Editorial Board appreciates the efforts of all the contributors as well as assessors towards the successful production of this edition. It is our hope that researchers, scholars and readers will continue to subscribe to the journal for its continuity. We recommend this journal to all.

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ACHIEVING GOOD GOVERNANCE IN NIGERIA THROUGH SOCIAL STUDIES VOTER EDUCATION

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Abstract

This study discussed the implication of voter education for good governance in Nigeria. The paper discussed the concept of voter education as a kind of education concerned with the process of educating the youths on their rights and values as well as their duties of the government to the society in relation to the election processes. Voter education enables the youths to realize that democracy is an indispensable pre-condition for rapid national development and equally educate them about their rights and responsibilities as citizens. Voter education focuses on the determinants of the attitude of citizens to civic and political issues as their knowledge about the political system. Civic engagements or practices of the citizens are determined by their political attitudes, practices are also interrelated and independent. Quality voter education has the capacity to help the youths to identify the danger of political apathy, political silence and political violence which might translate to and deemphasize those factors that only tends to disintegrate, rather than articulate our collective interest in the country. Voter education no doubt is a veritable tool for good governance since it enables citizens to possess appropriate skills, knowledge, values and thus manifest the appropriate behaviours which promote sustainable democracy. Through voter education, youths will acquire adequate information, skills, experience and knowledge about the political process and thus enable them to exhibit the right attitude as citizens for the development of the country, through ensuring good governance.

Keywords: education, Governance, youths, behaviour, attitude

Introduction

In Nigeria democratic society, for a good and sustainable governance, the citizens have inalienable rights, duties and responsibilities to participate in the electoral process. It is thus essential for the youths as electorates to actively participate in electoral process. Voting is effective for them to exercise in order to elect the credible leaders of their choice. Voter education is vital programme for the youths during the political process as it provides information on who is eligible to

vote, where and how to register, how individuals can check the voter lists to ensure they have been duly included, what type of elections are being held, where, when and how to vote, who the candidates are and how to file complaints. According to Ajayi (2011), in a democratic and successful election, youths must know their rights and responsibilities, knowledgeable and be well informed on how to cast ballots that are legally valid in an election and this appears to be possible through voter education. In the assertion of Oyatomi (2009) youths require adequate voter education to know the values and importance of democracy and these values can easily be transformed to their daily activities. It appears that most of the youths have negative attitude towards voting, perhaps due to inadequate voter education. Falade (2011) suggested that in a political system, the youths can be involved in the political process and decision making by joining political parties of their choice, voting during participating in elections. election campaigns, community affairs and other political activities.

In the view of Oyetade (2013), attitude is how we think, feel and act towards our fellow human beings and how they think, feel and acts towards us. Attitude to civic and political issues refers to the expression of individual feelings, expression or predisposition towards civic and political matters. Ojo (2013) advanced lack of development of democratic attitude (values) as one major obstacle that has democratic marred consolidation Nigeria. Both the elites and youths have surprisingly shown weak commitment to basic symbols and values of democracy. Hence, there is serious manifestation of greed, inordinate ambition to get power, thuggery, dishonesty, personalization of political/ public offices, insincerity, disrespect for others and intolerance in the polity.

All these undemocratic behaviours manifest in the forms of electoral rigging and kidnapping/killing of political opponents. There have been incidences of

sponsoring of publications and damaging articles in the social media, couple with tearing, removal or defacing of posters belonging to political opponents / parties. Youths have been accused of enlisting into various cult groups to be used as party kingpin or political thugs. The role of Social Studies education in voter education is very crucial as it makes youths to grow in wisdom and understanding, trains them to live together with others and improve their basic attitudes to society. Ogundare (2007) opined that the introduction of Social Studies in Nigeria was due to the need for a more effective way of educating citizens. Relatively, voter education as needed by the youths during political process in an educational programme that provides the citizenry with knowledge, skills and values for the development of society. Voter education individual the self- confidence needed to engage in discussions on issues of governance and affords people information required to make informed judgment.

The Concept of Voter Education

Voter education is a concept which varies in nature and purpose historically and from country to country and it has been described variously by different authors. It can be seen to be the kind of activity concerned with the process of educating the people on their rights and values as well as the duties of the government to the society in relation to the election processes. Hariman (2006) postulated that voter education is an effort

to create among citizens a new set of culturally defining "habits of the heard" which will enhance citizenship, foster a sense of connectedness to a community stretching beyond the schools ultimately support the practices, basic values and institutions necessary for a democratic process. It is also seen as an important component of civic education that mobilises citizens to participate in the public life of a democracy and to use their rights to discharge their franchise. Voter education is not complete until citizens a set of appropriate civic posses dispositions which are of those habits of the heart and mind that are conducive to the healthy functioning of the democratic system.

Voter education, as described by Ajayi (2011), is a process of dissemination of information, materials and programmes designed to inform voters about the specifics and mechanics of voting process for a particular election. It involves providing information on who is eligible to vote, where and how to register, how people can check the voters lists to ensure they have been duly included, what type(s) of election is/ are being held, how to vote, who the candidates are and how the candidates are and how to file complaints. Alonge (2007) too saw the concept as ideals and knowledge needed for the provision of information and learning experience to equip and empower citizens to participate in the democratic process. He went further to say that it provides the citizens with opportunity of understanding their political culture, political ideology

and thoughts, their fundamental human rights and the basic elements and structures of the constitution of their country. From the foregoing, it could be deduced that for an election to be successful and democratic, voters must understand their rights and responsibilities, and must be sufficiently knowledgeable and well informed to cast ballots that are valid and legally to participate meaningfully in the voting process.

The Role of Social Studies Education in Voter Education

Social Studies is a discipline that makes the youths and other recipients to understand their relationship with the society and the world as a whole. As rightly observed by Ololobou (2010), Social Studies makes youths to grow in wisdom and understanding, trains them to live together with others and improve their basic attitudes to society. Social Studies as a discipline has the capacity to sensitize the youths as citizens on the need to be patriotic, cooperative, tolerant hardworking, fair, have integrity and justice at work. Social Studies Education plays an important role in inculcating the spirit of national consciousness patriotism in the youths through the teaching of citizenship concepts as an aspect of Social Studies curriculum. Ogundare (2007)opined that introduction of Social Studies in Nigeria was due to the need for a more effective way of educating citizens. Relatively, voter education as needed by the youths during political process is an educational programme that provides the citizenry with knowledge, skills and values for the development of the society. Ololobou (2010) asserted that Social Studies gives youths opportunity to have knowledge and understating of the society in which they live and promotes living together of the youths as one people.

In the contribution of Akinlaye, Mansaray and Ajiboye (2006), Social Studies has a special task of freeing the citizens from the shackles of ignorance in the areas of man's relations with his varied economic environments be it in agriculture, commerce, business, industry and also in all cultural situations of disease, grinding poverty, and perplexing rapid population. Hassan (2011), reported that Social Studies contributes immensely to the development of favourable attitudes of social, physical, cultural and economic development in the youths to enable them participate in the development of the community as citizens. This is very relevant to voter education required by the youths.

Akinyele (2007) stated that Social Studies give the youths the means of interpreting and assessing developments in the world. This makes them see where things happen and what they mean to be good of human beings. In view of this, voter education is to make the society impinge on creating some positive impact on the behaviour of the citizen social and affairs. political It also promotes democracy and civic values. Ogundare (2007) emphasised that Social Studies was developed as a balanced curriculum that

would help the individual to develop total adjustment within the society. The contributing efforts of Social Studies to Nigerian youths is that it helps them to know and feel concerned about the problems of society to gain understanding about things like ethnicity, attitudes to war, poverty and injustice. In the opinion of Osalusi (2011), Social Studies equips the learners with basic knowledge, problem-solving and thinking skills that could lead to self-development. Okam and Chukwu (2010) had earlier contended that Social Studies creates awareness in the youths about the problems of the Nigerian society and their origin as well as how they are being solved while Falade (2011) that, in considering Nigerian political system, promotion of voter education promotes the liberation of the Nigerian nation from ignorance and other liabilities. The youths are given information, skills, values and ideas about voting through voter education which in turn provide them with opportunity that will make them shun attitudes such as engaging in assassination, election rigging, false declaration of results, indolence and ethnic pluralism. Akinyele (2005) viewed Social Studies as a field of study that deals with the integration of knowledge, experiences and effective use of resources for the purpose of citizenship education. Ogundare (2007) noted also that Social Studies is concerned with fostering knowledge, skills, attitudes and values in the learners.

The aim of teaching Social Studies is said to prepare young learners for

effective participation in the society. Falade (2010) corroborated this by saying that it is to equip the youths to be informed on societal issues and problems as well as to foster in them with life skills required problem solving and effective Kehinde-Awoyele (2012) citizenship. added that this is the reason why Social Studies is described as a subject that aims at training the learners to acquire the traits that will enable them to participate effectively in a democratic setting.

Importance of Voter Education in Achieving Good Governance

The issue of the contribution of voter education is not only essential in developing democracies but in any kind of government that emerged to humanity from poverty resulting from governance and its attendant socialeconomic, cultural, political and role of voter education in governance becomes technological problems. Therefore the role of voter education in governance becomes inestimable, if the citizens are to enjoy dividends of democracy as well as participate in governmental activities with the aim of national development. In opinion of Kehinde-Awoyele (2012) the kind of orientation which exist in a population has a significant influence on the ways in which the political system works. The demand made upon the system and, the responses to laws as the conduct of individuals in their political roles are all by the common shaped orientation patterns. This is made possible only through the machinery of educating,

sensitizing, mobilizing and equipping the voters through voter education. Falade (2012) argued that political stability and development of any political system is a function of the awareness and positive involvement of the citizens in civic and political matter. Corroborating this, Akinboye (2013) posited that democracy demands from the common man a certain level of ability and character, rational conduct and active participation in government.

Furthermore, Hassan (2011) opined that for Nigeria to achieve good and sustainable governance, citizens must possess skills, values, and manifest the appropriate behaviours which promote good governance. Voter education helps citizens to make informed judgment about the nature of democratic system, politics, government and such knowledge could promote the understanding of the nature and importance of democratic society and the art of good governance. A democratic society prevents the abuse or excessive concentration of power by government. Good governance recognises that positive socio-political change is a function of citizens' active participation in electoral processes. **Popular** participation consultation empowerment and important because they help to provide legitimacy for governmental action. As a political socialisation process, education provides necessary knowledge and skills required for voter effective engagement in this direction. Voter education gives individuals the selfconfidence needed to engage in discussions on issues of governance and affords people the information required to make informed judgment.

To achieve good and sustainable governance, the citizens need to be equipped with knowledge of the ideals, values and principles of democratic system which are embedded in voter education. Those ideals, values and principles are criteria which citizens can use to judge the means and ends of government. Voter education in a constitutional democracy means that each citizen is a full and equal member of a community and is endowed with fundamental rights and entrusted with In line with these responsibilities. assertions, William (2011) argued that, it is expected that after acquiring such knowledge, citizens should understand that through their involvement in political life and civic society, they can help in creating sustainable good governance. The intellectual and participation skills are essential for informed, effective and responsible citizenship. After acquiring these skills, citizens will be able to identify, describe, explain, analyse and evaluate decisions as well as defend position on public issues.

In the opinion of Kehinde-Awoyele (2012), good citizens are law abiding, contribute to the development of the state, listen to people's view/ opinion when in power and made necessary amendment where needed. They also see that the state is always at peace. Furthermore, citizens in the democratic society require disposition to electoral system necessary for good governance. Voter education is a

necessary condition for political and economic reform because it sensitises the citizens on the need to be patriotic, cooperative, tolerant and abide by the constitutional provisions. Abdugafar (2011) stated that voter education is a critical tool for administration of justice, fair play, transparency equity, accountability that are of great value in corporate governance. In line with the above, Lauren (2008), a Mozambiguan civil society activist, revealed that lack of voter education is the essence of poor participation of Mozambiquan in the electoral processes. She stressed further that there is need for continuous voter education that would include all the groups of the civic society that should be sensitized and mobilized at every turn. The above assertion further stressed the viable position occupied by education in good governance in the facilitates world. It also active involvement of the citizens in political processes by making adequate information accessible to the people.

Conclusion and Recommendations

Voter education is an education in self-governance that is concerned with promoting the understanding of the ideals of democracy and a reasoned commitment of the values and principles of democracy. Voter education emphasises that political stability and development of any political system is a function of the awareness and positive involvement of the citizens in civic and political matter. For Nigeria to achieve good and sustainable governance,

citizens must possess skills, values, and manifest the appropriate behaviours which promote good governance. education helps citizens to make informed judgment about the nature of democratic system, politics, government and such knowledge could promote the understanding of the nature and importance of democratic society and the art of good governance. The youths are expected to posses a good grasp of democratic values which aid, guide and direct their conducts in the discharge of their civic responsibilities because democracy is nurtured and sustained only when democratic values are rooted in the minds and actions of citizens.

Government should organize voter educational programme in the media, such as radio, television and newspaper to educate youths who have not got the opportunity to be involved in the voter education programme on voting exercise. These youths will be knowledgeable on their rights, duties and responsibilities as citizens to vote during electoral process to contribute to the development of their country.

The National Orientation Agency (NOA) should organise seminars to enlighten youths on voter education and also on the right attitudes to voting so as to eradicate all sort of negative attitudes such as thuggery, assassination, kidnapping, electoral violence, electoral apathy, religious marginalisation, exploitation, rebellion and protest during electoral processes. These will allow youths to develop positive attitudes before, during and after electoral processes so as to choose credible leaders of their choice.

References.

- Ajayi, K. (2011) Election administration in Nigeria and the challenges of the elections. *The Social Sciences* 2 (2): 142 151.
- Akinboye, S.O. (2013). *Nigerian* government and politics. Lagos: Sam Iroanusi Publications.
- Alonge, F. K. (2007). Principle and practice of governing of men—Nigeria and the world in perspective. Ibadan: University Press Plc.
- D. (2011).Political Falade. A. participation in **Nigerians** democracy: A study of some selected local government areas in Federal University of technology, Akure. Ondo State Nigeria. A paper presented at Social **Studies** Workshop.20 May 2006.
- Falade, D.A (2012). Question and answers on concepts, methods, issues and problems in Social Studies. Ondo: Noveikol Publisher
- Hariman, T. (2006). *Is there a future for democracy in Nigeria?* Text of public lecture presented at the Department of International Development, Oxford University, on Monday 5th June.
- Hassan, M. T. (2011). Teachers' view of how civic education can promote good governance in Nigeria. *Nigeria Journal of Social Studies*. *14*(1), 67 74

- Kehinde-Awoyele, A. A. (2012),Development and effect of a participating moral education package on pre-service teachers' knowledge of and attitude to moral concepts social studies. inUnpublished Ph.D. Thesis. Department of Teacher Education, University of Ibadan.
- Ogundare, S. F. (2007). *Invitation to* fundamental teaching social studies. Ibadan; Frank-Ola publishers.
- Ojo, S. O. J. (2013). The irony of democracy and the challenges of democratic consolidation in Africa. In N.Iyoha (Ed), *Rethinking governance and development in the 21st Century*. Ekpoma: Institute for Governance and Development.
- Okam, C.C. & Chukwu, O.I. (2010). Peace education as an alternative curriculum design for the enrolment

- of peace and stability in Nigeria. Jos: Wallis Printing Press.
- Ololobou, C. (2010). *Methodological* approaches in Social Studies education. Kano: Jaleyemi Graphics and General Enterprise
- Osalusi, F.M. (2011). Relative effects of individualistics and cooperative learning strategies on secondary school students' achievement in Social Studies. London International Conference on Education. 102-109.
- Oyetade, E. M. (2003). Development of a participatory environmental education programme for colleges of education students in Lagos State, Nigeria. Unpublished Ph.D Thesis, University of Ibadan.

SKILL-BASED HEALTH EDUCATION FOR AMELIORATING SCHOOL CHALLENGES OF SCHOOL HEALTH PROGRAMME TO MEET SCHOOL NEEDS

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Abstract

The MDGs directed toward health promotion were not fully achieved, as health promotion through well implemented and functional school health programme, was far from reach. This is presumed to have necessitated the myriad of school challenges which affect school needs. The skill-based health education was therefore developed as a model to ameliorate the school challenges to meet school needs. The model exists in three phases with the first being healthful school living needs, second health instruction needs and lastly health service needs. The model also has a pool of school challenges of school health programme and instructional skills which run reciprocally to dynamically connect the three phases. In order to realize the purpose of the paper, instructors or other personnel concerned with health and instruction of leaners in the school are required to follow the procedure of use of the model. The instructors and others must first be acquainted with detailed understanding of the concept of instructional skills and the rudiments of their use in order to effectively use the model to meet the purpose of health promotion and disease prevention. Supervision, monitoring and assessment of progress can also be done with specific methods which are suggested in the paper.

Keywords: skills, health, programme, challenges, diseases

Introduction

Unmet school needs and challenges associated with achieving the Millenium Development Goals (MDGs) at 2015 attention shifted to Sustainable Development Goals (SDGs) proposed to be fully achieved by 2030. Unfortunately, its goals for health promotion were not fully achieved, and hence the objectives of skill-based health education (SBHE) were consequently not realized. One goal of SBHE is to develop correct health knowledge, favourable attitudes, right skills and healthy practices among school students.

SBHE goal is crucial to the extent that it should not be undermined by any government policy. Moreover, it is the totality of all experiences that assist the pupil/student to attain high level of while acquiring wellness not only knowledge and attitudes but also skills to avoid while necessary diseases navigating through life changes. It is only the healthy pupil that can benefit effectively from the educational process. Thus, SBHE utilizes experiences for favourably influencing understanding, attitudes and practices relating to the learner's wellness.

One reason for the input of SBHE in school health policy is to reach best practices in terms of implementation standards of SHP. However, it has been Sarkin-Kebbi recorded bv and Kwashabawa (2017)that school challenges confronting SHP in Nigeria including inadequate/lack of health staff, inadequate facilities for health and lack of interest in providing SHP are still commonplace. The shortfall National Health Policy goal of the Federal Ministry of Education (2006) could be traced to less emphasis on SBHE in the Nigerian school system. Hence, Nigeria could hardly achieve the MDGs for health promotion with probable consequence from poor implementation.

Poorly implemented health instruction, otherwise called SBHE, has implications for learners' school needs. It was documented by Olatunya, Oseni, Oyelami and Akani (2014) that poor implementation of health instruction exists in Nigerian schools with only 3.0% of the teachers having in-service training on health-related issues, 4.7% private schools had health instruction given by qualified health education personnel with no school rendering health instruction at least three times a week. This challenge is an abysmal to students/pupils' school needs.

Students/pupils spend a major part of their lives in school exposed to a variety of school challenges and dilemma including inadequate basic needs of portable water, nutrition, unhealthful school environment, and substance abuse which are economic and psychosocial

issues in the school system. More of these challenges confront the education sector including a range of issues concerning drug addiction, Human Immuno-Virus/Acquired Deficiency Immune Deficiency Syndrome pandemic, poverty. Other environmental, physical, emotional and social influences such as examination malpractices, risky sexual behaviour, and learner physical abuse are all worrisome challenges. Some of the leaners lack the skill-related capacity to avoid some or all of the challenges. Hence, for learners to benefit maximally from the educational system with those myriad challenges, an adequate SHP with effective **SBHS** is The necessary. aforementioned, therefore informed the basis for which the SBHE will be used to ameliorate school challenges, especially those connected with SHP, in order to meet school needs of learners. adequately realize the purpose of the paper, SHP's definition, history phases; school challenges and needs and the use of the SBHE to ameliorate school challenges of the SHP were addressed. In addition, potential merits and demerits of SBHE in meeting school needs were also highlighted.

School Health Programme: Definition, History and Phases

SHP is a health and educational programme met to prevent disease and promote health of members of the school. Health education can occur in the community, industry, school or anywhere individuals exist. In the school, it is

qualified as school health education with SHP being the composite of procedures and activities designed to achieve the aim of health education, protection and promotion of the well-being of students and school personnel.

The brief history of SHP is traceable to the 20th Century; as early as 1948, Health Education became a school subject instead of hygiene and sanitation. It was emphasized that the health education syllabus was meant as a syllabus upon which instruction should be impacted to children. Although, physical and health education was a compulsory subject in Teacher Training Colleges in 1980, the Joint Consultative Committee on Education (JCC) modified the curriculum so that Physical and Health Education (PHE) became an elective for students wishing to write the final senior school certificate examination. Consequently, the daily inspection of pupils' finger nails, teeth, hair and overall cleanliness phased out of the system. After many decades, health education came on board, not subsumed under other school subjects but one of its own existence to be certifiable school subject.

SHP exist in different phases with the traditional model being in three phases namely healthful school living, school health services and health instruction. In 2006, the Federal Ministry of Education five (2006)provided components including school health services, schoolhome-community relationships, healthful environment. school school feeding services and skill-based health education.

Recently, Public Health Nigeria (2020) noted that SHP has been expanded to include school health services, nutritional services, healthful school environment, education, physical counselling and psychological services and health education and promotion. Irrespective of the number of components in which SHP exist, one thing is central that health education is meant to promote total and optimal wellness for individuals in the community, home and school. of all the phases that exist, the present paper is adapting the five-point model of the National School Health Policy of Nigeria.

School challenges and needs

challenges and School needs appear to be synonymous but are different in meaning. First school needs, according to Strauss (2022), are things leaners require to survive in school to make them safe, stable and healthy, with well-being being one such need. Second, school challenges include but not limited to poor funding, subnormal classroom economic hardship, out-of-date facilities and equipment, students' family dysfunction, bullying, and student health (Chen, 2022). In both definitions, students' health and wellbeing is a common factor.

Educational system has policy statements that support the common factor of health and well-being of individuals. One such statement is SDG 3. Another can be localized in the following example. The Federal Ministry of Education with United Nations International Children's Emergency Fund (UNICEF) launched two

important policy documents in support of school need: the integration of health into the educational system called the National School Health Policy and the National Education sector HIV/AIDS strategic plan. These new policies were designed to put in place a national framework for the formulation, coordination, implementation and effective monitoring and evolution of SHP including an elaborate and concrete response to the HIV-AIDS scourge. The launch came against the backdrop of poor health status of school pupils and the impact of HIV-AIDS on the school system. Together with the two policies, the Federal Ministry of Education launched the National Guidelines for School Meal Planning with the objective to reduce malnutrition and hunger among school children. Ofovwe and Ofili (2007), further added that in the year 2001 through the use of the Rapid Assessment and Action Planning Process (RAAP), in collaboration with the World Health Organization (WHO) and the Education Development Centre, Nigeria developed an action plan which will serve as a foundation for infrastructure development for school health in Nigeria. One of such action plans is the development of a comprehensive school health policy at the national level, with appropriate legal support, to guide the management of SHP.

Despite these, health education is still bedeviled with school challenges in Nigeria school system especially poor state of the SHP. Dania and Adebayo (2019) emphasized the poor state of SHP in Nigeria as inactive with low level of

implementation. It was also recorded that mental and psychological challenges including suicide, depression, 8% attention deficit hyperactivity disorder (ADHD) in primary schools and 50% mental disorders beginning before age 14 are inclusive of the school challenges (Kessler et al. 2005; Omigbodun et al. 2008; Ibeziako et al. 2009). In addition, there are 1-3% individuals living with disabilities and an increasing conflict and violence mostly in Northern Nigeria (Adebayo, Bella-Awusah, Adediran & Omigbodun, 2023).

Many of the above school challenges still appreciably exist till date. No wonder evidence has shown that there increased challenge is of undernourishment and overweight/obesity among school children aged 6 – 19 years in Osun and Gombe States with consequent effect on leaning in Nigeria among children and adolescents (Adeomi, Fatusi & Klipstein-Grobusch, 2021; Adebayo, Bella-Awusah, Adediran et al. 2023).

Challenges are also documented to evident in the practice implementation of SHP in Nigeria with school needs appearing to be grossly undermined. The implementation of SHP targets only school pupils at the expense of staffers and ineffective coordination of stakeholders (Adebayo, Bella-Awusah, Adediran & Omigbodun, 2023). Many or all of the school challenges will continue to increase unless urgent steps are taken to ameliorate them. To ameliorate the myriad of school challenges, the SBHE is an option to be considered.

Skilled-Based Health Education to ameliorate school challenges of the school health programme

SHP is an important programme through which SDGs 2, 3, 4 and 6 can be partly achieved. For the progress of society of which Nigeria is not an exception, Olagoke (2017) documented goals 2 (no hunger), 3 (improved health and wellbeing), 4 (educational advancement), and 6 (pure water and proper sanitation) are not out of place.

Therefore, the need to improve SHP should begin with giving greater attention to preschool, elementary/primary, secondary and vocational schools.

Basic, secondary and vocational schools are the building blocks of society's educational foundation. This is because, not everyone needs a university education. School children need to be equipped with skills that will help them face these myriad problems and assist them in adopting healthy life-styles. Hence the skill-based health education of the National School Policy of Nigeria (2006) gave birth to the initiation of the Skill-Based Health Education (SBHE).

A skill is one's capacity to effectively perform a task. In the context of this paper, SBHE involves instructional skills which instructors, instructor trainees, learners and stakes who are concerned with an adequate and effective SHP can use for self, other's and school's development. SBHE delivered through the schools is a strategy through which school challenges, which can affect the school

community, can be ameliorated in order to meet school needs (see Figure 1).

The SBHE is a triangular paradigm that consists of three separate interacting phases but includes needs of the three phases of SHP with each phase existing as: (1) healthful school living needs, (2) health service needs, and (3) health instruction needs. At the middle of the model is the pool of school challenges of the SHP. It contains challenges which can be resolved at specific phases of the model using instructional skills. The connecting arrows indicate that the instructional skills run reciprocally to connect each phase of the model where it is required. The middle arrows move forward in one direction, from the centre and these show that school challenges flow from that point to the three phases. For example, lack of water supply as a school challenge can be resolved through instructional skills. In a termly Parent-Teacher Association meeting or newsletter, school administrators and parents/guardians can be informed of the impact of lack of water supply in the school by preparing learners to dramatize the impact in a role play.

The participation of teachers, parents, school administrators, health counselors and learners themselves are critical to the successful use of the model to meet school needs. Teachers and credible significant others need to be well-equipped with detailed knowledge of instructional skills in order to drive home the message of specific school challenge as it emerges. Details of knowledge of the skills are beyond the purview of this paper.

According to Primary and Secondary Teacher Education Project (PASTEP, 2002) instructional include skills communication, explanation, demonstration, reinforcement, evaluation, maximization of leaner involvement, variation in teaching, as well as question and responding. These skills were used to describe the amelioration of school challenges of the SHP in order to meet school needs.

Procedure of use of SBHE

The skills are met to be learnt for eight weeks of sixteen sessions. One week of two sessions, with the first session of 40 minutes, slated for teaching a skill and the demonstration of the skill with role play in the second session of another 40 minutes. The second session of the same week must be tilted towards the specific school challenge identified in any of the phases of the SHP. For example, healthful school living needs, to a large extent, can be met as follows:

Healthful School Living Needs

With a checklist or questionnaire, some school needs of a healthful school can be determined. With reference to Figure 1, the following are priorities: daily cleanliness and disinfection of classroom and removal of unwanted items from school surrounding; school gardeners to use mower weekly, clean water availability and hygienic luncheon.

School Challenge Identification

Of all *t*he needs pointed out, corresponding school challenge could be (1) school: potential hazard of infection

and injuries; (2) lack or insufficient supply of clean water; and (3) food poisoning in school. Any or all of these can be taught through instructional skills.

Targeting Group

Choosing any of the school challenge, for example 'school: potential hazard of infection and injuries', the instructor selects a target group that will be exposed to the instruction. For example, instructor trainees including school administrators (head teacher, teachers, school nurse and/or school cleaner. gardeners).

Ascertaining previous knowledge

The instructor quickly introduces him or herself by telling the audience his or her name, expertise and the purpose of the gathering. The instructor makes the instructor trainees to also introduce themselves in the same way. Thereafter, existing experiences regarding what school administrators are aware of in a healthful school are quickly re-affirmed. For example, everyone is assumed to be aware that a healthful school has sufficient number of well-spaced classrooms, toilet facilities, waste bins, and play field. The instructor quickly reviews these with the instructor trainees in 5 minutes.

Goal Setting

The instructor presents the aim of the workshop, for example as: the aim of the instruction is to enable audience use instructional skills acquired to prevent the school from being a potential hazard of infection and injuries for members of the school community.

Objectives setting

At the end of the lesson, audience will be able to:

- 1. Define instructional skills;
- Identify eight basic instructional skills
- 3. Describe eight basic instructional skills

Resource Collection

Note pads, biro, pencil, marker, Markerboard, flip book, flip chart,

Delivering Instruction

Section 1

Step I (8 minutes): The instructor distributes the pre-test form to the audience to determine their level of knowledge regarding instructional skills. For example, a multiple choice and 'yes/no' type pre-test form can cover:

- 1. definition of instructional skills;
- 2. enumeration of eight basic instructional skills participants know;
- 3. description of eight basic instructional skills participants know;
- 4. demonstration of one basic instructional skill participants know;
- 5. application of one or more of instructional skills to meet two or more of the aforementioned school needs which are related to a healthful school living.

Step II (5 minutes): The instructor introduces the lesson by first gaining participants' attention and interests. Then, using the flip book the instructor displays the definition of instructional skills as: 'specific attributes for teaching experiences for behaviour change'.

Participants notes the definition into their notepads

Step III (5 minutes): The instructor opens the flip book and writes one instructional skill on the markerboard with the marker. For example, 'communication'. He does this for the other seven basic skills, one on each flip. The participants write the skills down.

Step IV (17 minutes): The instructor goes back to the first page of the flip and opens to the first skill, 'communication'. He defines the concept of communication and describes clearly with examples how the skill is effectively used. He does the same activity for the other seven instructional skills which are explanation; demonstration; reinforcement; evaluation; maximization of leaner involvement: variation in teaching; and question and responding.

Section 2

Ascertaining previous knowledge

The instructor quickly reviews the what was taught in Section 1 by asking participants questions and they respond. Incorrect responses were corrected by the instructor in 5 minutes.

Goal setting

The instructor presents the aim of the workshop again, for example as: the aim of the instruction is to enable audience use instructional skills acquired to prevent the school from being a potential hazard of infection and injuries for members of the school community.

Objectives Setting

At the end of the lesson, participants will be able to: demonstrate

eight basic instructional skills to meet the goal set.

Resource Collection

Flip book, table, plastic chairs, costumes for teacher, school nurse/doctor and others depending on the role to be taken.

Delivering Instruction

Step I (3 minutes): The instructor quickly displays the flip with the first page showing 'communication'. He briefly reminds participants what the concept is and how they are to use it effectively to dramatize the prevention of school from being a potential hazard of infection and injuries for members of the school community.

Step II (15 minutes): Participants organize themselves while the instructor moderates the activities and keep them focused on the goal of the skill of 'communication' and the goal of the workshop directed towards the amelioration of potential hazards of infections and injuries in the school.

Step III (15 minutes): Other sets of participants take their turn to act out the same roles but with any one of the other instructional skills such as explanation; demonstration; reinforcement; evaluation; maximization of leaner involvement; variation in teaching; and question and responding.

Evaluation

Finally, the instructor conducts a post-test with the same pretest form in seven minutes. Any difference recorded between the pre- and post-test indicates that the teaching of the skill has produced

an effect on the identified school challenge.

Each phase needs prompt and effective monitoring, supervision evaluation by the health teacher (for the health instruction), the health coordinator (for the healthful school living) and/or the health counselor (for the health services). active and self-directed Through instructional skills in role plays, games, and group discussions, the level of success of the use of SBHE in reducing school challenges of the SHP in order meet school needs will largely be achieved. However, this is not to say that each member does not complement the efforts of the other members.

Potential merits of SBHE in meeting school needs

The following section examined the potential merits of SBHE in meeting school needs under three categories with each using one sub-need for emphasis:

Health instruction needs: The 1. SBHE can meeting health instruction needs. As earlier noted, SBHE which involves instructional skills that instructors, learners. and other stakeholders with interest in SHP can use for self, other's and school's For HIV/AIDS development. prevention campaign Figure 1, the SBHE has the potential of reducing the number of school individuals who are vulnerable to the infection. from being infected. Through the SBHE. instructional skills specifically 'communication'

also used to reach learner, for example, to imbibe the skills of assertiveness or negotiation in order to prevent infection. In addition, the 'maximization oflearner involvement' as another instructional skill. Participants can get involved in acting roles relating to the skills of assertiveness and negotiation in preventing HIV/AIDS. This also applies to the prevention of sexually transmitted infections (STIs), social and peer pressure. The model can also address HIV/AIDS and STIs transmission, and risk factors. Kelly (2000), stated that children between the ages of 5 and 14 have the lowest prevalence of HIV infection; below the age of 5 they are susceptible to mother to child transmission, and after they become sexually active, the rate of infection increases rapidly especially for girls. Children between 5-14 years need to be reached at this stage of development in order to stop the spread of HIV/AIDS and STIs. The prevention paradigm is done through promoting skill enhancement in changing the behaviours of school community members such as responsibility for personal, and school needs.

2. **Healthful school living needs**: can also be met with SBHE. In Figure 1, SBHE can be helpful in the provision of waste bins, incinerators, and mowers in the school. With 'explanation' and 'demonstration' as instructional skills, instructors can

mobilize learners to develop a drama piece where players logically explain the school needs and demonstrate the importance of the equipment in the school to the Ministries of Education and Health.

3. Health service needs: Health service needs can also be met with SBHE. In Figure 1, the need for health counseling unit in a school can also be met with instructional skills under the SBHE. Through the skills of 'question and responding' 'reinforcement', and message regarding the importance of health counseling unit in a school can be sent. For instance, an instructor can use 'questioning and responding' to ask learners what they think the benefits of guiding and counseling students who have emotional or social conflicts in the unit are. Learners who are able to respond correctly are reinforced with praises and notebooks. Information collected from the section can be forwarded to the school authority for onward higher passage to a authority concerned with education and health of learners.

Potential demerit of SBHE in meeting school needs

The following is the possible disadvantage of the SBHE in meeting school needs are provided below:

1. Detailed provision of instructional skills is not provided for instructors to use the model. Efforts have to be

made to read materials concerning communication; reinforcement; explanation; questioning and responding demonstration; evaluation; maximization of leaner involvement and variation in teaching.

Conclusion

A number of school challenges of the SHP which affect to health and wellbeing of leaners, and other members of the community is a subject amelioration in order to meet school needs. The paper therefore advanced the SBHE as a strategy to achieve the amelioration to be used not only in the school but anywhere individuals congregate. The SBHE is made up of three phases in accordance with the fundamental basis of SHP to include healthful school living needs, health service needs and health instruction needs. To a large extent, these form the basis upon which school needs can be met. Instructional skills were provided (communication: demonstration; explanation; reinforcement; evaluation; leaner involvement; maximization of variation in teaching; questioning and responding) from which health educators, and instructor including teachers, health counselors and any credible significant other can use to ameliorate a specific school challenge as the circumstance Supervision, arises. monitoring assessment of progress through active and self-directed instructional skills in role plays was also established. Thus, the level of success of the use of SBHE in reducing

school challenges of the SHP in order meet school needs was largely achieved.

Recommendations

The therefore **SBHE** is recommended for the generality instructors including health educators, health counselors and teachers as well as and pupils/students who are at the receiving end of school challenges. Instructors will find the SBHE model useful in training instructor trainees, leaners on the use of instructional skills to ameliorate school challenges of SHP in order to meet school needs. Learners will benefit from the SBHE model by enjoying the schools under SHP. Educational planners and other stakeholders should use the SBHE model to train and retrain members of the school during educational workshop. It can also serve as a guide for monitoring and assessing the implementation of the components of SHP by educational planners and implementers.

References

Adebayo, A.; Bella-Awusah, T.; Adediran, K. & Omigbodun (2023). Schhol health and well-being in Nigeria: Gaps in policy and design. Journal of Pblic Health. https://doi.org/10.1007/s10389-023-01984-4.

Adeomi, A, Fatusi, A & Klipstein-Grobusch, K. (2021).Double burden of malnutrition among school-aged children and adolescents: Evidence from a cross-sectional community-based

- survey in two Nigerian States. *AAS Open Res. 1(4)*: 38. DOI: 10.12688/aasopenres.13257.1
- Chen, G. (2022). 10 major challenges facing public schools. Public School Review.

 https://www.publicschoolreview.co
 m/10 10majorchallenges...
- Dania O. O, & Adebayo A. M. (2019) School health program in Nigeria: A review of its implementation for policy improvement. *Am J Educ Res* 7:499–508.
- Federal Ministry of Education (2006). National School Health Policy of Nigeria. Abuja. Federal Ministry of Education: Abuja.
- Ibeziako P, Bella T, Omigbodun O, & Belfer, M (2009) Teachers' perspectives of mental health needs in Nigerian schools. *J Child Adolescent Mental Health 21*:147–156
- Kelly, M. J. (2000). Standing education on its head: Aspects of schooling in a world with HIV/AIDS. Current Issues in Comparative Education 3(1).
- Kessler RC, Berblund P, Demler O, Jin R, Merikangas K. R. & Wailters E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, 62: 593-602. https://doi.org/10.1001/archpsyc.62.6.593.
- Ofovwe, G.E. & Ofili, A.N. (2007).

 Knowledge, attitude and practice of school health programme among head teachers of primary schools in Egor local government area of Edo State, Nigeria. Retrieved online on

- the 27th Nov. 2010 from http://www.annalsafrmed.org/article .asp 6(3) p. 99-103.
- Olagoke, A. (2017). Sustainable Development Goals in Nigeria: What role(s) for Nigeria's indigenous language? European Journal of Research and Reflection in Educational Sciences, 5(4): 1-12.
- Olatunya, O.; Oseni, S.; Oyelami, O.A. & Akani, N. (2014). Health instruction in Nigerian schools: what are the missing links? *Pan African Medical Journal*. 19. 360. 4587,
- Omigbodun O., Dogra N, Esan O., & Adedokun B. (2008). Prevalence and correlates of suicidal behaviour among adolescents in southwest Nigeria. Int J Social Psychiat, 54: 34-46. https://doi.org/10.1177/0020764007078360
- Public Health Nigeria (2020). Components of school health programme in Nigeria. https://www.publichealth.com.ng/components.
- Primary and Secondary Teacher Education Project (PASTEP, 2002), Instructional skills. Australian Agency for International Development. Guinea-Australia
- Sarkin-Kebbi, M. & Kwashabawa, B. (2017). Revitalising school health programme for effective administration in Nigeria. *International Journal of Tropical Educational Issues, 1*(2): 199-211.
- Strauss, V. (2022). Six things kids need in school in today's politicized world.

 The Washington Post.

 https://www.washingtonpost.com/ed
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POOR ACADEMIC PERFORMANCE: CAUSES AND REMEDIES

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Abstract

Education is a right of every child, whether traditional or modern, it has always been a major concern of man. Education is considered the most significant factor in producing human resource development in terms of social, cultural, technological, economic and overall national perspectives. The problem of low academic performance of students in examinations is one of the most challenging problems that face students, as well as parents and teachers. Poor academic performance is not only frustrating to the students and the stakeholders, its effects are equally crucial in the society; in terms of lack of manpower in all fields of the economy. It is on these premises that this paper takes a look at the meaning of poor academic performance, causes of poor academic performance and ways of improving academic performance. It was recommended among others, that teachers should make use of recent and relevant teaching materials, to ensure better understanding and performance of students. It was also recommended that there should be effective supervision of teaching and learning process in the classroom.

Keywords: Education, academic, performance, learners, teachers

Introduction

Education is the acquisition of knowledge and skills and attitude. It can be defined as the process by which individuals acquire skills, attitude and competence. Education is a right of every child, whether traditional or modern, it has always been a major concern of man. Education is considered the significant factor in producing human resource developments in terms of social, cultural, technological, economic and overall national perspectives (Sumaila, Al-Muktadir & Rejvi-Ahmed, 2023).

Most individuals will reflect on their time spent in college as the lifechanging period of their lives. When in college, students require attention in terms of academic and social well-being (Stoddard, 2023). Academic performance of students has been the subject of intensive research over the years. It has become an issue in education. problem of low academic performance of students in examinations is one of the most challenging problems that face students as well as teachers. Among the numerous variables researched, demographic status, intelligence, behavioural characteristics psychological factors, attitudes, self-esteem, self-efficacy and self-concept, have been used to determine academic performance (Al-Zoubi & Bani-Younes, 2015). Beside differences in ability, students have specific learning styles that may influence their academic performance. Sternberg (1997) proposed that learning styles are in part socialized,

suggesting that they can, to some extent, be modified. Thus, being aware of learning styles and their roles in academic performance is of a great importance for educational psychologists, teachers and researchers.

Causes of Poor Academic Performance

Aremu (2003) identified poor academic performance as a performance that is adjudged by the examiner and some significant others as falling below an expected standard. He also stressed that poor academic performance is not only frustrating to the students and the parents, its effects are equally crucial in the society; in terms of lack of manpower in all fields of the economy. There are many reasons for poor academic performance.

1. Lack of a Clear Plan:

Success does not happen suddenly or by chance. Before starting any work, there should be developed plans. The basic principle of any plan is that it should be adjustable and elastic in any stage of its implementation. Ideas will remain ideas, if the plan does not exist.

2. Medical and Psychological Reasons:

There are many causes related to medical and psychological reasons.

a. Major depression disorder –
 Depression is common before
 examination period. Depression
 can cause inability and weakness in
 concentration of the patient.
 Depression can lead to poor
 academic performance.

- b. Generalized anxiety disorder –
 This can cause a situation of forgetting, it can also cause weakness in concentration.
- c. Examination phobia It is a case of severe fear of the examination and the expectation of failure, which weakens the educational performance of the student. It is accompanied with less attention and not being fully prepared for the examination.
- d. Obsessive compulsive disorder: It is the frequent predominant ideas in mind of the students that prevent them from thinking about anything else.
- e. Attention disorder: It is the lack of ability to focus attention on one thing at a certain time.
- Learning disability (Slow learning): It is a functional deficit in the brain leading to a lack of to acquire capacity new knowledge, as cases in low IQ or difficulty in reading (Dyslexia) or difficulty in writing (Dysgraphia) Mathematics difficulty in (Dyscalculia).

3. Parental and Educational Reasons:

The excess pressure on the students to get high marks in examinations may create a feeling of fear if they are unable to get high marks as required by parents, and the frequently leads to poor academic performance. Moreover, the unstable family situations make

students live in a state of tension, confusion and lack of concentration during the examination which will reflect negatively on academic performance. According to Ige and Ogunleye (2016) study, it was found that parents' factors contribute low academic to performance of students.

4. Social Environment:

The social environment includes family, peers, and involvement in clubs and groups. Sociological factors originate from circumstances surrounding student's school or home. These social elements have much impact on academic performance. They include communication, family stress and status, self-esteem and social support.

5. Lack of Motivation:

Although some people may fail at some point in their lives, they have to consider failure as a temporary setback to success and they have to learn how to deal with it. A very important result of Maric and Sakac (2014) study, is that social motivational factors have shown themselves to be more frequent among students. This study showed that internal motivational factors are more desirable for students' academic success. The practical implication of this study was to improve the intrinsic motivation and internal motivational factors

among students because they present significant contributing factors to academic success.

Improving Academic Performance

Efforts to help students deal with specific academic weakness can involve improvement in teacher practices, for example, offer of remedial classes either during the term (in the evenings or weekends) or vacations. Another approach is to provide a two-week period, when no classes are held but teachers are available to help students address their weaknesses. Extra inputs can also be provided, such as, tutorial classes where additional problems are solved and students interact with each other; student and Faculty collaborations on projects where teachers are available to students formally and informally, and focus attention on weak members of the **Teachers** can explain the group. importance of a topic being taught and its relevance to the 'real world'. Teachers can also move around the classroom and interact with students while they solve problems or read texts, or even while just giving lessons. They can use media beyond 'chalk and board'; classrooms can equipped with charts, models. projectors and videos to make instruction more visual and tactile. Teachers can give feedback to students on their performance and how to improve it. They can be open to questions and to feedback from students about the teaching contents and style. They can also be available for formal and informal contact after class.

Another way to improve academic performance is through motivation. A highly motivated person puts in the maximum efforts in his or her job. According to Kafui (2005), lack of motivation and professional commitment produce attendance poor and unprofessional attitudes toward students, which in turn affect the performance of students academically. Hall (1989) noted that there is a need to motivate students, so as to arouse and sustain their interest in review learning. One of literature highlighted the importance of students' study habits and attitudes in their academic performance. According to Mendezabal (2013), many students fail, not because they lack ability, but because they do not have adequate study skills. Nagaraju (2004) found that students do not devote sufficient time to their studies and seldom have proper study habits. Students having good study habits, will attain good academic success.

Kafui (2005) was of the view that effective supervision of instruction can improve the quality of teaching and learning in the classroom. Etsey, Amedahe and Edjah (2004) in a study of 60 schools, 29 schools from peri-urban and 31 schools from rural areas in Ghana, found that academic performance was better in public private schools than schools because of more effective supervision of work. In addition, the role and influence of the parents in the affairs of education of their children are extremely important. Parents are one of the stakeholders in education. Unusual situations like

extended families, single parenthood, learners living with step-parents or no social parents are common. These situations prevailing in the community may not allow parents to give enough attention and care that are needed in the education of learners. These situations eventually lead learners to activities that negatively affect their education. Lack of effective parental involvement or no involvement in the education of learners are evident in the performance and behaviour of most of the learners in schools.

Recommendations

The following recommendations were made:

- 1. Adequate care should be given by parents; and school needs should be provided by parents of the students to ensure effective learning and better performance of the students.
- 2. Parents should give more attention and proper monitoring to their children education.
- 3. Parents should ensure that social factors do not have much impact on students' study life.
- 4. Teachers should, by all means, make use of recent and relevant teaching materials, such as textbooks, charts and so on, in the teaching, learning process; to ensure better understanding and performance of students.
- 6. Teachers personalities should be corporate and simple to attract the

- attention of the students, so as to contribute positively and enable students to have sense of belonging to academic.
- 7. Teachers should develop positive attitude towards the students under their control to ensure effective learning and better performance of their students.
- 8. Students should devote more time to their studies and have good study habits.
- 9. There should be effective supervision of teaching and learning process in the classroom.

References

- Al-Zoubi, S.M. (2015). Low academic achievement: Causes and results. *Theory and Practice in Language Studies*, 5(11): 2262 2268.
- Aremu, A. (2003). A multi-causal evaluation of academic performance of Nigerian learners: Issues and implications for national development. Department of Guidance and Counselling University of Ibadan.
- Etsey, Y.; Amedahe, F. & Edjah, K. (2004). Do private primary schools perform better than public schools in Ghana? Unpublished Paper. Department of Educational Foundations, University of Cape Coast, Cape Coast.
- Hall, J.F. (1989). *Learning and Memory* (2nd Ed). Massachusetts: Allyn and Bacon.
- Ige, O.M. & Ogunleye, A.W. (2016). Cause and remedies to low

- academic performance of students in public secondary schools: A study of Ijero Local Government Area of Ekiti State. Research on Humanities and Social Sciences, 6(15): 66-71.
- Kafui, E. (2005). Causes of low academiuc performance of primary school pupils in the Shama Sub-Metro of Shama Ahanta East Metropolitan Assembly (SAEMA) in Ghana. Regional Conference on Education in West-Africa, Dakar Senegal.
- Maric, M. & Sakac, M. (2014). Individual and social factors related to students' academic achievement and motivation for learning. *Suvremena Psihologija*, 17(1): 63-79.
- Mendezabal, M.J.N. (2013). Study habits and attitudes: The road to academic success. *Open Science Repository Education*, Online (open-access), doi:10.7392/Education. 70081928.
- Nagaraju, M.T. (2004). *Study habits of secondary school students*. New Delhi: Discovery Publishing House.
- Sternberg, R. (1997). *Thinking styles*. Cambridge: Cambridge University Press.
- Stoddard, M. (2023). Sociological factors and their impact on student performance in College. *Modern Diplomacy*. Moderndiplomacy.eu.
- Sumaia, R.; Al-Muktadir, M. & Rejvi Ahmed, B. (2023). Socio-economic factors affecting the academic performance of private university students in Bangladesh: A cross-sectional bivariate and multivariate analysis. *SN Social Sciences*, 3(26): 560-569.

INFLUENCE OF UNIVERSITY SPORTS PROGRAMMES ON UNIVERSITY COMMUNITY AND HER ENVIRONS

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Abstract

This study aimed at determining the influence of sports programmes organized by the Sports Directorate of the University of Ilorin on staff, students and other members of the community and its environs. The descriptive research design of survey type was used in this study. A total 753 participants were selected using the stratified random sampling technique. Structured questionnaire was used to collect data for the study. Data was analyzed with frequency counts and simple percentages. Inter- action and survey showed that many of the participants agreed to improved health (73%), reduced medical expenses (56%), promptness to work and reduced absenteeism (68%), improved social inter-action and integration (83%), reduced environmental tension (76%) and willingness to continue to participate (93%) among other benefits. Firstly, the health and general well-being of staff and students have been improved culminating into a smooth and regular academic sessions for at least the past 10 years. Again, participation in organized sports programmes at the University of Ilorin has brought social integration among members of the University community and her environs. Furthermore, the University of Ilorin has enjoyed increased student enrollment and also adjudged the leading University in Nigeria by the webometric and the National Nigeria Universities Commission (NUC) rating (2015).

Key words: Sports, health, well-being, promptness, willingness

Introduction

Sports are the activities involving power and skills, competition, strategy, and (or) chance, and engaged in for the enjoyment, satisfaction and (or) personal gain (such as income) of the participant, and (or) others (e.g., spectators), including organised and recreational sports, as well as sports as entertainment (Öcal, 2006). Sports play very important roles in educational institutions in virtually all parts of the world, and the contribution of

sports to the educational process in institutions cannot be overemphasized (Ongong'a et al., 2010). The United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2015) Charter on Physical Education, Physical Activity and Sport Article 2 emphasised importance of physical activity and sports for development of participants' physical literacy, wellbeing, health and capability improving endurance, strength,, flexibility, coordination, balance and

control. The Charter further added that physical activity and sport and even physical education classes can improve mental health, psychological wellbeing capability by enhancing confidence, self-esteem, self-efficacy as well as decreasing stress, anxiety and depression. This will lead to increase cognitive function including skills and attributes such as cooperation, communication. leadership. discipline, teamwork among others.

It is believed that involvement in organised sports activities allows young people to learn (in a presumed "safe" environment) many of life's lessons and develop desired attributes within the mainstream society (Smoll & Smith, 2002). Engagement in school sports programmes is supposed to promote boys' and girls' moral functioning, self-discipline, ability to work with others, and capacity to compete and effectively cope with success as well as failure (Mahoney et al. 2005).

University of Ilorin Nigeria, founded in 1976, currently with staff and student population of over 35,000 (Students – 31,000, Academic Staff- 1131 and Non Academic Staff -2187), and 18 faculties is one of the leading Universities in Nigeria, judging from the International University webometric rating (2015) and Nigeria National Universities Commission (NUC) - organization that accredits all Nigerian Universities.

The University has a Sports Directorate under the Office of the Vice-Chancellor and is mandated to administer and organize all sporting activities for the University Community and her immediate environs. The Unit has the Director as the Administrative head, and other supporting staff. The University of Ilorin has taken part in Nigeria University (NUGA), the West Africa Games Games Universities (WAUG) and Nigerian Universities Staff games. With its state of the art sporting facilities, (stadium complex, multipurpose gym/ indoor hall, two basketball courts, one handball court, three other soccer pitches, a standard fitness centre. A Squash building housing four squash courts fully airconditioned (to be added swimming pool) has hosted NUGA (1992), WAUG (2012) National Youth Games for five years and other National Championships Including Basketball, Volleyball Karate among others. The Sports Unit, in collaboration with the Department of Human Kinetics, the University's students' Union and the Kwara State Sports Council has been able to bring sports near to the members of the University Community and her environs. With this collaboration, the Sports Unit organises the following sports programmes: the annual inter- faculty "The Vicesports festival tagged Chancellor's Cup" (both graduate and undergraduate students), the Inter- faculty festival for students undergraduate students only popularly called the SUG cup, the Inter- unit/faculty staff games also affectionately called the Registrar's Cup, the Inter-department games (Dean's Cup), the Intra-department games (HOD's cup) the Unilorin Marathon, the monthly "Walk for Wellness and Prosperity, the daily fitness on radio programme, and the dinner and awards night has galvanised the whole University in a beneficial, enriching, collaborative sporting experience.

Smith and Westerbeek, (2004) stated that sports organisations have the potential to use sports as a tool to make contributions to communities and further contended that sports more than any other potential vehicle, contains qualities that make it a powerful force in effecting positive social contributions. To do this effectively, the organisers must think of Corporate Social Responsibility (Elkington, 1997) and the Stakeholders' concept which is seen as management's duty to pursue an optimum balance between the range of needs demanded by interest groups and constituents which include: customers, employees, business partners, communities, investors and the environment (Schiebel & Pochtrager, 2003).

Becker's (1964) model of labour and leisure choice assumed that agents derive satisfaction from consuming basic commodities such as sports participation which represents time out of work. The consumer choice model of sports participation indicates that people have to decide to participate and the amount of time spent in participation (Humpheys & Ruseski, 2009).

Davies (2002) made the case for more high-profile role for sports in tackling global and community challenges of health, peace, development and ethics. Stewart et al. (2004) corroborated this by suggesting that socially responsible sport programmes encourage the involvement of parents, peers, coaches and teachers, focus on providing positive information rather than control over participants, promote social interaction amongst participants with White et al. (1998) adding that youth participation in sports results in the improvement of self-esteem, advancement of good citizenship, fostering the value of cooperation mastery and and the encouragement of physically active lifestyle. The quantification of physical activity in leisure time of University students in South-west of Nigeria also buttressed the need for inclusive and purposive participation in sports programmes by members of the university community (Ibraheem et al., 2018).

Sports is one of the key solutions the common social problem of deteriorating health standards because it offers an ideal platform to encourage activity and health awareness that helps to promote psychological well-being, reduce stress, anxiety and depression, improve physical development, diminish risky behaviours, strengthen communities and decrease government health expenditure (AIHW 2000; Headley 2004; Sports and Recreation New Zealand 2002; WHO, 2003). Several News Media reported slumping and dying of university lecturers (Sahara Reports, 27th Sept, 2022; Premium Times, 16th Nov., 2023) and even students (Pulse Nigeria, 20th Oct., 2023) due to academic and stress caused by environmental stressors thereby

buttressing the need for encouraging participation in school sports programmes staff students. by and physiological and psychological traumas will be buffered, development of physical fitness and wellness and positively developing health to meet fatigue and emergencies within and outside community university systems. Furthermore, the Sustainable development Goal 3 themed as "To ensure healthy lives and promote wellbeing for all at all ages" attests to the need of taking advantage of sports for all for alleviating sedentariness (Dominic, 2021; Dominic, et al., 2018), curbing social menace and creating awareness for profitable ventures and employement (Dominic & Joel, 2021).

Sport offers a platform for encouraging social interaction in functional way and though perhaps overstated and with notable exceptions, sporting rivalry can be a force for stability, democracy and peace (Smith Westerbeek, 2007). Based on the earlier assertion by Smith and Westerbeek (2007), Case (2005) argued that for example, that places for children to play in Afghanistan mean more than just slides and swings; they are in fact a force and symbol for peace a view also propagated by the UN as well as several of the largest international sporting bodies in the world, including IOC and FIFA.

There are social issues which are exacerbated by sports not limited to performance enhancing drugs use, crowd violence, racial vilification, gender inequality, and sex and alcohol offences

and the opportunity that sport presents as a means toward improving some social problems. This study therefore aimed at determining the influence of sports programmes organised by the Sports Directorate of the University of Ilorin on staff, students and other members of the community and its environs including fair play (equality, access and diversity), community relations, and health.

Objective

The objective of the study is to determine the influence of the University organised sport programmes on members of the University community.

Research Questions

The following research questions were stated to guide the study.

- 1. What are the health benefits derived from participation in University organised sport programmes?
- 2. Does participation improve work ethics (Work attendance, absentisem, promptness)?
- 3. Does participation promote reduce environmental tension (Cultic clashes, violence, vices)?
- 4. Does the university organised sport programme participation promote socially responsible integration?
- 5. Does participation promote willingness to continue in University organised sports?

Methods

Descriptive survey research design was used for this study. The target

population for the study (about 8,000) comprised all staff, students and people in the immediate environs of the University that use the University's facilities at the campus and the two residential quarters (for staff).

A total of 753 participants made up of 100 staff members, 500 students and 173 individuals within the University community were sampled for the study using stratified random sampling techniques. Researcher structured questionnaire validated and tested for

reliability (78r) was used to collect data for the study. The questionnaire had two sections 'A' and 'B'. Section 'A' elicited information on the demographic characteristics of the participants while section 'B'sought for data on the variables for the study. Informed consent was sought from the participants based on confutiality, participation voluntary and ensuring ethical issues are addressed. Data gathered was sorted, coded, entered and analyzed with frequency counts and percentages.

Results

Table 1: Frequency Distribution of Members by Age, Gender, Category of Participant

and Type of Sports played by Participants

Variable	Frequency	Percentage
Below 20 years	358	47.5
20- 29 years	156	20.7
30- 39 years	154	20.5
40- 49 years	50	6.6
50- 59 years	24	3.2
60 years and above	11	1.5
Gender		
Male	602	79.9
Female	151	20.1
Category of Participant		
Staff	100	13.3
Student	500	66.4
Others	153	20.3
Type of Sports Played		
Track and Field	60	8.0

Hand Games	150	19.9
Football	470	62.4
Combat Sports	20	2.7
Racket Games	35	4.6
Technical Sports	18	2.4

Results from table 1 shows that 358 (47.5%) of the participants are below age 20, 384 (51.0%) are aged between 20 and 59 years while only 11 (1.5%) are aged 60 years and above. The table also

depicts that majority of the participants 602 (79.9%) males and 151 (20.1%) are female. Again, the result show participant categories of 100 (13.3%) staff, 500 (66.4%) students and 153 (20.3%) other members from the University environs respectively. Finally, results from table 1 indicates that majority of the participants 470 (62.4%) played football as their preferred sports.

Table 2: Frequency Distribution of Participants on the Variables of the Study

Variable	Frequency	Percentage		
Improved Health				
Agreed	550	73.0		
Disagreed	203	27.0		
Reduced Medical Expenses				
Agreed	422	56.0		
Disagreed	331	44.0		
Promptness to Work and Reduced Absenteeism				
Agreed	512	68.0		
Disagreed	241	32.0		
Improved Social Interaction and Integration				
Agreed	625	83.0		
Disagreed	128	17.0		
Reduced Environmental Tension				
Agreed	572	76.0		
Disagreed	181	24.0		
Willingness to Continue to Participate				
Agreed	700	93.0		
Disagreed	53	7.0		

Results from table 2 indicate that many of the participants agreed to improved health (73%), reduced medical expenses (56%), promptness to work and reduced absenteeism (68%), improved social inter-action and integration (83%), reduced environmental tension (76%) and willingness to continue to participate (93%) among other benefits.

Discussions

This study was carried out to determine the influence of sports programme organised by the **Sports** Directorate of the University of Ilorin on staff, students and other members of the University environs. Specific references were made to the analyses of the influence of sports participation on improved health, reduced medical expenses, promptness to work and reduced absenteeism, improved social interaction and integration, reduced environmental tension and the willingness to continue to participate.

Results from table 2 indicated that majority of the participants agreed to improved health (73%), reduced medical expenses (56%), promptness to work and reduced absenteeism (68%), improved social inter-action and integration (83%), reduced environmental tension (76%) and willingness to continue to participate (93%) among other benefits. The results are in conformity with that of Davies (2000)asserted who that sports participation play the role of tackling global and community challenges of health, peace, development and ethics. This was corroborated by

Stewart et al. (2004) who suggested that socially responsible sports programmes encourage the involvement of parents, peers, coaches, and teachers, promote social interaction amongst

participants while White et al. (1998) added that youth participation in sports results in the improvement of self-esteem, advancement of good citizenship, fostering of the value of mastery and cooperation and the encouragement of physically active lifestyle.

The results also support (AIHW 2000; Headley 2004; Sports Recreation New Zealand 2002; WHO 2003) aversion that sports is one of the key solutions to the common social problem of deteriorating health standards because it offers an ideal platform to encourage activity and health awareness that helps to promote psychological well-being, reduce stress, anxiety and depression, improve physical development, diminish risky behaviours, strengthen communities and decrease government health expenditure while confirming Case (2005) argument that places for children to play in Afghanistan mean more than just slides and swings; they are in fact a force and symbol for peace. Smith and Westerbeek, (2007) concluded that sport offers a platform for encouraging social interaction in a functional way and though perhaps overstated and with notable exceptions, sporting rivalry can be a force for stability, democracy and peace.

The target of SDG Goal 3 for ensuring improved health and wellbeing is to ensure the reduction of non-communicable disease which sports have been established to accomplish the alleviation of all primary causality of cardioovascular diseases, obesity, cardiometabolic disorders and cancers.

Movement benefits through sports have all round benefits to reduce huge cost of these diseases as ascertained by the majority of the respondents. However, 27% of those who disagreed that sports could improve health and 44% of those who do not believe that sports reduce huge medical costs might need enlightenment to enjoy the all-round benefits of sports rather than the social benefits alone for participation. Dominic et al 2018's study on the ICT use implication for exercise participation and in the university community health discovered that quite a number members of university community are at risks of hypokinetic diseases due to not the recommended meeting Physical Activity (PA) of 150 minutes of moderate to vigorous intensity PA and this calls for strategic interventions. Ignorance of the health and wellbeing benefits might also be the reason for non-participation by majority of the university populace. University as an academic community might need to continually organise sports for all with inclusive enlightenment advocacies to reduce risks of hypokinetic diseases among members of the community which are recently experienced as a result of slumping of academic staff members (Dominic, et al, 2018) . The social benefits (83%) and willingness to continue to participate by 93% of the respondents and the environmental and psychological influence (76%) attested to by the 76% of the participants is an indication that there is the need to improve the knowledge-based of sports for holistic

development among the university populace.

Conclusion

This study found that, health and well-being of all stakeholders have been improved as revealed by reduced hospital attendances at the University Clinic, promptness of staff and to work and lecture sessions respectively culminating into a smooth and regular academic sessions. Again, participation in university organised sports at the University has brought social interaction and integration members of the University among community and her environs. Furthermore, the University of Ilorin has enjoyed increased student enrollment and also adjudged the leading University in Nigeria by the webometric and the National Nigeria Universities Commission (NUC) rating (2015), hence the need for inclusive participation. The social and psychological benefits are greatly attested to than the reduced cost medical bills calling for specialised intervention for creating awareness and exercise prescription for health effectiveness and promotion to achieve SDG 2030 goal 3 and goal 4 for Health and wellbeing and quality education.

Recommendations

Based on the findings of the study, it is recommended that:

1. Tertiary Institutions should take advantage of the pivotal role sport plays in solving global and community problems by organising

- sports for their staff, students and other members.
- 2. The sports programmes should be evolving to diverse attract individual's interest through inclusive sports activities such as minor games, games of low organised sports, tradtional sports and table games as well as aerobic group exercise for different gender and age groups.
- 3. The sports programmes should target achieving SDG goals 3 and 4 which is health and wellbeing and quality education.

References

- Australian Institute of Health and Welfare (2000) *Physical activity patterns of Australian adults* (Catalogue No. CVD 10; Canberra, Australia: AIHW).
- Becker, G. (1964). A Theory of the allocation of time. *Journal of Economics*, 75, 493–513.
- Case, A. (2005) 'Playgrounds for peace'. Parks and Recreation, 40 (4): 42-46.
- Davies, R. (2002, September 23rd) 'Sport, citizenship and development: Challenges and opportunities for sports sponsors', *World Sports Forum*, Lausanne.
- Dominic, O. L., Seidina, I. Y., Williams, D. F., Oyerinde, O. O., Olaitan, L. & Onifade, O. A. (2018). ICT use implications for exercise participation and health in the Nigerian University community. *Journal of Physical Education and*

- *Health-Social Perspective,* 7(11): 5-14.
- Dominic, O. L., & Joel, K. I. (2021). Youth awareness and employment potentials of sports in Ebutte Meta local government area of Lagos State. *Journal of Human Kinetics and Sports Science*, 5(1):72-82.
- Dominic, O. L. (2021). Movement mechanics: performance interlock of trauma, mortality and wellness. The 209th Inaugural Lecture delivered at the University of Ilorin, Nigeria. Pp 43-46.
- Elkington, J. (1997). *Cannibals with forks: The triple bottom line of twenty-first century Business.* Oxford, UK:

 Capstone Publishing.
- Headley, S. (2004). 'Background notes on obesity and sport in young Australians', *Youth Studies Australia* 23.1: 42-46.
- Humphreys, B.; Ruseski, J. (2009). The economics of participation and time spent in physical activity.

 Department of Economics Working Paper, University of Alberta: Edmonton, AB, Canada,
- Ibraheem, T. O., Ajibua, M. A. & Dominic, O. L. (2018).**Ouantification** of leisure-time physical activity among university students in South-west, Nigeria. The Russian Journal of **Physical** Education and Sport, 13 (1), 54-60. DOI 10/14526/01_2018_285.
- Mahoney, J. L., Eccles, L., & Larson, R. (2005). *After school activities: Contexts of development*. Marwah, New Jersey: Lawrence Erlbaum Publishers.
- Öcal, K. (2006). The effects of interscholastic sports participation

- on academic achievement and behavioral development of junior high grades students. Unpublished M.Sc. thesis, Graduate School of Social Sciences, Middle East Technical University, Turkey. Retrieved February 10, 2013, from http://etd.lib.metu.edu.tr/upload/3/12607180/index.pdf
- Ongong'a, J. O., Okwara, M. O., & Okello, T. M. (2010). Sports and secondary school education in Kenya. *Educational Research*, *1*, (11), 609 617.
- Premium Times, 16th Nov., 2023).

 Lecturer slumps, dies as ASUU laments heavy workload.

 https://www.premiumtimesng.com/regional/ssouth-west/643802-nigerian-lecturer-slumps-dies-as-asuu-laments-heavyworkload-html. Retrieved on 23/01/2024.
- Pulse News (20th Oct., 2023). University student collapses, dies in exam hall. Retrieved on 20/01/2024. https://www.pulse.ng/news/metro/university-students-collapses-dies-in-exam-hall/n6hrb9q
- Sahara Reports (27th Sept, 2022). Nigerian Universities looses 15 lecturers to death amidst ongoing 7-months industrial action. Retrieved 19/01/2024.

 https://www.saharareporters.com/2
 022/09/27nigerian-university-looses-15-lecturers- death-amid-ongoing-seven-months-industrial-action-
- Schiebel, W., & S. Pochtrager (2003). 'Corporate ethics as a factor for success: The measurement instrument of the University of Agricultural Sciences, Vienna', Supply Chain Management 8.2: 116-21.

- Smith, A., & Westerbeek, H.M. (2004). The sport business future. London: Palgrave Macmillan.
- Smith, A. C. T. & Westerbeek, H. M (2007). Sport as a vehicle for deploying corporate social responsibility. La Trobe University, Australia.
- Smoll, F. L., & Smith, R. E. (2002).

 Coaching behavior research and intervention in youth sports.

 Children and youth in sport: A bio psychological perspective (2nd ed.).

 Dubuque, IA: Kendall/Hunt Publishing.
- Sport and Recreation New Zealand (2002). Push play facts II Wellington: Sport and Recreation New Zealand.
- Stewart, B., M. Nicholson, A. Smith, H. & Westerbeek, H.M. (2004)

 Australian Sport: Better by Design.

- The Evolution of Australian Sport Policy London: Routledge.
- United Nations Education, Scientific, Cultural Organisation (2015). International Charter of Physical Education, Physical Activity and Sport. retrieved 01/12/2023.
- $\frac{https://unesdoc.unesco.org/ark:/48223/pf0}{000235409/PDF/235409eng.pdf.mu}\\ lti.$
- White, S., Duda, J. & Keller, M. (1998). 'The relationship between goal orientation and perceived purposes of sport among youth sport participants', *Journal of Sport Behavior* 21.4: 474-84.
- WHO (World Health Organisation) (2003). *Health and development through physical activity and sport.* Geneva: WHO.

PROMOTION OF HEALTH AND WELLNESS: ENCODED LESSON FOR BETTER FITNESS IN POST PANDEMIC ERA.

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Abstract

Sports and physical activities are essential to the development of health, fitness and wellness because they are capable of lifting people out of several forms of avoidable diseases. Diverse studies have been carried out on how to facilitate learning in relation to the pastime of educators and learners as well as their performance. This paper highlighted the place of physical activities as sport that could play a positive role in the improvement and sustenance life globally irrespective of academic leanings. Secondary information from other scholars were reviewed. The paper revealed that physical activities at workplace need to be planned to avoid injury or death and each fitness initiative needs individualized planning for effective results in health and wellness. Advantages of sport to life and fitness and adverse effects of unplanned workout and activities were emphasized. Recommendations were made on application of knowledge in sport, education of the populace on the right sport for their age and or necessity for the use of modern technology correctly in physical activities.

Keywords: Activities, Health, Planning, Fitness, wellness.

Introduction

Physical activities are essential for the survival of man and when this is deprived, mankind tends towards experiencing disaster. Many lessons were learnt from the COVID-19 lockdowns resulting in chaos in many places warranting lack of movement and starvation hospitalization and or even death. Man was created to be physically active and the inability of man to initiate such tendency has been stated to be the cause of many diseases and death (Ezema et al., 2021). One of such avoidable diseases is diabetes which is commonly associated with people having low level of activities (Ezema et al., 2021). According to Adegun (2005), activities and lifestyle plays a role in the health of an individual and these determine their wellness. The international institution. World Health Organization (WHO) posited that sedentary lifestyle can cause death in individuals with non-communicable diseases (NCD). This has encouraged research works to track the physical activity of man in Africa (Adewale et al., 2018) and by extension the need to improve physical activity in Nigeria. Engagement in sports is an example of physical activity and scholars have different definitions to justify this (Pitts et al., 1994; Rasheed, & Oyinlola, 2014). Sports can be done individually and in group however, with the advancement in technology, sports can be individualized as a companion through artificial learning, smart machines like internet of things (IoT) and gamification.

Presently, there are technologies that can be used in monitoring and moderating the level or extent of physical activities that people would participate in, though many do not consider the relevance of having such technological facility. It might be as a result of lack of knowledge or cost implications. As the 21st Century continues to age, more educational innovations that can aid fitness are introduced. The innovation of an android based software with the ability to support and guide those involved in fitness has been put under trial (Yasep et al., 2021). Advent of COVID-19 pandemic has shown that weak immunity in people could enable easy transmission of avoidable diseases or death. In addition to good work outs and sports, it is imperative to have good immunity in order to reduce the risk of transmission of the virus. One of the ways to boost human immunity is to be systematically involved in good exercise. According to Yasep et al. (2021), there exists a noteworthy gap in knowledge of regarding physical people activity. Consequently, many of the mandatory activities associated with for good health are missed out.

It is pertinent to emphasize that be fit to engage in physical activities, measures must be taken to avoid cases of injuries or unplanned accidental cases of death that has been observed when people engage in jogging, wrestling, push-ups or bench press among others (Meagan et al., & Benito et al., 2019). Unfortunately, cases of injury resulting in death have been recorded in sports as football, gymnastics and wrestling. Accidents of great magnitude occur whenever people ignore their health status and capabilities and exercises that exceed what their body is willing to endure.

Sedentary or sit-down careers that entail sitting and working over a long duration of time as it is evident in the lives of typists, data analysts, librarians and business or educational secretaries expose them to risk of injury when there is no evaluation of the strain on their body. It becomes vital to emphasize that the physical activities these workers engage in have benefits and shortcomings. Attempt to correct this shortcomings in a jump ca in the long run become detrimental and lead to loss of life, hence reasonableness is required. Other group of people affected are welders, farmers, building technology workers who have to stand for a long time the execution of their iobs. Precautionary guidelines are indispensable to individuals in order to comprehend the worth and level of physical activities needed for survival and sustenance. This is because it is cheaper to sustain good health than engage in activities that are not moderated which might become too costly to endure. When the issue of wellness is taken lightly, the avoidable and costly consequences like sudden death, stroke and dependence on drugs for survival therefore become inevitable.

The germane questions to ask are, how much of physical activity can be

considered enough and at what price? How much understanding do teachers and other professionals have about how much physical activity they should be exposed to in order not to reduce health hazards? What is the level of such knowledge that should be considered as excessive? Answers to these questions epitomize the reason why encoded fitness plan for management and education professionals become sacrosanct in priority and safety for optimal performance.

Purpose

This paper focused on encoded sports, fitness and wellness and how it could have a momentous role in the preservation of lives globally. Activities in teaching, administration, management and sports settings encompass lots of strength and vigour. Conversely, the lack of personal evaluation of the challenges of the workspace and the possibility of this being part of the reasons for cases of illhealth such as stroke, heart problems and self-induced diabetes calls for objective scruitiny. A weak health practice therefore, is prone to health failure on the long run. In In a previous study on physical activity and workout behavior of those in the academics at tertiary institution carried out by Adegboyega (2015), it was revealed that the physical activities of the personnel were low. However, Dominic et al. (2012) observed that students are aware of the benefits of physical fitness consequences of poor fitness behaviour on their performance. Akindutire and Olanipekun (2014) reported that physical

education in schools has declined and proposed enlightenment, use of technology, funding among others to correct the anomalies. The contrary information from the personnel, students and researchers in schools can be explained as forming a quota of the total of individuals in schools who have some level of inclination to fitness.

The study of Adegboyega (2015) recommended that active involvement in fitness among academic can be enriched improved physical education schools. Therefore, the researcher indicated that healthy lifestyles which could birth ban sicknesses like obesity, diabetes, hypertension, stroke and health diseases could be compromised when fitness activities are taken for granted. Hypokinetic diseases are fast becoming common incidents among lecturers and the populace. Conceivably, recommendations that are apt can aid better performance and elongate lifespan in our contemporary society.

The need to teach workers within the education space about the need to convert the stamina they have to encode wellness plan before engaging in any sports is germane. Not every exercise is suitable for all, because the health state differ from one individual to another. Furthermore, evaluation of how much stress an individual's body will be able to tolerate without causing harm makes consultation with experts in health and fitness related occupations a wise and worthwhile enterprise. This is essential as athletes do have reports of death when

they engage in excessive use of their energies. In a study conducted by Suhaimi et al. (2021), to understand the effect of lengthy running on altered environmental condition by athletes, it was revealed that performance was hindered under heat or tropical circumstances. If the performance of athletes who are trained in the art of endurance. could be hindered. untrained professionals need to juxtapose reason with doctrine. They should be mindful of what alteration in environmental conditions could translate into against the backdrop of their rigorous mental workload on the learners.

Sport, wellness and fitness in postpandemic era can create new but entrepreneurship opportunities for academics through research. Such research activities could proffer solutions to the sports world on how to explore and bring newer and greater openings for a healthier world order. The postulation of Jones et al. (2019) was that academics should research on sport to avail themselves of overtures that are inimical to human health. The vastness of the openings is in billions in monetary terms (Pedersen & Thibault, 2018). It is high time practitioners in the public and private sectors availed themselves the opportunities offered by the post-pandemic era to solve challenges in fitness through collaboration with sport professionals. The seeming sedentary behaviour of the citizenry have increased due to the advent of modern technology and this has given rise to inadequate physical activities. The need for an encoded model for fitness and wellness

cannot be over emphasised. The idea could be both human and technology-supported such that individual needs can be met. Such areas of need include checks on blood pressure, breathing rates, heart beat and identification of sicknesses through eye scans. Applications that are mobile devices friendly can be created for this purpose to eliminate or reduce the fear of those might be scared of possible erosion of their privacy. This application could be encrypted to require not less than 2-3 authentication steps before accessibility.

Methodology

Secondary information was reviewed as it relates to sports and physical activities. Studies of scholars were appraised on the importance of sport to health vis-à-vis the post pandemic era, the advantages of physical activities and how they relate to workers in the public and private sectors. The health challenges of the present day world of work was articulated and the attendant implication of ignoring the advice of health, sports and fitness experts in post-pandemic era were identified and analyzed.

Findings

It is evident that man needs physical activities to live a healthy life when sports and planned physical exercises are given their proper pride of place. It plays an indispensable role in the life of humans and has a vast impact on the global populace as a consequence. For apparent reasons, sports, fitness and wellness have become more of business

ventures than amusement. Those that are not engaged in it directly as a vocation for fitness or wellness are indirectly involved in relishing in business or amusement. As much as everyone has the responsibility to exercise their body for fitness and wellness, the onus is on them to verify the exercise that is adequate and appropriate enough for their health through trained specialists who can professionally and dexterously do it in relation to their age and health conditions. This concerns everyone, irrespective of career and affiliations. Post-pandemic era has lifted restrictions regarding sporting events and other forms of human gatherings and this has resulted in increased inactivity among the populace. As the restrictions are gradually being removed, depending on reported cases of the pandemic or the intensity from country to country, planned physical exercises can be done at home subject to guidance and direction of sports and wellness experts through prepared videos or virtual interactions via the internet.

Individuals living sedentary lives and those engaged in tedious practical activities alike, should consider engaging in planned or encoded physical activities that can complement their health rather than drive them to complicated health situations, early or avoidable death. This paper hopes to challenge sports experts to proactive exploration of the post Covid-19 pandemic for entrepreneurial and societal wellness on a global scale. Professionals the world over are being sensitized to create innovative designs that can use

natural and technological resources for creating a process capable of increasing participation of people in sports for better health. The initiative would reduce unemployment and convert the disruptive situations of the post pandemic era into novelties targeted at providing better health education and monitoring of wellness for a new world order for wellness.

Studies reviewed have shown the importance of engagement in fitness and the causative effect of diseases that could result from inactivity. In conclusion, experts and fitness specialists in collaboration with the laymen can encode the lessons learnt from the COVID-19 to encourage pastime of harmless sporting and wellness activities that are necessary at this period.

Recommendations

Based on the discussions from the review and analysis of the strength and weakness of sporting activities to man and his health, the following recommendations are made:

- 1. Educators especially academic and workers should be mindful of the amount of physical activities they engage in. Not every exercise is tolerable for everyone.
- 2. Awareness on the consequence of injuries and death in excessive physical activities should be promoted among the general public through broadcasts, village and city hall meetings.

- 3. Health education should be encoded for individualised training that would cater for the endurance and fitness capacity of people, to circumvent injuries or death.
- 4. Research into software development that can assist in the monitoring of health should be encouraged by sports experts as digital monitors that could be worn to alert a worker when his/her health is threatened when involved in competitive or individual sporting activities.
- 5. Academic and other individuals whose daily activities do not permit to have sufficient body exercise should take a break and look for help to avoid a break down resulting from accumulated pressure.

References

- Adegboyega, J. A. (2015). Physical Activity and Exercise Behaviour of Senior Academic and Administrative Staff of Tertiary Institutions in Ondo State, Nigeria. *International Journal of Education and Research*, 3(2), 189-202.
- Adegun, J. A. (2005). Physical Fitness Lifestyle among Public servants in Ekiti State, Nigeria. *Journal of Health Physical Education and Recreation* Publication of the Department of Physical and Health Education, Ilorin University of Ilorin. 4, 22-25.
- Adewale L. O., Adetoyeje Y. O., Babatunji A. O., Aliyu L., Kingsley K. A., Rufus A. A., & Andrea R. (2018). Physical activity profile of

- Nigeria: implications for research, surveillance and policy. *Pan African Medical Journal*, 1-7. doi:10.11604/pamj.2018.30.175.126
- Akindutire, I.O., & Olanipekun, J. A. (2014). The Declining Profile of Education Programme in Educational Institutions in Nigeria. *Journal of Sports and Physical Education*, 1(4), 15-19.
- Benito, M., Suárez-Mier, M. P., Ana M., Pilar, M. & Joaquín, S.L. (2019). Sports-related sudden Cardiac death due to myocardial diseases on a population from 1–35 years: a multicentre forensic study in Spain, Forensic Sciences Research, 4:3, 257-266. DOI:10.1080/20961790.2019.16337
- Dominic, O. L., Onifade, O. A., & Ogidan, R. J. (2012). Empowering University Students through Physical Fitness for Lifetime Productivity. *Makerere Journal of Higher Education*, 4(1) 1 8.
- Ezema, C. I., Mgbeojedo U. Uchenwoke C. I., Ugwueze V. C., Uduonu E. M., Okezue, O. C., Anyachukwu, C.C., John J. N., Obiekwe C., & Amarachukwu, C. N. (2021). Physical Activity Level and Affecting Exercise **Factors** Participation among Nigerian Adults Without with and Diabetes. Diabetes, February.
- Jones, P., Ratten, V., Klapper, R. & Fayolle, A. (2019) Entrepreneurial identity and context: Current trends and an agenda for future research, *International Journal of Entrepreneurship and Innovation*, 20(1), 3–7.

- Meagan, M. W., Adolph, M. H., & Rory, B. W. (2016). Sudden Cardiac death in Athletes. *debakey-journal*. MDCVJ | XII (2), 76-80. houstonmethodist.org/debakey-journal.
- Paryono (2017). AIP Conference Proceedings 1887, 020076 (2017); https://doi.org/10.1063/1.5003559 Published Online: 29 September 2017
- Pedersen, P. M., & Thibault, L. (2018). Contemporary sport management. Champaign, IL: Human Kinetics.
- Pitts, B.G., Fielding, L.W. & Miller, L.K. (1994). Industry Segmentation theory and sports industry. Sport Marketing Quarterly 3(1), 15-24
- Rasheed, M. A., & Oyinlola, A. I. (2014).

 Sports: Panacea to Sustain

 Entrepreneurial Education

 Objectives. Arabian Journal of

- Business and Management Review (Nigerian Chapter).1(12), 1-7.
- Suhaimi, M. Z. B., Chen, C. K., & Sirajudeen, K.N.S. (2021). Effects of prolonged running under different environmental conditions on selected physiological markers, muscle damage and time—trial performance in recreational athletes. *Journal of Physical Education and Sport* (JPES), 21 (Suppl. issue 4), Art 306, 2289 2296.
- World Health Organization (WHO). Noncommunicable disease country profiles. 2018. Available at: https://www.who.int/nmh/publications/ncd-profiles-2018/en/
- Yasep, S., Endy, S., Eka A.R., Agung, R., & Fahmy, F. (2021). Android-based physical fitness software guidance. *Journal of Physical Education and Sport (JPES)*, 21 (Suppl.4), Art 295, 2313 2319.

PERCEIVED EFFECTS OF EXERCISE ON MENTAL HEALTH STATUS OF STUDENTS IN UNIVERSITY OF ILORIN

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Abstract

Exercise engagement is the bodily movement produced by skeletal muscles that requires energy expenditure. However, despite all the known benefits of exercise, existence of some research suggesting a positive relationship between exercise and mental health in various populations, there is a gap in knowledge specifically regarding students. The objectives of the study were to: examine the perceived effect of jogging, walking and swimming on mental health of students in University of Ilorin. Descriptive research design of survey type was used. A sample of 257 respondents were selected for this study through multistage sampling procedure. A researcher-structured questionnaire was used as instrument for data collection. Descriptive statistics were used to answer the research questions and inferential statistics were used to analyzed the hypotheses at 0.05 alpha level. The findings of the study were among that jogging, walking and swimming has effect on mental health status of students in the University of Ilorin. Based on the findings, it was concluded that; jogging is paramount toward ensuring optimum mental health among students in University of Ilorin. It was therefore, recommended that; students should adhere strictly to the recommendation of WHO on 75 -150 moderate to vigorous intensity activities in a week in which jogging is potent way to achieve this recommendation.

Keywords: Mental, Health, Jogging, Walking, Swimming

Introduction

Physical exercise is important for maintaining physical fitness and can contribute to maintaining a healthy weight, regulating the digestive system, building and maintaining healthy bone density, muscle strength, and joint mobility, physiological promoting well-being, reducing surgical risks, and strengthening the immune system. studies indicate that exercise may increase life expectancy and the overall quality of life. People who participate in moderate to high levels of physical exercise have a lower mortality rate compared to individuals who by

comparison are not physically active (Okonkwo, 2016). Desruelle, et al., (2022) posited that the influence of exercise on the loco-motor, respiratory, cardiovascular, and other systems and its influence on digestion, nutrition, excretion, but especially on the nervous system and mental activity is stimulating, exercise being essential for life and balance and harmony in human life. Physical fitness have become a normal part of life for many. The importance of engagement in physical fitness among students cannot be underestimated.

According to Ho, et al., (2023), mental health refers to a person's overall psychological well-being, encompassing their emotional, cognitive, and social functioning. It involves how individuals think, feel, and behave, as well as how they cope with the ups and downs of life, relate to others, and handle stress. Mental health is not merely the absence of mental disorders, but rather a state of positive mental and emotional functioning that allows individuals to lead fulfilling lives, realize their potential, and effectively contribute to their communities. Good mental health involves various factors, such as a sense of self-worth, the ability to manage emotions, resilience in the face of adversity, healthy relationships, and a balance between work and leisure activities. It is important to recognize that mental health exists on a continuum, with varying degrees of well-being challenges. Just like physical health, mental health requires attention, care, and support to maintain and improve (John, 2022). Engaging in regular physical activity, such as aerobic exercises, can Exercise help reduce stress levels. stimulates the production of endorphins, often referred to as "feel-good" hormones, which elevate mood and promote relaxation. It also provides a healthy outlet for releasing built-up tension and pent-up emotions, thereby reducing overall stress levels (Ho, et al., 2023).

Exercise is associated with an improved mood and increased emotional resilience. Regular exercise can alleviate symptoms of depression, anxiety, and

other mental health conditions. It boosts of the production serotonin, neurotransmitter that regulates mood, and promotes the growth of new brain cells, leading to enhanced emotional well-being and overall happiness. It is essential to note that mental health conditions, such as anxiety disorders, depression, bipolar disorder, schizophrenia, and others, are common and can affect anyone. Seeking professional help and support is crucial for those experiencing mental health difficulties, as it can lead to accurate diagnosis, appropriate treatment, improved quality of life (Unigwe, 2016).

Exercise improves memory, attention span, and cognitive flexibility, leading to sharper thinking and better problem-solving skills. It increases blood flow to the brain, delivering oxygen and nutrients necessary for optimal cognitive functioning. Regular exercise helps to build a sense of accomplishment, selfconfidence, and self-worth. It promotes a positive body image by enhancing physical strength, endurance, and overall fitness, which can positively influence how individuals perceive themselves. Exercise such as team sports, group classes, or outdoor exercises, provide opportunities for social interaction and connection. Engaging in these activities can help reduce feelings of loneliness and isolation, promoting a sense of belonging and social support, which are crucial for mental wellbeing. Jensen (2018) further emphasized that regular physical activity can help individuals develop better coping mechanisms and resilience to stress.

Exercise also provides a healthy distraction from daily worries and challenges, allowing individuals to develop better stress management skills.

It is important to note that physical fitness should be approached in a balanced and sustainable manner. Τt is recommended to consult with healthcare professionals or fitness experts to design a fitness routine that suits individual needs capabilities. In light of aforementioned, this investigated the perceived effect of exercise on the mental health of students in the University of llorin.

Statement of the Problem

In recent years, there has been growing concern about the mental health of students, with reports of increasing rates of stress, anxiety, and depression among this population. Exercise has long been recognized for its positive effects on physical health, but its potential influence on mental well-being has received less attention. Despite the existence of some research suggesting a positive relationship between exercise and mental health in various populations, there is a gap in knowledge specifically regarding students. Understanding the extent to which exercise contributes to the mental health of students developing crucial for effective interventions and support systems within educational institutions

Babyak et al. (2016) conducted a randomized controlled trial involving 156 adults with major depressive disorder. They found that exercise significantly

reduced depressive symptoms over a 16week intervention period. Schuch et al. (2019) conducted a systematic review and meta-analysis of 49 randomized controlled trials involving individuals with depression. They concluded that exercise was an effective intervention for reducing Their depressive symptoms. study however was limited to only depression, and not the whole mental health implications

Asmundson et al. (2013) conducted a meta-analysis of 49 studies examining the effects of exercise on anxiety symptoms. The results indicated that exercise was associated with a significant reduction in anxiety levels. Hallgren et al. (2016) conducted a large-scale study involving over 19,000 individuals and found that individuals who engaged in regular exercise had lower odds developing anxiety disorders over a follow-up period of up to 21 years. The aforementioned studies were also limited to anxiety. Analysis of the above studies provided gaps in the literature. In the light of the aforementioned, this study therefore, investigated the perceived effect exercise on mental health of students in the University of Ilorin.

Objectives of the Study

The objectives of the study included the followings:

1. To find out the perceived effect of jogging on mental health of students in the University of Ilorin.

- 2. To determine the perceived effect of walking on mental health of students in the University of Ilorin.
- 3. To examine the perceived effect of swimming on mental health of students in the University of Ilorin.

Hypotheses

The following hypotheses were formulated for this study:

H_{o1}: Jogging will not have significant effect on mental health of students in University of Ilorin.

H_{o1}: Walking will not have significant effect on mental health of students in University of Ilorin.

 H_{o3} : Swimming will not have significant effect on health of students in University of Ilorin

Methodology

The research design that was used for this study was descriptive research design of survey type. This design is considered because it enabled researcher to generate data through standardized collection procedures based on highly structured research instrument(s) and well-defined study concepts and related variables. The population of the study comprised all students in the University of Ilorin, Kwara state. According to the data obtained from the Students Affairs Unit in the University, there are 45, 923 undergraduate students in the University. The sample of the study consisted of selected students across all departments in the University of Ilorin. Using the krejcie & morgan sample size

calculator, 257 respondents were selected to constitute the sample of the study. Researcher-structured questionnaire titled "Perceived Effect of Exercise on Mental Health Ouestionnaire (EPFMHO)" was used to gather information from the respondents. The research instrument was divided into two sections (A and B). Section A was used to collect information on the personal data of respondents such as gender, age and level while Section B consisted of items that are relevant to the study. A four-point Likert Scale was adopted which required the respondents to tick the appropriate column as they understand it - Strongly Agree (SA), Disagree (D), Agree (A), Strongly Disagree (SD). The instrument was used to measure the variables raised in the study.

In order to ascertain the validity of the instrument, the researcher gave the instrument to the supervisor and three other lecturers in the Department of Human Kinetics Education, University of Ilorin for vetting / analysis of content validity. The suggestions given were used to modify the items, after which they adjudged the instrument as being valid for the study. In order to obtain the reliability of the instrument, the instrument was administered to 20 respondents who are not part of the population. The reliability of the instrument was obtained using testmethod and analysed using Pearson's Product Moment Correlation which yielded 0.76 correlation coefficient. The researcher, personally administered the questionnaire with the help of 3 research assistants to the target

respondents. After the respondents were enlightened on the purpose of the research, they were guided and encouraged to respond accurately and promptly to the questionnaire items and the completed questionnaires were retrieved immediately from the respondents. The data collected was analysed using Statistical Package for

Social Science (SPSS). Descriptive statistics of frequency and percentage was used to analysed demographic variables and to answer research questions while inferential statistics of chi-square was used to test the hypotheses formulated for the study at 0.05 alpha level.

Table one: Demographic data of respondents

Variables	Frequency	Percentage
Gender		
Male	152	59.1
Female	105	40.9
Total	257	100%
Age-Range		
16-20yrs	77	30.0
21-24yrs	119	46.3
25-29yrs	25	9.7
30-35yrs	16	6.2
36yrs & Above	20	7.8
Total	257	100%
Level		
100 Level	55	21.4
200 Level	46.3	46.3
300 Level	30.7	30.7
400 Level	1.6	1.6
Total	259	100%

Table one shows that majority of the respondents 59 (45.7%) were male; and 105 (40.9%) of the respondents were female. Majority of the respondents 119 (46.3%) are within the age range of 21-24 years; 77 (30.0%) are within the age range of 16-20 years; 25 (9.7%) are within the age range of 25-29 years; and 16 (6.2%) of the respondents are within the age range of

30-35 years, and 20 (7.8%) of the respondents are within the age range of 36 years and above. The table also revealed that the majority of the respondents 119 (46.3%) were in 200 level; 55 (21.4%) of the respondents were in 100 level; 79 (30.7%) were in 300 level; and 4 (1.6%) of the respondents were in 400 level.

Data Analysis

Research Question One: Does jogging has effect on mental health of students in the University of Ilorin?

Table 2: Effect of Jogging on Mental Health of Students in the University of Ilorin

S/N	ITEMS	SA	A	FR	D	SD	UR
1	My depressed state will be	76	122	198	44	15	59
	enhanced when I engage in	(29.6%)	(47.5%)	(77%)	(17.6%)	(5.8%)	(23%)
	jogging exercise.						
2	I am always motivated when I	61	131	192	50	15	65
	engage in jogging which	(23.7%)	(51.0%)	(74.7%)	(19.5%)	(5.8%)	(25.3%)
	increase my mental health.						
3	Jogging boosts my endurance	51	109	160	83	14	97
	level which has significant	(19.8%)	(42.4%)	(62.3%)	(32.2%)	(5.4%)	(37.7%)
	effect on my mental health.						
4	I have no appointment with the	51	114	165	81	11	92
	therapist as a result of my	(19.8%)	(44.4%)	(64.2%)	(31.5%)	(4.3%)	(35.8%)
	engagement in jogging						
	exercise.						
5	My focus and concentration	41	101	141	86	29	115
	level increases whenever I go	(16.0%)	(39.3%)	(55.2%)	(33.5%)	(11.3%)	(44.8%)
	for jogging which has						
	significant effect on my mental						
	health.						
	Total			856			429
				(66.6%)			(33.4%)

Key: FR- Favourable Responses, UR- Unfavourable Responses

Table two shows descriptive analysis on perceived effect of jogging on mental health of students in the University of Ilorin. The table reveals that majority of the respondents 122 (47.5%) agreed that my depressed state will be enhanced when I engage in jogging exercise. Also, majority of the respondents 131 (51.0%) agreed that I am always motivated when I engage in jogging which increase my mental health. Also, 109 (42.4%) of the respondents agreed that jogging boosts my endurance level which has significant effect on my mental health.

The table also shows that 114 (44.4%) of the respondents agreed that I

have no appointment with the therapist as a result of my engagement in jogging exercise. Finally, table 3 shows that 101 (39.3%) of the respondents agreed that my focus and concentration level increases whenever I go for jogging which has significant effect on my mental health. The overall results of the items analysis presented in table 2 shows that 856 (66.6%) of the responses supported that jogging has effect on mental health of students in the University of Ilorin.

Research Question Two: Does walking has effect on mental health of students in the University of Ilorin?

Table three: Descriptive analysis on perceived effect of walking on mental health of

students in the University of Ilorin

S/	ITEMS	SA	A	FR	D	SD	UR
N							
1	Walking a long distance prevents me	59	72	131	97	29	126
	from mental stress.	(23.0%)	(28.0%)	(51.0%)	(37.7%)	(11.3%)	(49.0%)
2	Walking accelerate my fatigue level	46	119	165	66	26	92
	which increase my mental health.	(17.9%)	(46.3%)	(64.2%)	(25.7%)	(10.1%)	(35.8%)
3	My mental health is enhanced as a	43	116	159	72	26	98
	result of my engagement in walking.	(16.7%)	(45.1%)	(61.9%)	(28.0%)	(10.1%)	(38.1%)
4	My energy level is increased when I	40	106	146	79	32	111
	engage in walking exercise.	(15.6%)	(41.2%)	(56.8%)	(30.7%)	(12.5%)	(43.2%)
5	Engaging in walking prevents me from	54	89	143	71	43	114
	depression and other consequences of	(21.0%)	(34.6%)	(55.6%)	(27.6%)	(16.7%)	(44.4%)
	negative mental health.						- 4-1
	Total			744			541
				(57.9%)			(42.1%)

Key: FR- Favourable Responses, UR- Unfavourable Responses

Table three shows descriptive analysis on perceived effect of walking on mental health of students in the University of Ilorin. The table reveals that majority of the respondents 97 (37.7%) disagreed that walking a long distance prevents me from mental stress. Also, majority of the respondents 119 (46.3%) agreed that walking improves my fatigue level which increase my mental health. Also, 116 (45.1%) of the respondents agreed that my mental health is enhanced as a result of my engagement in walking. The table also

shows that 106 (41.2%) of the respondents agreed that my energy level is increased when I engage in walking exercise. 89 (34.6%) of the respondents agreed that engaging in walking prevents me from depression and other consequences of negative mental health. The overall results of the items analysis presented in table three shows that 744 (57.9%) of the responses supported that walking has effect on mental health of students in the University.

Table three: Descriptive analysis on perceived effect of walking on mental health of students in the University of Ilorin

	students in the emitted	y or morn					
S/N	ITEMS	SA	\mathbf{A}	FR	D	SD	UR
1	My mental strength is enhanced when	46	66	112	98	47	145
	I engage in swimming exercise.	(17.9%)	(25.7%)	(43.6%)	(38.1%)	(18.3%)	(56.4%)
2	I am able to prevent weaknesses since	29	81	110	100	47	147
	I engage in water work out.	(11.3%)	(31.5%)	(42.8%)	(38.9%)	(18.3%)	(57.2%)
3	Engaging in swimming helps me	47	127	174	61	22	83
	function properly.	(18.3%)	(49.4%)	(67.7%)	(23.7%)	(8.6%)	(32.3%)
4	I never feel mental pains as a result of	50	118	168	70	19	89
	engaging in water work out.	(19.5%)	(45.9%)	(65.4%)	(27.2%)	(7.4%)	(34.6%)
5	Swimming helps me in stress	45	117	162	67	28	95
	reduction.	(17.5%)	(45.5%)	(63.0%)	(26.1%)	(10.9%)	(37%)
	Total	,		726	. ,	. ,	559
				(56.5%)			(43.5%)

Key: FR- Favourable Responses, UR- Unfavourable Responses

Table four shows descriptive analysis on perceived effect of swimming on mental health of students in the University of Ilorin. The table reveals that majority of the respondents 98 (38.1%) disagreed that my mental strength is enhanced when I engage in swimming exercise. Also, majority of the respondents 81 (31.5%) agreed that I am able to prevent weaknesses since I engage in water work out. Also, 127 (49.4%) of the respondents agreed that engaging in swimming helps me function properly. The table also shows that 118 (45.9%) of the respondents agreed that I never feel mental pains as a result of engaging in water work out. 117 (45.5%) of the respondents agreed that swimming helps me in stress reduction. The overall results of the items analysis presented in table four shows that 726 (56.5%) of the responses supported that swimming has effect on mental health of students in the University of Ilorin.

Research Question Three: Does swimming have effect on mental health of students in the University of Ilorin?

Hypotheses Testing

H₀: Exercise will not have significant effect on the mental health of students in the University of Ilorin.

Table Five: Chi-Square analysis on perceived effect of exercise on mental health of students in the University of Ilorin

S/N	Variables	N	df	χ2	Sig.
H_{o1}	Jogging			116.366	0.000
H_{o2}	Walking	257	12	56.829	0.000
H_{o3}	Swimming			61.732	0.000

p < 0.05

Table 5 shows chi-square analysis on effect of jogging on mental health of students in the University of Ilorin. The result indicated that n = 257, $\chi 2 = 116.366$, df 12, p 0.000 < 0.05. Since the calculated $\chi 2$ value is greater than the table value, hence, the null hypothesis is hereby rejected. This implies that jogging has effect on mental health of students in the University of Ilorin. The table also shows the chi-square analysis on influence of walking on mental health of students in the University of Ilorin. The result indicated that n = 257, $\chi 2 = 56.829$, df 12, p 0.000 < 0.05. Since the calculated $\chi 2$ value is

greater than the table value, hence, the null hypothesis is hereby rejected. This implies that walkinghas effect on mental health of students in the University of Ilorin. The table also reveal the chi-square analysis on effect of swimming on mental health of students in the University of Ilorin. The result indicated that n=257, $\chi 2=61.732$, df 12, p 0.000 < 0.05. Since the calculated $\chi 2$ value is greater than the table value, hence, the null hypothesis is hereby rejected. This implies that swimming has effect on mental health of students in the University of Ilorin.

Discussion of findings

Ho₁ as shown in table five indicated that jogging influence mental health of students in the University of Ilorin. Finding from this study is supported Ruiz, Castillo and Sjostrom, Ortega, (2018)physical fitness is that individual's ability to perform optimal physical activities and can be defined in terms of performance and health (Artero et al., 2011). According to Ortega, Ruiz, Castillo and Sjostrom (2008), physical fitness is an integrated measure of body functions (skeletomuscular, cardiorespiratory, hemato-circulatory, psycho-neurological and endocrinemetabolic) which involved in daily physical work and/or physical exercise. Physical fitness components such as endurance, speed, agility, strength, power and flexibility are the factors that influence the overall level of performance in football game (Murr, Raabe & Honer, 2017; Turner et al., 2011).

Sport requires repeated movements like kicking, sprinting, tackling, jumping which largely depending on the ability to use the greatest force (maximum strength) (Peterson, Alvar & Rhea, 2006; Turner et al., 2011). Sport involves from low to high intensity intermittent activities that require players to have the ability of aerobic and anaerobic systems for energy transmission while playing (Reilly et al., 2000; Williams & Reilly, 2000). This is because a player will perform physical movements such as standing; walking; running, encompassing low-intensity jogging, low-speed running and backward

running; and high-intensity running, consisting of moderate-speed running, high-speed running and sprinting for 90 minutes (Mohr, Krustrup & Bangsbo, 2003; Saward, Morris, Nevill, Nevill & Sunderland, 2015). Bangsbo, Norregaard and Thorso (2011) have reported that 90 percent of physical activity is contributed from an aerobic energy system with highintensity activity for seven minutes. Therefore, a high level of maximum oxygen intake (VO2max) is a necessity for a player in competitive matches. It is clear that aerobic capacity (VO2max) is a relevant indicator to determine maximum level of oxygen that can be taken and used by the body during a game.

The Ho₂ showed that walking influence mental health of students in the University of Ilorin. This finding aligned with the view of Hoffman, (2014) that the basis of the overload principle is the idea that for training adaptations to occur, the muscle or physiological component being trained must be exercised at a level that it is not normally accustomed to. This implies that there must be continually increase in the training loads as the body adapts over time, as the body builds and adjusts to the existing training regimen, there should be a gradual and systematic increase in the work load for continued improvement.

Adaptation is the change in physiological function that occurs in response to training. Adaptation occurs during periods of rest, when the body recovers from the acute homeostatic disruptions and/or residual fatigue and, as

a result, may compensate to abovebaseline levels of physiological functioning. This is sometimes called super-compensation (Hoffman, 2014). It is therefore critical for exercisers to receive sufficient rest between training sessions, increased after periods of training overload, and both before and after Adaptation competitions. allows individual to either do more work or do the same work with a smaller disruption of baseline values. Keeping records and individuals retesting are generally necessary to determine the degree of adaptation. The Principle of Recovery asserts that an individual must get adequate rest between workouts in order to recuperate. Over time, too little recovery can result in signs of overtraining also, excessively long periods of recovery time can result in a detraining effect (Satheesh, 2018).

The Ho₃ revealed that swimming influence mental health of students in the University of Ilorin. This finding is supported by Knips and Bergenthal (2019) that Physical fitness is important for maintaining physical fitness and can contribute to maintaining a healthy weight, regulating the digestive system, building and maintaining healthy bone density, muscle strength, and joint mobility, physiological promoting well-being, reducing surgical risks, and strengthening the immune system. Some studies indicate that exercise may increase life expectancy and the overall quality of life. People who participate in moderate to high levels of Physical fitness have a lower mortality rate

individuals compared to who by comparison are not physically active. Moderate levels of exercise have been correlated with preventing aging reducing inflammatory potential (Kyu & Alexander, 2016). The majority of the benefits from exercise are achieved with around 3500 metabolic equivalent (MET) minutes per week, with diminishing returns at higher levels of activity. For example, climbing stairs 10 minutes, vacuuming 15 minutes, gardening 20 minutes, running 20 minutes, and walking or bicycling for transportation 25 minutes on a daily basis would together achieve about 3000 MET minutes a week. A lack of physical activity causes approximately 6% of the burden of disease from coronary heart disease, 7% of type 2 diabetes, 10% of breast cancer and 10% of colon cancer. Overall, physical inactivity causes 9% of premature mortality worldwide (Paillard & Rolland, 2015).

Individuals can increase fitness by increasing physical activity levels. Increases in muscle size from resistance training are primarily determined by diet and testosterone. This genetic variation in improvement from training is one of the key physiological differences between elite athletes and the larger population (Grande; Silva; & Maddocks, 2015). Studies have shown that exercising in middle age leads to better physical ability later in life. Early motor skills and development is also related to physical activity and performance later in life. Children who are more proficient with motor skills early on are more inclined to

be physically active, and thus tend to perform well in sports and have better fitness levels. Early motor proficiency has a positive correlation to childhood physical activity and fitness levels, while less proficiency in motor skills results in a more sedentary lifestyle. (National Institutes of Health National Herat, Lung, and Blood Institute, 2016)

Conclusion and Recommendation

Based on the findings of this study, the study concluded that Jogging is paramount toward ensuring optimum mental health among students University of Ilorin. The study therefore recommended that Students should adhere strictly to the recommendation of WHO on 75 -150 moderate to vigorous intensity activities in a week in which jogging is achieve potent way to this recommendation.

References

- Aafid, G. (2016). Need, importance and benefits of exercise in daily life. *International Journal of Physical Education, Sports and Health, 3*(2), 127-130.
- Adam, F. (2019). What to know about exercise and how to start. https://www.medicalnewstoday.com/articles/153390.php.
- Adeoye, S. A., Dominic, O. L. & Yusuf, A. N. (2017). Prevalence of overweight and obesity among secondary school students in Ilorin metropolis Kwara State, Nigeria. Ghana Journal of Health Physical

- Education, Recreation, Sports and Dance 10.113 143.
- Ahmad, M. M., Ahmed, H., &Airede, K. (2018). Body mass index among school adolescents in Sokoto, North-Western Nigeria. *Sahel Medical Journal*, 16(1), 5 9.
- Ajzen, I. (1988). Attitudes, personality, and behaviour. Chicago, IL: Dorsey
- Akinbiola, O. O. Adeniran, S. A. & Ogunlade, O. (2018). Effects of an 8-week intermittent aerobic exercise on the electrocardiogram and physiological parameters of institutional security personnel in Nigeria. Retrieved on the 12th of March 2019 from https://oapub.org/edu/index.php/eje p/articl e/view/2010
- American College of Sport Medicine (2006). Guideline for Exercise Testing and Prescription. (7thed.) Philadelphia: Lippincott, Williams & Wilkins.
- American Heart Association (2013). Blood pressure vs. heart rate (pulse). https://www.heart.org/en/health-topics/high-blood-pressure/the-facts-about-high-blood-pressure-vs-heart-rate-pulse.
- American Heart Association (2021). Blood pressure vs. heart rate (pulse). https://www.heart.org/en/health-topics/high-blood-pressure/the-facts-about-high-blood-pressure-vs-heart-rate-pulse.
- American Physical Therapy Association. (2009). The science of healing, the art of caring: Physical fitness, wellness and health definition.

- Journal of physical therapy association, 3(6), 16-39.
- Anderson, L., Oldridge, N., Thompson, D. R., Zwisler, A. D., Rees, K., Martin, N. &Taylor, R. S. (2016). Exercise-Based Cardiac Rehabilitation for Coronary Heart Disease: Cochrane Systematic Review and Meta-Analysis. *Journal of the American College of Cardiology*, 5(67), 1-12. doi: 10.1016/j.jacc.2015.10.044.
- Andersson, H. Å., Randers, M. B., Heiner-Møller, A., Krustrup, P., & Mohr, M. (2010). Elite female soccer players perform more high-intensity running when playing in international games compared with domestic league games. *The Journal of Strength & Conditioning Research*, 24(4), 912-919.
- Andrea, N., Louis, P. & Massimo, S. (2016). Effect of exercise on cardiovascular health and fitness. *The Journal of Physiology and Physiological Society*, 7(1), 23-42.DOI: 10.1113/JP272421.
- Andrea. B., (2019). Definition of exercise duration. Retrieved from http://www.healthyliving.92central.com/definition-exercise-duration19309.html. Last updated January 2019.
- Ashly, M. (2018). What are the benefits of aerobic exercise. Medically reviewed by Daniel Bubnis. Retrieved from https://www.healthline.com/health/fitness-exercise/benefits-of-aerobic-exercise
- Awopetu, A. R. (2014). A Review of the physiological effects of exercise duration and intensity during walking and jogging. *Journal of Emerging Trends in Educational*

- Research and Policy Studies (JETERAPS), 5(6), 660 667.
- Ayodele, O. Y. (2021). Prevalence of overweight and obesity among primary school pupil in University of Ilorin Kwara State, Nigeria. *Ghana Journal of Health Physical Education, Recreation, Sports and Dance 1*(23), 120 131.
- Babraj, S., Vollaard, J., Keast, R., Fergus, I., Cottrell, E. & Timmons, A. (2009). Body mass index and percentage ofbody fat as indicators for obesity inan adolescent athletic population. *Sports Health*, *3*(3), 249 252.
- Barbara, G. (2013). Low intensity cardio workout. Retrieved from https://www.fitness19.com/low-intensity-cardio/ Last updated October 10, 2013.
- Beedell, J. & Rehman, T. (2000). Using social-psychology models to understand farmers' conservation behaviour. *Journal of Rural Studies*, *I*(6), 117-127.
- Bianca, E. (2020). Theories of Play in Children Development. *NOSR Humanities and Social Sciences*, 6(1), 40-45.
- Bogin, L. & Varela-Silva, P. (2012). Effects of walking jogging and running program on coronary heart disease risk factors among middle aged men. *Journal of Experimental Sciences*, *I*(11), 15-19.
- Booth, F. W., Laye, M. J. & Roberts, M. D. (2012). Lifetime sedentary living accelerates some aspects of secondary aging. *Journal of applied physiology*, *111*(1), 1497–1504.
- Booth, F. W., Laye, M. J. & Roberts, M. D. (2014). Lifetime sedentary living

- accelerates some aspects of secondary aging. *Journal of applied physiology*, *111*(1), 1497–1504.
- Bouchard, C., Blair, S. N. & Katzmarzyk, P. T. (2015). Less sitting, more physical activity or higher fitness? *Mayo Clinic Proceedings*, 90(1), 1533–1540.
- Chad, B. (2014). Benefits of exercise. Retrieved from http://www.fitnessguru.org/exercise/articles/cardio-2.php.
- Chahar, P. S. (2014). Physical activity: A key for the preclusion of obesity in children. *American Journal of Sports Science and Medicine*, 2(1), 27 31.
- Cheng, M. L., Maccer, A. J. & Blair, M. J. (2002). The effects of ageing on respiratory muscle function and performance in older adults. *Journal of Science and Medicine in Sport*, 10(1), 36-44.
- Clancy, D. & Kass, Y. (2002). Body mass index adjustments to increase the validity of body fatness assessment in UK Black African and South Asian children. *International Journal of Obesity* 41, 1048 1055.
- Daniel, B. (2019). Benefits of jogging. Specialty in fitness. Retrieved from https://www.healthline.com/health/exercise-fitness/benefits-of-jogging.
- Demakakos, P., Hamer, M., Stamatakis, E. & Steptoe, A. (2010). Low-intensity physical activity is associated with reduced risk of incident type 2 diabetes in older adults: evidence from the English longitudinal study of ageing. *Diabetologia*, *53*,(2); 1877–1885.
- Desruelle, A. V., Maistre, S. D., Gaillard, S., Richard, S., Tardivel, C., Martin,

- J. C., & Vallee, N. (2022). Cecal Metabolomic Fingerprint of Unscathed Rats: Does It Reflect the Good Response to a Provocative Decompression?. *Frontiers* in *Physiology*, *13*, 882944.
- Dominic, O. L. & Adu, J. (2018).

 Movement and African child: a practice going astray. *African Journal of Educational Studies in Mathematics and Sciences 14*(1), 41 50.
- Dominic, O. L., & Dikki, C. E. (2011). Sympathetic neural influence of muscle blood flow during submaximal exercise. *Nigeria Journal of Guidance and Counselling Education*, 1(1), 68 76.
- Dominic, O. L., Onifade, O. A. & Lajide, E. O. (2010). Body mass index and waist/hip ratio among female workers in Ilorin University, Nigeria. *MedicinaSportiva*, 6(4), 1467 1472.
- Duck-chul, L., Russell, R. P., Carl, J. L., Xuemei, S., Timothy, S. C. & Steven, N. B. (2014). Leisure-time running reduces all-cause and cardiovascular mortality risk. *Journal of the American College of Cardiology*, 64(5), 054-058.DOI: 10.1016/j.jacc.2014.04.058
- Dunham, A. D. (2011). Need, importance and benefits of exercise in daily life. *International Journal of Physical Education, Sports and Health, 3*(2), 127-130.
- Edward, R. L. (2014). Healthy living fitness. Retrieved from http://www.mayoclinic.org/healthy-living/fitness/expert-answers/heart-rate/faq-20057979. Last updated December 2017

- Ejike, C. E. (2014). Child and adolescent obesity in Nigeria: A narrative review of prevalence data from three decades (1983-2013). *Journal Obesity Metabolic Research1*, *4*(6), 171 –191.
- Emsat, (2012). The influence of physical activity on abdominal fat. *A systematic review of the literature* 7(2), 183–200.
- Etchison, M. C., Bloodgood, E. A., Minton, C. P., Thompson, N. J., Collins, M. A., Hunter, S. C., &Dai, H. (2011). Body mass index and percentage ofbody fat as indicators for obesity inan adolescent athletic population. *Sports Health*, *3*(3), 249 252.
- Ferrer-Santos, P., Iglesia, I., Muñiz-Pardos, B., Miguel-Berges, M. L., Flores-Barrantes, P., Moreno,L.A.&Rodríguez-Martínez, G. (2021). Moderate-to-vigorous physicalactivity and body composition inchildren from the Spanish Region of Aragon. *Children*, 8(341), 1 12.
- Field, A. (2009). *Discovering statistics* using SPSS (3rde.d.). London: SAGE.
- Fishbein, M., & Manfredo, M., J. (1992).

 A Theory of Behaviour Change. In M. Manfredo J (Ed.), Influencing Human Behavior: Theory and Applications in Recreation, Tourism, and Natural Resources Management, 29-50. Champaign, Illinois: Sagamore Publishing Inc.
- Fredriksen, P. F., Skar, A., & Mamen, A. (2018). Waist circumference in 6–12-year-old children: The Health Oriented Pedagogical Project (HOPP). Scandinavian Journal of Public Health, 46(21), 12–20.

- Froelicher, A. & Myers, D. (2006). Cardiovascular Effects and Benefits of Exercise. Frontiers in Cardiovascular Medicine, 5: 135. doi:10.3389/fcvm.2018.00135
- Fuster, S. (2001). Bradypedia: is gait speed ready for clinical use? *Journal of Nutrition Health and Aging, 13*(10), 878–880.
- Gale, C. (2019). Beginner's Low-Intensity Cardio Workout Plan. Retrieved from https://skinnyms.com/beginners-low-intensity-cardio-workout-plan/
- Gary, (2012). Benefits of jogging. Specialty in fitness. Retrieved from https://www.healthline.com/health/exercise-fitness/benefits-of-jogging
- Gay, U. I. (2019). Effects of walking jogging and running program on coronary heart disease risk factors among middle aged men. *Journal of Experimental Sciences*, *1*(11), 15-19.
- George, R. C. (2014). Health & Skill Related Fitness Components. Retrieved from https://sites.google.com/site/benson pehealth/health-and-skill-related-fitness-components. Reviewed by Jacob Benson, last updated .Aug 20, 2018.
- Glenn, N. L. (2010). *Cardiology secrete*. (3rded). USA, Churchill Livingstone Elsevier Incoporation. ISBN 978-0-323-04525-4. DOIhttps://doi.org/10.1016/B978-0-323-04525-4.X0001-9.
- Grace, O. O. & Boluwatife, E. S. (2018).

 Impact of aerobic exercise programme on the health-related Fitness components of senior citizens in Lagos state. *Journal of Research and Contemporary Issues*

- in Human Kinetics and Health Education. 14(1), 1-10.
- Gray, A. C., (2012). Meaning of exercise duration. Retrieved from www/http;//community.plu.edu/chas ega/main.htm. Last updated may, 2018.
- Gregory, B., Shala, E. D., Neal, I. P. & Walter, R. T. (2008). *Health related physical fitness assessment manual*. American College of Sport Medicine. Philadelphia, PA: Williams & Wilkins.
- Guyton, A. C. & Hall, E. J. (2011). Guyton and Hall Textbook of Medical Physiology. 12th Edition. Philadelphia, PA: Elservier Inc. ISBN 1416045740.
- Hardy, G., Loehr, H., Butler, L., Chakladar, K., Chang, P. & Folsom, M. (2015). Prevalence of overweight and obesity among secondary school students in Ilorin metropolis Kwara State, Nigeria. Ghana Journal of Health Physical Education, Recreation, Sports and Dance 10,113 143.
- Ho, W. H. J., Atkinson, E. L., & David, A. (2023).Examining L. psychosocial well-being of children and adolescents coeliac with disease: systematic a review. Journal of **Pediatric** *Gastroenterology* and *Nutrition*, 76(1), e1-e14.
- Howley, E. & Thompson, D. (2012). Fitness Professional Handbook (6thed.) Champing. II. Human kinetics.
- Howley, E. T & Frank, B. D. (2007). Fitness Professional Handbook. (7th ed). Champing. II. Human kinetics. ISBN: 1492523372.

- Hudda, M.T., Nightingale, C. M., Donin, A. S., Fewtrell, M. S., Haroun, D., Lum, S., Williams, J. E., Owen, C. G., Rudnicka, A. R., Wells, J. C. K., Cook, D. G. & Whincup, P. H. (2017). Body mass index adjustments to increase the validity of body fatness assessment in UK Black African and South Asian children. *International Journal of Obesity 41*, 1048 1055.
- Jacob, B. (2018). Health and Skill Related Fitness Components. Retrieved from https://sites.google.com/site/benson-pehealth/health-and-skill-related-fitness-components.
- James, M. H. (2011) Exercising your way to lower blood pressure. Retrieved from https;//www.acsm.org/docs/brocures /exercising-your-way-to-lowerblood-pressure.pdf
- Jessica, I. G. (2019). Biology of the blood vessels. Reviewed by Michael, J. S. Michigan Medicine at the University of Michigan. Retrieved from https://www.merckmanuals.com/home/heart-and-blood-vesseldisorders/biology-of-the-heart-and-blood-vessels/biology-of-the-blood-vessels.
- John, B., (2011). Global recommendation on physical activity for health. Retrieved fromhttp:apps.who.int/iris/bitstream /10665/44399/1/9789241599979_en g.
- Jorgic, N., Pantelic, S., Milanovic, Z. & Kostic, R. (2011). Age-related decrease in physical activity and functional fitness among elderly men and women. *Clinical Interventions in Aging*, 8, 549-556. doi: 10.2147/CIA.S44112.

- Karani, M., Rebecca, M., Nilesh, B. P. & Kihumbu, T. (2018). Effect of short and long moderate-intensity exercises in modifying cardiometabolic markers in sedentary Kenyans aged 50 years and above. *British medical journal of Sport & Exercise Medicine*, 4(10), 11316-11360.
- Katie, P., Pratik, A., Joshua, U. & Bryan, O. (2014). Physical activity: A key for the preclusion of obesity in children. *American Journal of Sports Science and Medicine*, 2(1), 27 31.
- Kay, S. J, & Fiatarone, M.A. (2006). The influence of physical activity on abdominal fat. *A systematic review of the literature* 7(2), 183–200.
- Kim, C. & Huh, L. (2018). Progressive resistance strength training for improving physical function in older adults. Cochrane Database of Systematic Reviews. (Issue 3) Art. No.: CD002759. DOI: 10.1002/14651858.CD002759.pub2.
- King, P., Law, Y., Hurley, L., Petrenchik, O. & Schwellnus, J. (2010). Four Types of Exercise Can Improve Your Health and Physical Ability. https://www.nia.nih.gov/health/four-types-exercise-can-improve-your-health-and-physical-ability. Accessed 08/09/2021.
- Kujala, U. M. (2011). Physical activity, genes and lifetime predisposition to chronic diseases. *European Review of Aging and Physical Activity* 8(1), 31 36.
- Lee, S. Y. & Gallagher, D. (2008). Assessment methods in human body composition, *Current option in clinical nutrition and metabolic care*, 11(5), 566-572. Dio: 10.1097/MCO.0b013e32830b5f23.

- Lee, Y. G., & Oh, S. H. (2012). The relationship of obesity to health-related physical fitness of secondary school boys and girls. Korean J Meas. Eval Phys.Educ. Sport Science. 14:29-43.
- Leila, G. N. (2013). The effect of aerobic exercises on cardiovascular risk taking factors in hypertension men. *International Journal of Humanities and Social Science*, 3(15), 306-310.
- Len, K. (2014). Brochure content for high intensity interval training. *American College of Sports Medicine*, *3*(5), 45-51.
- Levine, B. D. (2007). V02max: what do we know, and what do we still need to know. Institute for Exercise and Environmental Medicine. The *Journal of Physiology, 1*(5), 25-34
- Litwin, S. E. (2014). Childhood obesity and adulthood cardiovascular disease: quantifying the lifetime cumulative burden of cardiovascular risk factors. *Journal of American College of Cardiology*, 64(15), 1588 90.
- Liu, C.J. & Latham, N.K. (2013).

 Progressive resistance strength training for improving physical function in older adults. Cochrane Database of Systematic Reviews. (Issue 3) Art. No.: CD002759. DOI: 10.1002/14651858.CD002759.pub2.
- Lopez, O. I. (2006). Physical activity: A key for the preclusion of obesity in children. *American Journal of Sports Science and Medicine*, 2(1), 27 31.
- O. I. (2001).Obesity: Mackenzie, etiology, considerations about metabolism and the use of experimental models. Diabetes

- *Metabolic Syndrome Obesity 5*, 75 87.
- Madden, K. (2013). Evidence for the benefit of exercise therapy in patients with type 2 diabetes. Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, 233. https://doi.org/10.2147/DMSO.S329
- Malina .R. (2010). Physical activity and health of youth.Scandinavian journal of occupational therapy, 18 (2), 153–60. <u>Doi:</u> 10.3109/11038128.2010.487113.
- Marc, M. (2012). Health related physical fitness assessment manual.

 American College of Sport Medicine. Philadelphia, PA: Williams & Wilkins.
- Matthew, A. N. & Aruni, B. (2018).

 Cardiovascular Effects and Benefits of Exercise. Frontiers in Cardiovascular Medicine, 5: 135. doi: 10.3389/fcvm.2018.00135
- McKemey, K. & Saky-Dawson, O. A. (2000). Rice Crop Protection Technology Uptake Blockages Amongst Rice Farmers in Ghana: with Particular Reference to Variety Adoption and the Reduction of Pesticide Use. Legon, Ghana, University of Legon, Ghana.
- Milanovic, Z., Pantelic, S., Trajkovic, N., Sporis, G., Kostic, R. & James, N. (2011). Age-related decrease in physical activity and functional fitness among elderly men and women. *Clinical Interventions in Aging*, 8, 549-556. doi: 10.2147/CIA.S44112.
- Mitchel, B. D., Rainwater, D. L., Husch, W. C., Kennedy, A. J., Stern, M. P. & Maccular, J. W. (2003). Familial aggregation of nutrient intake and

- physical activity: result from San Antonio Family Heart Study. *Ann Epidemiology 13*, 128 135.
- Moholdt, S., Lavie, F. & Nauman, D. (2018). Fat mass, fat mass percentage, body mass index and mid-upper arm circumference in a healthy population of Nigerian children. *Journal of Tropical Pediatrics*, 43(1), 13 19.
- Moore-Harrison and Lightfoot (2010).

 Patterns and Associated Factors of Physical Activityamong Adolescents in Nigeria. *PLoS ONE*, 11(2); 1 16.
- Myers, J. (2004). Fitness Versus physical activity patterns in predicting mobility in men. *American Journal of Medicine*, 117(12), 912-918.
- National Institute on Aging (2018).

 Exercise and Physical activity. Your everyday guide, Go4life. NIA publication march, 2018 No 18-AG-4258. Retrieved from https://order.nia.nih.gov/sites/default/files/2018-04/nia-exercise-guide.pdf
- National Institute on Aging (2021). Four Types of Exercise Can Improve Your Health and Physical Ability. https://www.nia.nih.gov/health/four-types-exercise-can-improve-your-health-and-physical-ability. Accessed 08/09/2021.
- Nebido, (2021). Waist-to-height ratio calculator. Retrieved September 19, 2021 from https://www.nebido.com/tools/low-testosterone-sign-waist-to-height-ratio.
- Neiman, O. (2011). Childhood obesity and adulthood cardiovascular disease: quantifying the lifetime cumulative burden of cardiovascular risk

- factors. Journal of American College of Cardiology, 64(15), 1588 90.
- Nicole, C. (2019). What Kinds of Exercises Are Considered Low-Intensity? Retrieved from https://www.livestrong.com/article/536331-what-kinds-of-exercises-are-considered-low-intensity.
- Nigeria Heart Foundation (2018). 2018
 Nigeria report card on physical activity for children and youth.
 Retrieved February 11, 2020 from https://www.activehealthykids.org/wp-content/uploads/2018/11/nigeria-report-card-long-form-2018.pdf.
- Nightingale, C. M., Rudnicka, A. R., Owen, C. G., Donin, A. S., Newton, S. L. & Furness, C. A. (2013). Are ethnic and gender specific equations needed to derive fat free mass from bioelectrical impedance in children of South Asian, black African-Caribbean and White European origin? Results of the assessment of body composition in children study. *PLoS One* 8, e76426.
- Nightingale, C. M., Rudnicka, A.R., Owen, C. G., Cook, D. G. & Whincup, P. H. (2011). Patterns of body size and adiposity among UK children of South Asian, black African-Caribbean and white European origin: child heart and health study in England (CHASE Study). *International Journal of Epidemiology* 40(1), 33 44.
- Novak, C. & Gill, P. (2020). Pediatric vital signs chart reference chart. Retrieved September 30, 2021 from https://www.pedscases.com/pediatri c-vital-signs-reference-chart.
- Nystoriak, T. & Bhatnagar, B. (2018). Health related physical fitness

- assessment manual. American College of Sport Medicine. Philadelphia, PA: Williams & Wilkins.
- Oguoma, V. M., Ezekiel, U. N., Ifeoma, I. U., Adeseye, A. A., Ekene, E. C., Phillip, T. B., Ross, S. R. & Timothy, C. S. (2017). Cardiovascular disease risk factors in a Nigerian population with impaired fasting blood glucose level and diabetes mellitus. *BioMedical Central of Public Health*, 17(36), 10-13. DOI 10.1186/s12889-016-3910-3.
- Oivind, R., Eva, H., Jan, H., & Stig, A. S. (2014). High intensity aerobic interval exercise is superior to moderate intensity exercise for increasing aerobic capacity in patients with coronary artery disease. The European Society of Cardiology. Lippincott, Williams & Wilkins.
- Owa, J. A. & Adejuyigbe, O. (1997). Fat mass, fat mass percentage, body mass index and mid-upper arm circumference in a healthy population of Nigerian children.

 Journal of Tropical Pediatrics, 43(1), 13 19.
- Oyeyemi, A. L., Ishaku, C. M., Oyekola, J., Wakawa, H. D., Lawan, A., Yakubu, S.& Oyeyemi, A. Y. (2016). Patterns and Associated Factors of Physical Activityamong Adolescents in Nigeria. *PLoS ONE*, 11(2); 1 16.
- Paige, W. (2019). Frequency, intensity time and types. (F.I.T.T) Retrieved from https://www.verywellfit.com/paige-waehner-1229482 . Last Updated August, 2021.

- Parati, G. & Lantelme, P. (2005). Mechanical and neural components of the cardiac baroreflex; new insights into complex physiology. *Journal of hypertension*, 23(4), 717-20.
- Parthiban, B., Sekarbabu, K., Ravindran, G., Suthakar, K. & Annida, B. (2011). Effects of walking jogging and running program on coronary

heart diseaserisk factors among middle aged men. *Journal of Experimental Sciences*, *I*(11), 15-19.

pdf.

Spencer, H. (1952). Theory of play.
Cochrane Database of Systematic
Reviews. (Issue 3) Art. No.:
CD002759. DOI:
10.1002/14651858.CD002759.pub2.

ALCOHOL CONSUMPTION AMONG COMMERCIAL DRIVERS IN NIGERIA: DETERMINANTS AND EFFECTS ON ROAD USERS: A LITERATURE REVIEW

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Abstract

The danger arising from hazardous alcohol use by commercial drivers has had its negative effects on vehicle users and non-users in terms of injury sustained from motor vehicle accident accidents, damages, total loss of property and increasing mortality. This review was aimed at examining the link between hazardous alcohol consumption among commercial drivers in Nigeria, the determinants and the effects on road transportation through existing literature. The review embodies various approaches to understanding the prevalence of alcohol consumption among commercial drivers, determinants and effects of alcohol consumption on road use. The research findings can help shape the efforts of health educators, government and other stakeholders in curbing the negative hazardous alcohol consumption by commercial drivers through health education, sensitization and implementing the existing alcohol control measures.

Keywords: Alcohol; drivers; determinants; effects, prevalence

Introduction

Commercial vehicles have been the commonest, oldest and most affordable means of transportation globally (Oridota et al. 2013). Abuse of alcohol by vehicle drivers is a global problem and the associated increase in the incidence of accident and misconduct influenced by drink-driving makes it a public health 2020). Also. issue (Iroanya, the contribution of alcohol consumption to many health problems points to the claim that alcohol consumption is a major 1 contributor to the global burden of diseases 2011). Hazardous (Jurgen, alcohol use is linked with 320 deaths every

hour globally with the impact more felt among users in younger age group (Ajayi, 2019). For a save and an effective road transportation, the driver needs to be physically, mentally and socially healthy. Any aberration in the heath of a driver could pose danger to himself, commuters and other road users. Alcohol has been identified as the most common form of substance abuse in Nigeria.

Alcohol

The chemical property in alcohol known as ethanol is depressive in nature making alcohol a depressant (Raji et al, 2017). Alcohol is usually consumed orally

as recreational substance in form of alcoholic beverages such as wine, beer, spirits, liquor or locally brewed wine and palm wine. Alcohol ranked first among the oldest consumed recreational drugs due to its ability to produce euphoria, happiness, decrease anxiety and improve sensory function but overtime and excessive use of it can result in in the development of serious health problems including chronic diseases such as heart disease, high blood pressure which can result into stroke, liver disease as well as digestive problem and cancer. The varying amounts of alcohol in the alcoholic substances can produce a known state of alcohol intoxication or drunkenness that may affect driving skills and its use has been linked with 60 different disorders making it one of the important risk factors for the global burden of disease (Ramanan and Singh, 2016).

Commercial Drivers

Nigeria ranked the second country with the largest road network in Africa with a population ratio of 860 per square kilometer resulting in intense pressure on the available road network (Nwadinigwe, et al, 2019) and commercial drivers. Commercial road transport being the major means of transportation in Nigeria makes commercial drivers to be important stakeholders within the transport sector. Commercial drivers are saddled with the

job of transporting passengers from one location to the other irrespective of the distance. Most times they assist with lifting of passengers' luggage and ensure proper maintenance of their vehicles. The health of commercial drivers is therefore of utmost importance to the wellbeing of road users. However, the enormous workload of drivers may predispose them to hazardous alcohol lifestyle which could be a source of dangers to themselves, commuters and pedestrians (Bello et al, 2012). Commercial drivers perceive that they are engaged in hard, stressful and risky job as they hustle to fend for themselves and their families. Studies have established that majority of commercial drivers in Nigeria are into the job because of the high rate of unemployment in country (Oridota et al, 2013). In addition, the high cost of petrol, high cost of vehicle maintenance, low receivable income, road traffic accidents associated with high level of mortality and morbidity are factors of stress of commercial drivers in Nigeria (Onyi, 2018). Likewise, engaging in irregular and long working hours most times do predispose commercial drivers to back pain, fatigue and stress (Osamika et al, 2021). Since uncontrolled stress can result into poor health which can affect job performance, the affected individual may find solace in alcohol use. The study of Olatunji et al. (2017) discovered that high

stress level associated with commercial driving negatively resulted in high alcohol consumption and tobacco smoking.

Prevalence of alcohol abuse among drivers

Common use or high prevalence of alcohol use among commercial drivers in western societies has been documented in many studies (Oluwadiya & Fatoye, 2012; Yunusa & Obembe, 2012). In the general driving population, Commercial drivers are notably high-risk drinkers with about two-thirds to over four-fifth prevalence of drivers consuming alcohol (Bello et al, 2012). Prevalence rate of alcohol use according to Abiona, Aloba & Fatoye (2006) was 67.2% with 47% being 'heavy' users; 15.3% 'moderate' users and 37.7% were occasional or 'mild' users. Likewise, in study on psychoactive +recent substance, it was revealed that alcohol (51%) was the most commonly abused substances among commercial drivers (Akande, et al., 2023). In Nigeria and some other countries, large body of evidence shows a high prevalence of use of psychoactive substances and alcohol among various categories of commercial drivers (Adekoya et al., 2011). Another similar study on drivers revealed that all the participant drivers do consume alcohol with 93.75% often indulging in alcohol consumption and 6.25% being occasional

users respectively, while recorded accidents equally showed that high percentage of drivers in Nigeria are driving under the influence of alcohol (Akpan & Ikorok, 2014).

Determinants of alcohol abuse

No single risk factor can be said to be responsible to vulnerability of a person to develop problematic alcohol consumption. Many factors have been identified to determine the levels and patterns of alcohol consumption among commercial drivers. The factors ranges from individual influences such as age, gender and socio-economic status. In addition, societal factors like culture, social norms, availability of alcohol, advertisement, and poor enforcement of alcohol policies.

Age

The age limit for drinking alcohol in Nigeria is 18 and above but many youths start alcohol abuse much earlier than it is legally acceptable age. Absence of strict consequences or sanctions for underage drinking may be the reason many youth engage in the habit. Studies have documented that commercial drivers' age is significantly and negatively associated with usage of alcohol with younger drivers mostly using alcohol than the older drivers (Osamika et al, 2021). This might explain

the reason for the presence of alcoholattributable disease burden such as assaults, liver cirrhosis and injuries from motor accidents and among young people aged 15-29 years (Odeigah, Olley & Patton, 2018)

Individuals

Drivers have many reasons for deciding to drink alcohol. Some individuals consume alcohol majorly to reduce stress or ease tension, while some engage in it to socialize. enhance performance, succumbing to peer pressure or by wanting to feel fine (Oridota, et al, 2013). Another crucial reasons according to Akpan & Ikorok (2014) entailed drivers drinking to stay awake and to enhance driving. Alcohol been a depressant has potential to induce the feelings of relaxation, hence, some individuals can use it as coping strategy to escape from problematic issues like work-related issue, legal or mental health problems. Existing body of literature has it on record that individual turn to alcohol social reasons in celebration of wedding or birthday parties, the need to belong to a peer group where members are alcohol users or family history of alcoholism can predispose an individual to alcohol abuse. In 4 addition, fun or positive past experience and environment of a person such as attractive

advertisement may make alcohol use appealing (Elena & Allison, 2023)

Gender

Alcohol consumption has been observed to vary across gender and culture based on the findings that men across the world consume more alcohol than women (Sudhinaraset, Wigglesworth & Takeuchi, 2016). Likewise, a similar study revealed that males are at a higher risk of high-risk alcohol consumption as males reportedly consume over three quarters of alcohol globally as well as male consuming higher 85.5% than female 65.5% alcohol (Bello et al, 2012; Dias, et al, 2011).

Societal factors

Alcohol use in Nigerian communities is a legal drug though with minimum age limitation set at restraint preventing young people from consuming (Dunbili, 2013) alcohol and laws prohibiting public and drink-driving. The substance has been widely used in many cultures for centuries for worship, medicinal preparations and as relaxant. Globally, drinking alcohol has been a common feature of social gathering with alcohol use deeply embedded in many societies (Chikere & Mayowa, 2011). Consumption of alcohol is widely considered as part of social activities in Nigeria with most consumers seldom drinking alone (Gureje and Lasebikan, 2006). Alcohol's ability to enhance sociability makes it important in social setting.

It is believed that low or moderate consumption of alcohol could lower blood sugar and weight and it is good for the circulatory system as well as social health. Other social benefits associated with social bonding, having dependable friends and improvement in social activities like singing, communication laughing, dancing and reinforcing social bonds (Dunbar et al, 2017).

Exposure to social media such as television and various forms of entertainment has been recorded to influence social norms about alcohol through advertisement (Sudhinaraset, et al. 2016). Studies have shown that exposure to alcohol marketing through traditional advertising and current digital media channels significantly increase alcohol consumption by users (Gabrielli, et al., 2019).

Culture

Less educated men reported higher consumption than educated men (Dias, Oliveira & Lopes, (2011). Alcohol is very common during group meetings, marriage ceremonies, burials and during rituals. In many of these occasions, alcoholic beverages such as hot drinks, palm wine,

local gin are freely served while during rituals, strong alcoholic drink are used in pouring libations (Nwagu, Dibia and Odo, 2017). Alcohol has many functions in society and represents cultural, religious and symbolic meanings in most countries. Cultures determine majorly constitute what is acceptable in locality. Sociocultural values and norms has been implicated in the determination of either acceptance or rejection of alcohol in many which has societies amplified importance of alcoholic beverages in many cultures for thousands of years (Nwagu,et al, 2017). Alcohol intake at high doses in particular tends to claim the lives of many people of Ede town in Southwestern Nigeria (Lasebikan et al. 2018).

Availability

The availability and accessibility of alcohol can make it easier for people to indulge in it. Research evidence on alcohol from community revealed a rapid increase in availability of alcohol within the last few decades based on the increase in importation production, resulting increase in consumption across all age groups in Nigeria (Lasebikan, et al, 2018). Easy availability, low level of education and low paid jobs have been recorded as some of the enabling factor for alcohol consumption (Ramanan and Singh, 2016). Presence of alcoholic beverages in the vicinity of motor parks encourages usage among commercial drivers (Abiona, et al, 2006). The most popular alcoholic beverages openly sold within all the motor parks are fermented adulterated local beverage known as 'paraga' or 'sepe' or jedi or ale and bland locally prepared liquor known as 'ogogoro' (Lasebikan & Ayinde, 2012). Commercial drivers, motorpark touts and occasionally some commuters do take time to drink before commencing on their journey because the substance is easily within their reach. The noise of the hawkers while advertising the presence of the substance can lure weak alcohol users to drinking the substance. Alcohol in some instances could be taken by deception. The influx of herbal drinks believed to contain substance that can increase libido, sexual desire, sexual attraction, sexual pleasure, or sexual behaviour activities into the Nigerian society is rising daily and this has significantly increase the consumption rate of aphrodisiac drinks by commercial drivers in Nigeria (Olaniran et al, 2022). Various forms of alcoholic substance believed to have herbal preparation are commonly sold in motor parks in Nigeria which makes it possible for commercial drivers to have easy access to these alcoholic substances (Oluwadiya & Fatoye, 2012)

Poor enforcement of alcohol policies

The contribution of alcohol to road traffic accidents including other social and health consequences signifies the strategic importance of alcohol control among commercial drivers. To nib alcohol related problems in the bud, policy actions to address harmful alcohol use was proposed in the 2007 Federal Road Safety Act. Reports have it that presently there is no standalone, comprehensive policy regulate the harmful use of alcohol in Nigeria. The reasons could be linked with the low multi-sectoral action for the formulation of the alcohol related policy as well as the non-involvement of several relevant sectors that have critical roles in policy implementation in the formulation process resulting in the lack of holistic or health-sector led policy document to regulate the accessibility, marketing and promotion of alcohol (Abiona, Oluwasanu and Oladepo, 2019). Reduction in the harmful consumption of alcohol through the implementation of effective policies can be achieved only through a good understanding of the development process of the policy and the application of workable strategies.

The fact that uncontrolled alcohol use is associated with 4,679 road traffic accidents in 2006, the figure increased to 6,450 in 2013 and an estimate of 35,641 road traffic fatalities coupled with the

Nigeria has yet to implement alcohol control policy (Odeigah et al, 2018). Despite the discovered high and uncontrolled rates of alcohol use and high death among commercial vehicle drivers, policies under the influence of alcohol and brain altering substances have not been fully enforced by law enforcement agents (Lasebikan & Ayinde, 2012).

The absence of alcohol control policy might be the reason behind the uncontrolled level of alcohol consumption among commercial drivers. With the significant alcohol-related problems in Nigeria, the way out would have been that the government formulate appropriate policies to reduce the weight of the problems but government has found it difficult to surmount some factors preventing the formulation and implementation of the relevant policies to checkmate the marketing, advertising, production and consumption of alcohol

Effects of Alcohol Use

Impact of alcohol consumption on acute or chronic health outcomes would largely be determined by the pattern of drinking as well as the volume of alcohol consumed. The harmful use of alcohol has been linked with high burden of diseases that can have significant physical, social and economic consequences on user and

by extension affect the lives of those around them such family members, friends and other people (Okafor et al, 2022). Alcohol consumption, most especially heavy drinking has been identified as underlying cause of over 30 health conditions and contributing factors to many others (Jurgen, 2011). Studies revealed that excessive alcohol intake will result in modification of blood chemistry because increasing intake of alcohol will result into reduction in the energy obtained from proteins, fat and carbohydrates (Edo & Nwosu, 2022). Alcohol use plays a significant role in car crashes and accident arising from driving under the influence of alcohol. Drink-driving has been found to be the greatest risk factor for road traffic accidents in Nigeria (Odeigah, et al, 2018). Accidents associated with alcohol are more likely to result in death or more severe injury than when alcohol is not involved (Salaudeen et al, 2019). Alcohol intoxication impairs judgment discovered in studies that revealed that alcohol was a factor in about fifty percent of commercial drivers' death in road traffic accidents (Bello, et al, 2012) with alcohol use been implicated in every three of five motor vehicle accidents (Akande, et al. 2023). Drink-driving has been discovered to be a risk factor for traffic accidents. Studies have shown that driving influence of various under the

psychoactive substances with alcohol been the most involved have been associated with many incidences of vehicular crashes causing significant ailments and death in many communities (Onwuka & Okoye, 2020; Khatir et al 2022). Drink-driving has been implicated in 21-30% of car crash injuries among drivers (Bragazzi, et al, 2018).

addition, In intoxication with alcohol is closely associated violent and aggressive behaviour, increased risk of accidents, vomiting and nausea. headaches, hangover, reduced sexual 8 performance while excessive consumption can result into long term chronic health problems such as high blood pressure, depression, liver disease, gastric ulcer, forgetfulness, premature aging, forgetfulness and cancer (Okafor et al, 2022). Health problems arising from the withdrawal such as tremor, sweating, headache. anxiety, insomnia. hallucinations, convulsion (Bruton, 2010) could negatively impede driving skills.

Conclusion

Drivers of commercial vehicles are of special interest in this study because commercial road transport is the major means of transportation in Nigeria. Extensive body of knowledge has shown the high prevalence of alcohol use among commercial drivers and the danger that the

act pose on the society based on the findings that commercial drivers that consume alcohol in a hazardous manner could endanger several lives. Based on reviewed literature it is suggested that the extant alcohol control should be distinct and enforced appropriately. Health education and sensitization programme on hazards of alcohol.

References

Abiona, T.C., Aloba, O.O. and Fatoye, F.O. (2006). Pattern of alcohol consumption among commercial road transport workers in a semiurban community in south western East Africa Medical Nigeria. Journal. 494-499. 83(9). doi: 10.4314/eamj.v83i09.46772

Abiona, O., Oluwasanu, M. & Oladepo, O. (2019). Analysis of alcohol policy in Nigeria: multisectoral action and the integration of the WHO "best-buy" interventions. BMC Public Health 19, 810. https://doi.org/10.1186/s12889-019-7139-9

Adekoya, B. J., Adekoya, A. O., F. G. Adepoju, J. F. A. & Owoeye. (2011). Driving under influence among long distance commercial drivers in Ilorin, Nigeria. International Journal on Biological and Medical Research. 2(3): 870 – 873

Akande, R.O., Akande, J.O., Babatunde, O.A., Ajayi, A.O., Ajayi, A.A., Ige, R.O., Saliu, A.S., Akande, A. and Olatunji, M.B. (2023). Psychoactive substance abuse among commercial bus drivers in Umuahia, Abia State,

- South-Eastern Nigeria: an uncontrolled "epidemic" with attendant road traffic crashes. BMC Public Health Journal. 23(1). 250
- Akpan, G. and Ikorok, M. (2014). The Prevalence of Alcohol Consumption among Commercial Drivers in Uyo Local Government Area, Akwa Ibom State Nigeria. Journal of Sports and Physical Education. 1(7). 47-51
- Bello, S., Ndifon, W.O., Mpama, E.A. and Oduwole, O.A. (2012). Pattern of alcohol use among drivers of commercial vehicles in Calabar, Nigeria. East Africa Medical Journal. 89(7). 27-32 9
- Bragazzi, N.L., Dini, G., Toletone, A., Rahmani, A., Motencucco, A., Massa, E., Manca, A., Guglielmi, O., Garbarino, S., Debarbieri, N and Durando, P. (2018). Patterns of harmful alcohol consumption among truck drivers: implications for occupational health and work safety from a systematic review and meta-analysis. International Journal in Environmental Research and Public Health. 15(6). 1121-1130
- Bruton, L.L. (2010). Goodman & Gilman's Pharmacological Basis of Therapeutics. 12th Edition. The McGraw –Hill Companies, New York
- Chikere, E.I. & Mayowa, M.O. (2011)

 Prevalence and perceived health effect of alcohol use among male undergraduate students in Owerri, South-East Nigeria: a descriptive crosssectional study. BMC Public Health. 11;118
- Edo, G.I. & Nwosu, L.C. (2022). Association of alcohol use and dietary lifestyle of commercial drivers during COVID-19 pandemic

- in Nigeria. Bulletin of National Research Centre. 46(1). 197
- Elena, B. & Allison, M. (2023). 10 Reasons Why People Drink Alcohol http://alcoholrehabhelp.org/knowledge/ why-people-drink/#link-359
- Gabrielli, J., Brennan, Z.L.B., Stoolmiller, M, Jackson, K.M., Tanski, S.E. & Mcdure, A.C. (2019). A new recall of alcohol marketing scale for youth: measurement properties and association with youths drinking pstatus. Journal of studies on Alcohol and Drugs; 80(5). 563-571
- Gureje, O. & Lasebikan V. (2006).

 Alcohol beverages type, problem drinking and self-reported health status. Nigeria. Journal of Psychiatry. 4(1):4–8.
- Jurgen, R. (2011). The risk associated with alcohol use and alcoholism. Alcohol Research and Health. 34(2).135-143
- Khatir, I.G., Azar, M.S., Zakariaei, Z., Rad, R.S.S. & Rasoul, K. (2022). The prevalence of substance use among drivers with traffic injuries in Mazandaran Province, Northern Iran. Annals of Medicine and Surgery. 80. 1-5
- Lasebikan, V.O. & Ayinde, O. (2012).
 Rapid situation assessments of alcohol and substance use among commercial vehicle drivers in Nigeria. East African Medical Journal. 89(11). 363-371
- Lasebikan, V.O., Ayinde, O., Odunleye, M., Adeyefa, B., Adepoju, S. & Fakunle, S. (2018). Prevalence of alcohol consumption and alcohol use disorders among outdoor drinkers in public open places in Nigeria. BMC Public Health 18, 400. https://doi.org/10.1186/s12889-018-5344-610

- Nwadinigwe, I. P., Osarenren, N. A. and Otuagoma, F. A. (2019). Assessment of commercial drivers' perception of road safety education on compliance to road traffic rules and regulations in Delta State. International Journal of Educational Research. 6(1). 19-28
- Nwagu, E.N., Dibia, S.I.C. & Odo, A.N. (2017). Socio-cultural norms and roles in the use and abuse of alcohol among members of a rural community in Southeast Nigeria. Health Education Research: 32(5); 423–436.
- Odeigah, O., Olley, B. & Patton, R. (2018). Nigeria: A Country in Need of an Alcohol Strategy Journal of Studies on Alcohol and Drugs. 79(2). 318–319
- Okafor, K., Bimba, J. Adekeye, O., Obateru, A. & Idoko, L. (2022). The prevalence and pattern of use of alcohol among undergraduate students in Jos, Plateau State, Nigeria. Open Journal of Preventive Medicine. 12. 141-154
- Olaniran, S. F., Oroboade, V. S., Adeleke, I. B., Yakubu, O. B. & Jebooda, O. A. (2022). Effects of intake of aphrodisiac drinks on some health parameters of commercial bus drivers in Ife-Central Local Government, Nigeria. Nigerian Journal of Pharmaceutical Research. 18(1); 1-9
- Olatunji, A., Harris-Jackson, T., Hernadez, N. & Thron, C. (2017). Stress, Health and accident risks for commercial drivers in Abuja, Nigeria: causes and correlations. The Nigerian Health Journal. 17(2). 1-16
- Oluwadiya, S.K. & Fatoye, F.O. (2012). Taking alcohol by deception II: paraga (alcoholic herbal mixture) use among commercial motor drivers in

- a south-western Nigerian city. BMC Res Notes. 5(1):301 DOI:10.1186/1756-0500-5-301
- Onwuka, V.O & Okoye, F.B.C. (2020).

 Prevalence of Alcohol Impaired
 Long Distance Commercial Drivers
 in Aba and Umuahia. International
 Journal of Innovative Science and
 Research Technology. 5(1); 390-400
- Oridota, S.E., Ashundoitiang, M.A.U., Olatona, F.A., Olajide, T.O., Akanmu, O.N. & Soriyan, O.O. (2013). Substance and alcohol utilization among commercial drivers and its relationship with road traffic accidents. Journal of Medical Research and Practice: 2(2); 65-68.
- Osamika, B. E., Adeshina, A., Folorunso, S.O., Osamika, A.E., Ogundipe, E., Tomoloju, B. & Akingbade, R. (2021). Substance use, social support and socio-demographic factors among commercial drivers in Ibadan. African Journal of Drug & Alcohol Studies. 20(1). 33-52
- Raji, M.O., Saliu, O., Gada I.A., Bakare, A. T., Oladigbolu, R.A. & Kaoje, A.U. (2017). Determinants of knowledge and use of psychoactive substances among commercial motorcyclists in Sokoto Metropolis, Northwest Nigeria. Global Journal of Medicine and Public Health; 6; 1-12
- Ramanan, V.V. & Singh, S.K. (2016). A study on alcohol use and its related health and social problems in rural Puducherry, India. Journal of Family Medical Primary Care. 5(4); 804-808
- Salaudeen, A.G., Durowade, K.A., Yusuf, A.S. & Adeyemi, M.F. (2019). Practice of safety measures among inter-city commercial vehicle drivers in Kwara State, Nigeria. Journal of

Preventive Medicine and Hygiene. 60(2). 158-162

Sudhinaraset, M., Wigglesworth, C. and Takeuchi, D.T. (2016). Social and cultural contexts of alcohol use: influences in a Social–Ecological Framework. Alcohol Research. 38(1). 35-45.

Yunusa, M.A. & Obembe, A. (2012).

Prevalence of alcohol use among inter-city commercial passenger drivers in sokoto, Nigeria. Nigerian Journal of Psychiatry. 10(2). 8-13 12.

PERCEIVED IMPACT OF NUTRITIONAL PRACTICES ON SPORTS PERFORMANCE OF ATHLETES IN KWARA STATE UNIVERSITY, MALETE

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Abstract

This study investigated the perceived impact of nutritional practices on sports performance of athletes in Kwara State University, Malate. This study sought to know the impact of meal timing, hydration status and dietary quality on athletic performance among university athletes in Kwara State, Malete. The research design adopted for this study was a descriptive survey research design. The population of this study includes all the athletes of Kwara State University, totaling 131. Research instrument is a researcher-constructed questionnaire. The instrument was validated and tested for reliability using split half method. The reliability coefficient of the instrument was 0.79. Method of Data Analysis, data gathered was analysed using percentage and frequency count, the research questions were analyse using mean and standard deviation. The null hypotheses were analysed using simple t-test and tested at 0.05 level of significance.

Keywords: Nutrition, Practices, Sports, Performance, Athletes.

Introduction

Nutrition has been perceived as an integral component of sport performance since the time people began to participate in sports competition. The progress in understanding of human metabolism and exercise physiology made clear in the last few decades that manipulation of nutrient intake had the potential to positively influence sport performance, resulting in and explosion of products with specific applications to exercising individuals.

Burke (2015), strategies to optimize sports performance can be achieved by addressing various factors

related to nutrition that can cause fatigue and deterioration in the outputs of performance (power, strength, agility, skill, and concentration) throughout or towards the end of the sporting event. These factors include, but are not limited to, dehydration, electrolyte imbalances, glycogen depletion, hypoglycemia, gastrointestinal discomfort/upset, and disturbances to acid-base balance. Fluids or supplements consumed before, during, or in the recovery between sessions can reduce or delay the onset of these factors. Strategies include increasing or re-placing key exercise fuels and providing substrates to return the body to homeostasis or further adapt to the stress incurred during a previous exercise session. In some cases, pre-event nutrition may need to redress the effects of other activities undertaken by the athlete during event preparation such or restrictive dehydration eating associated with "making weight" in weight category sports. A secondary goal is to achieve comfort throughout the event, avoiding feelings of hunger or discomfort and gastrointestinal upsets that reduce the directly enjoyment performance of exercise and interfere with ongoing nutritional support.

Nutrition goals and requirements are not static. Athletes undertake a periodized program in which preparation for peak performance in targeted events is achieved by integrating different types of workouts in the various cycles of the training calendar (Deakin, Kerr Boushey, 2015). Nutrition support also needs to be periodized, taking into account the needs of daily training sessions (which can range from minor in the case of "easy" workouts to substantial in the case of high-quality sessions (high intensity, strenuous, or highly skilled workouts) and overall nutritional goals.

Nutrition plans need to be personalized to the individual athlete to take into account the specificity and uniqueness of the event, performance

practical challenges, food goals, preferences, and responses to various strategies. A key goal of training is to adapt the body to develop metabolic flexibility while efficiency and competition nutrition strategies focus on providing adequate substrate stores to meet the fuel demands of the event and support cognitive function. Energy availability, which considers energy intake in relation to the energy cost of exercise, sets an important foundation for health and the success of sports nutrition strategies. The achievement of the body composition associated with optimal performance is now recognized as an important but challenging goal that needs to be individualized and periodized. Care should be taken to preserve health and long-term performance by avoiding practices that unacceptably low create energy availability and psychological stress.

Athlete sport performance is influenced by athlete sports foods and supplements which claim to enhance sports performance (https://doi.org/10.1016/j.cophys.2019).

Sports supplements can be grouped, sports foods which provide a practical form of nutrients to meet sports nutrition goals; medical supplements which may be needed to prevent or correct nutrient deficiencies that occur in athletes, and the larger category of performance

supplements which claim either to directly enhance sports capacity or to support activities that allow the athlete to train hard, recover, achieve physique goals or reduce the risk of illness and injury. While controlled scientific trials and metaanalyses help to provide information about the of general use performance supplements, most high-performance athletes are more interested in real-life issues that are hard to encapsulate (detecting benefits that are meaningful to the outcomes of sporting competition, accounting for the use of several supplements in combination or the use of same supplement over successive events).

Statement of the Problem

Despite the recognized importance of proper nutrition for optimal sports performance, there is a lack of understanding of how athletes in Kwara State University, Malete, perceive the impact of specific nutritional practices on their performance. This gap in knowledge limits the effectiveness of interventions aimed at improving athlete nutrition and, consequently, their athletic outcomes.

This study aims to address this gap by investigating the perceived impact of three key nutritional practices - meal timing, hydration status, and dietary quality - on the sports performance of athletes in Kwara State University. By understanding how athletes perceive the influence of these practices on their performance, we can develop targeted interventions that are more likely to be adopted and lead to improved athletic outcomes. The study will contribute to the existing knowledge on sports nutrition and provide recommendations for improving the nutritional practices of athletes in Kwara State University.

Purpose of the Study

The main purpose of this study is to examine the perceived impact of nutritional practices on sports performance of athletes in Kwara State University. Specifically, the study sought to examine:

- Perceived impact of meal timing on sports performance among university athletes in Kwara State.
- Perceived Impact of hydration status on sports performance among university athletes in Kwara State.
- 3. Perceived impact of dietary quality on sport performance among university athletes in Kwara State.

Research Questions

The following research questions were raised to guide the study.

1. What is the perceived impact of meal timing on sports performance among university athletes in Kwara State?

- 2. How does hydration status influence sports performance among university athletes in Kwara State?
- 3. What is the impact of dietary quality on sports performance among university athletes in Kwara State?

Research Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

- There is no significant perceived impact of meal timing on sports performance among university athletes in Kwara State based on earlier and late.
- There is no significant perceived impact of hydration status on sports performance among university athletes in Kwara State based on high and lower.
- There is no significant percieved impact of dietary quality on sports performance among university athletes in Kwara State based on fruits/vegetables and processed foods.

Methodology

A descriptive research design of survey type was used. The population of the study consists of all the athlete of Kwara State University, totaling 131. Based on the small size of the respondents of the study the entire population was selected. A self-structured questionnaire that was validated

and tested for reliability was used for data collection. The questionnaire was divided into two (2) sections. Section A contained question items that are constructed to provide information on the research В questions and section contained The hypotheses. respondents were expected to respond to the items using Always, Often, Sometimes, and Never, rated 4,3,2 and 1 respectively.

The instrument was validated by three experts in the department of Human Kinetics and expert in test and measurement for face and content validity. determine the reliability of the instrument (questionnaire) a trial test was done using twenty (20) students drawn from three departments in University of Ilorin. Split-half method of reliability was used to determine the reliability coefficient of the instrument which was 0.79.

Quantitative data gathered through a questionnaire allowed for quantitative analysis. The demographic data was analysed using percentage and frequency count, the research questions was analysed using mean and standard deviation. The null hypotheses were analysed using on sample t-test at 0.05 level of significance.

Answering of the Research Questions

Research Question 1: What is the perceived impact of meal timing on sports performance among university athletes in Kwara State?

Table 1: Mean and standard deviation of responses on the impact of meal timing on sports performance.

S/N	Item Statements	\overline{X}	SD
1.	I eat breakfast before my morning training sessions	3.39	0.58
	I avoid eating large meals within two hours before my training sessions or competitions	2.63	0.75
	I eat a balanced meal that contains carbohydrates, protein and fat before my training sessions or competitions	3.48	0.64
	I consume carbohydrates and protein during prolonged (>60 minutes) or high intensity training sessions or competitions.	2.90	0.75
	I plan my meals and snacks ahead of time to ensure optimal nutrition and performance.	3.08	0.52

p > 0.05

Data in table 1 shows the mean and standard deviation of responses on the impact of meal timing on sports performance among university athletes. The table revealed that the respondents indicated sometimes and always for the constructs with mean ranging from 2.63 to 3.39. All the 5 constructs have standard deviation ranging from 0.52 to 0.75. This that the responses means respondents are not widespread as they are

close to the mean. Table 4 has a ground calculated weighted average mean and standard deviation of 3.07 and 0.68 respectively. This implied that meal timing can improve athletes' sports performance (mean = 3.07, SD = 0.68).

Research Question 2: How does hydration status influence sports performance among university athletes in Kwara State?

Table 2: Mean and standard deviation of responses on how hydration status influence sports performance.

S/N	Item Statements	\overline{X}	SD
1.	I drink water before, during and after my training sessions or competitions.	3.40	0.59
2.	I drink fluids that contain electrolytes (such as sports drinks) when I sweat a lot or exercise in hot or humid conditions.	3.07	0.47
3.	I monitor the color and volume of my urine to assess my hydration status.	3.08	0.52
4.	I avoid drinking alcohol, caffeine or other diuretics that can dehydrate me.	3.11	0.64
5.	I drink water even when I am not thirsty.	3.05	0.55

Source: Field Survey, 2023

Data in table 2 shows the mean and standard deviation of responses on how hydration status influence athletes' performance in sports. The table revealed that the respondents indicated always for all the constructs with mean ranging from 3.05 to 3.40. All the 5 constructs have standard deviation ranging from 0.47 to 0.64. This means that the responses of the respondents are not widespread as they are

close to the mean. Table 5 has a ground calculated weighted average mean and standard deviation of 3.21 and 0.59 respectively. This implied that hydration status could influence athletes' performance in sports (mean = 3.21, SD = 0.59).

Research Question 3: What is the impact of dietary quality on sports performance among university athletes in Kwara State?

Table 3: Mean and standard deviation of responses on the impact of dietary

quality on sports performance.

S/N	Items	$\overline{\overline{X}}$	SD
1	I eat a variety of foods from different food groups every day.	3.26	0.60
2	I eat more fruits and vegetables than processed foods or sweets	3.27	0.53
3	I eat healthy fats instead of trans fats or saturated fats.	3.57	0.61
4	I limit my intake of added sugars, salt and alcohol.	3.44	0.71
5	I choose foods that are fresh, natural and minimally processed.	3.11	0.75

Source: Field survey, 2023

Table 3 shows the mean and standard deviation of responses on the impact of dietary quality on sports performance. The table revealed that the respondents indicated always, sometimes and often to the constructs with mean ranging from 3.11 to 3.57. All the 5 constructs have standard deviation ranging from 0.53 to 0.75. This means that the responses of the respondents are not widespread as they are close to the mean. Table 7 has a ground calculated weighted average mean and standard deviation of

3.33 and 0.64 respectively. This implied that dietary quality has impact on sports performance (mean = 3.33, SD = 0.64).

Test of Hypotheses

The null hypotheses of the study were tested using independent sample t-test at 0.05 level of significance. The summary of the test of hypotheses are presented in table 6 to 8 as follows:

H_{O1}: There is no significant impact of meal timing on sports performance among university athletes in Kwara State.

Table 4: Summary of t-test of the difference between the mean ratings of meal

timing and athletes' sports performance.	
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	ing and	acific cos s	ores per i	or manee.			
Time	N	Mean	SD	t-cal	df	p-value	Decision
Earlier	81	3.21	0.82				
				0.406	129	0.685	Not Rejected
Late	50	3.18	0.65				

p > 0.05

Table 4 showed that there are 81 earlier mealtime respondents and 50 late mealtime respondents. The earlier mealtime respondents had mean and standard deviation of 3.21 and 0.82 while respectively late mealtime mean and standard respondents had deviation of 3.18 and 0.65, respectively. The calculated value of t was 0.406 (t₃₉₀= 0.406). The observed p-value was 0.685 which is greater than the fixed p-value of 0.05 (p>0.05). Therefore, the null hypothesis, was not rejected. This implied that there is no significant impact of meal timing on sports performance among university athletes in Kwara State based on earlier and late.

H₀₂: There is no significant impact of hydration status on sports performance among university athletes in Kwara State.

Table 5: Summary of t-test of the difference between the mean ratings of hydration status and athlete sports performance.

	8000000		Ports Pt		•		
Status	N	Mean	SD	t-cal	Df	p-value	Decision
Higher	81	2.77	0.81				
				1.300	129	0.195	Not Rejected
Lower	50	2.66	0.61				

Source: Field survey, 2023 p>0.05

Table 5 showed that there are 81 respondents with higher hydration status and 50 respondents with lower hydration status. The higher status respondents had mean and standard deviation of 2.77 and 0.81 respectively while lower status respondents had mean and standard deviation of 2.66 and 0.61, respectively. The calculated value of t was 1.30 (t₃₉₀= 1.30). The observed p-value was 0.195

which is greater than the fixed p-value of 0.05 (p>0.05). Therefore, the null hypothesis, was not rejected. This implied that there is no significant impact of hydration status on sports performance among university athletes in Kwara State based on higher and lower.

H_{O3}: There is no significant impact of dietary quality on sports performance among university athletes in Kwara State.

Table 6: Summary of t-test of the difference between the mean ratings of dietary quality

and athlete sports performance

Quality	N	Mean	SD	t-cal	Df	p-value	Decision
fruits and vegetables	81	2.79	0.35				
				0.508	129	0.613	Not Rejected
processed foods	50	2.76	0.38				
C T: 11	2022					0	0.5

Source: Field survey, 2023 p>0.05

The data in Table 6 showed that there are 81 respondents on fruits and vegetables and 50 respondents processed foods. The fruits and vegetables respondents had mean and standard deviation of 2.79 and 0.35 respectively while processed foods respondents had mean and standard deviation of 2.76 and 0.38, respectively. The calculated value of t was 0.58 (t₃₉₀= 0.58). The observed pvalue was 0.613 which is greater than the fixed p-value of 0.05 (p>0.05). Therefore, the null hypothesis, was not rejected. This implied that there is no significant impact of dietary quality on sports performance among university athletes in Kwara State based on fruits and vegetables and processed foods

Discussion of Findings

The study was conducted to examine the perceived impact of nutritional practices on sports performance of athletes in kwara State University. The discussion is based on three research questions and three hypotheses. The first finding of the study revealed that the responses of the respondents are not

widespread as they are close to the mean. This implied that meal timing can improve athletes' sports performance. The first finding of the study is in line with Burke (2015) who stated that, strategies to optimize sports performance can be achieved by addressing various factors related to nutrition that can cause fatigue and deterioration in the outputs of performance. The null hypothesis tested for this further implied that there is no significant impact of meal timing on sports performance (t_{390} = 0.406).

The second finding of the study revealed that the responses of the respondents are not widespread as they are close to the mean as it calculated weighted average mean and standard deviation of 3.21 and 0.59 respectively. This implied that hydration status could influence athletes' performance in sports. The finding of the study corroborates with that of (Burke & Hoffman et al., 2018) who stated that, there is ample evidence of the benefits of hydration, carbohydrate electrolyte fueling, and replacements during sports events, without water, athlete can survive only for days. The null

hypothesis tested for this further revealed that there is no significant impact of hydration status on sports performance. The calculated value of t was $1.30 (t_{390}=1.30)$.

The third finding in table 8 revealed that the respondents indicated always, sometimes and often for all the constructs with mean ranging from 3.57 to 3.11, this means that the responses of the respondents are not widespread as they are close to the mean and has a calculated weighted average mean and standard deviation of 3.33 and 0.64 respectively. This implied that dietary quality has impact on sports performance. The finding of the study corroborates with that of Thomas, Erdman and Burke (2016), who stated that dietary quality is considered nutritional ergogenic aids, and the ones intended for the improvement of an athletic performance and faster recovery are known as sports supplements. The null hypothesis tested for this further revealed that there is no significant impact of dietary quality on sports performance. The calculated value of t was 0.58 (t_{390} = 0.58).

Conclusion

 There is no significant impact of meal timing on sports performance among university athletes in Kwara State based on earlier and late.

- 2. There is no significant impact of hydration status on sports performance among university athletes in Kwara State based on higher and lower.
- 3. There is no significant impact of dietary quality on sports performance among university athletes in Kwara State based on fruits and vegetables and processed foods.

Recommendations

- 1. Sports Administrators should organize seminars or workshop to educate athletes on meal timing, underscoring the significance of consuming meals at optimal times to enhance sports performance.
- 2. Coaches should give guidance on fluid intake during training and competition to ensure that athletes are well-informed about hydration practices to enhance sports performance.
- 3. Sport Nutritionist should organize programs that will broaden athletes' understanding on dietary choices, particularly emphasizing the benefits of a balanced diet rich in fruits, vegetables, and nutrient-dense foods to enhance sports performance.

References

- Beelen, M., Burke L.M., Gibala, M. J. & van Loon, L.J. (2010) Nutritional strategies to promote postexercise recovery. *International Journal of Sport Nutrition and Exercise Metabolism.* 20(6):515–532.
- Burke, L. M. (2015). Re-examining high-fat diets for sports performance: did we call the "nail in the coffin" too soon? *Sports Medicine*. 45(1):33–49.
- Burke, L. M., Hawley, J.A., Wong, S. H. & Jeukendrup, A.E. (2015). Carbohy- drates for training and competition. *Journal of Sports Sciences*. 29(Suppl 1): S17–27.
- Deakin, V., Kerr, D, & Boushey C. (2015).

 Measuring nutritional status of athletes: clinical and research perspectives. In L. Burke & V. Deakin (Eds). *Clinical Sports Nutrition* (27–53). (5th ed). North Ryde, Australia: McGraw-Hill.
- Dietitians of Canada, the Academy of Nutrition and Dietetics and the American College of Sports Medicine (2016). Nutrition and Athletic Performance, Position of Dietitians of Canada, the Academy of Nutrition and Dietetics and the American College of Sports Medicine.
- Dietitians of Canada, the Academy of Nutrition and Dietetics and the American College of Sports Medicine (2016). Nutrition and Athletic Performance, Position of

- Dietitians of Canada, the Academy of Nutrition and Dietetics and the American College of Sports Medicine.
- Health Canada. (2015) Eating well with Canada_s Fod Guide. http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php. Accessed 7 July 2015.
- Institute of Medicine FaNB. (2015)

 Dietary Reference intakes for
 Energy, Carbohydrate, Fiber, Fat,
 Fatty Acids, Cholesterol, Protein
 and Amino Acids. Washington, D.C.:
 National Academies Press.
- Phillips, S.M, & Van, L. J. (2011). Dietary protein for athletes: from requirements to optimum adaptation. *Journal of Sports Sciences*. 29(Suppl 1): S29–38.
- Phillips, S. M. (2012). Dietary protein requirements and adaptive advantages in athletes. *The British Journal of Nutrition*. 108(Suppl 2): S158–167.
- Peeling, P., Sim, M, & Badenhorst, C. E. (2014). Iron status and the acute post-exercise hepcidin response in athletes. *PloS One*. 9(3): e93002.
- U.S. Department of Health and Human Services and U.S. Department of Agriculture. (December, 2015). 2015–2020 Dietary Guidelines for Americans. (8th ed.). Retrieved from:
 - http://health.gov/dietaryguidelines/2 015/guidelines/.

PREVALENCE OF ZOONOTIC GASTROINTESTINAL PARASITES IN STRAY DOGS IN OYE AND IKOLE LOCAL GOVERNMENT AREAS EKITI STATE, NIGERIA

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Abstract

Stray dogs are known to harbour various gastrointestinal parasites (GIPs), some of which are of zoonotic importance. This study aimed at understanding the prevalence of zoonotic gastrointestinal parasites in stray dogs in Oye and Ikole Local Government Areas (LGAs) of Ekiti State. Fifty (50) faecal samples were randomly collected from stray dogs from each of the LGAs into plastic universal bottles. The universal bottles were properly labelled, transported to Animal and Environmental Biology laboratory, Federal University Oye-Ekiti and stored in the refrigerator at 4°C for processing. Faecal samples were examined microscopically using sheather's sugar floatation technique. Out of the 100 faecal samples that were examined, 63.0% have single parasite while 37.0% are without parasites. There was no case of double infection. Prevalence of GIP was found to be significantly different in the two locations (p<0.001) with Oye having the highest prevalence of 63.5% while Ikole has a prevalence of 36.5%. All the parasites that were found in Oye LGAs were of zoonotic importance while 9 out of 10 GIP observed in Ikole were zoonotic. Overall, Toxocara canis had the highest prevalence of (22.0%), followed by Strongyloides sp (10.0%) while the other zoonotic gastrointestinal parasites have prevalence less than (10.0%). This study emphasized the need to intensify awareness on the role of stray dogs in contaminating the environment with zoonotic parasites.

Keywords: Parasite, dogs, bottles, infections, prevalence

Introduction

Gastrointestinal parasites (GIPs) are commonly reported in dogs worldwide. Most of the GIPs are of zoonotic importance due to their impact on humans (Traversa *et al.*, 2017). Commonly reported zoonotic gastrointestinal parasites include, *Giardia* spp, *Cryptosporidium* spp, *Toxoplasma gondii*, *Toxocara canis*, hookworms, and *Echinococcus granulosus* (Kostopoulou *et al.*, 2017). Zoonotic

transmission occurs when the oocyst or infective larvae of the parasites are accidentally ingested via consumption of contaminated water or food or via consumption of undercooked meat or food (Omonijo et al., 2023). Infection with these parasitic agents results in various clinical manifestations ranging asymptomatic infection to chronic diarrhea caused by Giardia spp (Anuar et al., 2015); folliculitis, ephemeral and

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papular/pustular eruptions, penetration of fibers, lung muscle infiltrates and enteritis eosinophilic caused by hookworms (La Torre et al., 2018); human echinococcosis cystic caused by Echinococcus granulosus and Dipylidium caninum (La Torre et al., 2018), and visceral larva migrans (VLM), ocular larva migrans (OLM), and neurotoxocarosis (NT) caused by Toxocara spp (La Torre et al., 2018). Studies have reported the prevalence of zoonotic infections caused by these parasites worldwide (Tůmová et al., 2018; Park et al., 2021; Umbrello et al., 2021; Narasimham et al., 2013). Since transmission is sustained by the presence of the parasites in the environment, it is important to understand their prevalence of environmental and the routes contamination for the purpose of developing control strategies. Dogs are ubiquitous companions of humans worldwide due to their numerous benefits (Jarošová et al., 2021), however, poor dog care results in the dogs becoming free roaming or stray (Mota-Rojas et al., 2021). Stray dogs contribute to environmental contamination due to their incessant defecation which promote zoonotic transferring of diseases (MagliaBatista, 2019). This study aimed at determining the prevalence of zoonotic gastrointestinal parasites in stray dogs in Oye and Ikole Local Government Areas in Ekiti State.

Materials and methods

Study Area

The study was conducted in Oye and Ikole Local Government Areas (LGAs) in Ekiti State, Nigeria. Oye LGA is located at 7°47′58″N5°19′42"E while Ikole LGA is located at 7°53′36.5″N 5°30′40.0″E. Both local government areas are known for their agricultural activities and consist of civil servants, students, self-employed workers, and farmers.

Sample Collection

Fifty (50) faecal samples were randomly collected from stray dogs into plastic universal bottles in each of the LGAs. The universal bottles were properly labelled, and transported to Animal and Environmental Biology laboratory, Federal University Oye-Ekiti. The samples were stored in the refrigerator at 4°C until processed the next day for ova or oocysts detection.

Parasitology Procedure

Faecal samples were processed individually and examined microscopically using sheather's sugar floatation technique. 1 g of faeces was added to 15 ml of sheather's sugar solution in a test tube. The content was mixed and strained thoroughly and collected into another test tube and was covered with a covered slip. The filtrate was left to stand for 15 – 30

mins. The cover slip was then transferred to a microscopic slide to be examined under a light microscope. The samples were identified using the standard procedures.

Data Analysis

Data were analyzed using the statistical package for social sciences IBM-SPSS version 25.0. Chi-square statistic was used to determine the association between locations and parasites prevalence. A p-value < 0.05 was considered statistically significant.

Results

23% 45% 7% 2.... 2%

■ Toxocara canis ■ Strongyloides sp ■ Taenia sp ■ Alaria sp

Ancylostoma sp
 Blastocystis sp
 Toxoplasma sp
 Dipylidium sp

Figure 1: Pie chart showing the prevalence of zoonotic gastrointestinal parasites in Oye Local Government Area, Ekiti State.

2.2 Prevalence of zoonotic gastrointestinal parasites of dogs in Ikole LGA, Ekiti

Out of fifty (50) faecal samples that were examined, 10 gastrointestinal parasites were observed. The GIPs include,

Entamoeba sp, Coccidia sp, Ancylostoma sp, Blastocystis sp, Toxoplasma sp, Toxocara canis, Strongyloides sp, Alaria sp, Schistosoma sp and Taenia sp. Out of the 10 GIPs, 9 were found to be zoonotic (See Figure 2). Ancylostoma sp, Toxocara

Prevalence of zoonotic gastrointestinal parasites of dogs in Oye LGA, Ekiti

All the eight parasite types that were encountered in Oye LGA, are known zoonotic parasites. The zoonotic parasites that were encountered included *Toxocara canis*, *Strongyloides* sp, *Taenia* sp, *Alaria* sp, *Ancylostoma* sp, *Blasocystis* sp, *Toxoplasma* sp. and *Dipylidium* sp (See Figure 1). *Toxocara canis* constituted the most prevalent zoonotic gastrointestinal parasite in stray dogs in Oye (45.0%), followed by *Dipylidium caninum* (23.0%), and *Strongyloides* sp (15.0%). Prevalence in the rest was less than 10.0%.

canis, and Strongyloides sp, have the highest prevalence of 18.0% while the rest; Alaria sp, Blastocystis sp, Entamoeba sp,

and *Taenia* sp have a prevalence less than 10.0%.

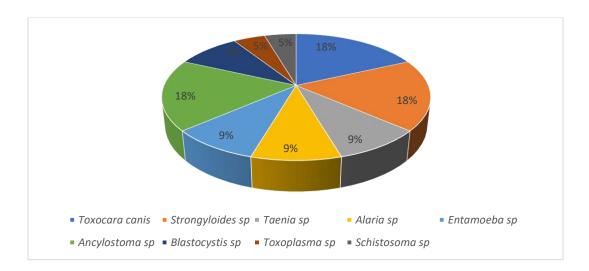


Figure 2: Pie chart showing the prevalence of zoonotic gastrointestinal parasites in Ikole Local Government Area, Ekiti State.

2.3 Infection status of stray dogs with gastrointestinal parasites in Oye and Ikole LGA

Overall, out of the 100 samples that were examined, 37.0% have no parasites, 63.0% have single parasite. There was no case of double infection. Prevalence of GIP was found to be significantly difference in the two locations (p<0.001) with Oye having the highest prevalence of 63.5% while Ikole has a prevalence of

36.5%. Overall, *Toxocara canis* had the highest prevalence of (22.0%), followed by *Strongyloides* sp (10.0%) while the prevalence of *Entamoeba* sp, Coccidia sp, *Ancylostoma* sp, *Blastocystis* sp, *Toxoplasma* sp, *Alaria* sp, *Schistosoma* sp, *Dipyllidium* sp, and *Taenia* sp was less than 10.0%. Moreover, Oye has the highest prevalence of *Toxocara canis*, (36.0%) (Table 1).

Parasites found Oye n=50 (%)Ikole n=50 (%) Overall prevalence N=100 (%) 27 (54.0) No parasites found 10 (20.0) 37 (37.0) Single parasite 23 (46.0) 40 (80.0) 63 (63.0) Toxocara canis 18 (36.0) 4 (8.0) 22 (22.0) Strongyloides sp 6 (12.0) 10 (10.0) 4 (8.0) Taenia sp 1(2.0)2(4.0)3(3.0)1 (2.0) Alaria sp 2(4.0)3(3.0)Entamoeba sp 2(4.0)2(2.0)0(0.0)4 (8.0) 7(7.0)Ancylostoma sp 3(6.0)Blastocystis sp 1(2.0)2(4.0)3 (3.0) Toxoplasma sp 1(2.0)2(2.0)1(2.0)

1 (2.0)

1(2.0)

0(0.0)

Table 1. Infection status of stray dogs with gastrointestinal parasites in Oye and Ikole LGA

Discussion

 X^2 , p-value

Coccidia

Schistosoma sp

Dipylidium sp

Stray dogs are associated with various zoonotic gastrointestinal parasites that are hazardous to human health (Traversa et al., 2017; Szwabe & Błaszkowska, 2017). They are important sentinels in investigating environmental contamination of zoonotic gastrointestinal parasites due to their indiscriminate faecal droppings in the environment (Traversa et al., 2017). The finding from this study showed the overall prevalence of gastrointestinal parasites in stray dogs to 63.0%. This is lower than the prevalence of 77.0% reported in household dogs in Argentina (Enriquez et al., 2019). It is however, higher than 31.5% that was reported in Maiduguri, Nigeria (Ezema et al., 2019).

0(0.0)

0(0.0)

9 (18.0)

Zoonotic gastrointestinal parasites that were reported include *Toxocara canis*, *Strongyloides* sp, *Taenia* sp, *Alaria* sp, Ancylostoma sp, Blastocystis sp, Toxoplasma sp, Schistosoma, and Dipylidium caninum. Similar zoonotic parasites have been reported in dogs in a nation-wide survey in Nigeria (Kamani et al., 2021) and Maiduguri, Nigeria (Ezema et al., 2019), as well as in Slovakia (Jarošová et al., 2021).

1(1.0)

1(1.0)

9 (9.0)

31.263, 0.001

The higher prevalence of *T. canis* observed in stray dogs in this study is consistent with reports from other studies (Studzińska *et al.*, 2017; Szwabe & Błaszkowska, 2017). This is an indication of high environmental contamination with *T. canis* and may pose high health risks to members of the communities (Sharma *et al.*, 2017). *T. canis* has been identified as one of the five common zoonotic infections in dogs in Nigeria (Gado *et al.*, 2023) and their role in causing zoonotic infections have been reported (Gyang *et al.*, 2015; Sowemimo *et al.*, 2017). The

observed prevalence of T. canis observed in this study is higher than the prevalence of 10.8% that was reported in Zuru area, Kebbi State Nigeria (Mohammed et al., 2012) and 9.8% from Ibadan, Nigeria (Ayinmode et al., 2016), however, it is lower than the prevalence of 34.6% in Ile-Ife reported (Akeredolu Sowemimo, 2014). This may be attributed to difference in management practices involved in dog care and the level of the presence of infective stages of these parasites in the environment (Akeredolu & Sowemimo, 2014).

The prevalence of Strongyloides sp (10.0%) observed in stray dogs in this study is higher than the prevalence of (1.6%) reported in a national survey in Nigeria (Kamani *et al.*, 2021), (2.0%) reported in Zaria, Kaduna State, (3.9%) reported in Ibadan, and Edo, Nigeria (Ayinmode et al., 2016; Inegbenosun et al., 2023), and (7.54%) reported in Kwara, Nigeria (Ola-Fadunsin et al., 2023). However, the prevalence recorded in this study is lower than 24.2% reported in Sidama, Ethiopia (Dubie et al 2023), and (27.70%) reported in Abua, Rivers State (Moro et al., 2023). Earlier study has reported global prevalence of 6% (95% CI 3-9%) in dogs (Eslahi et al., 2022). S. stercoralis is a zoonotic parasite that affects 100-370 million people globally resulting in

gastrointestinal and cutaneous signs, severe pulmonary pathology with autohyperinfection and or manifest asymptomatic (Eslahi et al., 2022). S. stercoralis has genotypes that infect dogs while another genotype infects both dogs and humans thereby making dogs a reservoir host (Eslahi et al., 2022). The observed variation in prevalence may be attributed to the varying climatic conditions (Eslahi et al., 2022).

Furthermore, the prevalence of (9.0%) of *Dipylidium* sp observed in this study is lower than the prevalence of 16.5% reported in Mexico (Trasviña-Muñoz et al., 2020), 20.0% reported in sub-Saharan Africa (Chidumayo, 2018), 21.0% (95% CI: 16.6–24.9) reported in dogs in Ethiopia (Gutema et al., 2020), and 40.0% reported in Texas (Olave-Leyva et al., 2019), however, it is higher than the prevalence of 3.1% reported in Sudan (Sulieman et al., 2020), 4.5% and 8.2% reported in Nigeria (Ezema et al., 2019; Esonu et al., 2019), and 6.0% reported in Portugal (Silva et al., 2020). Dipylidium caninum, commonly known as dog tapeworm is a zoonotic parasite that is responsible for dipylidiasis in dogs, cats, and rarely in humans (Gutema et al., 2020). Manifestations include, abdominal pain, diarrhea, and anal pruritus in some individuals while mild infection can be asymptomatic (Gutema et al., 2020). The intermediate hosts are the fleas while dogs act as the final host. Humans become infected through fecal—oral routes via the accidental ingestion of infected flea containing *D. caninum* cycsticercoid (Gutema *et al.*, 2020).

In addition, the prevalence of 7.0% of Ancylostoma sp reported in this study is lower than the prevalence of 38.7% reported in Kigali, Rwanda (Ntampaka et al., 2021), and 60.8% reported in West Indies (Kim et al., 2022). Ancylostoma sp are zoonotic helminths that are capable of causing eosinophilic enteritis humans cutaneous larva migrans in (Loukas et al., 2016). Pathogenicity of Ancylostoma sp infection includes hematophagy, which results in intense 2014), blood loss (Bowman, gastroenteric disorders, namely diarrhea and dysentery (Kopp et al., 2007). The most susceptible dogs are the newborn puppies and juvenile dogs which may suffer severe intestinal hookworm infections via infection through transmammary route (Dos Santos et al., 2020).

Also, the prevalence of 3.0% for *Alaria* sp observed in this study is comparable with report from Erzurum province (Kirman *et al.*, 2023).

On the other hand, the prevalence of taeniid eggs observed in this study is comparable to the prevalence observed in pet dogs in Bilda, North-Central Algeria (Ziam et al, 2022), but, lower than the prevalence of 4.0% reported in Slovakia (Jarošová et al., 2021), 4.87% reported in Oyo State (Awosanya and Ndiaye, 2021) 9.0% reported in Basrah Iraq (Abdulhameed et al., 2020). Moreover, the prevalence of Toxoplasma gondii observed in the faeces of dogs in this study is lower than the prevalence of 5.6% reported in Lokoja, Kogi State, Nigeria (Budiono et al., 2023). Also, the prevalence of Entamoeba sp 2.0% observed in the faeces of dogs in this study is higher than 0.84% reported in Jataí, Brazil (Souza et al., 2023).

Finally, the prevalence of eggs of Schistosoma sp observed in this study is lower than 32.86% reported in West Lore, Indonesia (Budiono et al., 2022). Other zoonotic parasites *Blastocystis* sp observed in this study has been reported from a similar study (Latif et al., 2020). The prevalence of *Blastocystis* sp reported in this study is higher than the 1.9% reported in Baghdad, Iraq (Latif et al., 2020). The reasons for variability in prevalence of various zoonotic gastrointestinal parasites of dogs may be attributed to varying mode of dog care, varying parasitological procedure in identification of parasites as well geographical as and seasonal variation.

Conclusion

In conclusion, the public health importance of the observed zoonotic GIPs cannot be overemphasized and their prevalence in the study areas is an indication of possible zoonotic transmission in the LGAs and underscores the need to adopt good dog care practices and embrace adequate deworming practices for dogs in the study areas.

Recommendations

The general public should be educated on the zoonotic risk associated with the presence of stray dogs in the environment. This study also recommends that the population of stray dogs in the communities be kept under control.

References

- Abdulhameed, M.F., Robertson, I., Al-Azizz, S.J. & Habib, I. (2020). Prevalence of taeniid eggs in the faeces of domesticated and free-roaming dogs in Basrah, Iraq, and the knowledge of dog owners on cystic echinococcosis. *Karbala International Journal of Modern Science*, 6(3), 259-266.
- Adeiza, A.M., Sani, N.A., Alhaji, N.B., Godwin, E.A., Okwolo, C.E. & Uchendu, G. (2023). Prevalence and Diversity of Zoonotic Protozoa in Dogs in Lokoja, North Central, Nigeria. Sahel Journal of Veterinary Sciences, 20(4), 34-40.

- Akeredolu, A.B. & Sowemimo, O.A. (2014). Prevalence, intensity and associated risk factors for *Toxocara canis* infection in Nigerian dogs. *Journal of Parasitology and Vector Biology*, 6(8), 111-116.
- Anuar, T.S., Moktar, N., Salleh, F.M. & Al-Mekhlafi, H.M. (2015). Human giardiasis in malaysia: correlation between the presence of clinical manifestation and *Giardia intestinalis* assemblage. *Southeast Asian Journal of Tropical Medicine and Public Health*, 46(5), 835.
- Awosanya, E.J. & Ndiaye, S. (2021).

 Prevalence and factors associated with taeniid infection among owned dogs in Ibadan, Oyo State, Nigeria. *Nigerian Veterinary Journal*, 42(2), 319-330.
- Ayinmode, A.B., Obebe, O.O. & Olayemi, E., (2016). Prevalence of potentially zoonotic gastrointestinal parasites in canine faeces in Ibadan, Nigeria. *Ghana Medical Journal*, 50(4), 201-206.
- Bowman, D.D., Reinemeyer, Wiseman, S. & Snyder, D.E. (2014). Efficacy of milbemycin oxime in combination with spinosad in the treatment of larval and immature adult stages of Ancylostoma caninum Toxocara and canis in experimentally infected dogs. Veterinary Parasitology, 205(1-2), 134-139.
- Budiono, N.G., Satrija, F., Ridwan, Y., Handharyani, E., Murtini, S. & Mananta, O. (2022). Mammalian contribution to transmission of *Schistosoma japonicum* infection in West Lore, Poso, Central Sulawesi, Indonesia. *Indonesian Journal of Animal and Veterinary Sciences*, 27(3), 142-151.

- Chidumayo, N.N. (2018). Epidemiology of Canine Gastrointestinal Helminths in Sub-Saharan Africa. *Parasites Vectors*, 11, 1-7.
- Dos Santos, B., da Silva, A.N.F., Mora, S.E.V., Neto, V.A.K., Justo, A.A., de Figueiredo Pantoja, J.C., dos Santos Schmidt, E.M. & Takahira, **Epidemiological** R.K. (2020).Ancylostoma of aspects infection in naturally infected dogs São Paulo from state, Parasitology: Brazil. *Veterinary* Regional Studies and Reports, 22, 100452.
- Dubie, T., Sire, S., Fentahun, G. & Bizuayehu, F. (2023). Prevalence of gastrointestinal helminths of dogs and associated factors in hawassa city of Sidama region, Ethiopia. *Journal of Parasitology Research*, 2023.
- Enriquez, G.F., Macchiaverna, N.P., Argibay, H.D., Arias, L.L., Farber, M., Gürtler, R.E., Cardinal, M.V. & Garbossa, G. (2019). Polyparasitism and zoonotic parasites in dogs from a rural area of the Argentine Chaco. Veterinary Parasitology: Regional Studies and Reports, 16, 100287.
- Eslahi, A.V., Hashemipour, S., Olfatifar, M., Houshmand, E., Hajialilo, E., Mahmoudi, R., Badri, M. & Ketzis, J.K. (2022). Global prevalence and epidemiology of *Strongyloides stercoralis* in dogs: a systematic review and meta-analysis. *Parasites and Vectors*, 15, 1-13.
- Esonu, D.O., Ibrahim, M.D., Otolorin, G.R., Per, M.F. & Esonu, M.C. (2019). Prevalence of gastrointestinal helminthes eggs of public health importance in household dogs presented to the Veterinary Teaching Hospital

- Ahmadu Bello University, Zaria, Kaduna State. *Nigerian Veterinary Journal*, 40(3), 211-217.
- Ezema, K.U., Malgwi, S.A., Zango, M.K., Kyari, F., Tukur, S.M., Mohammed, Kayeri, B.K. (2019).A. Gastrointestinal parasites of dogs (Canis familiaris) in Maiduguri, Borno State, Northeastern Nigeria: zoonotic Risk factors and implications for human health. Veterinary World, 12(7), 1150-1153.
- Gado, D.A., Ehizibolo, D.O., Meseko, C.A., Anderson, N.E. & Lurz, P.W. (2023). Review of Emerging and Re-Emerging Zoonotic Pathogens of Dogs in Nigeria: Missing Link in One Health Approach. *Zoonotic Diseases*, 3(2), 134-161.
- Gutema, F.D., Yohannes, G.W., Abdi, R.D., Abuna, F., Ayana, D., Waktole, H., Amenu, K., Hiko, A. & Agga, G.E. (2020). *Dipylidium caninum* infection in dogs and humans in Bishoftu town, Ethiopia. *Diseases*, 9(1), 1.
- Gyang, P.V., Akinwale, O.P., Lee, Y.L., Chuang, T.W., Orok, A.B., Ajibaye, O., Liao, C.W., Chen, P.C., Chou, C.M., Huang, Y.C. & Barghouth, U. (2015). Seroprevalence, disease awareness, and risk factors for *Toxocara canis* infection among primary schoolchildren in Makoko, an urban slum community in Nigeria. *Acta Tropica*, 146, 135-140.
- Inegbenosun, C.U., Isaac, C., Anika, F.U. Aihebholoria, & O.P. (2023).Prevalence of intestinal parasites in animal hosts and potential implications to animal and human health in Edo, Nigeria. Journal of Veterinary *Science*, 24(1), 1; https://doi.org/10.3390/diseases9 010001.

- Jarošová, J., Antolová, D., Lukáč, B. & Maďari, A. (2021). A Survey of Intestinal Helminths of dogs in Slovakia with an emphasis on zoonotic species. *Animals*, 11(10), 3000
 - ; $\frac{https://doi.org/10.3390/ani111030}{00}.$
- Kamani, J., Massetti, L., Olubade, T., Balami, J.A., Samdi, K.M., Traub, R.J., Colella, V. & González-Miguel, J. (2021). Canine gastrointestinal parasites as a potential source of zoonotic infections in Nigeria: A nationwide survey. *Preventive Veterinary Medicine*, 192, 105385; https://doi.org/10.1016/j.prevetmed. 2021.105385.
- Kim, J., Lucio-Forster, A. & Ketzis, J.K. (2022). *Ancylostoma* in dogs in the Caribbean: a review and study from St. Kitts, West Indies. *Parasites and Vectors*, 15(1), 1-8.
- Kirman, R., Akyuz, M., Balkaya, I., Güven, E. & Avcioğlu, H. (2023). Gastrointestinal helminths of stray dogs in Erzurum province: Prevalence and risk to public health. Ankara Üniversitesi Veteriner Fakültesi Dergisi, 1-4.
- Kopp, S.R., Kotze, A.C., McCarthy, J.S. & Coleman, G.T. (2007). High-level pyrantel resistance in the hookworm Ancylostoma caninum. *Veterinary Parasitology*, *143*(3-4), 299-304.
- La Torre, F., Di Cesare, A., Simonato, G., Cassini, R., Traversa, D. & Frangipane di Regalbono, A. (2018). Prevalence of zoonotic helminths in Italian house dogs. *Journal of infection in developing countries*, 12(08), 666-672.
- Latif, B., Al-Talib, H. & Al-Akely, S. (2020). Prevalence of intestinal protozoa among humans, animals

- and vegetables in Baghdad, Iraq. *Intestinal Medical Journal*, 27(2), 136-140.
- Loukas, A., Hotez, P.J., Diemert, D., Yazdanbakhsh, M., McCarthy, J.S., Correa-Oliveira, R., Croese, J. & Bethony, J.M. (2016). Hookworm infection. *Nature reviews Disease primers*, 2(1), 1-18.
- MagliaBatista, B. (2019). The effect of stray dogs on urban Arusha residents and existing preventative measures. *Independent Study Project (ISP) Collection*. 3141; https://digitalcollections.sit.edu/isp_collection/3141.
- Mohammed, M.N., Magaji, A.A., Saulawa, M.A. & Salihu, M.D. (2012). Survey of zoonotic gastrointestinal parasites of dogs (*Canis familiaris*) slaughtered at Zuru area, Kebbi State, Nigeria. Scientific Journal of Veterinary Advances, 1(5) 132-136.
- Moro, K.K. & Abah, A.E. (2019). Epizootiology of zoonotic parasites of dogs in Abua area of Rivers State, Nigeria. *Veterinary and Animal Science*, 7, 100045; https://doi.org/10.1016/j.vas.2018.10 0045.
- Mota-Rojas, D., Calderón-Maldonado, N., Lezama-García, K., Sepiurka, L. & Garcia, R.D.C.M. (2021). Abandonment of dogs in Latin America: Strategies and ideas. *Veterinary World*, 14(9), 2371-2379.
- Narasimham, M.V., Panda, P., Mohanty, I., Sahu, S., Padhi, S. & Dash, M. (2013). *Dipylidium caninum* infection in a child: a rare case report. *Indian Journal of Medical Microbiology*, 31(1), 82-84.

- Ntampaka, P., Niragire, F., Nyaga, P.N. & Habarugira, G. (2021). gastrointestinal nematodiases and associated risk factors in Kigali city, Rwanda. Journal of Parasitology Research, 2021; https://doi.org/10.1155/2021/995625 6.Ola-Fadunsin, S.D., Abdulrauf, A.B., Abdullah, D.A., Ganiyu, I.A., Hussain, K., Sanda, I.M., Rabiu, M. Akanbi, O.B. & (2023).**Epidemiological** studies of gastrointestinal parasites infecting dogs in Kwara Central, Central. Nigeria. Comparative Microbiology Immunology, Infectious Diseases, 93, 101943; https://doi.org/10.1016/j.cimid.2023. 101943.
- Olave-Leyva, J. García-Reyna, P. Martínez-Juárez, Figueroa-V. Castillo, J. Luqueño-Mejía, C. & Avila-Castillo, R. (2019). Prevalence of gastrointestinal helminths in dogs from the health service Tulancingo, Hidalgo. Abanico *Veterinario*, 9, 1–10.
- Omonijo, A.O. & Mukaratirwa, S. (2023). Knowledge and practices on consumption of free-range chickens in selected rural communities of KwaZulu-Natal, South Africa, with focus on zoonotic transmission of *Toxoplasma gondii* and *Toxocara* spp. *Tropical Animal Health and Production*, 55(1), 9; https://doi.org/10.1007/s11250-022-03393-3.
- Park, S.J., Jang, C.W., Kim, Y.K., Seo, Y.H., Kim, K.H., Kwon, T.G. & Bae, J.H. (2021). Toxocariasis-associated acute perimyocarditis with cardiogenic shock: a case report. *The American Journal of Case Reports*, 22, e930573-1-e930573-5.

- Sharma, R., Singh, B.B., Gill, J.P.S., Jenkins, E. & Singh, B. (2017). Canine parasitic zoonoses in India: status and issues. *Revue scientifique et technique (International Office of Epizootics)*, 36(3), 817-830.
- Silva, V., Silva, J., Gonçalves, M., Brandao, C., & e Brito, N.V. (2020). Epidemiological survey on intestinal helminths of stray dogs in Guimarães, Portugal. *Journal of Parasitic Diseases*, 44, 869-876.
- Souza, J.B.B., Silva, Z.M.D.A., Alves-Ribeiro, B.S., Moraes, I.D.S., Alves-Sobrinho, A.V., Saturnino, K.C., Ferraz, H.T., Machado, M.R.F., Braga, Í.A. & Ramos, D.G.D.S. (2023). Prevalence of intestinal parasites, risk factors and zoonotic aspects in dog and cat populations from Goiás, Brazil. *Veterinary Sciences*, *10*(8), 492; https://doi.org/10.3390/vetsci100804 92.
- Sowemimo, O.A., Lee, Y.L., Asaolu, S.O., Chuang, T.W., Akinwale, O.P., Badejoko, B.O., Gyang, V.P., Nwafor, T., Henry, E. & Fan, C.K. (2017). Seroepidemiological study and associated risk factors of *Toxocara canis* infection among preschool children in Osun State, Nigeria. *Acta Tropica*, 173, 85-89.
- Studzińska, M.B., Demkowska-Kutrzepa, M., Borecka, A., Meisner, M., Tomczuk, K., Roczeń-Karczmarz, M., Kłapeć, T., Abbass, Z. & Cholewa, A. (2017). Variations in the rate of infestations of dogs with zoonotic nematodes and contamination of soil in different environments. International Journal of Environmental Research and Public Health, 14(9), 1003: https://doi.org/10.3390/ijerph140910 03.

- Sulieman, Y., Zakaria, M.A., & Pengsakul, T. (2020). Prevalence of intestinal helminth parasites of stray dogs in Shendi Area, Sudan. *Annals of parasitology*, 66, 115–118.
- Szwabe, K. & Błaszkowska, J. (2017). Stray dogs and cats as potential sources of soil contamination with zoonotic parasites. *Annals of Agricultural and Environmental Medicine*, 24(1), 39-43.
- Trasviña-Muñoz, E., López-Valencia, G., Monge-Navarro, F.J., Herrera-Ramírez, J.C., Haro, P., Gómez-Gómez, S.D., MercadoRodríguez, J.A., Flores-Dueñas, C.A., Cueto-Gonzalez. Burquez-S.A., & Escobedo, M. (2020). Detection of intestinal parasites in stray dogs from a farming and cattle region of Northwestern Mexico. Pathogens, 9(7),
 - 516; https://doi.org/10.3390/pathoge ns9070516.
- Traversa, D., Di Cesare, A., Simonato, G., Cassini, R., Merola, C., Diakou, A., Halos, L., Beugnet, F. & di Regalbono, A.F. (2017). Zoonotic intestinal parasites and vector-borne pathogens in Italian shelter and

- kennel dogs. Comparative Immunology, Microbiology and Infectious Diseases, 51, 69-75.
- Tůmová, P., Mazánek, L., Lecová, L., Dluhošová, J., Typovská, H., Kotrašová, V., Ticháčková, V. & Nohýnková, E. (2018). A natural zoonotic giardiasis: Infection of a child via *Giardia* cysts in pet chinchilla droppings. *Parasitology International*, 67(6), 759-762.
- Umbrello, G., Pinzani, R., Bandera, A., Formenti, F., Zavarise, G., Arghittu, M., Girelli, D., Maraschini, A., Muscatello, A., Marchisio, P. & Bosis, S. (2021). Hookworm infection in infants: a case report and review of literature. *Italian Journal of Pediatrics*, 47(1), 1-5.
- Ziam, H., Kelanemer, R., Belala, R., Medrouh, B., Khater, H.F., Djerbal, M. & Kernif, T. (2022). Prevalence and risk factors associated with gastrointestinal parasites of pet dogs North-Central Algeria. Immunology, Comparative Microbiology Infectious and 101817; Diseases, 86. https://doi.org/10.1016/j.cimid.2022. 101817.

CORE TRAINING ON STRENGTH AND MUSCULAR ENDURANCE OF VOLLEYBALL ATHLETES OF ADEYEMI COLLEGE OF EDUCATION, ONDO STATE. NIGERIA.

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Abstract

Volleyball is a sport with numerous complicated demands that need an aggregation of fitness, skill, team tactics and strategies, and motivational attitude. Therefore, to be successful, volleyball players can use integral training for conditioning quick volleyball maneuvers through bursts of intense exercises and drills. The study investigated the effect of 6 weeks of core training on the muscular strength and muscular endurance of volleyball athletes of Adeyemi College of Education volleyball players. A pre-test post-test control group quasi experimental design was adopted for this study. All the 26 registered volleyball athletes in Adeyemi College of Education, Ondo were selected for this study using purposive sampling technique Isometric core exercises were used as the intervention exercise for a duration of six weeks. The instruments used for this study include the tape rule, weighing scale, plank test and push-up test were used to collect data on the muscular endurance and muscular strength of the participants. The results of the findings show a significant effect of the 6 weeks' core training intervention on muscular endurance, F(1, 20) = 5.072, p = .036; and the F value of F(1, 20) = 4.543, p = .0.46 was obtained for muscular strength which indicated that the effect of the intervention was significant. Based on the findings of the study, it was concluded that there is an observable improvement in the participants' endurance after the intervention training and the core training intervention led to improved muscular strength of the participants.

Keywords: Volleyball, Maneuvers, Team Tactics, Training

Introduction

Volleyball is a team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team's court under organized rules (Vassil & Bazanovk, 2012). Today, with a history of more than a century, volleyball is a complicated team game that demands multi-faceted athletic activities and constantly changing positions (Gül *et al.*, 2019). Volleyball is

characterized by frequent short bouts of high-intensity exercise, followed by periods of low-intensity exercise and short-term rest periods (Gabbett, 2013).

Volleyball is a sport with numerous complicated demands that need an aggregation of fitness, skill, team tactics and strategies; and motivational attitude. Therefore, to be successful, volleyball players can use integral training to condition them for quick volleyball

maneuvers through bursts of intense exercises and drills. Volleyball players must have to be good with endurance, speed, strength, power, flexibility, technical skills, and understanding of basic volleyball strategies (Barth & Linkerhand, 2007). Although volleyball players must be good with all physical fitness qualities, the researcher on this study focused on two specific physical fitness qualities: muscular muscular endurance and strength.

Muscular endurance is the ability to repeat a series of muscle contractions without fatigue (Getahun. 2022). Volleyball has been described as a sport with both anaerobic as well as aerobic components. In long matches or tournament play, the players have to bend, jump and move thousands of times which need good muscular endurance. It is one of the required qualities for excelling in volleyball (Steven, Cibor & Rochelle, 2005). Endurance is the ability one needs to handle the long-term physical strain that includes not getting tired quickly from strenuous training, a long game with all sets, a tournament day, or even during trips to competitions and recovering quickly from fatigue (Barth & Linkerhand, 2007). Volleyball matches with a current rally point system allow the game to last for quite a long time, which can vary from 1 hour to more than 3 hours depending on

how close the participating teams are in ability. Muscular endurance is very influential in maintaining performance throughout the game (Sahar, 2019). Players with better muscular endurance will be able to maintain their performance and increase the opportunity to win (Nasuka, Setiowati & Indrawati, 2020).

Muscular strength has been viewed as the capacity of the individual to exert muscular force (Dominic, Talabi & Niyi-Odumosu, 2016) or the ability to make use of the needed number of muscle fibres to execute a given task (Uche, 1988). Strength is not only to apply force, but the ability to maximize that force for a well performed physical task like spiking volleyball. Greater strength often results in better performance and there is no physical performance without a factor of strength (Nossek, 1982).

A volleyball player requires lots of arm strength for spiking, leg strength for jumping, as well as a strong core (back & abdominal) muscles to be able to handle the stresses and strains that their bodies are put under as they move, spike, block, and dig around the court (Barth & Linkerhand, 2007). The strength of arm muscles is very important in volleyball games. Strength of the arm is one factor that is used to predict the quality of volleyball players (Ahmad & Ahmad, 2018; Grgantov et al., 2013). The strength

of handgrip correlates with the strength of spike, the stronger the handgrip, the stronger ball hits were produced (Koley & Kaur, 2011).

Volleyball is a complex demanding game requiring sophisticated training methods. To create a training program that addresses the multiple physical and technical demands of the game, a player must become familiar with the different methods of training (Getahun, 2022). Bakinde, (2015) also asserted that training will enable volleyball players to be equipped with the fundamental and basic components of the technical, tactical, physical and psychological demands of modern volleyball. There are several types of training which includes resistance circuit training, training, plyometric training, endurance training among others. However, training involving the full body linkage such as core training, has been advocated to enhance the capacity of transmitting force through the body linkage (Schoenfeld et al., 2014).

Core training refers to a set of exercises specifically designed for a core muscle or muscle activity. Core muscles include abdominal lower muscles and latissimus dorsi and they are responsible for the power transfer between the lower and upper half of body. Core muscles play an important role for daily activities and immobilizing the spine during

weightlifting exercises for the welfare of lower dorsal part (Fig, 2005). The core muscles generate the strength, stability, and mobility needed to carry out everyday activities such as carrying shopping, climbing the stairs, and getting into a car. They also play a crucial role in more demanding dynamic sports like volleyball, helping to transmit increased power and stability, and performance, while also reducing the risk of sustaining injury. As a result, core development is a key objective of elite athletes and their coaches (Gareth, 2013).

Specific knowledge regarding core training necessary for performance excellence of volleyball players has not been well established. Therefore, the researchers examined the effect of core training on the muscular strength and muscular endurance of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria.

Statement of the Problem

There is a wide range of scientific research on athletes, competitions and physical training by several authors (Dominic, 2011; Bakinde, 2015; Amira & Mansour, 2015). The use of plyometric, strength and power training have been consistently shown to improve strength, power, agility and other performance fitness components of volleyball athletes

(Sadeghi, 2013; Yakup, 2014; Abraham, 2020). However, they most time results in a recurring rate of injuries associated with the use of traditional strength training methods for training athletes using free weights, resistance bands, weightlifting among others.

It is therefore imperative for trainers to be directed to alternative power training methods that requires the use of the individual's body weight due to developmental and injury related risks that power trainings implemented with free weights may cause in athletes. Krieger and Sonmez, (2014) further advocated for exercises involving the full body linkage such as core training for enhancing the capacity of transmitting force through the body linkage. However, the use of specific core training on volleyball performance has not been well defined, Hence, the need to investigate the effect of core training on their motor performance variables, such that the research outcome may provide practical information about core training and motor performance in order to prevent further incidence of injuries and to enhance motor performance.

Objective of the Study

The objectives set for the study were to:

i investigate the effect of core training on the agility of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria

ii examine the effect of core training on the balance of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria.

Research Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significant:

H₀₁: There is no significant effect of six weeks' core training intervention on the muscular endurance of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria.

H₀₂: There is no significant effect of six weeks' core training intervention on the muscular strength of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria.

Methodology

This research design adopted for this study is a pre-test post-test control group quasi experimental design. 26 volleyball athletes in Adeyemi College of Education, Ondo were selected for this study using purposive sampling technique. Isometric core exercises were used as the intervention exercise for a duration of six-weeks. The instruments used for this study include the tape rule, weighing scale, plank test and push-up test were used to collect data on endurance and strength of the participants respectively.

Data were analysed with Statistical Package for Social Science (SPSS) version 23.0 using descriptive statistics of mean, standard deviation and simple percentage and inferential statistics of analysis of covariance (ANCOVA) with alpha level of 0.05 for hypotheses testing.

Results Demographic Characteristics of the Respondents

Table 1: Descriptive Analysis on Demographic Data of Participants

	•	Frequency	Percent
	Male	16	69.6
Gender	Female	7	30.4
	Total	23	100.0
	20 and below	2	8.7
Age	21 - 25	17	73.9
	26 - 30	4	17.4
	Total	23	100.0

Table 1 shows the demographic information of the participants in this study. The table shows that the majority of the participants fall within the age bracket of 21 - 25 years (73.9%) while others fall within the age bracket of 26 - 30 years (17.4%) and 20 years and below (8.7%). Majority of the participants are male

(n=16, 69.6%) while 7 (30.4%) were female.

Hypothesis One

There is no significant effect of the 6-weeks core training intervention programme on the muscular endurance of volleyball athletes in Adeyemi College of Education, Ondo.

Table 2: One-Way ANCOVA Test showing the Effect of Core Training on the Muscular Endurance of the Participants

Source	Type III	df	Mean	F	Sig.
	Sum of Squares		Square		
Corrected Model	134005.706a	2	67002.853	55.417	.000
Intercept	15728.512	1	15728.512	13.009	.002
Pre_ MEndurance	127107. 220	1	127107.220	105.129	.000
Group	6886.878	1	6886.878	5.696	.027
Error	24181.155	20	1209.058		
Total	920781.602	23			
Corrected Total	158186.861	22			

 $p \leq 0.05$

Table 2 reveals that the Muscular Endurance F (1, 20) =5.696, p = .027 is less than the alpha level of significance (0.05) thus, the null hypothesis is rejected. This implied the 6-week exercise intervention had a significant effect on the muscular endurance of volleyball athletes in Adeyemi College of Education, Ondo.

Hypothesis Two

There is no significant effect of the 6-weeks core training intervention programme on the muscular strength of volleyball athletes in Adeyemi College of Education, Ondo.

Table 3: One-Way ANCOVA Test showing the Effect of Core Training on the Muscular Strength of the Participants

Strength of the fair telepants								
Source	Type III	df	Mean Square	F	Sig.			
	Sum of Squares							
Corrected Model	2438.001a	2	1219.000	787.581	.000			
Intercept	7.668	1	7.668	4.954	.038			
Pre_MStrength	1938.870	1	1938.870	1252.680	.000			
Group	7.850	1	7.850	5.072	.036			
Error	30.956	20	1.548					
Total	46909.000	23						
Corrected Total	2468.957	22						

 $p \le 0.05$

Table 3 reveals that the Muscular Strength F (1, 20) = 5.072, p = .036 is less than the alpha level of significance (0.05) thus, the null hypothesis is rejected. This implied that the 6-week exercise intervention had a significant effect on the muscular strength of volleyball athletes in Adeyemi College of Education, Ondo.

Discussion

Hypothesis one stated that there is no significant effect of six weeks' core training intervention on the muscular endurance of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria. The null hypothesis was rejected because the calculated *p*-value is less than .05 alpha level. The findings from this study revealed that there is a positive effect of core training on the endurance of volleyball athletes in Adeyemi College of Education, Ondo after a 6-week intervention programme. This is in line with the findings of Aditya (2014) that revealed that complex training with core exercises has a significant improvement in the endurance of the intercollegiate football players aged 18 –

25years. Lehman (2006) also observed that a core training programme in which exercises are performed two times per week on separate days for 8 weeks shows a significant improvement in the muscular endurance of the participants.

Hypothesis two stated that there is no significant effect of six weeks' core training intervention on the muscular strength of volleyball players in Adeyemi College of Education, Ondo, Ondo State, Nigeria. The null hypothesis was rejected because the calculated p-value is less than .05 alpha level. The findings from this study revealed that there is a significant increase in the muscular strength of the participants after the 6-week core training intervention. This finding is in line with the findings of Kursat et al., (2016) who reported a significant increase in the explosive strength of female volleyball players aged 8-11. They reported that muscle strength of athletes increases after the core training program. Anantyo, Fadjar and Isnaini (2016) also reported the effect of core exercise with a frequency of 3 times a week for 1 month was shown to significantly improve leg muscle strength and performance in male volleyball athletes aged 18-25 in Surakarta.

Conclusion

Based on the findings of this study, the following conclusions were made:

- 1. Core training intervention conducted for six weeks had positive effects on the muscular endurance.
- There is an improvement in the muscular strength of the volleyball players in Adeyemi College of Education, Ondo after the 6-week core training intervention.

Recommendations

It was recommended in line with the findings that.

- Core training program should be incorporated into the regular training regimen for volleyball players at Adeyemi College. This regular inclusion will help maintain and further enhance the observed improvements in muscular strength and endurance.
- 2. To ensure continued progress beyond the initial 6 weeks, the intensity and duration of core exercises over time should be gradually increased. This ensures continued improvement in muscular endurance and strength. Coaches should monitor athletes' progress and adjust training accordingly.

References

- Aditya K.D. (2014). Effect of complex training with core exercise programme on selected bio motor physiological ability and skill performance related variables among football players. An unpublished Ph. D thesis. Pondicherry University.
- Ahmad, I., & Ahmad, S. (2018). "Multiple skills and medium enterprises' performance in Punjab Pakistan: a pilot study". *Journal of Social Sciences Research*, 7(4), 44-49.
- Anantyo R, Fadjar S., & Isnaini H. (2016). The effect of advances in environmental biology, 1195-1201.
- Bakinde, S.T. (2015). Analysis of anthropometric characteristics and motor performance variables among university champions handballers West Africa. A PhD Thesis: University of Ilorin.
- Barth, K & Linkerhand, A. (2007). Training volleyball. Oxford: Meyer & Meyer Sport (UK) Ltd., ISBN 978-1-84126-211-6.
- Dominic, O. L., Talabi, A. E. & Niyi-Odumosu, F. A. (2016). Strength demands of elite basketball shooting. *Malaysian Journal of Sport Science and Recreation*, 12 (1), 5 13.
- Dominic, O. L. (2011). Kinetic analysis of arm motion during jump shot in Nigeria female basketballers. An Unpublished PhD Thesis, Ahmadu Bello University, Zaria, Nigeria.
- Fig, G. (2005). Strength training for swimmers: training the core. Journal of Strength and Conditioning, 27(2):40–42.

- Gabbett, T. (2013). *Volleyball in physiological testing of elite athletes*, 2nd ed. Australian Institute of Sport.
- Gagetein, A. (1995). Balance training exercise for volleyball. *American Volleyball Coaches Association*, 13(4)
- Gareth J (213). Core strength training. ISBN: 9781409379232. UK:DK
- Getahun B (2022). Effects of circuit training on selected physical fitness qualities and technical skills of youth volleyball players. Thesis: Bahir Dar University Sport Academy.
- Grgantov, Z, Milić, M & Katić, R. (2013). "Identification of explosive power factors as predictors of player quality in young female volleyball players". *Cell Antropol*, 37(2), 61-68.
- Gül, M., Gül, G., & Ataç, Ö. (2019). The effect of plyometric trainings on vertical-horizontal jump and some motor skills in u13 basketball players. Journal of Education and Training Studies, 7(7), 71-78.
- Koley, S & Kaur, S.P. (2011). "Correlations of handgrip strength with selected hand-armanthropometric variables in indian inter-university female volleyball players". Asian Journal of Sports Medicine, 2(4), 220-226.
- Kurşat K, Gökhan T, Reşat K., Atakan Ç, Kazım K. (2016). Analysis on the effect of core training program on some physical and motoric characteristics for female volleyball players aged 8-11, CBU J Phys Edu Sport Sci, 11(1) 63-68
- Lehman, G.J. (2006). Resistance training for performance and injury prevention in golf. *JCCA J Can Chiropr Assoc.* 50(1): p. 27-42.

- Nasuka, N., Setiowati, A., and Indrawati, F. (2020). Power, strength, and endurance of volleyball athlete among different competition levels. *Utopia Praxis Latino Americana*, 25, Esp.10, Universidad del Zulia, Venezuela.
- Sahar, I. A.,(2019). "Waste management analysis from economic environment sustainability perspective". *International Journal of Scientific & Technology Research* 8(12), 1540-1543.
- Schoenfeld, B.J., Aragon, A.A., Wilborn, C.D., Krieger, J.W., & Sonmez. G.T. (2014). Body composition changes associated with fasted versus non-fasted aerobic exercise. *Journal of*

- the International Society of Sports Nutrition, 11(1), 54-54.
- Steven J, Karageanes, Cibor GM & Rochelle, A. (2005). Volleyball: Cameron Principal of Manual Sports Medicine. Lippincott Williams and Wilkins Publication: 601p.
- Uppal A.K. (2009). Science of sports training. Friends Publications, New Delhi.
- Vassil, K., & Bazanovk, B. (2012). The effect of the plyometric training program on young volleyball players in their usual training period. *Journal of Human Sport and Exercise*, 7: S34-S40.

NUTRITIONAL KNOWLEDGE AND ATTITUDES IN PROMOTING OPTIMAL MATERNAL HEALTH AMONG PREGNANT WOMEN IN YEWA SOUTH LOCAL GOVERNMENT AREA OF OGUN STATE

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Abstract

Nutritional status of a population largely depends on consumption of foods in relation to body's needs and requirements. Pregnant women are documented to require extra nourishment to meet up the demands of developing foetus. Nutrition during pregnancy is inextricably related to nutritional status and it apparently depends on many factors, which influence outcome of pregnancy. The study focused on the nutritional knowledge and attitude of pregnant women in Yewa South Local Government of Ogun State, Nigeria. The study adopted descriptive survey research design, because it describes situation as it exists without manipulation. A Self developed, structured questionnaire was used for data collection. Purposive sampling technique was used for selecting ten clinics from where sample size of 250 pregnant women were randomly selected in Yewa Local Government Area of Ogun State for the study. Four hypotheses were tested using Chi-square statistical analysis at 0.05 level of significance. Results revealed that most of the respondents had fair/little knowledge of nutritional needs during pregnancy, and had negative attitude towards adequate diet during pregnancy respectively. The result also shows that many pregnant women in the study area have inadequate knowledge of proper nutrition during pregnancy, that which could have negative consequences on their health and that of their babies. It was recommended that policies and programmes aimed at improving the overall nutritional status of women of reproductive age, including pregnant women should be implemented through specific interventions and community-based /religious-based nutrition programmes for pregnant women, particularly in rural communities.

Keywords: Knowledge, Attitude, Practice, Nutrition, Pregnant

Introduction

Nutrition refers to the study of how the body uses food for growth, repair, and energy. It encompasses the science of food and its impacts on an organism's health and well-being. The process of nutrition involves the body's ability to receive and utilize the necessary materials for growth and renewal. The nutritional status of pregnant women is crucial because it affects not only their own health but also that of their foetus. World Health Organization (2019) reported that many women in their reproductive age and during pregnancy lack sufficient micronutrients in their diets, and they may not be aware of the impact their nutrition has on their pregnancy and infant outcomes. In Nigeria, women are often responsible for producing and preparing food for their families, so their knowledge of nutrition can significantly affect the health and nutritional status of the entire household. Pregnancy is a period of high nutritional demand for women. It involves carrying a developing embryo or foetus in the body and balanced diet is crucial to ensure that sufficient energy intake is available for the fetus's development without compromising the mother's health (Awodele, 2012). Pregnancy period usually lasts for about nine months and is calculated from the date of the woman's last menstrual period (LMP). The state of pregnancy is typically divided into three trimesters, each lasting for roughly three months. Adequate nutritional intake during pregnancy is crucial for a healthy pregnancy and positive birth outcomes. Maternal nutrition during pregnancy is a critical determinant of child birth weight. Deniran, Leshi, and Sanusi (2014) have attributed a high rate of low birth weight (LBW) in developing countries to inadequate maternal nutrition. The developing foetus relies heavily on the mother for nutrients to promote growth and development while in uterus, as such, the mother experiences high nutrient demands due to the developing foetus. Studies by Mirsanjari, Wan Muda, Ahmad, Mosavat (2012) have Othman, and indicated that an individual's nutritional knowledge affects their food intake quality and selection of healthy foods to purchase. Apart from adequate nutrition, regular physical activity during pregnancy can

also have positive impacts on both maternal and foetal health. It has been found that regular exercise during pregnancy can reduce the risk of gestational diabetes, hypertension, and pre-eclampsia, while also improving maternal and foetal cardiovascular health (Barakat, Pelaez, Montejo, Refoyo, and Coteron, 2014). In addition, a systematic review by Price, Amini, and Kappeler (2021) found that exercise pregnancy was associated with a reduced risk of preterm birth, low birth weight and small-for-gestational-age infants. Moreover, mental health during pregnancy is equally important as physical health. Depression and anxiety during pregnancy have been associated with negative maternal and foetal outcomes, such as preterm birth, low birth weight, and impaired foetal development (Glover, O'Connor. and O'Donnell. 2010). Therefore, pregnant women should be assessed for mental health conditions, and appropriate interventions should provided to ensure positive mental health outcomes. Midwives are often the primary point of contact for pregnant women, and they can provide guidance and support on various aspects of pregnancy, including nutrition, exercise, and mental health. A Hildingsson, systematic review by Karlstrom, Rubertsson, and Haines (2017) found that continuity of midwifery care

during pregnancy was associated with positive maternal and foetal outcomes, such as reduced preterm birth, decreased use of analgesia during labour, and increased rates of breastfeeding. Multiple factors such as occupation, culture, and beliefs surrounding food consumption, influence the dietary habits of pregnant women and can impact their nutritional status. Therefore, education on proper food consumption and attitudes toward choice of food during pregnancy is crucial for ensuring adequate nutrition. Pregnant women must have a positive attitude towards the knowledge they acquire to make healthy choices for themselves and their developing fetus. Although some studies have explored pregnant women's knowledge of dietary intake (Kever, Martins, Dathini, Habu, Fatima, and Sambo, 2015), there is a need for further research to address this issue fully. Several studies have highlighted the importance of education and counselling programmes in improving maternal nutrition (Ene-Obong Enugu, Uwaegbute, and Obiajulu, 2018; Vio, Lera, Fuentes, Ortega, and Salinas, 2016) and the need to consider cultural and belief-related factors when designing such programmes (Agyei-Mensah and Owusu, 2016; Laganà, Garzon, Casarin, Franchi, Ghezzi and Cromi 2021).

Poor nutritional knowledge and negative attitudes toward healthy eating

during pregnancy can lead to inadequate intake of essential nutrients, compromising both the health of the mother and the developing fetus (Mithra et al., 2016). However, education and counselling programmes can positively influence pregnant women's nutritional knowledge and attitudes towards healthy feeding (Carrasco, Franco, Segovia and Leiva, 2019; Mbuagbaw, Gofin, and Achieng Furthermore, studies 2015). have highlighted the importance of involving partners and family members in nutrition education and interventions for pregnant women (Girard, Olude, and Kyei 2018; Morgan, Abrha, Kizito, and Fassil 2019).

Statement of the Problem

Maternal mortality is a significant global issue, with developing countries experiencing the most profound challenges. Every vear, millions pregnant women worldwide die due to complications associated with pregnancy and childbirth, with malnutrition being one of the perceived causes. The effects of malnutrition during pregnancy can take several forms, such as low birth weight, premature delivery, premature rupture of the membrane, and maternal mortality.

In Yewa South Local Government Area of Ogun State, pregnant women are faced numerous health challenges associated with poor nutrition during pregnancy. These problems may be influenced by factors such as inadequate knowledge of nutrition, personal habits, physical sensations, personal predisposition to eating or a particular diet, and cultural / religious beliefs.

Therefore, the study investigated the nutritional knowledge and attitude of pregnant women in Yewa South and also identified ways to improve and promote good nutritional practices during pregnancy. By addressing these issues, it is hoped that maternal health outcomes will be improved and the incidence of maternal mortality could be reduced.

Hypotheses

- Pregnant women will not significantly have the knowledge that poor nutrition can result in low birth weight in Yewa South Local Government Area of Ogun State.
- 2. Pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane.
- 3. Personal habit will not significantly affect the attitude of pregnant women on feeding patterns.

4. Religious belief will not significantly influence nutritional attitude of pregnant women.

Methodology

The descriptive survey research design was used and the population comprised of all pregnant women in Yewa South Local Government Area of Ogun State, Nigeria. Ten clinics that covers the in the political wards area purposively selected, from where twenty five (25) respondents each were randomly drawn to have two hundred and fifty participants as sample size for the study. A self-developed, structured and validated questionnaire titled "knowledge and attitude Questionnaire" (KAQ) was used. Four modified Likert scale rating of strongly Agree (SA), Agree (A), Disagree (D) and strongly Disagree (SD) was used. The questionnaire was administered by two trained research assistants and their retrieval from the participants was faceface and immediately. The data were analyzed using percentages, and Chisquare analysis for testing the hypotheses at 0.05 level of significance.

Results Demographic characteristics of Respondents

Age		Religion Educational level		level	Occupation		
18-23	(94)	Christianity	(107)	SSCE	(62)	Civil servants	(52)
24-29	(76)	Islam	(103)	ND/NCE	(99)	Self-employed	(68)
30-35	(57)	Traditional	(40)	Degree	(56)	Unemployed	(40)
36 above	(23)			None	(33)	Trader	(90)
	250		250		250		250

The demographic data show that: 94 (47%) of the respondents were aged 18-23 years, 76 (38%) of the respondents were aged 24-29 years, 57 (28.5%) of the respondents were aged 30-35 years, 23 (11.5%) of the respondents were aged 36 above. On basis of religion, 107 (53.5%) of the respondents were Christians, 103 (51.5%) of the respondents were Muslims and 40 (20%) of the respondents were traditional worshipers. Distribution of the respondents by Educational level shows that 62 (31%) of the respondents had SSCE, 99 (49.5%) of the respondents had ND/NCE, 56 (28%) of the respondents were Degree holders, 33 (16.5%) of the

respondents were not having any certificate. Distribution of the respondents by occupation shows that 52 (26%) of the respondents were civil servant, 68 (34%) of the respondents were self employed, 40 of (20%)the respondents were unemployed, 90 (45%) of the respondents were traders.

Hypotheses Testing

Hypothesis 1: Pregnant women will not significantly have knowledge that poor nutrition can result in low birth weight in Yewa South Local Government Area of Ogun State.

Table 1: Chi-Square Analysis on knowledge of poor nutrition and low birth weight.

Responses	Frequency	Expected	Degree of	Cal.	Table
			Freedom	Value (x)	Value
Strongly Agreed	92	62.5			
Agreed	104	62.5	3	81.94	7.82
Disagreed	25	62.5			
Strongly Disagreed	29	62.5			
Total	250	250			

The table 1 above shows the result of the analysis that 92 respondents strongly agreed, 104 respondents agreed, respondents disagreed, and 29 respondents strongly disagreed. The Chi-square calculated value is 81.94 and this is greater than the table value 7.82 with the degree of freedom (df) 3 at 0.05 level of significance. Therefore, the null hypotheses which state that pregnant women will not significantly have the knowledge that poor nutrition can result in low birth weight in Yewa south Local Government Area of Ogun state was rejected.

Hypothesis 2: Pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane in Yewa South Local Government Area of Ogun State.

Table 2: Chi-Square on knowledge of poor nutrition and premature rupture of membrane.

Responses	Frequency	Expected	Degree of	Cal.	Table
			Freedom	Value (x)	Value
Strongly Agreed	84	62.5			
Agreed	106	62.5	3	71.51	7.82
Disagreed	31	62.5			
Strongly Disagreed	29	62.5			
Total	250	250			

The table 2 above shows the result of the analysis that 84 respondents strongly agreed, 106 respondents agreed, 31 respondents disagreed, 29 respondents strongly disagreed. The calculated Chisquare value is 71.51 and this is greater than the table value 7.82 with the degree of freedom (df) 3 at 0.05 alpha level of significant. Therefore, the null hypotheses

which states that pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane in YewaSouth Local Government Area of Ogun state was rejected.

Hypothesis 3: Personal habit will not significantly affect attitude of pregnant women on feeding patterns in Yewa South Local Government Area of Ogun State.

Table 3: Chi-Square on personal habit and attitude of pregnant women on feeding patterns.

Responses	Frequency	Expected	Degree of	Cal.	Table
			Freedom	Value (x)	Value
Strongly Agreed	91	62.5			
Agreed	95	62.5	3	64.94	7.82
Disagreed	37	62.5			
Strongly Disagreed	27	62.5			
Total	250	250			

The table 3 above shows the result of the analysis that 91 respondents strongly agreed, 95 respondents agreed, 37 respondents disagreed, 27 respondents strongly disagreed. The calculated value is 64.94 and this is greater than the table value with the degree of freedom (df) 3 at 0.05 alpha level of significant. Therefore, rejection of the null hypotheses which

states that personal habit will not significantly affect the attitude of pregnant women on feeding patterns in Yewa South Local Government Area of Ogun state.

Hypothesis Four: Religious belief will not significantly influence nutritional attitude of pregnant women in Yewa South Local Government Area of Ogun State.

Strongly Disagreed

Total

Two is an education and the ed							
Responses	Frequency	Expected	Df	Cal. Value (x)	Table Value		
Strongly Agreed	74	62.5			_		
Agreed	96	62.5	3	71.51	7.82		
Disagreed	51	62.5					

62.5

250

Table 4: Chi-Square Analysis on religious belief and nutritional attitude of pregnant women.

The table 4 above shows the result of the analysis that 74 respondents strongly agreed, 96 respondents agreed, 51 respondents disagreed, 29 respondents strongly disagreed. The calculated value is 71.51 and this is greater than the table value with the degree of freedom (df) 3 at 0.05 alpha level of significant. Therefore, the null hypothesis which states that Religious practice will not significantly affect the attitude of pregnant women in Yewa South Local Government of Ogun state was rejected.

29

250

Discussion of Findings

The first hypothesis which states that pregnant women will not significantly have the knowledge that poor nutrition can result in low birth weight in Yewa south Local Government Area of Ogun agrees with the findings of Ooreoluwa, Olayinka, and Foluke (2018) which studies in Nigeria found that pregnant women with inadequate balanced diets have a higher risk of giving birth to underweight babies. Similarly, a study by Haidar, Dana, Younes, and Elie (2018) in Lebanon found that poor personal habits can negatively

affect the health of both the pregnant mother and the infant. Furthermore, a study by Asresu and Muche (2019) in Ethiopia found that pregnant women had limited knowledge about the importance of good nutrition for maternal and fetal health, and that this lack of knowledge could contribute to adverse pregnancy outcomes such as low birth weight.

The second hypothesis which states that pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane in Yewa South Local Government Area of Ogun state was rejected. The findings agrees with Al-Riyami, Al-Shezawi, Al-Ruheili, Al-Dughaishi, and Al-Khabori (2013) in Oman found that maternal nutritional deficiency, certain connective tissue disorders, cervical incompetence, smoking, sexual activity, and genital tract infection predispose to premature rupture of membrane. Another study by Duley (1998) found that nutritional interventions, particularly protein supplementation, reduced the risk of premature rupture of membranes and preterm birth.

Third hypothesis which states that personal habit will not significantly affect the attitude of pregnant women on feeding patterns in Yewa South Local Government Area of Ogun state was rejected. The findings is in contrast with the study conducted by Okeudo, Ezugwu, Onwe, Agu, Ibekwe, Nweke, and Mbamara (2018)which found no significant relationship between personal habits and the attitude of pregnant women towards services in antenatal care Nigeria. However, the study by Ali, Malik, and Ali (2019) found that personal habits such as smoking and alcohol consumption significantly affect the utilization of antenatal care services among pregnant women in Pakistan.

Forth hypothesis which states that Religious practice will not significantly affect the attitude of pregnant women in Yewa South Local Government of Ogun state was rejected. This findings is consistent with the study by Okonofua, Ogu, Agholor, Okike, Abdus-Salam, Gana, and Galadanci (2018), which found that religion is an important factor influencing the utilization of maternal and child health services in Nigeria. Similarly, the study by Berhane. Biadgilign, Berhane, and Memiah (2019) found that religious affiliation and attendance significantly affect the utilization of antenatal care services in Ethiopia.

Conclusion and Recommendations

The finding suggests that many pregnant women in Nigeria have inadequate knowledge of proper nutrition during pregnancy, which could have negative effects on their health and that of their babies. Therefore, there is a need for concerted efforts by health care providers, government, and other stakeholders to improve the nutritional knowledge and attitudes of pregnant women in Nigeria. By so doing, pregnant women can improve maternal and fetal health outcomes, reduce malnutrition. incidence of contribute to the overall well-being of the Nigerian population.

Following the findings, the following recommendations are made:

- Health care providers should provide adequate nutrition education and counselling to women before, during and after childbirth particular during antenatal care visits to improve their nutritional knowledge.
- 2. The governments should implement policies and programmes aimed at improving the overall nutritional status of women of reproductive age, including pregnant women, through targeted interventions such as food fortification, nutrition education, and community-based nutrition programmes.

- 3. Health education campaigns on the importance of proper nutrition during pregnancy should be intensified through the use of various media platforms and religious centres to increase awareness and encourage positive attitudes towards nutrition among pregnant women and married people likely to become pregnant.
- 4. Further research should be conducted to identify probable barriers to adoption of healthful nutritional practices by pregnant women in Nigeria, with a view to develop barrier-specific interventions to address them.

References

- Agyei-Mensah, S., & Owusu, A. (2016). Nutritional knowledge, food habits and health attitude of pregnant women attending a tertiary hospital in Ghana. *International Journal of Consumer Studies*, 40(6), 706-712.
- Ali, F., Malik, R. N., & Ali, B. S. (2019). Factors associated with utilization of antenatal care services among pregnant women in Pakistan: A cross-sectional study. *BMC Pregnancy and Childbirth*, 19(1), 1-9.
- Al-Riyami, I. M., Al-Shezawi, M., Al-Ruheili, I. S., Al-Dughaishi, T., & Al-Khabori, M. (2013). Preterm premature rupture of membranes: a study of etiology and neonatal outcome in a tertiary hospital in Oman. *Oman Medical Journal*, 28(1), 20–24.
- Asresu, B. D., & Muche, A. A. (2019). Maternal knowledge and associated

- factors towards nutritional requirements during pregnancy in rural communities of Dale District, Southern Ethiopia: Cross sectional study. *BMC Pregnancy and Childbirth*, 19(1), 135.
- Awodele, O. (2012). Nutrition in pregnancy: the Nigerian experience. *Journal of Pregnancy*, 2012. doi:10.1155/2012/621782
- Barakat, R., Pelaez, M., Montejo, R., Refoyo, I., & Coteron, J. (2014). Exercise during pregnancy reduces the rate of cesarean and instrumental deliveries: Results of a randomized controlled trial. Journal of Maternal-Fetal and Neonatal Medicine, 27(14), 1413-1419. https://doi.org/10.3109/14767058.20 13.878933.
- Berhane, A., Biadgilign, S., Berhane, A., & Memiah, P. (2019). Male involvement in the prevention of mother-to-child transmission of HIV and associated factors among males in Addis Ababa, Ethiopia. *American Journal of Men's Health*, 13(2), 1-10.
- Carrasco, M., Franco, E., Segovia, G., & Leiva, B. (2019). Effectiveness of nutrition education in improving adherence to the Mediterranean diet in pregnant women: A randomized controlled trial. *BMC Pregnancy and Childbirth*, 19(1), 1-11.
- Deniran, L., Leshi, S.O., & Sanusi, K.O. (2014). Awareness and Perception of Climate Change among Rural Farming Households in Oyo State, Nigeria. *Journal of Agriculture and Social Research*, 14(1), 63-73.
- Duley, L. (1998). Preterm rupture of the membranes: strategies for prevention. *British Journal of*

- Obstetrics and Gynaecology, 105(1), 19-25.
- Ene-Obong, H. N., Enugu, G. I., Uwaegbute, A. C., & Obiajulu, U. R. (2018). Knowledge, attitude and practices of pregnant women in Umuahia, Nigeria towards nutrition in pregnancy.

 International Journal of Health Sciences, 12(3), 8-14.
- Girard, A. W., Olude, O., & Kyei, N. N. A. (2018). Women's nutrition in urban Ghana: What is the role of skilled attendance at birth in the postpartum period? Food and Nutrition Bulletin, 39(2), 178-190.
- Glover, V., O'Connor, T. G., & O'Donnell, K. (2010). Prenatal stress and the programming of the HPA axis. Neuroscience and Biobehavioral Reviews, 35(1), 17-22. https://doi.org/10.1016/j.neubiorev.2010.01.016.
- Haidar, J. A., Dana, D. A., Younes, Z. M., & Elie, C. B. (2018). Prevalence and determinants of poor personal habits among pregnant women in Lebanon:

 A cross-sectional study.

 Nursing and Health Sciences, 20(1), 90-97.
- Hildingsson, I., Karlstrom, A., Rubertsson, C., & Haines, H. (2017). Women's satisfaction with antenatal care and childbirth experiences in Sweden: A cross-sectional study. Sexual & Reproductive Healthcare, 12, 31-37. https://doi.org/10.1016/j.srhc.2017.0 3.006
- Kever, R. T., Martins, M. C., Dathini, H., Habu, D., Fatima, A., & Sambo, M. (2015). Knowledge of pregnant women about dietary intake: A study in a tertiary hospital in Maiduguri,

- Nigeria. Journal of Advances in Medicine and Medical Research, 10(12), 1-8.
- Laganà, A. S., Garzon, S., Casarin, J., Franchi, M., Ghezzi, F., & Cromi, A. (2021). The influence of socioeconomic and cultural factors on dietary habits in pregnancy: A systematic review. Nutrients, 13(1), 173.
- Mbuagbaw, L., Gofin, R., & Achieng, L. (2015). Assessing nutritional knowledge and dietary practices among pregnant women in Cameroon. *Journal of Health, Population, and Nutrition*, 33(1), 1-12.
- Mithra, P., Unnikrishnan, B., Rekha, T., Nithin, K., Mohan, K., Kulkarni, V., & Holla, R. (2016). Knowledge and practice of reproductive health among rural married women in the reproductive age group: A cross-sectional study. *Journal of Natural Science, Biology and Medicine*, 7(1), 24-28
- Mirsanjari, M., Wan Muda, W. A., Othman. M., Ahmad. A., Mosavat, M. (2012). Effect nutritional knowledge on food intake pattern women during of preconception period in Malaysia. Journal Nutrition and of Metabolism, 2012, 1-6. https://doi.org/10.1155/2012/506842
- Morgan, E. H., Abrha, S., Kizito, S., & Fassil, H. E. (2019). Partner-inclusive nutrition interventions for pregnant women: A systematic review. *Maternal and Child Nutrition*, 15(Suppl 1), e12676.
- Ooreoluwa, F. K., Olayinka, B. O., & Foluke, O. F. (2018). Maternal nutrition: A review of the

- current evidence. *The European Journal of Public Health*, 28(suppl_4), 1-2.
- Okonofua, F., Ogu, R., Agholor, K., Okike, O., Abdus-Salam, R., Gana, M., ... & Galadanci, H. (2018).

 Qualitative assessment of women's satisfaction with maternal health care in referral hospitals in Nigeria. *Reproductive Health*, 15(1), 1-11.
- Okeudo, C., Ezugwu, E., Onwe, O., Agu, P., Ibekwe, P., Nweke, U., & Mbamara, S. (2018). Attitude towards antenatal care services and its predictors among pregnant women in a tertiary health institution in Nigeria. *Journal of Health and Allied Sciences*, 18(2), 1-9.
- Price, B. B., Amini, S. B., & Kappeler, K. (2021). The impact of exercise

- during pregnancy on maternal and neonatal outcomes: A systematic review and meta-analysis. *Journal of Science and Medicine in Sport*, 24(2), 128-135. https://doi.org/10.1016/j.jsams.202 0.07.017
- Vio, F., Lera, L., Fuentes, A., Ortega, M. L., & Salinas, J. (2016). Evaluating the impact of nutrition education on adherence to healthy eating during pregnancy: A quasi-experimental study. *Journal of Developmental Origins of Health and Disease*, 7(4), 462-471.
- World Health Organization. (2019).

 Micronutrient deficiencies.

 Retrieved from https://www.who.int/nutrition/topics/ida/en/

AWARENESS AND IMPLEMENTATION OF SPORTS SCIENCE AND MEDICINE COMPONENT OF NATIONAL SPORTS POLICY: A MIRAGE OR REALITY?

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Abstract

Modern day sport is now a multi-billion dollar industry which is capable of providing huge return on investment to investors and creating economic prosperity for athletes and other stakeholders. Based on the significance of sports science and medicine on sports performance, several nations, organizations and establishments have formulated policies to guide sports development, Nigeria inclusive. However, the level of awareness and implementation has been established. Therefore, this study assessed awareness and implementation of 2009 National Sports Policy among coaches and team officials in National Youth Games (NYG). This study is a descriptive correlational survey; the population comprised all the 348 coaches and officials in of the 6th National Youth Games. A sample size of 264 respondents was randomly selected. The instrument for data collection was a semi-structured Questionnaire which was validated by experts in the related fields and found reliable at 0.73r. Four null hypotheses were formulated and tested with inferential statistic of Chi-square test of association. Significance level was set at 0.05 alpha. All the hypotheses were not retained because there was statistically significant relationship for all the variables; for hypothesis one $(HO_{1)}$; $X^{2}(6, N=264) = 74.83$, p=.00, for HO_{2} ; $X^{2}(2, 264)$ =24.13, p = .00 among others. It was concluded that; awareness and implementation of the sports science and medicine component of the policy was very poor among other conclusions. The study recommended among other that; experts in sports science and medicine such as exercise physiologists, sports nutritionists, sports psychologists, physical rehabilitation therapists and clinical sports medicine practitioners should be recruited and attached to sport teams.

Keywords: Medicine Component, Implementation, Policy, Youth

Introduction

Sports can be contextualized as a competitive physical activity guided by certain rules and regulations which provides amusement to the participants and spectators alike. The early definitions of sports centered on competitive physical

exertion between individuals or teams which has a strong capacity to entertain its audience known as spectators. Given the social, psychological and health benefits of participation in sports, its economic value cannot be over emphasized. This implies

that, sports has grown beyond mere source of entertainment or avenue for exhibition of physical prowess but a means of livelihood to the millions of participants (athletes), spectators and other stakeholders worldwide. To further confirm the economic potency of sports, industry Australian sports economic analysis (2020) revealed that sports industry contributed \$14.4bn to the gross domestic product (GDP) of the country. In the same vein, West of England Sport Trust(2012) indicated that sports sector contributed £876.7m to the GDP and that 14,365 sports provided employment opportunity which is more than 50% of job opportunities generated by water, gas electricity and waste management sectors combined. Brazil which hosted 2014 FIFA world Cup added 7.5billion Brazillian Real (BRL) accrued to Brazilian economy. Contrarily, sports contributed insignificant 0.005percent to national GDP in Nigeria (Yemi, 2020).

Despite the massive contribution of sports to developed economies like Europe, America and Asia, sports is still considered a small business in Nigeria but has a huge economic potential if well harnessed. Minister of Sports (Sunday Dare) stated in his address while speaking at the 26th Nigerian Economic Summit webinar themed "Re-categorization of Sports as a Business Sector of the

Economy' that sport industry is labourintensive and has the capacity to deliver N2 trillion revenue in infrastructure development in the next 5-10years. This implies that sports industry has a strong capacity to develop Nigeria economy if properly explored.

Apart from the enormous economic contribution of sports to national and global economy, it is also considered a strong instrument for national unity, social cohesion, gender equality, social capital development among others in many countries of the world, Nigeria inclusive (Oluwabukunmi,2019). Just like other countries, Nigeria has a policy road map development for sports known "National Sports Policy of Nigeria". The policy was first drafted in 1989(Samuel & Solomon, 2013; Aibueku, 2002). Since the original draft, the policy has been reviewed several times to address the contemporary challenges in sports. It has thirteen(13) elements which includes; "Administration and management, finance/sponsorship, training and development of technical personnel, facilities, athlete identification development, sport in education, sport science and sport medicine, incentives, awards and sanctions, sport, culture and tourism, sport and the physically challenged, sport & information and national orientation, sport and international image, sport and environment and sport and security".

Policy implementation can simply be considered as a process of putting thoughts into action or translating theory into reality. This policy is widely considered rich and sufficient for sports if development in Nigeria implemented (Samuel & Solomon, 2013). Due to the rising popularity of scientific approach to performance in sports, the national sports policy of 2009 has sports science and sports medicine component which includes the following as stated in the policy paper; sport science and sport medicine shall include; exercise physiology, biomechanics, sport nutrition, sport psychology, clinical sport medicine, sport physiotherapy and rehabilitation

To achieve the objective of this policy, the National Sports Commission shall; integrate a scientific approach into the training and preparation of athletes for participation in competitive sports, apply the principles of sport science and sport medicine in developing potentials of athletes for high performances in major competitive sports, put in place a continuous medical monitoring programme of athletes' health in and out of competitions especially with respect to injury prevention and rehabilitation, give consideration to environmental factors as temperature and altitude in the such

selection of training and camping sites for national teams, encourage use of Sports Psychologists and Nutritionists to ensure optimal performance of athletes, conduct as offitness assessments means determining and monitoring fitness levels of athletes, institute a national participation medical screening programme for athletes with a view to identifying factors that may preclude participation, establish a well-equipped National Sport Medicine and Sports Science Centre to achieve the objectives of providing quality sport medicine care, seek to develop a National Anti-Doping policy that shall effectively confront the challenges of doping and drug use in sport in compliance with the objectives of the World Anti-Doping Agency (WADA) and the International Olympic Committee (IOC).

To ensure sports development and performance enhancement, it is expected that all the elements of sports science and sports medicine be implemented as stated in the policy and this represents the concept of "reality". However, if it is not implemented, it is considered a "mirage". Literally, mirage connotes an optical illusion of the existence of an image or object that is not real or existing. Samuel and Solomon (2013) conducted a study on extent of implementation of sports science and medicine component of the policy and

they reported poor implementation of the medicine sports science and sub component of the policy in the two states covered for the study. The previous study covered just two states out of 37 states including federal capital territory (FCT) with fourty-one (41) respondents. Due to the small sample size, external validity of the study is limited. Furthermore, the previous study by Samuel and Solomon (2013) was conducted in the year 2013 and the current study is being carried out in year 2021, this indicates eight years interval.

In addition, a larger sample was drawn from all the 36 states of the federation including FCT who participated in the year 2021 National Youth Games which held at University of Ilorin, Kwara State. All the limitations of the previous study have constituted a research gap, hence the need to reexamine the level of implementation of the sports science and sports medicine component of the policy.

Objectives of the Study

- Find out the level of awareness of the National sports policy among coaches in Nigeria
- Determine the extent of implementation of the sports science and sports medicine component of the policy

- 3. Establish relationship between educational qualification and awareness of the policy
- 4. Find out the relationship between coaching experience and implementation of the sports medicine component of the policy

Hypotheses

H01: There is no statistically significant relationship between educational qualification and Awareness of the national sport policy among coaches and team officials in National Youth Games

H0₂: There is no statistically significant relationship between coaching experience and Implementation of the sports medicine component of the policy among coaches and team officials in National Youth Games

H03: There is no statistically significant relationship based on gender and awareness of the policy among coaches and team officials in National Youth Games

H04: There is no statistically significant relationship based on gender and implementation of the sports medicine component of the policy among coaches and team officials in National Youth Games

Methodology

The design for this study was a descriptive correlational survey.

All the three hundred and fourty eight (348) team officials and coaches that participated in the 6th National Youth Games hosted by University of Ilorin in year 2021 constituted the population for this study. The total population of the coaches was one hundred and ninety three (193) and the team officials were one hundred and fifty five(155)and the total population was three hundred and fourty eight(348). The population was classified into two strata namely; coaches and team officials. Research advisor (2006) sample size determination was used to randomly select one hundred and thirty two (132) respondents in each of the stratum. A total of two hundred and sixty four (264) respondents were selected for this study as sample. A semi-structured questionnaire developed by the researchers was consisting two sections; demographic and a section eliciting responses on awareness and implementation of the sport science and sport medicine component of the

national sports policy. Part of the contents of the sport science and medicine were used to develop the instrument. Five (5) items were structured to obtain data on awareness of the policy and seven (7) items were also constructed to elicit responses on the implementation of the policy, altogether, twelve (12) items were developed for both variables. Drafts of the questionnaire were validated by experts in sports administration and management and experts in exercise science for content and construct validity. Modifications were made based on the experts corrections before final administration the instrument to the respondents. The instrument was tested for reliability using Chronbach alpha. It was found reliable at 0.73 and this indicates moderate reliability, hence, the suitability of the instrument to obtain the data. The data was described using frequency, mean and standard deviation. Chi-square test of association was used to test the null hypotheses for significance at 0.05 level and Cramer's V was used to determine the strength of association variables. between the

Results

Table 1: Demographic Distribution of the Respondents

Variable Mean(x)	Frequency	Percentage
Age(yrs)		42.3
Gender		
Male	170	64.4
Female	94	35.6
Highest Educational Qualification		
Primary School Cert	48	18.4
NCE	24	9.1
B.Sc.	146	55.3
HND	46	17.4
Coaching Cadre		
Assistant Coach	23	17.4
Gade 1	48	36.4
Head Coach	48	18.6
Chief Coach	13	
Job Experience (yrs)		
0-3	46	17.4
4-7	48	18.2
8-11	72	27.3
12-15	74	28.0
16 and above	24	9.1
Total	264	100

The mean age was 42.30yrs and mode for was 44.0yrs. This indicates that majority of the respondents were in the middle age according to classification of World Health Organisation (2021). Based on gender, there were more male coaches and officials 170(64.4%) against female Analysis of Educational 94(36.6%). qualification revealed that; 146(55.3%) had a Bachelor Degree (B.Sc.), 46(17.4%) had Higher National Diploma, 24(9.1%) had National Certificate for Education (NCE) and 48(18.2%) had primary school certificate. Therefore, majority of the respondents were Bachelor Degree holder.

The distribution of the coaches by cadre also indicates that; 23(8.7%) were Assistant coaches, 48(18.2%) were grade 1 coaches, 49(18.6%) were Head coaches and just 12(4.5) were Chief Coaches. From the statistics, Grade 1 and Head coach formed the majority as indicated by the figures. Based on job experience, the distribution in table 1 also shows that 74(28.0%) of the respondents had spent 8-11 years and 72(27.3%) had spent 12-15 years on the job. This connotes that majority had spent between 8-15 years on the job as either a coach or a team official.

Table 2: Analysis of Responses Based on Awareness of the National Sports Policy

S/N	ITEMS	YES	PR	NO	NR	RT
1	Are you aware of the National Sports	193	(73.1%)	71	(26.9%)	264
	Policy?					
2	Are you aware that the Policy was	193	(73.1%)	71	(26.9%)	264
	formulated to control, regulate and					
	promote sports in Nigeria?					
3	Do you know that the policy has a	73	(27.7%)	191	(72.3%)	264
	sports science and sports medicine					
	component?					
4	Do you have a copy of the Document?	120	(45.5%)	144	(54.5%)	264
5	Are you familiar with the sports	12	(4.5%)	252	(95.5%)	264
	science and medicine component of					
	the policy?					
	Total	•		591	729	1320
				(44.8%)	(55.2%)	100%

KEY: PR= Positive Response, **NR=**Negative Response, **RT=** Row Total

Table 2 indicates the percentage of positive (44.8%) and negative responses (55.2%) on the awareness of National Sports Policy. The positive response was calculated by dividing the column total for YES responses (591) by row total (1320)

and this gives 44.8%. Also, the negative response was calculated by dividing the column total for NO responses (729) by the row total (1320) and this equals 55.2%.

Table 3: Analysis of Responses based on Implementation of Sport Science and Sports Medicine Component of the Policy

S/N	Items	Yes	PR	NO	NR	RT
	Do you conduct fitness assessment to determine and monitor your athletes' fitness levels?	121	(45.8%)	143	(54.2%)	264
	Do you ensure medical screening for your athletes prior to training and competition to preclude participation?	85	(32.2%)	179	(67.8%)	264
	Does your team have a sports nutritionist that formulates diet for your athletes for optimal performance?	23	(8.7%)	241	(91.3%)	264
	Does your team have a trained camera man that takes images and record videos of athletes during training and competition for laboratory analysis?	24	(9.1%)	240	(90.9%)	264
	Are medical crew attached to your team to monitor athletes' health?	49	(18.6%)	215	(81.4%)	264
	Do you have fitness experts like exercise physiologist, physical therapist, fitness instructors that handle fitness and conditioning of your athletes?	169	(64.0%)	95	(36.0%)	264
	Is your team attached to a specialist hospital for treatment of athletes in case of injury or ill health?	36	(13.6%)	228	(86.4%)	264
				508 (27.4%)	1341 (72.6%)	1848 100%

Table 3 displays the percentage of positive (27.4%) and negative responses (72.6%) on the implementation of sport science and sports medicine component of National Sports Policy. The positive response was calculated by dividing the column total for YES responses (508) by row total (1848) and this gives 27.4%. Also, the negative response was calculated by dividing the column total for NO responses (1341) by the row total

(1848) and this equals 72.6%. The interpretation of these figures is that; just 27.2% of the sport science and sport medicine component of the policy had been implemented while a huge percentage of 72.6% of the component had not been implemented. This simply denotes that the component is largely unimplemented based on the responses by the coaches and team officials.

Testing the Hypotheses

Table 4: Relationship between coaching Experience and Implementation of the Sports Science and Medicine Component

Hypotheses	X ² -Value	df	P-Sig.	Cramer's V	Decision
HO ₁	74.83	6	.00	.37	Not retained
HO_2	24.13	2	.00	.30	Not retained
HO_3	179.55	16	.00	.41	Not retained
HO_4	51.77	4	.00	.44	Not retained

p ≤ 0.05

For hypothesis one (HO_{1);} X^2 (6, N=264) = 74.83, P =.00, for HO₂; X^2 (2, 264) =24.13, P =.00, for HO₃; X^2 (16, 264) = 179.55, P=.00 and for hypothesis four (HO₄); X^2 (4, 264) = 51.77, P= .00.

The implication is of the figures is that there is statistically significant relationship between all the variables. Also, the Cramer's V results indicated a very strong association between all the variables.

Discussion of Findings

This study assessed implementation of sports science and

medicine component of year 2009 National Sports Policy (NSP). Based on the analysis of the responses for awareness of the policy, it was found that 193(73.1%) of the respondents were aware of the policy and 71(26.9%) were not aware of the National Sports Policy. Despite the multitude of media outlets that can be deployed to disseminate information to audience or beneficiaries in the modern day, one would expect that all the coaches and team officials should be abreast of the policy. However, our finding is contrary to the expectation as substantial number (26.9%) of coaches and team officials were not aware of the policy.

Part of the reasons the awareness level was not 100% among the population could be traceable to poor utilization of social media platforms and maybe the policy is not usually emphasized during inservice training which is conventionally known as refresher courses among other reasons. Just like every other policies globally, NSP was formulated to control, regulate and promote sports development in Nigeria. However, 71(26.9%) did not have the knowledge of the reasons for its formulation; this number is significant to be ignored. Due to the rising popularity and relevance of sports science to optimal performance, NSP also has a sports science and medicine component to cater for the aspect of fitness assessment, nutrition, and scientific approach to training, injury prevention and recovery. Surprisingly, 191(72.3%) of respondents were not aware that the policy has a provision for sports science and medicine, 252(95.5%) also, of respondents were not familiar with the contents of the sports science component.

This could be as result of the fact that Nigeria government is yet to attach more importance to sports as reflected in the contribution of sports sub sector to the national gross domestic product (GDP). Therefore, the usual primitive and unscientific method of recruitment, fitness assessment and monitoring, training and injury treatment still persists. Going by all the metrics of awareness of the component, it can be deduced that it is still among the respondents. very poor Similarly, descriptive analysis of the level of implementation of the sports science component of the policy revealed that; 145(54.2%) of the coaches and team officials did not conduct fitness assessment to monitor athlete's fitness level. Also, 179(67.8%) of the coaches did not ensure medical screening for the athletes prior to training and competition to preclude participation. Similarly, few of the teams 23(8.7%) had sports nutritionist formulate diets for athletes to enhance performance, while, a large percentage 241(91.3%) did not have a sports nutritionist attached to the teams. Specially formulated diets and routine fitness assessment are essential for sports performance and are the prerequisite for athletic excellence, especially, at this formative age of the national youth athletes.

Motion analysis in the laboratory is a significant aspect of sports science where a recorded movement of athletes is analysed to diagnose and correct movement defects. However, 240(90.1%) respondents indicated that their teams had not trained camera man to take motion

pictures for analysis. Interpretatively, it means most of the teams had no trained camera man. This reason for this could largely be connected to the huge cost of cameras and relative scarcity of specially trained motion camera man. This study also found that most of the teams had no medical crew to monitor athletes' health as 215(81.4%) of the respondents indicated negatively. The analysis also revealed that 215(81.4%) of the respondents claimed that their teams had fitness experts like exercise physiologists, physical therapist or fitness instructors while 49(18.6%) of respondents indicated otherwise. the Lastly, 228((86.4%) indicated that their teams were not attached to any specialists hospital for treatment of athletes in case of injury or ill health.

Considering the importance of physical conditioning and the stress that vigorous physical activity such as playing sports places on the physiological system, it is expected that all the teams should have qualified fitness experts and the teams should be attached to at least a specialists hospital to provide qualitative medical care for the athletes, coaches and other members of the team in case of illness or injury. Some of the reasons for these observations may predicated on; paucity of fund, failure to take into cognizance the need for the experts and the appalling state of national health care

system among others. Furthermore, it was hypothesized that there is no statistically significant relationship between educational qualifications and awareness of the sports science and medicine component of NSP. However, Pearson chiof independence square indicated a statistically significant relationship; $X^{2}(6,264) = 74.83$, P = .00. This means that there was a positive relationship between educational qualification and level of awareness of the sports science component. Also, there was statistically significant relationship between coaching experience and implementation of the policy; $X^2(2, 264) = 24.13$, P = .00. This result also demonstrates that coaching experience which is how long a coach has stayed on the job has a positive bearing on the level of implementation of the sports science and medicine contents of the policy. The higher the educational qualifications of the coaches and team officials, the better the chance implementation of the sports science component.

It was also hypothesized that there is no statistically significant relationship between gender and awareness. Based on the results of the analysis, the hypothesis was not retained because there was a statistically significant relationship between gender and level of awareness($X^2(16, 264) = 179.55$, P=.00).

This simply signifies that gender is one of the factors to be considered when it comes to awareness of the policy. The descriptive analysis of responses based on gender further revealed that male coaches and officials had higher level of awareness than their female counterparts. In the same vein, a null hypothesis which stated that there is no statistically significant relationship between gender and implementation was not retained; $X^{2}(4, 264) = 51.77$, P= .00. This also indicates that gender is a significant factor to implementation of the sports science component of the policy. The analysis of the responses based on gender and implementation showed that male coaches and team officials had better tendency to implement the policy. Lastly, the Cramer's V which is the measure of association or magnitude of effect between two nominal variables indicated a medium association for all the variables as indicated in table 4 (0.37, 0.30, 0.41 and 0.44). This implies that; educational qualification, coaching experience and gender had medium effect on awareness and implementation of the sports science and sports medicine component of the National Sports Policy of Nigeria.

Conclusions

The study concluded that; the level of implementation of sports science and

medicine component of the policy was very poor and awareness of the existence of the National Sports Policy among the coaches and team officials was low. The established study also a significant relationship between educational qualification and awareness of sports and medicine science component; coaching experience and implementation of the component, gender and awareness educational qualification implementation of the sports science component. It was also concluded that the magnitude of association of all the independent variables (educational qualifications, coaching experience and gender) was moderate as indicated by Cramer's V. Based on these findings, it can be deduced that awareness and implementation of the sports science and sports medicine component of the policy is a mirage and not a reality currently.

Recommendations

- Experts in the areas of fitness such as exercise physiologists, physical conditioning, sports nutrition and athletic trainer should be recruited and attached to teams by sports administrators
- Since educational qualification had a bearing on awareness and implementation, coaches should be

- encouraged to advance their study for better job performance
- 3. More awareness should be created to ensure all the stakeholders in sports especially; coaches and team officials are abreast of the policy. This can be achieved by utilizing all the available social media (Facebook, Whatsapp, Telegram, Twitter, LinkedIn, SMS, Google mail and print media). Publicity can also be created by giving attention during refresher courses at all levels and make it mandatory for the coaches and officials to have a copy.
- 4. The awareness interventions should be targeted more at the female coaches and team officials

References

Economic Value Of The Sport Sector In The West Of England(2012). Available at https://www.wesport.org.uk/custom-content/uploads/2017/05/Wesport-Economic-Impact-Report-Full-Report-Web-Version.pdf. Retrieved on 25/10/2021

- Inengite, I. Ajibua, M. A. (2014). Policy Implementation and Sports Development in Bayelsa State, Nigeria. *Journal of Physical Education and Sports Management*, 1(1):43-51
- Nigeria: Sports' Contributes to GDP Only 0.005% Statistician-General. Available at https://allafrica.com/stories/2020092 80385.html. Retrieved on 25/10/2021.
- Oluwabukunmi, A. (2021). The Potential of Sports In Developing Nigeria. Available at: https://legalnaija.com/the-potential-of-sports-in-developing/02900951941647681314
 https://example.com/the-potential-of-sports-in-developing/02900951941647681314
 https://example.com/the-potential-of-sports-in-developing/0290951941647681314
 https://example.com/the-potential-of-sports-in-developing/0290951941647681314
 <a href="https://example.com/the-potential-of-sports-in-developing
- Samuel, O.A. & Solomon,O.(2013). Extent of Implementation of the 2009 national sports policy of Nigeria: Implications for sports science, exercise science, and sport medicine. *Journal of social sciences and humanities*, 4(2): 541-549
- Sports Industry Economic Analysis:
 Exploring the size and growth potential of the Sport Industry in Australia: available at https://www.health.gov.au/sites/defa ult/files/documents/2020/05/sports-industry-economic-analysis.docx retrieved on 25/10/2021

PROMOTING THE FUNCTIONAL ABILITY OF THE PERSONS WITH DISABILITIES THROUGH THE APPLICATION OF TECHNOLOGICAL DEVICES

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Abstract

It is a common belief in the society that individuals with various handicapping conditions are often seen with disdained and contemptuous minds. Their involvement in physical activities should be limited for the purpose of their fragile and delicate nature. The innovative ideas of the handlers of the programme through the means of technology have proved this wrong. The persons with disabilities can as well joyously and excitedly involve in physical activities recommended for their normal counterparts but in a modified form. This paper therefore attempts to explain the various handicapping conditions with varying physical activities they can easily engage in through the provision and application of sophisticated gadgets. It also includes likely suggestions that may further influence the active involvement of the persons with disabilities in some selected physical education activities and sports.

Keywords: Disabilities, Gadgets, Individuals, Involvement, Sports.

Introduction

The modern society is made up of good and evil, partiality and impartiality: normality and abnormality and a host of others (Famayo, 2003). This inequality started right from the biblical times when through unusual circumstances, Esau was destined to serve his brother Jacob. Thus, acquired prejudice metamorphosised into discrepancy, hatred, disintegration, apathy and neglect. This further brought about differences in physical, social and psychological behaviours of the less privileged society persons in the (Joshanloo, 2022).

some societies, individuals displaying obvious behavioural deviations were considered from a religious point of view as evil or touched with divine powers. These people developed highly organized superstitious and religious expressions of the good and evil they saw in nature. The deviant individual, as a result, represented the unexplained and was often thought to be fraught with evil spirits (Hay & Macdolnald, 2017). In other primitive societies, children born with varying defects generally perished at an early age as a consequence of their inability to withstand the rigours of primitive man's mode of existence. Even

in the civilized societies of early Greece, the father of a crippled child in Sparta was expected to carry the baby to the hills to be left there to perish (Amheim, Auxter, & Crowe, 1977). The Athenians, who were generally considered more humanitarian than their Spartan neighbours, allowed such babies with physical defects to die of neglect (Crowe, Auxter, & Pyfer, 1981).

During the days of the Romans Empire, crippled babies suffered similar fate (Fait, 1978). At this period, physical and mental disabilities were believed to have been caused by Satan, hence, afflicted children were held to be sinful and evil (Famayo, 2021). Thus, persons with disabilities were either harshly treated or carefully avoided with the advent of modern science; the severely impaired were often regarded with disdain and suspicion, an attitude that is held by many persons in modern society (Arnheim et al., 1977)

As a result of this treatment, Crowe et al. (1981) observed that in our affluent society no longer must the less endowed person be relegated to be living outside the mainstream of life. In support of the above submission, the Rehabilitation Education for all handicapped children Act (P.L. 94-142) of 1975 rescued the handicapped from the social apathy and prejudice, when it spelt out the need for the handicapped children's involvement in physical

activities, sporting events and recreation programmes in schools and communities agencies. The physically able individuals derive lot of benefit do a from participation in physical activities. The same Act (PL94-142) referred to earlier, argued that the persons with disabilities should be given equal opportunities to derive possible benefits from involvement in physical activities (Khan & Jose, 2021).

On this note, it is important to understand that the handicapped individuals are often confronted with the problems of poor coordination, balance, strength, endurance and kinestheses, low physical fitness, level of lack confidence and random movement (Okunrotifa, 1995; Famayo, 2021). They further maintained that the needs of the handicap include love, acceptance, growth and development, companionship, friendships, family's partnership, recognition and social interaction with their normal counterparts. They also need new skills, experiences and changes for social engagements, games, music, sports and dance.

In order to assist persons with disabilities in active involvement in physical activities, the provision and manufacturing of ambulatory devices are very necessary to suit and ease the manipulation of the difficult skills involving great mobility (Famayo, 2003).

Consequently, the writer intends to examine the various handicapping conditions outline and to specified physical activities with the aid of artificial technological devices and available. Considerable recommendations provided for the purpose of heighten the functional ability of the persons with disabilities in the society.

Meaning of Handicapped Children

O'morrow and Gerald (2000)contended that the words disability and handicap lead us to equate disability with inability and to speak of the handicap as being unfit or unable to maintain themselves in normal society. Reger, Rusk, & Krusen (1989) viewed handicap as an interference with natural growth and development or the capacity to learn caused by a continuous disability of body intellect or personality to such a degree as to need extra care or treatment from the medical, nursing, social or educational services.

In corroborating the above view, Lafinhan (1999) perceived handicapped persons as those who have different barriers in their mental, motor, physical, visual, emotional, hearing and other abilities to the extent that those barriers make their optimal functional status impossible. The handicapped child, as exemplified by Kirk (2000) is someone who turns away from the average normal child in mental, physical, or social characteristics to such a degree that he or she needs changes, alteration of school practices or special educational services so as to develop his maximum capacity.

With the above definitions, handicapped persons may be viewed or perceived as the less fortunate individuals whose functional abilities are marred by their deformities – in terms of physical, mental, visual and auditory composition.

Various Handicapping Conditions

There are several ways of classifying handicapped individuals ranging from the nature and severity of the disability, but for the purpose of this study, the handicapping conditions would focus mainly on etiological factors resulting into auditory, physical, mental and visual impairments.

Auditory impairment: This deals with loss of hearing to partial or total deafness. The conditions may be caused contagious diseases (like rubella, mumps or influenza in pregnant mothers) or an acquired loss (as a resultant effect of like diseases magnates, encephalitis, measles, mumps and influenza suffered by the child). The condition can be recognized through routine physical examination, auditory test or failure of the child to speak.

Deaf children are fond of exploring their immediate environment to satisfy their curiosity. They often exhibit severe coordination, balance problems, rigidity and random movements. Though when participating in physical activities with able counterparts, the marked difference shows in pivoting, balance, agility and turning of head awkwardly and eventually frequent falls (Okunrotifa & Okelia, 2018;Famayo,2021).

Physical impairments: Bucher (1979) concurred that physical handicaps may stem from congenital or hereditary causes or may develop later in life from environmental factors such as malnutrition from diseases or accidents. Eventually, the physical disability population consists of individual with functional limitations related to physical ability (e.g. trunk control, hand use and mobility) and medical conditions such as strength and stamina (Okunrotifa, 1992). However, he divided physically impaired into

- (a) Cerebral palsy usually caused by brain damage before, during and after birth.
- (b) Muscular dystrophy which is a progressive muscle weakness, awkwardness and slowness in movement, and

(c) Spinal bifida caused by cerebral column which damages the spinal cord and nerve roots, causing related neurological deficits. This type of handicapping condition usually relied on the use of wheel chairs, prosthetic objects and the likes to aid or strengthen their mobility.

Mental Retardation: Mental retardation refers to significantly sub average general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during the developmental period (Geddes 1978). Lenarz (2018) maintained that mental retardation comprises all whose adaptive behavioural is inadequate and stems from incomplete development of mind and probably originate from unfavourable constitutional. social and education factors.

Psychologically, mental retardation is classified into five groups:

- (a) Border line retardation IQ between 66-80 (educable)
- (b) Mild retardation IQ between 51-65 (educable)
- (c) Moderate retardation IQ between 36-50 (educable)
- (d) Severe retardation IQ between 21-35 (educable))
- (e) Profound retardation IQ between below 20 (Totally dependent).

Borderline and mild retardation IQS can still be educated to an extent; while moderate IQ is good in vocational skills, though may take a long time to learn it and the other two categories (severe and profound retardation IQS) are to live a dependent life and nursing care for the rest of their lives.

Visual impairment: This concerns persons who have problems with their sight. Anybody with a visual activity of 20/20 or less with correction is considered blind. Visual impairments are classified into two groups.

- (a) Those who use their fingers to read (blind or Braille" readers); and
- (b) Those that use their eyes to read (partially seeing or large type readers).

Blindness may be caused by various conditions like trauma, congenital, syphilis, infection during birth, rubella of mother during pregnancy. Blind children have difficulty in body control activities especially with regards to balance and coordination. They may be tense or rigid while walking and may adopt poor posture because of their disability. They therefore need mobility training to enhance their movement skills and ability to cope with the environment.

Physical Activities for the Handicapped Individuals

Certain orthopedic difficulties such as stiff neck, painful back, deformed limbs and shoulders are possible problems associated with handicaps, which could be corrected through physical activities. Most of these physical activities could not be easily performed with these conditions the without application of the technological/artificial devices or sophisticated gadgets that could ease or mobility suit the and kinesthetic movement.

The provision of these sophisticated gadgets actually mobilize the handicapped and spur up their performance in some physical skills and activities often display automatically by their normal counterparts, though theirs with some specifications and adjustments before the goals are realized.

Therefore, the use of ambulatory devices such crutches, as canes, wheelchairs, walkers, scooters, leg and trunk braces and leg prostheses are indispensable in athletic events and ball games for the handicapped category. The provisions of these gadgets have made the users to have acute interest in games of their choice and the manufacturers of the sophisticated equipment are still making efforts to meet and satisfy the needs of every handicapping condition in the society so that their discomforts may be lessened or totally buried (Sefotho, 2021).

Physical Activities for the Auditory Impairment

With the exception of balanceoriented activities, the partially deaf pupils partake in almost all physical education activities provided precautionary measures are adhered to. The use of line, half moon and circular formations will enhance easy vision to see what other team-mates are doing. While performing athletic events colour coding materials in form of line should be placed in a conspicuous area at the beginning and end of the race. Use of earplugs are recommended when swimming for the deaf individuals to avoid further hearing difficulty.

In ball games, emphasis should be placed on easy vision to see what other teams-mates are doing through gesture cues, use of line, and circular formations so that the deaf may be fitted into the squad.

Physical Activities for the Visual Impairment

Individuals with visual problems can easily and conveniently participate in some physical education activities through the use of manufactured and sophisticated aids and devices. Some of the activities include:

- Throwing and catching, using audible balls of bean bags for improved co-ordination and reflexes.
- Swimming equipped with ropes and floating corks for improving respiratory fitness.
- Modified races of 100mt, 200mt and 400mt with the aid of audition or bell to guide the participants to the intended direction.
- Participating in modified contact sports such as soccer through the use of audible balls.
- Climbing activities by using pole or rope to develop abdominal, arm and shoulder strength.

Physical Activities for the Mental Impairment

Crowe et al (1981) opined that physical education activities for the mentally retarded could include activities that would:

- (1) Develop physical and motor fitness.
- (2) Develop fundamental motor skills and patterns.
- (3) Develop skills in aquatics, dance and individual and group games.
- (4) Emotional development; and
- (5) Intellectual development.

He contended that the above stated development could be got through

activities like calisthenics, tumbling, selftesting, relays, tag-games, rope climbing, skipping, running, throwing, field trips and leaping.

Geddes (1978) listed activities like rhythmic movement, stunts, tumbling, lead up games, mini-table tennis, mini badminton, archery and mini-soccer for the mentally retarded individuals. Sounds of train, cars, planes, motorcycles can be recorded and relayed to them for identification.

Physical Activities for the Physical Impairment

For the Persons with physical disability to benefit from physical activities the use of ambulatory devices are very important to suit different orthopedics conditions. These assistive devices include canes, crutches, walkers, scooters, leg and trunk braces and leg prostheses.

Cane: is the simplest of these ambulatory devices used mainly to help maintain body balance while standing or walking. The cane may be of the straight wooden variety with a curved handle seen commonly in use. Those who have severe problems in balance need a metal cane with four feet at its base called quad cane. The cane must be held close enough to the body to maintain balance and to prevent the body from leaning toward it.

Crutches: crutches as ambulatory device offer more stability than canes. The most common and most simple are made of wood with double uprights, under-arm bar and hand piece, which is adjustable to the length of arm. Other type are made of metal and consist of a single vertical upright with a support for the fore arm, adjustments of these is done by pressing a button on the lower part of the crutch. Some of the commonly used metal crutches are the Lofstand or Guadian the Canadian elbow-extensor crutch. crutch, which extends further up the arm than the lofstand crutch and the fore arm support crutch.

All crutches whether wooden or metal, should be equipped with broad fibber tips to prevent slipping/falling. Assistance may be given to a weak or unskilled user of crutches by grasping his belt at the back with one hand.

Walker: A walker is a four-legged stand with a hand railing that extends across the front and to the sides of the body. It offers a wide base of support and provides greater security than do either canes or crutches. The two basic ones are the pick-up and the rolling walker. The pick-up is recommended for those who need more support than the use of quad cane and crutches. Individuals who do not have the strength to lift the pick-up walker or have

arm or hand problems are advised to make use of a rolling walker.

For safety reasons, the rolling walker should be equipped with a hand brake to prevent expected rolling and loss of balance. A pick up walker should be set down so that all the legs touch the surface at the same time.

Wheel chairs: The wheel chair provides a means of locomotion to those who are so severely immobilized by their condition that they cannot stand or walk even with the aid of ambulatory devices. There are manual and motorised types of various designs or make. A child in a wheelchair should be taught, to apply the brake when not in motion to avoid accident.

Scooter Boards: is a flat board to which four carter wheels are attached for easy movement. A sitting or prone lying position may be taken on the board; propulsion is created by pushing the hands against the floor. Scooter boards are excellent means of providing mobility to the handicapped children who cannot stand or who is unable to move about with any degree or speed and security. Use of the scooter board greatly, extends opportunities for participation in physical education activities. for those disabilities of the lower limbs. In many games, movement on the scooter can be substituted for walking and running.

Prosthesis: An artificial substitute for any part of the body is called prosthesis. That is, it is an artificial limb or part of a limb used by amputees. The individuals or students should be encouraged to make effective use of it and it should be changed as soon as the handicapped students outgrow it which is always within one or two years.

Braces: These are devices used for corrective control, or supportive purpose especially for cerebral cases or post-folio children. Corrective braces are needed for the prevention of secondary deformities during the period of growth where there is a possibility of the tendon to tighten especially at the heels and back of the knees. Control bracers are used to prevent or eliminate some of the involuntary movements especially in athetoids, while support braces provide necessary support for children who need assistance in standing.

Children wearing cast or internal fixation devices are to engage in approved recommended exercises by physicians. Deep breathing exercises (with physician's approval) are recommended, posture and breathing exercises beneficial for children wearing Milwaukee brace. Balance beam exercises of stationary, movement or stall bar varieties permitted by physicians are suggested. Specialized/approved exercises for abdominal and hip muscles, the ankles

and feet are beneficial for amputees while those performing on wheel chairs should be encouraged to engage in exercises that promote upper extremity and trunk strength. Amputees can take part in most sports with minor or no modifications to the rules of the game, however, adequate protective measures, must be taken.

Conclusion

The innovation and improvement upon the technological devices have greatly mobilized and stimulated the interest of the handicapped individuals especially those with orthopedic problems in physical activities and sports restricted to their deformities. These artificial and sophisticated equipment have really made the disabled ones to have sense of belonging in the society, that they are not totally ignored and avoided by their normal counterparts.

Some of these sophisticated materials - wheelchairs, prosthesis and the likes are making the persons with disabilities more recognised and given desired honour.

Consequently, a more comprehensive research on the artificial devices may further strengthen the fitness level of the handicapped individuals.

Recommendations

The following recommendations are highlighted for the purpose of

improving and enhancing the physical ability of the Persons with disabilities through physical activities loaded with the ambulatory devices.

- The handlers of the programme should create and have genuine interest in various handicapping conditions.
- Most parents of the disabled ones are financially crunch in providing the sophisticated gadgets for their children, and wards and such should be greatly assisted by the community, well to do individuals and philanthropists in the society.
- Educational opportunities in form of in-service training through conferences, workshops, clinics and short-term courses should be introduced to the Specialists and the Physical Educators.
- 4. It is the responsibility of the government to actually assist individuals with these handicapping conditions through scholarship awards and readily provision of devices in aiding their mobility.
- 5. Most of the sophisticated gadgets can easily come by through improvisation of desirable apparatuses, constructive imaginations and innovative ideas from the handlers.

References

- Amheim D., Auxter, D. & Crowe W. C. (1977): Principles and methods of adapted physical education and recreation (3rd Ed), St Louis: The C.V Mosby Company
- Bucher, C. A. (1979). Administration of physical education and athletic programme (9th ed). St. Louis: The C.V. Mosby Company.
- Crowe, W. C. Auxter. D & Pyfer, J. (1981): Principles and Methods of adapted physical education and recreation (4th Ed). St. Louis: the C.V Mosby Company.
- Fait, H. F. (1981). Special Physical education: adapted, corrective developmental (4th Ed). London: WB Saunders.
- Famayo, M. O. (2003): Recreation education programme for the handicapped children in special primary schools in Ondo and Osun States of Nigeria. Unpublished Master's Thesis in Physical and Health Education, Obafemi Awolowo University, Ile-Ife.
- Famayo, M.O. (2021). Perceived influence of recreational programmes on the health status of the physically challenged in special schools in Osun State, Nigeria. *African Journal of Studies in Education*, 16(2), 135-143.
- Geddes, D. (1978): Physical activities for individuals with handicapping condition. St. Louis: The C.V. Mosby Company
- Hay, P.J. & Macdolnald, D. (2017). The Gendering of abilities in senior physical education. *A Journal of Physical Education and Sports Pedagogy*, 15(3): 271-285.
- Joshanloo, M. (2022). Stability and change in subjective, psychological and social well-being: a latent state trait analysis of mental health continuum-short form in Korea and the Neitherlands. *J. pers. Assess*, 1-9, 1-9.doi:10.1080/00223891-2022.2098755.

- Khan, M. A. & Jose, T. (2021). Physical fitness and physiological parameters between deal/dumb and blind students of Amravati University: A comparative study. *Edu sportive: Indonesian Journal of Physical Education*, 2(2), 76-84. https://doi-org/10-25299/es:ijope.2021..2(2).6282.
- Kirk, S. A. (2000): *Educationally exceptional children*. Boston: Houghtoumittin.
- Lafinhan, K. (1999): The Identification procedures for the handicapped in some selected institutions in Nigeria. *Journal of Research in Health and Sport Sciences (JORHASS) 1.* (1).
- Lenarz, T. (2018, February 19). Cochlear implant- state of the art. Retrieved December 20, 2022, from https://www.ncbi.nim.nih.gov/pmc/articles/pmc58186839
- Okunrotifa, E. B. (1992): The Essentials in physical education and adapted physical education, Ile-Ife: Sesan Adeniyi Prints, 1992.
- Okunrotifa, E. B. (1995). Contemporary trends in special sports education programmes, Akure: Famfal Publisher Ltd.
- Okunrotifa, E. B. & Okelia, C. C. (2018). Effect of a 7 week structured physical activity programme on physical fitness characteristics of auditorily impaired pupils in Akure School for the hearing impaired. *Journal of Physical Education and Research*, XXII (II), 24301 24315.
- O'morrow, J. P & Geralds, S. O. (2000). Therapeutic Recreation A helping profession. Virginia: Reston Publishing Company Inc.
- Reger, T. Rusk, H.A., & Krusen, F. H. (1989): Special education, London: Oxford University Press, 1968, UNESCO. Newsletter, Paris.
- Sefotho, M. M. (2021). Basotho ontology of disability: An anfrocentric onto-epistemology, Heliyon 7:eo6540-doi:10.1016lj.heliyon.2021.e06540.

ASSESSMENT OF ASSOCIATED FACTORS OF PREMARITAL SEX AMONG UNDERGRADUATES IN ADENIRAN OGUNSANYA COLLEGE OF EDUCATION, LAGOS STATE

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Abstract

Students in the higher institution consisting more of adolescents are within the age group of experimentation and tends to explore a range of behaviours that are risky. These includes sexual behaviours like pre-marital sexual intercourse that may be influence by a lot of factors that can lead to sexually transmitted diseases affecting their quality of life. This study assessed the factors influencing premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Ijanikin, Lagos State. The study adopted descriptive survey research design. The population included all students of the college of education while convenience and simple random sampling technique was used to select and administer the research instrument to one hundred and fifty (150) respondents from six (6) schools at the institution. A researchers-developed structured questionnaire titled associated factors of premarital sex questionnaire (AFPSQ) was used and Cronbach's alpha coefficient (a) of the instrument with 0.84 was determined indicating a high level of consistency. Four (4) research hypotheses were tested and analysed using Multiple Regression at 0.05 level of significance. The findings revealed that the null hypotheses were rejected indicating a significant difference on the associated factors and premarital sex among students. Therefore, it was recommended that students should be trained on relating with the opposite sex in a healthy manner; workshop, seminar, symposiums that will always remanding the students based on the negative effects associated to on the detrimental effects of premarital sex should be organized; provision of scholarships by the government to reduce the burden of sex for money and the enforcement of proper dress code by the institution will go a long way to prevent problems of premarital sex among students.

Keywords: Assessment, Factors, Premarital, Sex, Undergraduates

Introduction

It has been observed across time and throughout history that opposing sexes are attracted to one another, including males and females, young boys and girls, male children and female parents (the "Oedipus complex"), and female children and male parents (Electra complex). It is possible that this attraction is motivated by sexual desire, a sense of self, or a sense of community. Literature has demonstrated that the relationship between the two parties (male and female) has always been intense and out of the usual (Granter et al.,

2015). Premarital sex is typically used to refer to people who are assumed to be underage for marriage or to adults who are engaged in sexual behaviour before marriage but who are eventually prior to marriage (Adegboyega, 2017; Wright, 2015).

Higher education students typically in the age groups that are known experimentation and exploration, which are linked to a variety of dangerous including behaviours, risky sexual activities. Premarital sex and other risky sexual behaviours might cause school teens to contract STIs and become pregnant unintentionally (Angelo et al., 2020). Premarital sex is unhealthy and harmful to the public's health, leading to teenage pregnancy, abortions, and sexually transmitted infections, according to public opinion polls, which have consistently demonstrated this (Jariyah, 2022; Rauf, 2021). Premarital sex is sex that occurs before marriage and is typically among young people. It entails incest, rape, defilement, and fornication. The reasons of it have been identified as being adolescent moral degradation, lust, proof of manhood, lust, pornography and its negative effects, insanity, and sex promiscuity (Adegboyega & Jacob, 2017).

The influence of peers on premarital sexual behaviour among teenagers was generally attributed to

relationships, communications, interactions, connections, and control within peer groups. Adolescent students are frequently exposed through peer social interactions to cultural norms and attitudes that are more likely to facilitate premarital sexual behavior. Males are more likely than females to start romantic relationships or sexual encounters, and they also seem to have more freedom to live independently and, most likely, experiment with sex than girls do. In a survey conducted in Mongolia, nearly half of the young people said they learned about their sexual orientation via friends (Badaki & Adeola, 2017). Wong (2012) was of the view that, the adolescents' shared measure of peer sexual experience revealed a high peer influence, with those who were believed to have had sexual experience being more likely to have had premarital sex than those whose peers had not.

According Adeola (2014),to teenage students' zone of influence has traditionally shifted from their parents to their peers. His research also revealed that peers had a significant impact on students' decisions regarding premarital sexual behaviour. Because peer influence is known to alter students' personalities, attitudes, and behaviours, the consequences of peer sexual behaviour increase the risk that students will engage in premarital sexual behavior (Adhikari, 2013). Research showed that peer sexual behaviour serves as a model for individual behaviour in all communities, and this is undoubtedly true when it comes to adolescent sexuality (Best & Fortenberry, 2013). A person may occasionally succumb to peer pressure and engage in premarital sex by concomitant behaviours like drinking alcohol and seeing commercial sex workers (Kayode, 2015).

Badaki and Adeola (2017) reported that adolescents who sought knowledge from their peers were more sexually experienced than those who sought information from parents, teachers, and other sources like the media, religious institutions, and adults, etc., according to the researchers' study. They also noted that most Nigerian students' friends would probably appreciate their peers' decision to participate in premarital sexual behaviour more than their parents would.

Additionally, due to adolescents' increased exposure to sexual cues in social and mass media, including magazines, television, and movies, premarital sexual practises have drawn a great deal of their interest and curiosity. The development of information technology has accelerated globalisation and technological progress, which has led to a general trend towards liberated attitudes and values that support pornography and candid conversations

about sexuality. The influence of pornography on young people's attitudes towards premarital sex is growing quickly. The young people's reproductive health is slowly being corroded and damaged by this skewed sexual picture, to the point where a greater portion of their lives in the classroom and in healthy relationships may be adversely affected (Anyama, 2019). Infante (2015) opined that while watching pornography may produce fleeting, very enjoyable experiences, it ultimately results in a number of unfavourable, protracted psychological experiences, which alter adolescents' attitudes towards premarital Adolescents' sex. smartphones are extremely loaded with pornography of all kinds, making it unnecessary for them to do anything other than configure and subscribe. The handset's portability and ease of accessibility have made it the most effective and convenient way for adolescents in secondary schools acquire pornography, which has a negative impact on their attitudes on premarital sex. When someone is unable to process the visuals due to psychological issues, pornography causes upset and distress (Ali et al., 2024). Pornography is considered voyeurism because it encourages men to treat women as objects rather than as partners. As a result, adolescents who have had several sexual partners or who have experienced STDs are more likely to use

books and other informational sources that feature women as sexual objects. Peer pressure, low self-esteem, poor parental upbringing, financial considerations, the influence of alcohol and hard drags, and low self-esteem are some of the factors that encourage and push young people to engage in premarital sex (Gbaa et al., 2022).

One-third of the 340 million new STD cases each year in the world's youth are sexually transmitted; these individuals are under the age of 25 (Fernandez et al, 2010). Adolescents in Nigerian society have several behavioural issues related to sex abuse, sex crimes, sexual misconduct, sexual immorality, sexual promiscuity, and sexual maladjustment. A look at all the facts and speculations that has been built around premarital sex among individuals in the society at large and among undergraduate students of Adeniran Ogunsanya College of Education, Oto/ Ijanikin in particular, one can conclude that it is a matter that needs to be addresses and causes carefully assessed to get better understanding or insight into these causes and possibly provide alternative activities or suggestions that can help address this issue for the benefit of the individual, the college community, and the nation at large.

Hypotheses

The following research hypotheses were tested in this study:

- Peer group influence will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin.
- Financial gain will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin.
- Mass media influence will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin.
- Access to internet facilities will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin.

Methodology

Descriptive survey research design was adopted for this study. The population included all students at Adeniran Ogunsanya College of Education. For easy accessibility and administration of the questionnaire, simple random sampling technique was used to select six (6) schools in the college while convenience

sampling technique was used to select one hundred and fifty (150) respondents. This represents the entire population of the study because they possess characteristics of the study.

A researcher-developed structured questionnaire titled associated factors of premarital sex questionnaire (AFPSQ) was the source of eliciting information from the respondents to assess the factors influencing premarital sex among undergraduate students in Adeniran Ogunsanya of Education. College Oto/Ijanikin. The questionnaire divided into two sections (A and B). Section A solicited information about the personal data of the respondents which includes sex, age, type of secondary school attended, parents' occupation, type of family the student come from and if the student's parents are living together, while Section B of the questionnaire solicited information on the students' perception

towards the factors influencing premarital sex among undergraduate students in Adeniran Ogunsanya College of Oto/ Ijanikin. The Education. questionnaire is a close ended one with modified four (4) point Likert scale of Strongly Agree, Agree, Disagree, and Strongly Disagree consisting 12- item questions. The reliability of the instrument was determined using Cronbach's alpha coefficient (a) with an obtained score of 0.84, indicating a high consistency of the instrument before administration.

The data analyzed in this research are based on information collected from students using the research instrument (questionnaire) for the data collection. The section A (demography data) was analyzed using frequency counts and percentage, while section B was analyzed using Regression analysis at 0.05 level of significance.

Results

Table 1: Demographic Data of the Respondents

SEX	FREQUENCY	PERCENTAGE (%)
Male	44	29.3
Female	106	71.7
TOTAL	150	100
AGE RANGE		
10-20	24	16
21-30	118	78.7
31-40	8	5.3
TOTAL	150	100
SCHOOL		
Science	40	26.7
Education	30	20
Art and Social Science	25	16.7
Vocation and Technical Education	12	8
Early Child hood and Primary Education	28	18.6
Languages	15	10
TOTAL	150	100
PARENT'S OCCUPATION		
Civil Servant	83	55.3
Self Employed	67	44.7
TOTAL	150	100
RESPONDENTS TYPE OF FAMILY		
Monogamy	99	66
Polygamy	51	34
TOTAL	150	100
PARENTS LIVING TOGETHER		
Yes	124	82.7
No	26	17.3
TOTAL	150	100

Table 1 shows that 44 of the respondents which represent 29.3% of the total respondents were male while 106 of the respondents which represent 71.7% of the total respondent were female. Therefore, the data above shows that majority of the respondents used were female.

Also it indicates that 24 of the respondents which represent 16% of the total respondents fall within the age range of 10-20 years; 118 of the respondents

which represents 78.7% of the total respondents fall within the age range of 21-30 years and 8 of the respondents which represents 5.3% of the total respondents fall within the age range of 31-40 years old. Therefore, the data above shows that majority of the respondents used for this study fall within the age range of 21-30 years.

The table also shows that 40 of the respondents which represents 26.7% of the total respondents were in School of

Science; 30 of the respondents which represents 20% of the total respondents were in the School of Education; 25 of the respondent which represents 16.7% of the total respondents were in School of Arts and Social Sciences; 12 of the respondents 8% of which represents the total respondents were in School Vocational and Technical Education; 28 of the respondents which represents 18.6% of the total respondents were in School of Early Child hood and Primary Education; while 15 of the respondents which represents 10% of the total respondents were in School of Languages. Therefore, the data above shows that majority of respondents used for this study were in School of Science.

Furthermore, the table shows that 83 of the respondents which represents 55.3% of the total respondents' parent's occupation were civil servants while 67 of the respondents which represents 44.7% of the total respondents' parent's occupation were self- employed. Therefore, the data above shows that majority of the respondents used for the study parent's occupation were civil servants.

The table further indicates that 99 of the respondents which represent 66% of the total respondents were from monogamy family, while 51 of the respondents which represent 34% of the total respondents were from polygamous family. Therefore, the data above shows that majority of the respondents used for this study were from monogamous family.

Lastly, the table indicates that 124 of the respondents which represent 82.7% of the total respondents agreed that their parents are living together, while 26 of the respondents which represent 17.3% of the total respondents disagreed with the statement. Therefore, the data above shows that majority of the respondents used for this study agreed with the statement that their parents are living together.

Testing of Hypotheses Hypothesis One

Peer group influence will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/Ijanikin. This section was tested using regression analysis and results are as shown below;

Table 2: Regression summary showing how peer group influence contribute to premarital sex

	Change Statistics							
	R	Adjusted	Std. Error of	R Square	• F			Sig. F
R	Square	R Square	the Estimate	Change	Change	df1	df2	Change
0.522a	0.272	0.257	1.844	0.272	18.196	3	146	0.000

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

The modified $R^2 = 0.257$ result from the table indicated a strong level of fit due (p = 0.000 <0.05). This shows that the model used for regression and the data have a good match. The model is therefore accurate. Furthermore, it suggests that peer group influence

contributes 26% to premarital sex (i.e., peer group influence is one of the factors contributing to premarital sex among undergraduates, students engage in premarital sex due to peer pressure and students engage in premarital sex to have sense of belonging among their peer).

Table 3: ANOVA table of how peer group influence contributes to premarital sex

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	185.598	3	61.866	18.196	$.000^{b}$
Residual	496.402	146	3.400		
Total	682.000	149			

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

According to the data in Table 3, peer group influence significantly contributes to premarital sex. Given (p = 0.000 < 0.05), this finding is noteworthy. Because the null hypothesis was rejected,

peer group influence significantly contributes to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin.

Table 4: Coefficients results of the contribution of peer group influence on premarital sex

	Unstai Coeffi	ndardized cients	Standardized Coefficients		
Model	В	Std. Error	Beta	_ t	Sig.
(Constant)	4.594	.754		6.097	.000
Peer group influence is one of the factors contributing to premarital sex among undergraduates	.380	.184	.168	2.061	.041
Students engage in premarital sex due to peer pressure		.187	.308	3.959	.000
Students engage in premarital sex to have sense of belonging among their peer	.470	.204	.200	2.302	.023

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

From the Table 4, the coefficient estimates of (β = 0.380, p = 0.041 < 0.05, β = 0.742, p = 0.000 < 0.05; and β = 0.470, p = 0.023 < 0.05) respectively showed that peer group influence is one of the factors contributing to premarital sex among undergraduates; similarly, students engage in premarital sex due to peer pressure, and that students engage in premarital sex to have sense of belonging among their peer.

Hypothesis Two

Financial gains will not significantly contribute to premarital sex among the undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin. This section was tested using regression analysis and results are as shown below;

Table 5: Regression Summary showing how financial gains contribute to premarital sex

			Change Statistics						
	R	Adjusted	Std. Error of	R Square	F			Sig. F	
R	Square	R Square	the Estimate	Change	Change	df1	df2	Change	
0.440^{a}	0.193	0.177	1.941	0.193	11.673	3	146	0.000	

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

From the table, the adjusted $R^2 = 0.177$ value showed a robust level of fit, because (p = 0.000 < 0.05). This shows that the model of regression and the data do fit well together. The model is thus valid. However, it suggests that financial

gains (i.e., financial needs of students, poor family background and fulfilling the basic needs) contribute to premarital sex. It further revealed that financial gains contributed approximately 18% to premarital sex.

Table 6: ANOVA table of how financial gains contribute to premarital sex

Model	Sum of Squares	df	Mean Square	\mathbf{F}	Sig.
Regression	131.935	3	43.978	11.673	$.000^{b}$
Residual	550.065	146	3.768		
Total	682.000	149			

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

The findings presented in Table 6 above indicated that financial gains contribute to premarital sex. As a consequence, this finding is noteworthy (p = 0.000 < 0.05). As a result, because the

null hypothesis was rejected, financial gains significantly contribute to premarital sex among the undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin.

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	Unstand Coeffici	dardized ents	Standardized Coefficients	_	
Model	В	Std. Error	Beta	t	Sig.
(Constant)	6.163	.720		8.561	.000
Financial needs of students lure them into premarital sex	.771	.165	.362	4.685	.000
Students from poor family have more tendencies of engaging in premarital sex compared to their rich counterpart	.276	.164	.129	1.680	.095
Premarital sex is rampant among students so as to fulfil their basic needs. E.g. feeding, shelter, clothing, etc.	.209	.148	.106	1.412	.160

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

From the Table 7, the coefficient estimates of (β = 0.771, p = 0.000 < 0.05, β = 0.276, p = 0.095 > 0.05; and β = 0.209, p = 0.160 > 0.05) respectively showed that financial needs of students lure them into premarital sex; students from poor family have less tendencies of engaging in premarital sex compared to their rich counterpart; and that students' basic needs

are not significantly connected with premarital sex.

Hypothesis Three

Mass media influence will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/Ijanikin. This section was tested using regression analysis and results are as shown below;

Table 8: Regression Summary showing how mass media contribute to premarital sex

			Change Statistics					
	R	Adjusted	Std. Error of	R Squar	e F			Sig. F
R	Square	R Square	the Estimate	Change	Change	df1	df2	Change
0.459^{a}	0.210	0.194	1.921	0.210	12.965	3	146	0.000

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

From the above table, the adjusted $R^2 = 0.194$ value showed a robust level of fit at (p = 0.000 < 0.05). This suggests that the model is accurate. Furthermore, it suggests that mass media account for 19.4% of premarital sex (i.e., students

engage in premarital sex to practice what they see on home videos, premarital sex is common among students who read ponographic magazines, and that listening to radio programmes on sexuality enhances premarital sex among students).

Table 9: ANOVA table showing how mass media contribute to premarital sex

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	143.466	3	47.822	12.965	.000 ^b
Residual	538.534	146	3.689		
Total	682.000	149			

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

The above results in Table 9 showed mass media influence contributes to premarital sex at (p = 0.000 < 0.05). Hence, mass media influence significantly contribute to premarital sex among

undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin, because null hypothesis was rejected.

Table 10: Coefficients results of how mass media contribute to premarital sex

	Unstandardized Coefficients		Standardized Coefficients		
Model (Constant)	B 4.964	Std. Error	Beta	t 5.648	Sig. .000
Students engage in premarital sex to practice what they see on home videos	.435	.150	.232	2.911	.004
Premarital sex is common among students who read ponographic magazines	.768	.255	.249	3.011	.003
Listening to radio programmes on sexuality enhances premarital sex among students		.152	.143	1.860	.065

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

From the Table 10, the coefficient estimates of (β = 0.435, p = 0.004 > 0.05, β = 0.768, p = 0.003 < 0.05; and β = 0.284, p = 0.065 > 0.05) respectively showed that students engage in premarital sex to practice what they see on home videos; that premarital sex is common among students who read ponographic magazines; and that listening to radio programmes on

sexuality education does not significantly enhance premarital sex among students.

Hypothesis Four

Access to internet facilities will not significantly contribute to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/Ijanikin. This section was tested using multiple regression analysis and results are shown below;

Table 11: Regression Summary showing how access to internet facilities contributed to premarital sex

Change Statistics

	R	Adjusted	Std. Error of	R Square	F			Sig. F
R	Square	R Square	the Estimate	Change	Change	df1	df2	Change
$.486^{a}$.236	.220	1.889	.236	15.042	3	146	.000

p < 0.05; $F_{0.05}(3, 146) = 2.666\overline{574}$

From Table 11, the adjusted $R^2 = 0.220$ value showed a robust level of fit at (p = 0.000 < 0.05). This suggests a sound model. Furthermore, it suggests that access to internet facilities (i.e., premarital sex is common among students that are

accessible to internet; premarital sex is relatively lower among students living in areas without internet facilities; and that internet should be blamed for prevalence of premarital sex among students) accounted for 22% of premarital sex).

Table 12: ANOVA table of how access to internet facilities contributed to premarital sex

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	161.027	3	53.676	15.042	$.000^{b}$
Residual	520.973	146	3.568		
Total	682.000	149			

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

The above results in Table 12 showed that access to internet facilities significantly contributes to premarital sex at (p = 0.000 < 0.05). Hence, access to internet facilities significantly contribute

to premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin, because null hypothesis was rejected.

Table 13: Coefficients results of how access to internet facilities contributed to premarital sex

	Unstandardized Coefficients		Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
(Constant)	4.587	.821		5.585	.000
Premarital sex is common among students that are accessible to internet	.281	.131	.157	2.147	.033
Premarital sex is relatively lower among students living in areas without internet facilities		.187	.302	4.005	.000
Internet should be blamed for prevalence of premarital sex among students	.566	.170	.250	3.332	.001

p < 0.05; $F_{0.05}(3, 146) = 2.666574$

From the Table 13, the coefficient estimates of (β = 0.281, p = 0.033 < 0.05, β = 0.748, p = 0.000 < 0.05; and β = 0.566, p = 0.001 < 0.05) respectively showed that premarital sex is common among students that are accessible to internet; Premarital sex is relatively lower among students living in areas without internet facilities; and that internet should be blamed for prevalence of premarital sex among students.

Discussion of Findings

Hypothesis one which showed that influence significantly peer group contributes to premarital sex among undergraduate students corroborates with the findings of Adhikari (2009, 2013) who observed that the effect of peer roles are known to alter students' personalities, attitudes, and behaviours, the consequences of peer sexual conduct enhance the possibility that students may engage in premarital sexual behaviour. They emphasised that peer behaviour serves as a model for personal behaviour and that teenagers' sexual orientation is no exception. Students who socialised with peers who had had sex were almost seven times more likely to have done so than those whose peers had not. Also the finding is in line with Guha (2013) who opined that adolescent students who turned to their classmates for knowledge were more sexually experienced than those who turned to their parents, teachers, and other sources including the media, religious institutions, and adults, etc. They also noted that, given the social environment of Nigerian students, the majority of friends would probably appreciate a peer's decision to participate in premarital sexual behaviour more than their parents would. Hence, the influence of peer group has a big impact on teen students' beliefs, attitudes, and sexual behaviour. Teenage students were subjected to unfathomable pressure to engage in premarital sexual behaviour because they relied more on their peers for advice on things relating to sexual behaviour.

The findings of hypothesis two showed that financial gains significantly contributes to premarital sex among the undergraduate students. The result of the findings is in line with a study carried out by Ojo (2013) where a high number of the young adults engaged in premarital sex due to financial gain. The study showed that 87.4% of those who have had sex before gave the causes as curiosity, felt old enough because of friends and needed money. Also, the result of the findings corroborates with Gbaa et al., (2022) who reported that some youths engaged in premarital sex due to the desire for money.

Adhikari (2013) also reported that the male students can engage in premarital sexual behaviour through associated behaviour such as drinking of alcohol and visiting commercial sex workers.

The result of hypothesis three showed that mass media influence significantly influence premarital sex among undergraduate students. The result of the findings is in line with Anyama (2019) who reported that increased exposure adolescents to sexual stimuli in the media, including magazines, television, and movies, has sparked a great deal of interest and curiosity in premarital sexual practises. The rise of digital technology accelerated globalisation has and technological progress, which has led to a general trend towards emancipated attitudes and ideals that support pornography and candid conversations about sexuality. The influence pornography on young people's attitudes towards premarital sex is growing quickly. The young people's reproductive health is slowly being corroded and damaged by this skewed sexual picture, to the point where a greater portion of their lives in school and in healthy relationships may be adversely impacted. Furthermore, a report by Lou et al. (2014) is in line with the findings stated that evidences who indicates that the media have associations with adolescents' and young people'

sexual behavior that may be as important as family, school and peers.

Hypotheses four showed that access to internet facilities significantly contributes to premarital sex among undergraduate students. The result of the findings is in line with Infante (2018) who stated that while watching porn on the internet might produce fleeting, very delightful moments, it often results in a number of damaging, long-lasting psychological experiences that have an impact on adolescents' attitudes regarding premarital sex.

Conclusion

Premarital sex among students at Adeniran Ogunsanya College of Education, Otto/Ijanikin is highly influenced by peer group, monetary gain, the media, and access to online resources. Peer group influence may result from the fact that most students avoid their parents, who could advise them on their daily activities and make them independent of their friends' choices, which might negatively affect their sexual behaviour. Students may also be triggered to engage in premarital sex for financial benefit if they believe their parents or guardians aren't providing them with adequate funding in the form of a stipend, pocket money, or sponsorship. The advancement of telecommunication where students can

have access to internet facility without restrictions to pornographic website and sex seducing social media platform can trigger students to engage in premarital sexual intercourse that can predispose them to sexually transmitted diseases and some other health problems

Recommendations

Based on the conclusion on the research on the assessment of the causes of premarital sex among undergraduate students in Adeniran Ogunsanya College of Education, Oto/ Ijanikin, the following recommendations were given:

- Awareness of healthy sexuality should be spread among right from childhood.
- Students should be trained to mingle with opposite sex in a safe and healthy manner.
- Each school should implement different programs such as workshop, seminar, symposiums that will always remanding the students based on the negative effects associated to premarital sex (that is sex before marriage).
- Government should provide scholarship to students on regular basis up to graduation to enable students concentrate on their studies instead of going round and

- negotiation for sex for economic reasons.
- Higher institution authorities should aggressively enforce dress code to reduce sexual urge, rape, and temptations that are in some instances facilitated by provocative dresses. This responsibly should not be left to security personnel alone, it should involve all stakeholders.
- Parents should as a matter of reasonability monitor and pay regular visit to their children in higher institutions and provide them with basic materials that will make their stay comfortable.

References

- Adegboyega, L. O., & Jacob, O. A. (2017).

 Causes of premarital sex as expressed by adolescents in Yagba West, Kogi State, Nigeria.

 Anatolian Journal of Education, 2(2), 8-20.
- Adeola, M. F. (2014). The determinants of premarital sexual behaviour of Nigerian Senior Secondary School students. Dissertation in partial fulfillment of award of Ph.D in Health Education. Ahmadu Bello University, Zaria, Nigeria (Unpublished).
- Adhikari, R. (2009). Premarital sexual behaviour among college students of Kathmandu, Nepal. *BMC Public Health*, 9, 241.

- Adhikari, R. (2013). Premarital sex: attitude and behavior among college students. *Germany: Lambert Academic Publishing*.
- Ali, S., Pasha, S. A., & Cox, A. (2024). Apprehending parental perceptions and responses to accidental online pornography exposure among children in Pakistan: A Qualitative Investigation. *Human Arenas, 1-24*.
- Angelo, A. T., Geltore, T. E., Dacho, A. M., & Angelo, H. T. (2020). Assessment of pre-marital sex and its associated factors among rift valley university college students, jimma campus, south west Ethiopia, 2018. Retrieved 10 February, 2023, from https://medcraveonline.com/NCOAJ/NCOAJ-07-00213.pdf
- Anyama, S. C. (2019). Relationship between peer pressure, pornography and attitude to premarital sex among adolescents in Lagos State. *International Journal of Educational Research*, 6(1), 153-159.
- Badaki, O. L., & Adeola, M. F. (2017). Influence of peer pressure as a determinant of premarital sexual behaviour among senior secondary school students in Kaduna State, Nigeria. *Journal of Multidisciplinary Research in Healthcare*, 3(2), 151–159.
- Best, C., & Fortenberry, J. D. (2013). Adolescent sexuality and sexual behavior. In C. Best & J. D. Fortenberry (Eds.), *Handbook of adolescent health psychology* (pp. 271-291). New York, NY: Springer New York.
- Fernandez-Villaverde, J. G., & Nezih, G. (2010). From shame to game in one hundred years: An economic model

- of the rise in premarital sex and its de-stigmatization. *Journal of the European Economic Association*, 12(1), pp.25-61.
- Gbaa, E., Gbaden, D., Gbakaan, I., & Gbatse, I. (2022). Perception of relationship premarital sexual among students in tertiary institutions: A case study of Benue State University. Retrieved March, 2023, from https://www.scienceopen.com/docu ment_file/d0a5f2ef-bc16-49d7abf3-5d8e641552f8/ScienceOpenPreprint /Ella%20Gbaa%202%20pub.pdf
- Granter, E., McCann, L., & Boyle, M. (2015). Extreme work/normal work: Intensification, storytelling and hypermediation in the (re)construction of 'the New Normal'. *Organization*, 22(4), 443-456.
- Guha, S. (2013). Attitude, knowledge and behavior about sexuality among adolescents. *IOSR Journal Of Humanities And Social Science*, 18(5), 05-19.
- Infante, S. W. (2018). A systematic review of the psychological, physiological, & spiritual effects of pornography on males. *Trevecca Nazarene University*.
- Jariyah, A., Arliatin, A., & Asrida, A. (2022). Teenagers Premarital Sex in Bima. Journal of Asian Multicultural Research for Medical and Health Science Study, 3(2), 50-58.
- Kayode, O. O. (2015). The Acquisition of HIV/AIDS Information by Commercial Sex Workers in Selected Brothels in Lagos State, Nigeria (Doctoral dissertation, *University of Lagos (Nigeria)*).

- Khosa, M. B. (2021). Factors contributing to unsafe sex practices among youth at a selected village, Limpopo Province (Doctoral dissertation).
- Lou, C., Cheng, Y., Gao, E., Zuo, X., Emerson, M., & Zabin, L. (2012). Media's contribution to sexual knowledge, attitudes and behaviors for adolescents and young adults in three Asian cities. *J Adolesc Health*, 50(30), S26–S36.
- Ojo, A. A. (2013). Psychosocial factors and premarital sexual attitudes of adolescents and young adults in South-West Nigeria. Dissertation in partial fulfillment of the requirement for the award of the degree of Doctor of Philosophy

- (Ph.D) in Psychology. School of Postgraduate Studies, University of Lagos, Nigeria (Unpublished).
- Rauf, M. B. (2021). Sex education in Pakistan: Concepts, needs and strategies. *Pakistan Journal of International Affairs*, 4(2).
- Wong, L. P. (2012). Qualitative inquiry into contraceptive use among Multi ethnic young women: implications for education and future research. *Plos ONE*, 7(12).
- Wright, P. J. (2015). Americans' attitudes toward premarital sex and pornography consumption: A national panel analysis. *Archives of Sexual Behavior*, 44, 89-97.

SPORTS VIOLENCE MANAGEMENT AND SPORTS DEVELOPMENT IN PUBLIC SECONDARY SCHOOLS IN DELTA NORTH SENATORIAL DISTRICT, DELTA STATE

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Abstract

Participation in sporting activities contributes to health, social, economic, and cultural aspects of life but are often marred by violence at all levels of sports competitions public secondary schools inclusive. This study investigated sports violence management and sports development in public secondary schools in Delta North Senatorial District, Delta State. A descriptive research design of survey type was adopted for this study. The population of this study consisted of 411 respondents (152 Principals; 189 Vice-principals; and 70 Physical Education teachers). A sample of 229 respondents was selected for the study through Multistage Sampling Technique. A validated and tested questionnaire with a correlation coefficient of 0.75 was used for data collection. Inferential statistics of Pearson's Product Moment Correlation were used to test the formulated hypotheses at 0.05 alpha level. The result of the findings shows that;

- (i) There was a significant relationship between athletes' involvement in the management of sports violence and sports development (n = 220, df 218, p = 0.001 < 0.05 sig level).
- (ii) There was a significant relationship between sports venue security as a management of sports violence and sports development (n = 220, df 218, p = 0.003 < 0.05 sig level).
- (iii) There was a significant relationship between clear rules as a management of sports violence and sports development in public secondary schools, Delta State. (n = 220, df 218, p = 0.004 < 0.05 sig level).

Based on the findings of the study, it was concluded that; (i) involving athletes in the management of sports violence reduces sports violence and improve sports development in public secondary in Delta North Senatorial District, Delta State, (ii) sports venue security as a management of sports violence lessens the severity of sports violence and increase sports development in public secondary schools in Delta North Senatorial District, Delta State, (iii) clear rules as a management of sports violence reduce the occurrence and boost sports development in public secondary schools in Delta North Senatorial District, Delta State. It was recommended among others that, school administrators and sports personnel's in public secondary schools should provide opportunities for athletes to be involved in the management of sports violence by inviting them to stakeholders meetings.

Keywords: Development, Violence, Athletes, Venue, Security.

Introduction

The contributions of sports to human development cannot be undermined. Sports bring about physical, mental, social, emotional, and skill

development in the life of the participants. Sports have also been identified as unifying agents and tools for national development. Sports bring people of all ages, social classes, tribes, gender, and religion, among others to a specific location and time to participate in or watch sporting events. According to Uwayo (2021), sports have the ability to create bonds well social as as increase productivity among people living in a Secondary school community. sports programs aim to improve leadership skills, promote positive relationship among roadblocks, students without and teamwork to achieve a set goal. Skogvang (2023) defined sports as competitive physical activities that require skills and intellectual capacity done by individuals or between teams in other to significantly contribute to their physical, intellectual, social, emotional and financial well-being. Sports have the objective of winning a prize.

Olaoye (2021) stated that, any human activity capable of achieving a result requiring physical exertion and physical skills, which by its nature and organization is competitive generally acceptable, are referred to as sports. The steady growth, attainment, and progression of sport from a lower-level strata to a higher level or strata are referred to as sport development. This process calls for factors such as sport policy, sport personnel, sport funding, sport program, sport facilities, and sponsorship. extent to which these conditions are met will undoubtedly have an impact on how

effectively any sport development works (Aina, 2021). The Federal Republic of Nigeria Sports Development Policy (2009) defined school sports development as a process of continuous improvement of the school sports structure, institution and programmes in order to create a societal condition conducive to physical fitness for all and for effective functioning and self-actualization of one pupils or students. The main objectives of secondary school sports programs may not be achieved when school sports competitions result to sports violence.

Sports violence is a serious issue that affects not only professional athletes, but also secondary school students who participate in sports activities as it could create a hostile and unsafe environment for other students, teachers, coaches, and spectators. Sports violence can occur on and off the field, in both professional and amateur settings, and in various forms. Nwaogu (2020) described Sports violence negative behaviours displayed by athletes, officials, spectators, and fans that induce damages which happen out of the game's rules and have nothing to do with the sport's competitive objectives. Violence sports is common competitive sports notably hockey, football, rugby, wresting, basketball, volleyball and boxing. According to Ibraheem and Owoade, (2022) violence at secondary school sporting events could take the form of harm, fights, and misunderstanding among athletes and sports officials. It exposes participants to the risk of accident, injury, lasting disability, loss of lives and properties and damage the level of competitiveness also frightens the administrators and sports officials to the point that they are not impartial, strict, and cordial.

There are different factors that can contribute to sports violence, such as personal characteristics of the athletes or fans, situational factors such competition, rivalry, or provocation, social factors such as peer pressure, group identity, or cultural norms, and structural factors such as media coverage, rewards, or sanctions (Nwaogu 2020). The use of mercenaries often brings about sports violence during public secondary schools sports competitions. Oseh (2019) cited a similar case of this nature in the year 2015 when the coach of Community Secondary School, Abodo hired a player to play for them for constituency inter-secondary schools competition semi-finals. The hired player was not residing in the village and the whole arrangement was made through phone. The person in question has never trained with school team for once. During the match the mercenary was playing and was identified which led to protest at the sports venue. Management of sports

violence is a topic that has gained attention in recent years, as incidents of violence by athletes and fans have raised concerns about the safety and ethics of sports.

Management is a term that refers to the process of planning, organizing, leading and controlling the resources and activities of an organization to achieve its goals (Research Gate, 2016). Management involves setting objectives, allocating tasks, motivating and communicating with employees, monitoring and evaluating performance, and making decisions. Management of sports violence is an act of putting in place measures to prevent violence before it takes place also controls it when it finally takes place. Ogbe (2016) outlined it as a procedure of implementing systems to antagonize the damaging effects of an issue or activity that could harm the well-being or repute of an athlete, officials, or sports directors. Obilor and Miwari (2021) opined that, successful sports managers, administrators, games masters/mistresses who are those anticipate and are fully prepared that violence may erupt during sporting activities instead of being caught unaware or unprepared. Some of the ways that can be used to address and manage sports violence are to involve the athletes in sports management, provision of adequate security and establishment of clear rules to promote positive values and life skills

through sports programmes, especially for young people who are at risk of engaging in violent extremism.

Athletes have a crucial role to play in sports violence management before, during, and after the sporting events because they are the primary actors and stakeholders in sport. One of the ways to manage sports violence is to involve athletes as active agents rather than as passive victims or offenders. According to McSweeney, Webb, and Devers, (2022) this can be accomplished by giving athletes the freedom to express their worries. viewpoints, and personal experiences about violence and abuse in sport, as well as by including them in the creation and implementation of laws and programs that seek to prevent and lessen such behavior. Baker, (2021) stated that many national and international sport federations have athlete representatives or provide committees that input feedback to their governing bodies. Athletes can also form or join associations or unions that advocate for their rights and interests, such as fair play, anti-doping, health and safety, welfare, education, and career transition. Also, athletes could be involved in sports management in a bid to prevent and manage sports violence is contribution the through their to development and delivery of sport programs and services.

Given the wide-ranging reflection of sports events in the mass media, the security available in these events can be seen as an expression of security at the community level. Security according to Parent, (2018) is defined as a set of actions taken by event stakeholders to uphold law and order, deter and prosecute criminal activity, and foster a sense of safety. Yusuf, Akinwusi, and Morakinyo, (2020) defined security as state of being free from danger, leading to loss of life or damage to property. One of the most important areas in sports is security, which means organizing events and sports competitions away from any danger and threat. Sports security management investigates the nature and scope of sports security and the issues of sports events such as terrorism (the motivation for terrorist activities, the methods of terrorist activity, and the effect of terrorist acts), natural disasters and issues of disturbances and disorder in sports (Ekerete, 2019). Praditsathaporn, Kaviya and Yupapin (2018) opined that in sports events, it is necessary to take steps to ensure the security of stadiums and sports stadiums against potential violence because the occurrence of a violence situation in a sports arena, while having a negative impact on the sporting event, is effective on reducing the presence of spectators in competitions and games in a country.

To prevent sports violence in schools, it is essential to establish clear rules that define acceptable unacceptable behaviors, and that are enforced consistently and fairly. Establishment of clear rules is a key aspect of promoting fair play and ethical behavior in sports. Rules are designed to regulate the conduct of athletes, officials, and spectators during sports events, and to deter or punish any violations that may compromise the integrity and spirit of sports (Oyebanji, 2018). According to Oyebanji, (2018) rules should be based on principles of fairness. the respect, non-violence. responsibility and and should be communicated to all stakeholders, including students, teachers, coaches, parents and administrators. Rules and penalties should also be aligned with national and international standards and regulations on sports ethics and integrity. Abrams. Bartlett. and Prewitt-White (2015) recommended the use of foster a culture of respect and tolerance among athletes, coaches, parents administrators. That sport stakeholders must make systemic interventions at all levels of sport (preferably beginning with younger athletes) to limit violence in sport and set boundaries for behavior. They also argue that athletes should not be treated as if they are exempt from moral expectations because of their physical skills.

Statement of the Problem

Sports today have gained more popularity and grown beyond the level of entertainment and deriving pleasure. Sports are more than deriving pleasure, fitness development physical and entertainment such as high monetary prizes for winners, fame and heavy allowances and so on. Despite the potential benefits of sports for physical fitness, mental, health, economic, social and skill violence development, remains significant challenge in many Nigerian secondary schools' sports programs. It was observed that, many public secondary school sports programs in Delta State have been disrupted by violence which could be as a result of unhealthy rivalry between schools, partiality on the part of officials, all win-at cost syndrome, of use machineries (professional athletes), amongst other. Several studies have been conducted on the issue of sports violence different contexts and settings, Ibraheem and Owoade (2022) carried out a study on strategic approach of managing violence during recreational sports events in Ado-Odo/Ota Local Government Area, Ogun State, Nigeria. Obilor and Miwari (2021) carried out a study on assessing the consequences of violence in Nigerian public secondary schools. After consulting several literature, it was revealed that no

study has been carried out on the subject sports violence management and sports development in public secondary schools in Delta North Senatorial District, Delta state. Therefore, it is this identified gap in research studies that instigated the researcher to carry out this present study.

Research Hypotheses

The following hypotheses were formulated and tested in this study:

- (i) There is no significant relationship between athletes' involvement in the management sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State.
- (ii) There is no significant relationship between sports venue security as a management of sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State.
- (iii) There is no significant relationship between clear rules as a management of sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State.

Methodology

Descriptive research design of survey type was adopted for this study. The population of this study consisted of all 152 Principals, 189 Vice-Principals, and 70 Physical Education Teachers in Public Secondary Schools in Delta North Senatorial District, Delta State, totaling 411 from 146 Public Secondary Schools. Source: (Post Primary Education Board Asaba, Planning, Research and Statistic Department, Oct, 2022). 229 respondents were selected through a multistage technique. sampling Simple random sampling technique was used to select five Local Government Areas out of nine. Purposive sampling technique was used to select all the 95 Principals, 101 Vice Principal and 33 PHE teachers in the schools under the selected five Local Government Areas this covered. The instrument for this study was a researcher structured questionnaire titled **Sports** Violence Management in Pubic Secondary Schools (SVMPSS). The questionnaire is of three sections A, B and C. Section A focused on personal and demographic data of the respondents such as gender, educational qualification, job experience, and marital status while section B gathered information on management strategies of sports violence and C gathered information on sports development in public secondary schools, Delta state. The questionnaire contained 15 items, that is, 5 items per variable; the items were based on a modified four-point Likert scale Strongly Agreed (4), Agreed (3), Disagree (2) and Strongly Disagree (1). instrument was subjected to both face and content validity by three experts from Administration and Management of Human Kinetics Education and Sports in Department of Human Kinetics Education at the University of Ilorin, Ilorin, Kwara State, Nigeria. After which their observations, advice, and comments were used to produce the final draft of the questionnaire which was administered to the respondents. The reliability of the instrument was ascertained with the splithalf method where 20 copies of the questionnaire were administered to a randomly selected group of respondents (public secondary schools administrators and sports personnel) in Delta South Senatorial District different from the target area at once by splitting the 20 respondents into two. The results of the two tests were

correlated by using Pearson's Product Moment Correlation Statistics (PPMC) at 0.05 alpha level and a reliability coefficient of 0.75 was obtained which makes the instrument useable for the research. Inferential statistics of Pearson's Product Moment Correlation Coefficient was used to test the formulated hypotheses at 0.05 alpha level with the Statistical Package for the Social Sciences (SPSS) version 25.0.

Results

Hypotheses Testing

Null Hypothesis One: There is no significant relationship between athletes' involvement in the management sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State.

Table 1: Correlation Analysis of relationship between athletes' involvement in the management sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State

Variables	N	df	r-value	p-value	Decision
Athletes involvement	220	218	0.250	0.001	Ho Rejected
Sports development					

p < 0.05 alpha level

Researchers Fieldwork (2023)

Table one reveals that the calculated (r = 0.250) at 0.05 alpha level and at 218 degree of freedom (p = 0.001) < sig level (0.05). Hence the null hypothesis was rejected. This implies that athletes'

involvement in the management of sports violence promotes sports development in public secondary schools in Delta North Senatorial District, Delta State.

Null Hypothesis Two: There is no significant relationship between sports venue security as a management of sports

violence and sports development in public secondary schools in Delta North Senatorial District, Delta State.

Table 2: Correlation Analysis of relationship between sports venue security as a management of sports violence and sports development in public secondary schools in Delta North Senatorial District. Delta State

Variables	N	Df	r-value	p-value	Decision
Sports venue security	220	218	0.544	0.003	H _o Rejected
Sports development					

p<0.05 alpha level

Researchers Fieldwork (2023)

Table 2 reveals that the calculated (r = 0.544) at 0.05 alpha level and at 218 degree of freedom (p = 0.003) < sig level (0.05). Hence the null hypothesis was rejected. This indicates that sports venue security as a management of sports violence helps to boost sports development

in public secondary schools in Delta North Senatorial District, Delta State.

Null Hypothesis Three: There is no significant relationship between clear rules as a management of sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State.

Table 3: Correlation Analysis of relationship between clear rules as a management of sports violence and sports development in public secondary schools in Delta North Senatorial District, Delta State

Variables	N	df	r-value	p-value	Decision
Clear rules	220	218	0.344	0.004	Ho Rejected
Sports development					

p < 0.05 alpha level

Researchers Fieldwork (2023)

Table three reveals that the calculated (r = 0.344) at 0.05 alpha level and at 218 degree of freedom (p = 0.004) < sig level (0.05). Hence the null hypothesis was rejected. This shows that clear rules as a management of sports violence reduces the occurrence of sports violence and increase sports development in public Delta secondary schools in North Senatorial District, Delta State.

Discussion of the Findings

The discussion of findings of this study was based on the relationship between athletes' involvement, sports venue security and clear rules as sports violence management and sports development in public secondary schools in Delta North Senatorial District, Delta State.

The result on table one revealed that athletes' involvement in the management of sports violence improves sports development in public secondary schools in Delta North Senatorial District, Delta State. These offers to the fact that, the involvement of athletes in developing and implementing policies would prevent and address sports violence in public secondary schools in Delta State. Also, athletes have a positive influence on their peers and can reduce the occurrence of sports violence in their schools. These findings agrees with the earlier finding of McSweeney, et al (2022) titled 'the right touch of pitch assertiveness: Examining entrepreneurs' gender and project category fit in crowd funding" the study recommended that athletes can take part in advocacy efforts, instructional seminars, peer mentorship programs, and awarenessraising projects that encourage positive values, respect, fair play, and non-violence in sports, for instance. By exhibiting moral and responsible behavior both on and off the field, athletes can also serve as role models for the society at large and for other athletes'.

The findings also corroborates with the study of Baker (2021) titled 'pathways in Paralympic sport: An in-depth analysis of athletes' developmental trajectories and training histories'' the study recommended that athletes can form or join associations or unions that advocate for their rights and interests, such as fair play, anti-doping, health and safety, welfare, education, and career transition. Also, athletes could be involved in sports management in a bid to prevent and manage sports violence is through their contribution to the development and delivery of sport programs and services.

The result on table two showed that sports venue security as a management of sports violence aids in furthering sports development in public secondary schools in Delta North Senatorial District, Delta State. It therefore indicates that regular assessment of the security risks helps to manage sports violence in public secondary schools. Also collaborating with local security agencies help to ensure the safety of sports venues and sports events.

These findings supports the study of Praditsathaporn, et al, (2018) titled 'sport safety improvement using security without audience camera privacy violation" which recommended that it is necessary to take steps to ensure the security of sports venues and the venue against potential violence because the occurrence of a violence situation in a sports arena, while having a negative impact on the sporting event, is effective on reducing the presence of spectators in competitions and games in public secondary schools.

It is also in line with the study of Yusuf, et al, (2020) titled 'examining the level of stadium security and safety during Nigeria Professional Football League matches' the study recommended that security agents should be employed as stewards in sports events having gone through proper training. A steward is an individual who is trained to be responsible for the safety and care of spectators and other stadium users during a competition.

The result on table three revealed that clear rules as a management of sports violence improves sports development in public secondary schools in Delta North Senatorial District, Delta State.

It therefore justified the fact that rules for sports violence is necessary to prevent and reduce such incidents in school sports. In addition, communicating rules for sports violence before and during sporting event as well help to manage sports violence.

These findings supports the study of Oyebanji, (2018) titled ''doping cases Among Nigerian athletes: an analysis from 2004-2016'' the study revealed that the establishment of clear rules is a key aspect of promoting fair play and ethical behavior in sports. It further revealed that rules are designed to regulate the conduct of athletes, officials, and spectators during sports events, and to deter or punish any

violations that may compromise the integrity and spirit of sports.

The study recommended that rules should be based on the principles of respect, fairness, responsibility and nonviolence, and should be communicated to stakeholders, including all students, teachers. coaches, parents and administrators. Rules should also aligned with national and international standards and regulations on sports ethics and integrity. The findings also affirm the study of Abrams et al. (2015) titled "sport and violence. Sport Exercise Performance Psychology Newsletter" the study revealed that the use of clear rules foster a culture of respect and tolerance among athletes, coaches, parents and administrators. It recommended that sport stakeholders must make systemic of sport interventions at all levels (preferably beginning with younger athletes) to limit violence in sport and set boundaries for behavior.

Conclusion

Based on the findings of this study, the following conclusions were drawn;

(i) Involving athletes in the management of sports violence reduces sports violence and improve sports development in public secondary schools in Delta North Senatorial District, Delta State.

- **Sports** security (ii) venue as a of sports violence management lessens the severity of sports violence and increase sports development in public secondary schools in Delta North Senatorial District, Delta State.
- (iii) Clear rules as a management of sports violence reduce the occurrence and boost sports development in public secondary schools in Delta North Senatorial District, Delta State.

Recommendations

Based on the findings of the study, the following recommendations were made:

- (i) School administrators and sports personnel's in public secondary schools should provide opportunities for athletes to be involved in the management of sports violence by inviting them to stakeholders meetings.
- (ii) The school administrators and sports personnel in public secondary schools should employ the services of security agents to maintain law and order during sports competitions.
- (iii) Public secondary schools organizers should establish clear rules to regulate the conduct of officials, athletes and spectators during sports

competitions and punish any violations that may compromise the integrity and spirit of sportsmanship.

References

- Abrams, M., Bartlett, M., & Prewitt-White, T. (2015). Sport and violence. Sport Exercise and Performance Psychology Newsletter.

 Please put the pages
- Aina, M. G. (2021). Sports promotion as determinant of basketball development in Nigeria. Journal of Physical Education and Health Social Perspective. **Please put the pages**
- Baker, J. (2021). Pathways in paralympic sport: An in-depth analysis of athletes' developmental trajectories and training histories. *Adapted Physical Activity Quarterly*, 39(1), 37-85.
- Ekerete Kelvin. (2019). Violence erupts in Lagos after Pillars, Rangers NPFL tie -Punch Newspapers. Accessed 2022 from https://punchng.com/iraie-fans-wreak-havoc-after-pillars rangers-nptl-tie/FIF A (2011). Football Stadiums Technical
- Federal Government of Nigeria (2009).

 National sport policy for Nigeria.

 Finance and sponsorship. Abuja:
 Government Press
- Ibraheem, T.O., & Owoade, A. (2022). Strategic Approach of Managing Violence during Recreational Sports Events in Ado-Odo/Ota Local Government Area, Ogun State, Nigeria. Indonesian Journal of Sport Management, 2(1), 38-44.

- McSweeney, J. J., McSweeney, K. T., Webb, J. W., & Devers, C. E. (2022). The right touch of pitch assertiveness: Examining entrepreneurs' gender and project category fit in crowdfunding. *Journal of Business Venturing*, 37(4), 106-223.
- Nwaogu, F. C. (2020). Officiating and Security as Indices for Effective Organisation of Inter-Faculty Sports Competition in University of Port Harcourt, Nigeria. *European Journal of Education Studies*.
- Obilor, E. I. & Miwari, G.U. (2021) Assessing the Consequences of Violence in Nigerian Public Secondary Schools. *International Journal of Innovative Psychology & Social Development* 9(2):133-143.
- Ogbe, J. (2016). Assessment of school violence prevention strategies among secondary school students in Delta state, Nigeria. Research Gate.
- Olaoye, A. K. (2021). Impacts of sports betting on socio-economic development of youths in Kwara State, Nigeria. Doctoral Dissertation, University of Ilorin.
- Oseh, J. A. (2019). Identification of strategies for curbing hooliganism in secondary schools sports in Delta South Senatorial district of Delta state. Doctoral Dissertation, Delta State University, Abraka.

- Oyebanji, A. O. (2018) Doping cases among Nigerian athletes: An analysis from 2004-2016. International Journal for Innovation Education & Research 6(11): 1-11.
- Parent, M. (2018) 'Evolution and issue patterns for major-sport-event organizing committees and their stakeholders', *Journal of Sport Management*. (22) 135-164.
- Praditsathaporn, S., Kaviya, S., & Yupapin, P. P. (2018). Sport safety improvement using security camera without audience privacy violation. *Proceeding Social and Behavioral Sciences* (2) 62–67.
- Uwayo, F. (2021). Players' perception of coaches' leadership behavior as key to active contribution to team's achievement: A case study of Rwanda handball league. *Journal of Global Research in Education and Social Science*, 8-17.
- Skogvang, B. O. (2023). Professional women's football in Norway–A field of empowerment and discrimination. *Women's Football in a Global, Professional Era* (pp. 49-65). Emerald Publishing Limited.
- Yusuf, A. O., Akinwusi, A. T. & Morakinyo, E. O. (2020). Examining the level of stadium security and safety during Nigeria professional football league matches. *European Journal of Physical Education and Sport Science*, 6(1), 26-42.