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KNOWLEDGE AND HINDRANCES TO HYGENIC MENSTRUAL PRACTICES AMONG SECONDARY SCHOOL GIRLS IN KWARA STATE, NIGERIA

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Abstract

Good menstrual hygiene is a very paramount aspect of female personal hygiene but it is one of the least talked about issues facing adolescent girls in developing world, Nigeria inclusive. This study investigated the knowledge and hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria. Specifically, the study examined the level of knowledge of hygienic menstrual practices as well as hindrances to practicing it. The study was a descriptive survey type with a study population of 450 secondary school student selected through a multi-staged sampling procedure. Questionnaire validated for face and content validity determined by experts in the field of health promotion and education was the instrument adopted for data collection. It was also subjected to a reliability test of the split half method which yielded the reliability coefficient of 0.74. Data collected was analyzed using descriptive statistics of percentage and mean to answer the research questions while ANOVA and independent t-test were used to test hypotheses at 0.05 alpha level. The findings revealed that: majority of the secondary school girls studied had low knowledge of menstrual hygiene. Also, the students encountered hindrances to hygienic menstrual practices such as not being able to move freely around the school during menstrual period; not being able to bath thrice daily to avoid menstruation odour and stains among others. Furthermore, there was no significant difference in the knowledge of menstrual hygiene among Secondary school girls based on class levels ($F_{\{2, 447\}} = 1.983, p > 0.05$); there was a statistically significant difference in the knowledge of menstrual hygiene among Secondary school girls based on location ($t_{\{448\}} = 1.652, p > 0.05$); there was no significant difference in the hindrances to menstrual hygiene practices among the school girls based on class levels ($F_{\{2, 447\}} = 1.809, p > 0.05$) and there was also no statistically significant difference in the hindrances to menstrual hygiene practices among secondary school girls based on location ($t_{\{448\}} = 1.421, p > 0.05$). In view of these findings, it was concluded that secondary school girls in Kwara State lack adequate knowledge of menstrual hygiene which aided hindrances to hygienic practices during menstruation. It was recommended among others that sensitization programmes on menstrual hygiene be carried out among secondary girls by health educators, Government should provide WASH amenities for schools and Non-Governmental Organizations should work with Government to subsidize sanitary pads among others.

Keywords: Hindrances, Menstrual hygiene, Knowledge, Practice

Introduction

The advent of menstruation is one of the most noticeable changes in girls as they move from childhood to becoming reproductively mature. Physical and psychological changes are common throughout this time, therefore it is important to exercise self-confidence-building techniques and disease prevention. According to Person, Kayula, and Opong (2014), menstrual hygiene is a significant issue influencing the health and academic success of girls of reproductive age. Menstrual hygiene thus becomes a significant issue (WaterAid, 2012) because 52% of women (or 26% of the world's population) are currently of reproductive age and go through their menstrual cycle on average for up to 52 days each year (McMahon, Winch, & Caruso, Obure, Ogutu, Ochari, 2011)

Menstrual hygiene is a crucial component of female personal hygiene, but it is also one of the topics that adolescent girls in developing countries like Nigeria, talk about the least. According to Thakre, Thakre, Reddy, Rathi, Pathak, and Ughad (2011), women's hygiene practices during menstruation are extremely important

because they have an impact on their health by making them more susceptible to infections, particularly infections of the urinary tract and the perineum as well as the release of offensive odor. Thus, unhealthy menstrual practices include, among others, not frequently cleansing the genitalia and using unclean cloth. In order to prevent toxic shock syndrome, premature deliveries, stillbirths, miscarriages, infertility issues, and cervix cancer as a result of recurrent reproductive tract infections, menstrual hygiene is a crucial component of health education for menstruating women (Bathija, Bant & Itagimath, 2013). It is thus important for women to adopt good cleanliness during their periods to avoid these negative health effects (Anchebi, Shiferaw, Fite & Abeya, 2017).

Menstrual hygiene, according to Deshpande, Patil, Gharai, Patil and Durgawale (2018), entails requirements and necessities like the use of sanitary pads or clean and soft absorbents, adequate washing of the genital area, proper disposal of used absorbents, and other specific healthcare needs of women during monthly menstrual cycles. Although it is crucial, menstrual hygiene is still largely disregarded in many parts of the world (Prajapati, Shah & Kedia, 2015). Though menstruation is a natural physiological occurrence for females, maintaining excellent hygiene is difficult for all adolescent girls (Mahon & Fernandes, 2010). Girls who have never had their period may feel a variety of emotions during their vaginal bleeding, including dread, humiliation, and guilt (Bathija, et. al., 2013). Teenage girls, especially in developing nations, still do not know how to practice excellent menstrual hygiene (Anchebi et al., 2017). Hayden (2012) posited that the reasons for this lack of knowledge may not be far-fetched from secrecy, taboo and shame that usually surround the act of menstruation. These hinder adequate assessment and identification of solutions that are viewed as contextually appropriate because Girls and women hesitate to speak openly about menstruation. Hayden (2012) further claims that cultural beliefs such as the types of materials that girls and women use, their methods for disposing of menstrual waste (e.g. burying versus communal trash bins) and their preferences for how and where to wash and dry reusable materials (de Lange, Lenglet, Fesselet, Gartley, Altyev & Fisher, 2014) frequently influence menstrual practices.

The degree to which menstruating women and girls can fully participate in society depends on cultural, religious, and behavioral norms that vary both internationally and among individual nations. A study among exiled women in Nepal indicated that 89% of women and girls suffered limitations during menstruation, including exclusion from the community and confinement to the home (Karki, Poudel, Rothchild, Pope, Bobin, Gurung, Basnet, Poudel, Sherpa., 2017).

Amatya, Ghimire, Callahan, Baral and Poudel, (2018) posited that menstrual stigma, which has roots in power and gender imbalances and prevents menstruation from being openly acknowledged, is what underlies these problems. This prevents people from discussing correct facts about the menstrual period and how to handle it in an appropriate and dignified manner. Additionally, it makes people uncertain about how to seek assistance at home, at school, or through medical services (Hennegan, Torondel, Phillips-Howard, Sommer & Montgomery, 2017)

Menstrual hygiene knowledge is mostly transmitted among family members and focused on the use of monthly products in order to maintain the social stigmas and taboos currently associated with menstruation. This results in inadequate management of menstrual discomfort. Unhygienic practices are frequent in this setting (PSI Nepal, 2017).

Having the knowledge, resources, and cultural setting to manage menstruation hygienically and with dignity is a top priority for women and girls. However, development professionals in the WASH (water, sanitation, and hygiene) sector and other related fields like reproductive health largely disregard the significance of menstrual hygiene management (Mahon & Fernandes, 2010).

According to Anchebi, et. al. (2017), effective menstrual hygiene practices will boost women's confidence in a variety of ways. On the other side, poor menstrual hygiene practices will make people more vulnerable to issues with reproductive health. According to Parker, Smith, Verdemato, Cooke, Webster and Carter. (2014), effective menstruation management is crucial for girls' mental and physical health, yet many girls in underdeveloped nations do not experience this. As a result, they must limit their activities when they are menstruating, which

jeopardizes their ability to maintain a household and pursue a formal education. Menstrual hygiene management (MHM) is a well-known public health, social and educational issue (Sommer, Caruso, Sahin, Calderon, Cavill, Mahon et al, 2016). Menstrual hygiene management (MHM) refers to techniques for maintaining personal hygiene while having a period, starting with selecting the best sanitary products, using them correctly, disposing of them properly, and keeping one's body clean.

Mohammed and Larsen-Reindorf (2020) claim that school environments without toilets, water, or a supportive teacher, mentor, or role model to help them understand the changes occurring in their bodies cause school girls in low and middle-income countries to discover blood on their clothing for the first time. Girls from lower socio-economic classes who are unable to afford sanitary napkins instead utilize cotton rags, which are typically shredded pieces of clothing from old clothes throughout the duration of their periods. Even if the fabric is completely covered in blood or extremely dirty, they remain unchanged. Sometimes a lack of water exacerbates the issue and prevents them from being able to wash the cloth.

Due to Taboos and misconceptions around disposing of items soaked with menstrual blood, some people who use tissue rolls end up retaining them for an extended period of time. Kumari (2017) opined that in the majority of Indian households, women are forbidden from eating or touching sour foods like pickles. Different faiths forbid women from entering holy areas because they will bring pollution. Some traditions commemorate a girl's menarche or first period in accordance with their culture, but they also forbid menstrual women from participating in any rites since they are viewed as filthy and impure. This not uncommon in Nigeria households as well since some families hold the believe that a menstruating woman should not touch food such as moimoin, cornmeal and sieving of gruel used to make pap as such food will either turn sour or not get cooked if touched or prepared by a menstruating woman

Statement of the Problem

Menstruation is frequently thought of as a personal matter. The way it is handled has been impacted by its private character. Despite it being taught as a required element of the school curriculum, it is still thought that only the family should discuss it among its female members. This has impacted the hygiene practices associated with it because young girls are frequently left to investigate and learn on their own about how menstruation should be managed. The majority of the time, the period it happens is accompanied by unhygienic behaviors or even school absences.

This is made more difficult by a number of obstacles, including a lack of affordable, comfortable, and appropriate menstrual products, inaccurate information about the menstrual cycle and how to manage it with dignity, harmful social beliefs and taboos related to menstruation, and a lack of adequate physical water, sanitation, and hygiene (WASH) infrastructure to support menstruation at home and in public spaces. Most Nigerian schools lack privacy and frequently have difficult access to restrooms, which even when they may not have doors, locks, or appropriate illumination to manage menstruation.

Access to water, locations to wash and dry reusable pads and cloths, and trash cans are frequently in short supply (Parker, et. al, 2014). Even with sufficient education, all these obstacles make maintaining menstrual hygiene difficult.

Purpose of the Study

The main purpose of this study was to examine the knowledge of and hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria.

Research Questions

The following questions were raised to guide this study

1. What is the level of knowledge of menstrual hygiene practices among secondary school girls in Kwara State, Nigeria?
2. What are the hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria?

Research Hypotheses

The following hypotheses were postulated for this study

- H₀₁:** There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria
- H₀₂:** There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria
- H₀₃:** There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria
- H₀₄:** There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Methods and Materials

This research was of the descriptive survey kind. All senior secondary school girls in Kwara State, Nigeria, made up the study's population. For this study, 450 senior high school females were selected through a multi-stage selection process. To create a total of six (6) local government areas for this study, two (2) local government areas were chosen at random from each of Kwara State's three senatorial districts in the first step. To reach the final number of 30 senior schools for this study, five (5) senior public schools from each of the selected local government areas were chosen at the second stage using a systematic sampling technique.

In order to reach the required sample size of 450 for this study, 15 senior secondary school girls from each of the chosen schools were randomly chosen at random in the third stage of the process. Data were gathered using a questionnaire created by the researcher. The survey was divided into Sections A, B, and C. The participants' demographic information, including their location and class standing, was gathered using Section A. On the subject of knowledge of menstrual hygiene practices, Section B contained fifteen (15) multiple-choice questions, whereas Section C contained six (6) questionnaire items structured in a four-response format: Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed. Experts in the field of health promotion determined the instrument's face and content validity, and the results produced a reliability coefficient of 0.74. After running a split-half reliability test on the instrument, the reliability coefficient was discovered. Following the instrument's administration, the data were analyzed using percentage and mean descriptive statistics to address the research questions, and independent t-tests and analysis of variance (ANOVA) were used to test the hypotheses at the 0.05 level of significance.

Results and Discussions

Out of the 450 senior secondary school girls sampled for this study (all of whom were senior), 127 (28.1%) were in SSS1; 177 (39.3%) were in SSS2; and 146 (32.4%) were in SSS3. Additionally, 150 (33%) of the participants were from rural areas, whereas 300 (66.7%) of the participants were from metropolitan areas.

Answering of Research Questions

Question One: What is the level of knowledge of menstrual hygiene practices among secondary school girls in Kwara State, Nigeria?

Percentage analysis was applied to participant replies about their awareness of menstrual hygiene routines. The minimum and maximum scores for the knowledge of menstrual hygiene practices test were 0 and 15, respectively, and there were 15 multiple-choice exam items. Students with scores between 0 and 5, 6 and 10, and 11 and 15 were thus classified as having poor, moderate, and high levels of understanding of menstrual hygiene practices, respectively. Table 1 displays the statistical data in summary.

Table 1: Level of knowledge of menstrual hygiene practices among secondary school girls in Kwara State

Level of knowledge	Score Range	Frequency	Percentage
Low	0 – 5	216	48.0%
Moderate	6 – 10	142	31.6%
High	11 – 15	92	20.4%
Total		450	100.0%

Table 1 shows that out of 240 secondary school girls sampled for this study, 216 (48.0%) of them were of low level of knowledge of menstrual hygiene practices; 142 (31.6%) had moderate knowledge while 92 (20.4%) were of high knowledge of menstrual hygiene practices. Thus, the majority of the secondary school girls were had low level of knowledge of menstrual hygiene in Kwara State.

Question Two: What are the hindrances to hygienic menstrual practices among secondary school girls in Kwara State, Nigeria?

Due to the four-response format of the questionnaire on hindrances to hygienic menstrual practices, a cut-off score of 2.50 was used as the starting point for evaluating participants' responses. Therefore, factors were confirmed as impediments to hygienic menstrual practices if their mean scores were equal or higher than 2.50, while items with mean scores below 2.50 were noted otherwise.

Table 2: Hindrances to menstrual hygiene practices among secondary school girls in Kwara State

SN	Hindrances to hygienic menstrual practices	Mean	S.D.	Remark
1	Lack of privacy and not being able to move freely around the school during menstrual period	2.69	1.43	Affirmed
2	Taking bath trice daily to avoid menstruation odour and stains which is impossible in the school premises	2.72	1.35	Affirmed
3	Frequent washing of vagina or vulva to maintain hygienic menstrual practices	3.16	2.11	Affirmed
4	The need to use warm water to wash vagina or vulva from anus which cannot be found in the school	2.99	1.72	Affirmed
5	Frequent change of sanitary materials per day	2.77	1.28	Affirmed
6	Disposal of soaked material in the school.	2.69	1.43	Affirmed

The mean scores for all the items were higher than 2.50, as shown in Table 2. Therefore, lack of privacy and restrictions on movement during menstruation make it difficult for secondary school girls in Kwara State, Nigeria, to maintain hygienic menstrual practices. Additionally, it is not possible for them to take a daily shower inside the school, wash their vagina or vulva frequently, change their sanitary products frequently each day, or dispose of soaked materials outside the school.

Hypotheses Testing

The following hypotheses were postulated for this study

H₀₁: There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Table 3: ANOVA Summary Statistics of the difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Ages	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	264.969	2	132.484	1.983	.076
Within Groups	29866.667	447	66.816		
Total	30131.636	449			

*Insignificance at $p > 0.05$

As shown in Table 3, the F-value 1.983 was obtained with a p-value 0.076 when computed at 0.05 alpha level. Since the p-value of 0.076 obtained was greater than 0.05 level of significance, the null hypothesis one was not rejected. This showed that there was no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria ($F_{(2, 447)} = 1.983, p > 0.05$).

H₀₂: There is no significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Table 4: t-test statistics showing the difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Location	No	Mean	S. D.	Df	t-value	Sig	Remark
Rural	150	39.58	4.92	448	1.652	0.271	Not Rejected
Urban	300	41.17	4.41				

*Insignificance at $p > 0.05$

Table 4 shows that the t-value 1.652 is obtained with a p-value of 0.271 when computed at 0.05 alpha level. Since the p-value of 0.271 is greater than 0.05 level of significance, the null hypothesis one is rejected. Therefore, there was a statistically significant difference in the knowledge of menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria ($t_{(448)} = 1.652, p > 0.05$).

H₀₃: There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Table 5: ANOVA Summary Statistics of the difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria

Ages	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	225.562	2	112.781	1.809	.069
Within Groups	27866.667	447	62.341		

Total	28092.229	449
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*Insignificance at $p > 0.05$

As shown in Table 5, the F-value 1.809 was obtained with a p-value 0.069 when computed at 0.05 alpha level. Since the p-value of 0.069 obtained was greater than 0.05 level of significance, the null hypothesis one was not rejected. This showed that there was no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on class levels in Kwara State, Nigeria ($F_{(2, 447)} = 1.809$, $p > 0.05$).

Ho4: There is no significant difference in the hindrances to menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Table 6: t-test statistics showing the difference in the hindrances to menstrual hygiene practices among Secondary school girls based on location in Kwara State, Nigeria

Location	No	Mean	S. D.	df	t-value	Sig	Remark
Rural	150	37.71	3.89	448	1.421	0.131	Not
Urban	300	39.39	3.93				Rejected

*Insignificance at $p > 0.05$

Table 6 shows that the t-value 1.421 was obtained with a p-value of 0.131 when computed at 0.05 alpha level. Since the p-value of 0.131 is greater than 0.05 level of significance, the null hypothesis was not rejected. Therefore, there was no statistically significant difference in the hindrances to menstrual hygiene practices among secondary school girls based on location in Kwara State, Nigeria ($t_{(448)} = 1.421$, $p > 0.05$).

Discussion of Findings

Findings from this study revealed that the majority of the secondary school girls studied had low knowledge of menstrual hygiene. Proper disposal of used menstrual material has been a challenge for many countries of the world. Most girls dispose of used sanitary pads or other menstrual articles into household solid waste or garbage bins. This result corroborates Carlson (2011) whose findings have shown that the girls studied had low levels of awareness about menstruation when they first experienced it. Adolescent girls reported receiving insufficient guidance prior to their first menstrual period thus experiencing shame, fear and embarrassment managing menstruation, especially while at school. However, the limited knowledge available has been passed down informally from mothers, who themselves lack knowledge of reproductive health and hygiene because of lower literacy levels and socio-economic status. Providing authentic and up to date information for young adolescent girls is critical to the supportive environment required for healthy, dignified management of menstruation.

It was revealed in this study that girls suffered several hindrances to menstrual hygiene such as lack of privacy and restrictions on movement during menstruation, inability to take a daily shower inside the school, wash their vagina or vulva frequently, change their sanitary products frequently, or dispose of soaked materials outside the school. The study of Schmitt, Clatworthy, Ratnayake, Klaesener-Metzner, Roesch, Wheeler and Sommer (2017)

among displaced girls in Myanmar and Lebanon also revealed that girls reportedly lacked privacy and ability to properly dispose menstrual materials while having their periods. The respondents described challenges in finding spaces to safely and privately change their menstrual materials, clean themselves and dispose of menstrual waste. As corroborated by one of the girls during an FGD:

...The walls that make the tents and separate them are normally just blankets, plastic sheeting and transparent. Someone from the outside can see you in there; if you undressed or don't have your veil on, someone can see you....

In the same vein, study by Yaliwal, Biradar, Kori, Mudanur, Pujeri and Mohd Shannawaz(2020) among adolescent girls in North Karnataka, India revealed that School absenteeism was considerable during menstruation with 9% of the urban girls and 8.2% of the rural girls remaining completely absent during periods.

Poor menstrual hygiene and inadequate self-care are major determinants of morbidity and complications among younger females. Some of these problems include reproductive tract infections, urinary tract infections, scabies in the vaginal area, abdominal pain, absence from school, and complications during pregnancy. This corroborates the findings of Baisley, Chagalucha, and Weiss (2009) who submitted that using cloths or cotton wool for menstrual hygiene is the single most predictive factor for bacterial vaginosis infection. Also, Torondel, Sinha and Mohanty (2018) submitted that more than 32% of the females used homemade alternative sanitary materials for managing their menses. The homemade alternative material reaches from old clothes/ rags to clean new clothes. These old clothes may put the women at risk for infection and allergic reactions for their skin around the genitals. This substantiates Morrison, Basnet, Bhatta, Khimbanjar, Joshi and Baral (2019) who compared with those aged greater or equal to 18 years, females younger than 18 years were 84% less likely to be their MHM practice was unsafe. Females whose fathers were illiterate were 3.57 times more likely to manage their menses unsafely. Compared with those females who never discussed menses with their mother, females who frequently discussed were 70% less likely to manage their MHM unsafely.

In the same vein, findings of this study indicated that there was no significant difference in the knowledge of menstrual hygiene practices among secondary school girls based on class levels and location in Kwara State, Nigeria. There was also no statistically significant difference in the hindrances to menstrual hygiene practices among secondary school girls based on class levels and location in Kwara State, Nigeria. This signifies that secondary school girls regardless of their class levels and location of residents had low level of knowledge of menstrual hygiene practices and faced similar hindrances to menstrual hygiene practices. However, According to Wilbur, Kayastha, Mahon (2021) qualitative study of disabled individuals and their caregivers in Nepal, the barriers to MHM vary depending on the severity of the person's impairment. These obstacles also make it difficult for disabled people to live dignified lives and exercise their human rights, such as attending school. Persons with sight impairments expressed difficulty seeing blood on garments and bed sheets, and people with mobility disabilities emphasized difficulties using the menstrual product and disposing of it discreetly. Due to the widespread taboo around menstruation, this was stressful and upsetting for the participants who relied on cares for personal care. They felt ashamed when requesting someone to change their menstrual product and guilty when they saw their care giver handle their menstrual blood. As a result, they did not change their menstrual products as regularly as they would have liked to.

Conclusion

Based on the study's findings, it was possible to draw the conclusion that secondary school girls had insufficient (low levels of) understanding about menstrual hygiene practices. The inability of secondary school girls to move freely around the school during menstruation, the impossibility of taking a daily shower to prevent menstrual odors and stains inside the school, the infrequent washing of the vagina or vulva to maintain hygienic menstrual practices, the inappropriate disposal of wet materials inside the school, and other factors could all be as a result of inadequate knowledge of menstrual hygiene and lack of proper sanitation amenities.

Recommendations

With respect to the findings of this study, the following recommendations were proffered for this study

1. Secondary school girls should be sensitized on several ways to manage and practice menstrual hygiene which could be via social media, radio programme, seminars and workshops to equip secondary school girls on the knowledge and practices of menstrual hygiene.
2. School health educators should be charged with the responsibility of regularly passing adequate information on personal and menstrual hygiene to school girls to foster their knowledge and practices of menstrual hygiene.
3. School management should endeavour to create an enabling environment within the school premises that would allow school girls to freely dispose soaked materials and perform all the necessary hygiene practices during the menstrual period.
4. Parents and school guardians should also educate their children/wards on various ways of maintain and managing menstrual hygiene. This could encourage and improve children's practices of personal and menstrual hygiene.
5. Government should help in subsidizing sanitary pads and materials to reduce the cost and foster the practices of menstrual hygiene among secondary school girls.
6. Non-government organisations should also assist in the provision (at no or low cost) of sanitary materials to young and adolescent girls to foster the practices of menstrual hygiene in the society.

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ASSESSMENT OF INFLUENCE OF INSURGENCY ON THE EMOTIONAL AND MENTAL HEALTH OF INTERNALLY DISPLACED PERSONS (IDPS) IN NORTHEAST ZONE, NIGERIA

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Abstract

This study assessed the influence of insurgency on the emotional and mental health of internally displaced persons in Northeast zone, Nigeria. The purpose of the study was to determine the Influence of insurgency on emotional and mental health of internally displaced persons in North east Zone, Nigeria. Ex-post facto research design was used for this study while the Sample size of 719 was used from the population of the study which consists of 1,184,545 all IDPs in North east zone of Nigeria. The instrument for this study is a researcher-developed close-ended questionnaire. Simple percentage was used to analyze the demographic characteristics of the respondents, descriptive statistics of mean and standard deviation was used to test the research questions whereby one sample t test was used to answer the formulated hypotheses. The findings revealed that insurgency due to insecurity significantly influence emotional health of internally displaced persons in Northeast zone, Nigeria ($t = 4.229$; $p = 0.00$). Insecurity due to insurgency significantly influenced mental health of internally displaced persons in Northeast zone, Nigeria ($t = 6.210$; $p = 0.00$). It was therefore concluded that insecurity due to insurgency negatively influenced emotional and mental health of internally displaced persons in Northeast zone, Nigeria. Hence, the study recommends that Emphasis should be made to improve the sanitary services among the displaced persons in various camps. When people are emotionally stable all other things fall in shape. Also, mental health of IDPs must take a center stage. IDPs are mentally unstable because they are vulnerable.

Keyword: Emotional Health, Mental Health, Internally Insurgency, Displaced Persons

Introduction

Insurgency in Nigeria have resulted in unimaginable loss of lives and properties. The activities of Boko Haram in North-east, banditry in North-west and farmers/herdsmen in North-central has occasioned large scale displacement. According to Turkish Radio and Television World, (2019), Boko Haram militants killed at least 25 soldiers and a number of civilians in an ambush in North-east Nigeria. Militants opened fire as the soldiers were escorting a group of evacuees from a village in Borno State. In addition, Akinwale and Oyeyipo, (2019), opined that insurgency that started in Northeast eventually became a spring board for other criminal activities like banditry menace in North-west Nigeria. Bandits had the effrontery to attack military formations, communities and vulnerable school children. Some students were abducted from some schools. There has been an escalation of banditry and kidnapping in the Northwest states of Zamfara, Sokoto, Katsina and Kaduna. Additionally, Ajibo, Onuoha, Obi-Keguna, Okafor and Oluwasanmi, (2018), stressed that farmers and herdsman clashes in some other regions continue to pose security challenges along side with insurgency that is of great concern to international communities and Nigeria in particular.

Emotional health is also a core determinant of a person's health. Turnip, (2015), revealed that IDPs and refugees are more vulnerable to emotional health problems than non-refugees and non IDPs. Turnip, (2015),

further stated that forced migrants have experienced significant trauma including torture and showed a high prevalence of traumatic stress and depression symptoms. According to Suleiman, (2015), emotional health problems are rife among those who have lost their loved ones including mothers, fathers, sons, daughters and the dearly from the extended family. The emotional health problems experienced by internally displaced persons range from grief reactions due to loss, depression and psychotic disorders.

Mental health problems have become serious public health challenges resulting from massive displacements of IDPs, owing to violence and conflicts. Displacement adversely impact on the thinking ability and Behavioural patterns of IDPs. According to Raminez, (2016), conflicts and violence leads to poor mental health and high rates of general anxiety and depression. Hence, females are at a higher risk of suffering from negative mental outcomes while their male counterparts are more likely to adopt destructive coping mechanisms. In most cases, economic implications of displacements are often greeted with dire consequences. Duru, (2018), reported economic impact of 175,070 IDPs occasioned by herdsman crisis in Benue State. The Executive Secretary of Benue State Emergency Management Agency submitted that “what we have at hand is a huge humanitarian crisis that has already overwhelmed the State government, given the economic and financial condition of these states. Similarly, Adesote and Akinsola, (2015), stressed that insurgence of a dreaded Islamic sect popularly known as Boko Haram in North-east has resulted in injuries, deaths, psychological harm, large scale displacements and disruption of economic activities with its adverse consequences on the health of the general public and particularly on IDPs. The purpose of the study is to determine the Influence of insurgency on emotional health of internally displaced persons in North east Zone, Nigeria and to ascertain the influence of insurgency on mental health of internally displaced persons in North east Zone, Nigeria. The following Research Questions were formulated to guide the study:

1. What is the influence of insurgency on emotional health of internally displaced persons in Northeast Zone of Nigeria?
2. What is the influence of insurgency on mental health of internally displaced persons in Northeast Zone of Nigeria?

Hypotheses

The following hypotheses were tested in the study

1. Insurgency will not significantly influence emotional health of internally displaced persons in Northeast zone of Nigeria.
2. Insurgency will not significantly influence mental health of internally displaced persons in Northeast zone of Nigeria.

Methods and Materials

Ex-post facto research design was used for the study. The sample size of the study consisted of 719 respondents selected using Stratified, Proportionate and simple random technique from eleven (11) camps situated within Adamawa and Borno States out of the total population of 1,184,545 IDPs in North east zone of Nigeria.

The instrument for the study was researcher-developed close-ended questionnaire titled “Assessment of influence of insurgency on the psychosocial health of internally displaced persons in Northeast zone, Nigeria. (AIIPHIDPNEZN). Four point adapted Likert scale, which is an interval scale of measure of Strongly Agree (4 points), Agree (3 points), Disagree (2 points) and Strongly Disagree (1 point) was used.

In order to determine the construct and content validity of the research instrument, five (5) experts from the Department of Human Kinetics, Nursing Sciences and Veterinary Medicine were consulted for the appropriateness of the items contained in the questionnaire. Based on the suggestions made by these experts, some items in the questionnaire were removed, while some of the items were modified before the instrument was pilot tested for reliability and to further validate the research instrument. To determine the level of reliability of the instrument, Cronbach Alpha test was used and the results revealed that Cronbach Alpha reliability test was 0.716.

Statistical Package for the Social Sciences (SPSS version) 24.0 was used in data analysis. The data was computed using descriptive statistics of frequencies, mean and standard deviations were used to describe the

demographic characteristics of the respondents and to answer the research questions respectively. All the formulated hypotheses were tested using one sample t-test analysis.

Results and Discussions

Research Question One: What is the influence of insurgency on emotional health of internally displaced persons in Northeast zone of Nigeria?

Table 1: Mean Scores of the Responses on the Influence of insurgency on emotional health of internally displaced persons

Item	Mean	Std. Dev.
I become aggressive when I remember past experiences in the camp	2.3586	.82526
I become quarrelsome when annoyed by someone in the camp	2.6062	.86050
I have constant feeling of fear due to past experiences	2.3108	.73380
Thought of past traumatic experiences makes me unstable in the camp	2.7018	.88396
I do not engage in excessive thinking in the camp.	2.7904	1.11821
Aggregate Mean	2.5535	

Table 1 shows the mean score of the responses on the influence insurgency on emotional health of internally displaced persons. I become aggressive when I remember past experiences in the camp have mean of 2.3586 and standard deviation of 0.8253. I become quarrelsome when annoyed by someone in the camp have mean of 2.6062 and standard deviation of 0.8605. I have constant feeling of fear due to past experiences have mean of 2.3108 and standard deviation of 0.7338. Thought of past traumatic experiences makes me unstable in the camp have mean of 2.7018 and standard deviation of 0.8870. I do not engage in excessive thinking in the camp have 2.7904 and standard deviation of 1.1182. The aggregate mean score of the items is 2.5535 which was found to be greater than benchmark score of 2.5. This implies that there is no influence of insurgency on emotional health of internally displaced persons in Northeast zone of Nigeria.

Research Question Two: How does the influence of insurgency on mental health of internally displaced persons in Northeast zone of Nigeria?

Table 2: Mean Scores of the Responses on the Influence of Insurgency on Mental Health of Internally Displaced Persons

Item	Mean	Std. Dev.
I can work productively and fruitfully in the camp	2.8101	1.13421
I contribute meaningfully to my family needs in the camp	2.6414	.76134
I relate well with people around me in the camp	2.6695	.83356
I easily get over depressive situations in the camp	2.1744	.79468
I think constructively all the time in the camp	2.3868	.92587
Aggregate Mean	2.5364	

Table 2 shows the mean score of the responses on the influence of insurgency on mental health of internally displaced persons. I can work productively and fruitfully in the camp have mean of 2.8101 and standard deviation of 1.1342. I contribute meaningfully to my family needs in the camp have mean of 2.6414 and standard deviation of 0.7613. I relate well with people around me in the camp have mean of 2.6695 and standard deviation of 0.8336. I easily get over depressive situations in the camp have a mean of 2.1744 and standard deviation of 0.7947. I think constructively all the time in the camp have a mean of 2.3868 and standard deviation of 0.9258. The aggregate mean score of the items is 2.5364 which was found to be greater than benchmark score of 2.5. This implies that there is no influence of insurgency on mental health of internally displaced persons in Northeast zone of Nigeria.

Hypotheses

Hypothesis One: Insurgency will not significantly influence emotional health of internally displaced persons in Northeast Zone of Nigeria.

Table 1: One sample t-test Analysis on Insurgency on Emotional Health of Internally Displaced Persons

	Mean	Std. Deviation	t-value	df	P-value
Aggregate mean	2.5536	0.8844	4.229	710	0.00
Constant mean	2.50	0.00			

t (710) = 1.972, P < 0.05

A careful observation of Table 3 revealed one sample t test analysis of insecurity due to insurgency on emotional health of internally displaced persons. One-sample t-test calculated value is 4.229 greater than the t-critical is 1.972 at degree of freedom 710 with (p - 0.00) which is less than 0.05 level of significance. Thus, this result did not support the sub-hypothesis (null) which states that insecurity due to insurgency will not significantly influence emotional health of internally displaced persons in Northeast zone, Nigeria. The hypothesis is therefore rejected. Therefore, insurgency significantly influenced emotional health of internally displaced persons in Northeast zone, Nigeria.

Hypothesis Two: Insurgency will not significantly influence mental health of internally displaced persons in Northeast zone, Nigeria.

Table 2: One sample t-test Analysis on Insurgency on Mental Health of Internally Displaced Persons in Northeast zone, Nigeria

	Mean	Std. Deviation	t-value	df	P-value
Aggregate mean	2.5364	0.8899	6.210	710	0.00
Constant mean	2.50	0.00			

t (710) = 1.972, P < 0.05

A careful observation of Table 4 revealed one sample t test analysis of food insurgency on mental health of internally displaced persons in Northeast zone, Nigeria. One-sample t-test calculated value is 6.210 greater than the t-critical is 1.972 at degree of freedom 710 with (p -0.00) which is less than 0.05 level of significance. Thus, this result did not support the sub-hypothesis (null) which states that “mental health will not significantly influence the health of IDPs in Northeast Zone of Nigeria”. The hypothesis was therefore rejected. Therefore, insurgency significantly influenced mental health of internally displaced persons in Northeast zone, Nigeria.

Discussion

The results of this study revealed that insecurity due to insurgency significantly influence social health of internally displaced persons in Northeast zone, Nigeria. Ugwumba and Odom (2014) opined that the threat to education from Boko Haram attack should be seen in the context of the wider problem of the impact in general on the degradation of education or prevention of educational development. The impact of attacks include the loss of, injury to, or abduction of students, teachers and personnel and damage of buildings and facilities most typically due to the burning, bombing or shelling of buildings by Boko Haram.

Furthermore, Segun and Adedeji (2016) submitted that low levels of education and literacy in Nigeria’s Northeast have been exacerbated by the Boko Haram insurgency. The group has targeted teachers and schools, with more than 910 schools destroyed between 2009 and 2015, and 1,500 forced to close. In addition, government security forces have also used schools for military purposes, further reducing children’s right to education. McCarthy (2016) observed that Boko Haram opposes Western Education and has murdered over 200 teachers and displaced 19,000 in an effort to stop children getting the education they need to break the cycle of poverty. More than 1,200 schools have been damaged or destroyed and even more have been closed because they are housing the displaced people. Nearly 600,000 have been denied an education since 2013.

In addition, Durojaye and Isokpan (2016) submitted that education was declared a basic human right for every individual in the Universal Declaration of Human Rights and this has been reaffirmed in the International Convention on Economic, Social and Cultural Rights. They further stated that school age children in Northeast who are prevented from going to school as a result of insurgency is an infringement on the social aspect of their development. Similarly, Obi (2017) opined that as Nigeria confronts the Boko Haram insurgency, the surge in the number of IDPs has increased overtime. Ailshire, Sanchez and Crimmins (2012) carried out a study on the social characteristics and physical, functional, mental and cognitive health of exceptional survivors in the U.S and how the experience of exceptional longevity differs in social status. 1,1649 men and women born from 1900 to 1911, including 1,424 non-survivors who died before reaching 97 years of age and 225 exceptional survivors who survived to at least 97 years of age from the health and retirement study.

At base line exceptional survivors were more likely to live independently, had fewer diseases, better mental health and better physical and cognitive function compared to those who did not survive to age 97. Compared to their baseline health, exceptional survivors experienced declines in all domains upon reaching 97 years of age. However, between one-fifth retained disease-free, with no functional limitations or depressive symptoms, and one-fifth retained high cognitive function. Among exceptional survivors, men were healthier than women and whites were generally healthier than non-whites. Highly educated exceptional survivors had better cognitive function than their lesser educated counterparts.

Reaching advanced old age is becoming an increasingly common experience in the United States. Among those born in 1900 who reached age 65, 41% of men and 62% of women survived to age 80 and lived, on average, an additional of 9 years. As a result of gains in life expectancy at older ages a growing segment of the U.S population is experiencing exceptional longevity (i.e. approaching 100 years of age).

The results of this study revealed that destruction of properties due to insurgency significantly influence safe environment of internally displaced persons in Northeast zone, Nigeria. WHO (2016), observed that among the general population disadvantaged groups are recognized as being often more exposed to sources of pollution. The role of environmental exposures in social health inequalities can therefore only be further explored by adopting a rigorous approach that aims to improve our understanding of those mechanisms by which these populations may suffer increased health effects. Getanda, Papadopoulos and Evans (2015), studied 100 male and female in IDPs camps in four regions of the Nakuru country, Kenya. The study employed mixed methods design using multistage sampling to assess the mental health, quality of life and life satisfaction among IDPs. The study noted the prevalence of depression, fear, anxiety and other indices that could precipitate mental health problems among IDPs. The result showed that many of the respondents had poor mental health status and life satisfaction scores were low.

The results of this study revealed that poor sanitary services due to insurgency significantly influence emotional health of internally displaced persons in Northeast zone, Nigeria. WHO (2016), observed that emotional health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to risk his or her community. There are also specific psychological and personality factors that make people vulnerable to mental disorders. WHO outlined key characteristics of emotional health. Emotional health is more than the absence of mental disorders, emotional health is an integral part of health, indeed, there is no health without emotional health, emotional health is determined by a range of socioeconomic, biological and environmental factors, cost-effective public health and intersectional strategies and interventions exist to promote and protect and restore emotional health. Omole, Welye, and Abimbola (2015), submitted that Boko Haram insurgency has created problem of displacement. These internally displaced persons live in (official and unofficial) camps, often with illnesses, physical and psychological trauma and minimal access to healthcare and basic essentials, such as food, clothing, shelter, clean water and sanitary conditions. Roberts, Brwone, Ocaka and Sondorp (2017), opined that depression included gender, marital status, distance of displacement, experiencing ill health without medical care, experiencing rape or sexual abuse, experiencing lack of food or water, exposure to traumatic events and deprivation of essential goods and services suffered by IDPs could possibly affect IDPs emotional health. OCHA (2017), submitted that mental disorder such as Post Traumatic Stress Disorder manifest in the lives of people after displacement horrors of wars as victims find it hard to improve on with life or see a better future. Someone with PTSD often relieves the traumatic event through nightmares and flashbacks, feelings of isolation, irritability and guilt.

The results of this study revealed that food insecurity due to insurgency significantly influence mental health of internally displaced persons in Northeast zone, Nigeria. Mujeeb (2015), observed that commonly psychological reactions among IDPs are likely to be post-traumatic stress disorder (PTSDs), depression, anxiety disorders, harmful health behaviours such as hazardous drinking and increased smoking. Norwegian Refugee Council (2016) reported that 1.6 million IDPs are in need of emergency shelters. They are living in makeshift shelters, seeking refugee in overcrowded, poorly resourced camps settings or in host communities. Overcrowding is a particular and worrying protection concern for women and girls as well as its negative effects on children, the elderly and people with disabilities. Abdulazeez (2016) submitted that as the country does not have a single place that has all the necessities and requirements of a displacement camp, IDPs are sheltered in other buildings and institutions like schools, palaces of traditional rulers, churches, mosques, youth orientation camps, tertiary institutions. Those who cannot stay in buildings or in tents build their own makeshift tents individually. The camps are overcrowded and the access to living space is very scarce.

Conclusion

1. Insurgency influenced environment of internally displaced persons in Northeast Zone, Nigeria.

2. Insurgency influenced emotional health of internally displaced persons in Northeast Zone, Nigeria.

Recommendation

1. Emphasis should be made to improve the sanitary services among the displaced persons in various camps. When people are emotionally stable all other things fall in shape. Emotional health of IDPs is of paramount importance. Displaced persons need sensitization on the need for clean environment and maintenance of personal hygiene in camps Government should arrange for film shows explaining dire consequences of dirty environment among displaced persons. All the three tier government must rejuvenate the comatose roles of sanitary inspectors.
2. The need to prevent and minimize food insecurity at all levels is of paramount importance. Mental health of IDPs must take a centre stage. IDPs are mentally unstable because they are vulnerable.

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ASSESSMENT OF ACCESS TO TERTIARY INSTITUTION SOCIAL HEALTH INSURANCE PROGRAMME SERVICES AMONG STUDENTS OF COLLEGES OF EDUCATION, NORTH CENTRAL ZONE, NIGERIA.

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Abstract

The purpose of this study was to assess the access to Tertiary Institution Social Health Insurance Programme (TISHIP) services among students of Federal and State Colleges of Education in North Central Zone of Nigeria. To achieve this purpose, four hundred and forty four (444) respondents were drawn from five states in North Central Zone of Nigeria. The respondents were selected using multi-stage sampling techniques. A close-ended questionnaire was used to elicit responses from the respondents. Descriptive statistics of frequency, percentages, mean and standard deviations were used to describe the demographic characteristics of the respondents and to answer the research questions. Inferential statistics of independent sample t-test was used to analyze formulated hypotheses 1. The hypothesis was tested at 0.05 alpha level of significance. The findings of the study revealed that TISHIP services among students of Federal and State Colleges of Education in North Central Zone, Nigeria were not accessible ($P=0.08$). Based on the findings of this study, it was concluded that accessibility of TISHIP services among students of Federal and State Colleges of Education in North Central Zone Nigeria were inadequate. It was therefore imperative that service plans would review with a view of improving on the gaps so that students would have full access to their health needs as may be required and expected.

Key Words: Accessibility, TISHIP, COE

Introduction

Accessibility is the ability or chance to use the Tertiary Institutions Social Health Insurance Programme (TISHIP) services by students of Federal and States Colleges of Education in the North Central Zone of Nigeria. The National Health Insurance Scheme (NHIS) programme has been asserted as the appropriate response to the expectations of workers and their families on health care. The World Health Organization (WHO, 2010) considers health insurance a promising means for achieving universal health-care coverage for citizens. As an insurance system, NHIS offers easy access to healthcare at affordable cost through various repayment schemes with a view to improving the health status of Nigerians irrespective of status and ethnic background and other social affiliations.

Access to healthcare is a fundamental human right enshrined in many global resolutions and declarations in the 1999 Constitution of the Federal Republic of Nigeria. The provision states that the right to affordable and responsive health care is a right to enjoy a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity (Alma Ata Declaration 1978). According to Onwuama (2018), healthcare is a special goal and should be treated specially for the attainment of universal health care of the highest standard.

Accessibility of student friendly health services is also a determinant of student friendly healthcare services (Kolbe, 2014). Easy access to health services is important for the young people who mostly rely on their parents or family good will to survive. Challenges to access may include lack of means of transportation to the locations of health care facilities, difficulties in making appointments, lack of the knowledge of where to access the health care system, lack of awareness of hours and days when the health services are available, and requirements to return the facilities for follow-up treatment or consultation. Although inability to access health care facilities as at when due can be difficult for adults, their experiences are by default significant barriers to youths' inability to get the healthcare services they need (Schvanel & Moss, 2014). It is more appropriate and faster for students to have access to responsive on-campus health care services.

Generally, the interplay of people's ability to access NHIS and the availability of doctors and other health personnel to implement the programme has been well documented by Akpata, (2017) who said that by the

above-mentioned problems plaguing Nigeria's health sector have some constraining effects on the implementation and sustainability of the scheme. Though, these challenges are insurmountable (Akpata, (2017) more worrisome is the dearth of medical personnel to implement the scheme. Between 1990 and 1999, it was documented that Nigeria had 19 physicians per 100,000 people, while in 2003; there were just 34,923 physicians in Nigeria at the ratio of a doctor-patient ratio of 0.28 per 1000 patients as compared to what is obtainable in the western countries (Eteng & Utibe, 2015; Akande, Salaudeen & Babatunde, 2012). Therefore, it could be argued that, even when people can afford and access the payment and could get to the health facilities with much ease, when the well-trained doctors and medical support are missing, people may not want to risk their lives in the hands of untrained or ad-hoc medical staff.

Achieving universal health care coverage - a key target of the United Nations Sustainable Development Goal number 3- requires accessibility to health care services for all. Currently, in sub-Saharan Africa, at least one-sixth of the population lives more than 2 hours away from a public hospital, and one in eight people is no less than 1 hour away from the nearest health centre (Falchettaa, Hammada, & Shayeghd, 2020).

Health care facilities in Nigeria are facing a rising pressure from growing populations, and the emergence of infectious diseases such as Ebola and COVID-19. Uneven distribution of health care accessibility, in addition to limited public health financial resources and other fiscal constraints, calls for better planning for the next generation of health care facilities if the NHIS will really be accessible to many Nigerians. Achieving universal health care access is a key development priority and a target of Sustainable Development Goal number 3; the COVID-19 pandemic has only reinforced this urgency in Nigeria coupled with continuous increase in insecurity. A rapid expansion of public, affordable health care infrastructure is particularly crucial to boost the NHIS because communicable diseases are the first cause of death among the population of poor Nigerians, infant mortality rates are not getting lower and lengthy journeys to health care facilities undermine the accessibility to basic health care for millions.

Accessibility is equally a significant factor in assuring the health population subgroups such as students with special health care needs, youth of varying ethnic and cultural backgrounds, or socially vulnerable students (Clayton, Brindis, Hamor, Raiden-Wright & Fong, 2010) explained that can get adequate health care services with little or no stress. This aspect of universal health insurance scheme underpins the youth development philosophy which provides the essential framework for adolescent health policies and programmes in developing countries. The student's development approach has contributed to the overall knowledge of adolescent health under the NHIS in Nigeria.

This categorization is consistent with standard health care facilities classification in many other developing countries. In the explanations of Doetinchem, Carrin and Evans, (2020), access to health care services is considered the link between the health care system and the population it serves. The volume and type of services, whether or not the service can be reached, the client's perceptions of the relative worth of the service and acceptability of services provided, all influence access and the utilization of services as well. In line with the postulates of the central place theory, health care facilities in Nigeria are hierarchical.

In like manner, the physical environment varies in characteristics from place to place and this invariably has implication for the pattern of demand for health care. Another thing is that the spatial dimension is important in determining health care service accessibility is a major determinant of the use of health care service (Ejughemre, 2014).

Agba, Ushie and Osunchukwu (2021) opined with the assumption that rural community-based health insurance addresses healthcare challenges faced by the rural poor in Senegal, the authors wanted to know whether rural Senegal members of a health insurance programme were actually better off- than the non-members. The results showed that in poor environments, insurance programmes can work. That was because members of mutual health organizations have a higher probability of using hospitalization services and pay substantial less when they need care than the non- members. Furthermore, the analysis revealed that while the schemes attracted poor people, the poorest of the poor still would not access these kinds of health plans. In order to capture more poor and rural population Agba, *et al*, (2021) suggested community-based health insurance programme to be activated. A number of previous studies have explored various methods of addressing the problem of accessibility to health care services. Some of them explore accessibility in terms of physical access and, therefore, modeled the problem as one of location-allocation.

Other barriers to accessibility exist that physical accessibility cannot resolve. For example, internal inefficiency in the health care service delivery chain may also prevent people from using the hospitals. System inefficiency is a perpetual thing in developing countries.

Perhaps the weightiest factor in the impediments to accessibility to quality health care is cost. Because of the prevalence of poverty, many people who reside in areas that are only a walking distance from a hospital may fail to use such facility because they cannot afford the medical bill. The Federal government has since realized that public establishments perform inefficiently, thus its reform programmes continue include packages that can entice the private organization for collaboration. Apart from provided the health sector some subsidies which may be misapplied; therefore, it is important to design an indirect method to address the cost problem in health care insurance scheme (Shree & Arin (2017).

Methods and Materials

For the purpose of the study, ex-post facto research design was used to assess accessibility of TISHIP services among students of Colleges of Education in North Central Zone, Nigeria. The population consisted of 113,430 (75,585 males and 37,845 females) students in Fourteen (14) Colleges of Education in the five (5) states and the Federal Capital Territory which are located in the North Central Zone of Nigeria. The five states are Benue, Niger, Kogi, Kwara and Plateau State. The Federal Capital Territory is not a state but the central administrative area with an administrator rather than elected governors as the case for states in Nigeria. There are five (5) Federal and nine (9) accredited States Colleges of Education located in the North Central Zone of Nigeria. This brings to a total number of fourteen (14) (Federal and State Colleges of Education) in the North Central Zone of Nigeria. The sampled students for this study were four hundred and forty four (444) from Federal and States in the study area. This figure represented 100% of the category of students that the study targeted. Multi-stage sampling techniques were employed as followed: **Stage 1.** To select five (5) states, stratified simple random sampling technique was used to select 5 states and the Federal Capital Territory (FCT) for stratification. Thus, each state and the FCT serve as first stratum for this study in the study zone. The selected states were Abuja, Benue, Kogi, Niger and Plateau. **Stage 2.** To select the six (6) colleges of education for this study, simple random sampling technique was used. This technique was used until all the 6 federal and state colleges of education were selected. Each selected college serve as the second strata for this study. **Stage 3.** Proportionate sampling technique was used to select the number of students per college of education selected for the study as the number of respondents in each selected college of education were not the same.

Stage 4: For the purpose of distributing the questionnaire, systematic sampling technique was used to select the respondents from each college.

Close ended questionnaire was used to collect data for the study. The instrument was developed by the researcher and other items were adopted from similar studies as suggested by Tukur (2015). The instrument was divided into two (2) sections. Section A and B with fifteen (15) statements: Section A: contained two (2) statements on demographic characteristics of respondents. Section B contained thirteen (13) statements on Accessibility of TISHIP services at the outpatient department. The instrument used 4-point modified Likert Rating Scale to determine the level of confidence at 0.05 alpha level of significance

Results and Discussions

Table 1 showing Demographic Characteristics of the Respondents

Variable	Frequency	Percentage
Gender		
Male	298	67.1
Female	146	32.9
Total	444	100.0
Residence		
Hostel	46	10.4
Off Campus	391	88.0
Staff quarters	7	1.6
Total	444	100.0
College		
Federal Colleges of Education	241	54.3
State Colleges of Education	203	45.7
Total	444	100.0

Table 1 shows the demographic characteristics of respondents. The table showed that majority (298; 67.1%) of the respondents who participated in the study were males, while the remaining (146; 32.9%) were females. A total of (46, 10.4%) of the respondents stayed in the hostels while (391, 88.0%) resided outside the campuses and the rest (7; 1.6%) lived in the staff quarters. Some 241 responses, that is 54.3% were obtained from the federal colleges, while 203 (45.7%) were from the state colleges of education.

Research Question One: Are TISHIP services in Federal and State Colleges of Education accessible by the students in the North Central Zone of Nigeria?

Table 2: Mean Scores of Responses on Accessibility of TISHIP services among students of Federal and State Colleges of Education North-Central Zone Nigeria.

S/No	Items	Mean	Std.
1	Patients access healthcare services without wasting time in The College.	2.775	1.23
2	Drugs are accessible at the College service centre.	2.973	1.08
3	Drugs are easily accessible and affordable at the service centre.	2.410	1.14
4	Students (clients) are normally given prompt attention at healthcare service centre.	2.255	1.11
5	Prompt attention is given to patients by doctors in the College service centre at all times.	2.171	1.15
6	Relevant investigations from doctor are attended to patients in the College service centre.	2.160	1.14
7	Admitted TISHIP patients are adequately taken care of.	2.092	1.08
a.	Out-patient clinic	1.809	1.04
b.	Consulting room	2.752	1.15
c.	Dispensary room	2.631	1.20
d.	Laboratory test room	2.935	1.12
e.	Injection/Treatment/dressing room		

f.	X-ray room	1.498	1.15
	Aggregate Mean	2.30	1.11

Table 2 shows the respondents’ responses on the accessibility of the TISHIP services. The aggregate mean score of the responses to all the statements was 2.30 which was less than the decision mean of 2.50 with a standard deviation value of 1.11. The results implied that the responses were inconsequential (insignificant), therefore, it could be concluded that the TISHIP services were not accessible. Although, the aggregate mean indicated that Tertiary Institutions Social Health Insurance Programme services were not accessible, respondents indicated that TISHIP few services such as getting prescribed drug was easily accessible and affordable. Doctors’ attention at health care service centre was reported to be prompt.

Out-patient clinic injection/treatment/dressing room and x- ray room were hardly accessible by students. Others services were easily accessible by students (with agreed mean (\bar{x}) and standard deviations (SD) (2.97, 1.08); (2, 94 1.12); (2.77, 1.23); (2.75, 1.15) and (2.63, 1.20) respectively. On Table 3 above, TISHIP services in Federal and State. Colleges of Education were not easily accessible to students in North Central Zone, Nigeria. The overall or general mean response of 2.30 is far below the decision/bench mark mean of 2.50. Infact, only five out of the above 13 TISHIP services were easily accessible.

Table 3: One sample t-test analysis on Accessibility to TISHIP services among the students of the Federal and State Colleges of Education in the North Central Zone of Nigeria

Variable	N	Mean	Std	Df	t-cal	p-value
Accessibility of TISHIP	444	31.40	7.45	443	1.76	0.08
Test mean	444	2.50	0.000	0.000		

t (443) = 1.96, ≥ 0.05

The One sample t- test statistics above showed that the TISHIP services among the students of the Federal and State Colleges of Education in the North Central Zone of Nigeria was significantly not accessible. That was because the calculated P-value of 0.08 was greater than the 0.05 alpha level of significance while the t-computed of 7.45 was lower than 1.96 t-critical value at df 443. Therefore, the null hypothesis which states that the TISHIP services among the students of the Federal and State Colleges of Education in North Central Zone of Nigeria is significantly not accessible was hereby retained.

Discussion

The study was on an assessment of accessibility of Tertiary Institution Social Health Insurance Programme (TISHIP) services among students of Federal and State Colleges of Education in North Central Zone Nigeria.

The outcome of this study revealed that TISHIP services among students of Federal and State Colleges of Education, North Central Zone of Nigeria was not accessible (p = 0.08). Healthcare is a special goal and should be treated specially for the attainment of universal healthcare of the highest standard. Accessibility of student’s friendly health services is also a determinant of student friendly health care services (Kolbe, 2014). Easy access to health services is important for the young people who mostly rely on their parents or family good will to survive. It was worrisome that the working population could by regular payments ensure that services of a standard to them and their dependents (families); however, the available health insurance scheme was not accessible to many Nigerians after some years when the first phase had taken off. Many Nigerians still struggle to pay sudden large sums when serious illness strikes the family.

It is important to state that from the results of this study it could be argued that the student perceived healthcare as a special need that should be treated with utmost plan with fund and resources committed to it

especially the TISHIP. These submissions are in tandem with the views of the respondents in the studies conducted by Doetichm, Carrin and Evans (2010) and Osuehukwu, Osonwa, Eka, Unwanede, Abeshi and Effiong (2013). These empirical studies considered the provision of social health insurance programme as a strategic link for the healthcare system and the growing population to be significant sustainable.

Ndie, (2021) assessed the awareness of the NHIS among the civil servants in Enugu and Abakliki. Similarly, Ejughemre (2014) assessed the accelerated reforms in healthcare financing. These studies observed that there was the need to scale up private sector participation in Nigeria, reported that in accessibility of the available healthcare facilities has obviously affected the utilization of healthcare services by a vast proportion of the beneficiaries who depend on traditional medical care and self-medication.

Conclusion

The findings of the study revealed that TISHIP services among students of Federal and State Colleges of Education in North Central Zone, Nigeria was not accessible.

Based on the findings of this study, in other ward accessibility of TISHIP services to students of Federal and State Colleges of Education in North Central Zone Nigeria were not accessible. Therefore, services should be made more accessible to students, in order to gain more and prompt doctors while in school. It also imperative that service plans are review with a view of improving on the gaps so that students will have full access to their health needs as may be required and expected.

Recommendations

Based on the findings of this study, therefore, it is recommended that services should be made more accessible to students, in order to gain more and prompt doctors while in school. It also imperative that service plans are review with a view of improving on the gaps so that students will have full access to their health needs as may be required and expected.

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COMPLIANCE WITH GUIDELINES FOR THE ESTABLISHMENT OF PACKAGED WATER PLANT IN BENIN METROPOLIS

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Abstract

The purpose of this study was to investigate compliance with guidelines for the establishment of packaged water plants in Benin Metropolis of Edo State. Five research questions and two null hypotheses were raised and formulated respectively to guide the study. The descriptive survey research method was adopted for this study. The population for this study were all the packaged water plants and their managers in Benin Metropolis of Edo State. The sample size of this study consists of 37 packaged water plants. Systematic sampling technique was used to select 37 packaged water plants from the 71 packaged water plants in Benin Metropolis of Edo State. The instruments used for data collection was a researchers' structured checklist and questionnaire. Face and content validity of the instrument was carried out by three (3) experts in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin, Benin City. The data collected were sorted, coded and analyzed using frequency count, simple percentage, and bar chart while Chi-Square was used to test the formulated null hypotheses at 0.05 alpha level of significance.

The results revealed that the majority of the package water plants do not comply with the guidelines for establishment of package water plants. Majority of the package water plants workers have moderate level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State, majority of the respondents have positive attitude towards guidelines for the establishment of packaged water plant among workers in Benin Metropolis, Edo State, Knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants, Attitude of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants. Based on the findings it was recommended among others that: the regulatory body (NAFDAC) should embark on routine monitoring of water plants in order to ensure strict compliance to the guidelines for establishment of package water plants.

key words: Knowledge, attitudes, compliance, packaged water plant

Introduction

Water is one of the indispensable resources for the continued existence of all living things including man and adequate supply of fresh and clean drinking water is a basic need for all human beings, (Edema, Atayese & Bankole, 2011). There are three main sources of water which are; rain water, surface water and underground water. Drinking water that is fit for human consumption is expected to be free from physical and chemical substances as well as microorganisms in an amount that can be hazardous to health.

All known forms of life depend on water, which has many distinct functions that are critical for the proliferation of lives that set it apart from other substances; water carries out this role by allowing organic compounds to react in ways that ultimately allow replication. Water is the solvent which promotes biological processes in which proteins and carbohydrates are broken down and lipids, although not actually modified chemically but are solubilized in the aqueous medium. Another important function of water is the thermal regulation of living organisms (Vahid, et al. 2017). Most of the water present in living organisms helps in the distribution of nutrients in the body and removal of waste products. It is therefore hardly surprising that living organisms are sensitive to the properties or quality of water.

Before now, the water sold to the public was through putting water inside a bucket with a cover and a cup on top of it, which was sold to individuals in the public as instant drinking water. As a result of certain unhygienic practice, it was observed that the water was not fit for consumption as its source was unknown. This prompts the public to go for a better alternative which is putting water inside polythene bags and tied for sale. Even at that, there was the occurrence of water related diseases traced to the consumption or drinking of this water. According to Oyelude and Ahenkorah (2012), this form of drinking water is worse than any form adopted in making water available for public consumption. Hence man resulted in filtration, boiling of water and various other means as a way of making it safe for consumption.

On the quest for potable and quicker access to clean and safe water, the government through the relevant agency like National Agency for Food and Drug Administration and Control (NAFDAC) made a legislation known as “Guidelines for the Establishment of Packaged Water Plant in Nigeria”, to see that packaging of water is carried out in recognised and registered factories with standard equipment so as to ensure the provision of potable water to individuals of the public and to prevent the spread of water related diseases (NAFDAC, 2018).

The introduction of packaged water to consumers was to provide safe, hygienic and affordable instant drinking water to the public. Although this is a laudable idea, current trends seem to suggest that packaged water could be a route of transmission of pathogenic organisms. According to Igbeneghu and Lamikanra (2014), packaged water sold in Nigeria are of varying quality, because people still complain of similar water borne disease with those who drink ordinary water.

In Nigeria, packaged drinking water that is safe and aesthetically acceptable is a matter of high priority to the National Agency for Foods and Drugs Administration and Control (NAFDAC) Standard for quality water. And this stems from the Compliance to Guidelines for establishment of packaged water plants in Nigeria. Therefore, compliance is a watch word in the production of packaged water meant for human consumption. Compliance is one of the key elements, which make up the dynamic system of corporate governance. Organisations are subject to ever-changing rules and regulations set down by external regulators, which are often government agencies, for the purpose of regulatory and legal compliance. Following a set of rules, known as compliance, is part of doing business whether as an executive, manager, sales representative, or a business owner. Generally, compliance means adhering to a rule, such as a policy, standard, specification, or law. Regulatory compliance defines the goals companies want to achieve to ensure that they understand and take the necessary steps to comply with policies, relevant laws, and regulations so as to ensure high quality of the product.

Compliance to set standards can be a function of many factors such as: knowledge, years of existence, attitudes etc. Knowledge is viewed as information that could be acquired through various ways namely reading, experience and comprehension. Furthermore, it is the basic criterion that allows one to differentiate between right and wrong. This is based on the degree of predictability, consistency and stability in their perception of the world. On the other hand, attitude refers to the manner, feeling or position, with regard to a person or thing; tendency or orientation, especially of the mind. Attitudes may be viewed generally as a sort of personal belief system which makes a difference to others. While compliance is the reflection of rules and knowledge that leads to action. Thus, right knowledge, positive attitude, and compliance are imperative to guide packaged water plants in the production of safe drinking water for consumers (Jain, Sawla, Mathur, Nihlani, Ayair & Prabu, 2010).

Over the past one decade, the Federal Government of Nigeria has been spending so much on health care. Many health personnel have expressed their concerns over the high rate of increase of deadly diseases such as typhoid fever and diarrhea. More common among these diseases today is the water-borne typhoid fever which is caused by drinking contaminated water. The introduction of packaged water was aimed at providing safe, hygienic and affordable instant drinking water to the public and to curb the magnitude of water related infections in the country. Despite the strong effort by NAFDAC in the regulation and quality assessment of packaged water in Nigeria, most manufacturers have still not adequately complied with the agency’s regulations (Airaodion, Ewa, Ogbuagu, Ogbuagu & Agunbiade 2019).

With reference to the afore-mentioned, there are complaints by consumers due to the increasing number of reported cases of infections such as typhoid fever, diarrhea and other water borne diseases occasioned by the consumption of some of these packaged water. Besides, it is speculated among consumers of packaged water that the non-compliance to guidelines by workers of packaged water plants is as a result of inadequate knowledge of the guidelines as well as their attitudes toward it. This opinion of consumers was collaborated by Rossi (2010), who posited that compliance with relevant regulations, laws or guidelines, gives an indication of the knowledge of the rules.

Hence, the researcher was spurred to make an inquiry and ascertain how the non-compliance could be a function of knowledge or attitudes developed towards compliance as the probable factors responsible for non compliance. Therefore the purpose of this study was to ascertain compliance level with guidelines for establishment of packaged water plants in Benin Metropolis of Edo State.

Research Questions

The following questions were raised to guide this study:

1. What is the level of compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State?
2. What is the level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State?

3. What are the attitudes towards guidelines for the establishment of packaged water plant among workers in Benin Metropolis, Edo State?
4. Does knowledge of workers in Benin Metropolis of Edo State influence compliance to guidelines for establishment of packaged water plants?
5. Do attitudes of workers in Benin Metropolis of Edo State influence compliance to guidelines for establishment of packaged water plants?

Hypotheses

The following hypotheses were formulated to guide the study:

1. Knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants.
2. Attitudes of workers in Benin Metropolis of Edo State do not significantly influence compliance to guidelines for establishment of packaged water plants.

Methods and Materials

The descriptive survey research method was adopted for this study. According to Koul (2009), a descriptive research design will provide a means through which opinions, attitudes, suggestions for improvement can be obtained. The design will enable data to be collected and analysed using a group of people considered to be the representative sample of the entire population. The design is suitable because one can generalize its findings and it is not expensive.

The population for this study were all the packaged water plants and their workers in Benin Metropolis of Edo State. According to the Environmental Health Departments of the three Local Government Councils that make up Benin Metropolis, with statutory powers of inspection over these packaged water plants, there are seventy-one (71) packaged water plants in Benin Metropolis of Edo State (Department of Environmental Health, Oredo, LGA, 2021)

The sample size of this study consists of 37 packaged water plants and the managers of each of these plants. Systematic sampling technique was used to select 37 packaged water plants from the 71 packaged water plants in Benin Metropolis of Edo State. This was done by selecting the odd numbers in an alphabetically arranged order of the packaged water plants in each Local Government Area that made up Benin Metropolis. Thus, in the countdown, every packaged water plant on serial number (S/N): 1, 3, 5, 7, 9, 11, 13, 15, 17,...71 were used for the study.

The instruments used for data collection were a researcher structured checklist and questionnaire titled "Compliance to Guidelines for Establishment of Packaged Water Plant in Benin Metropolis, Edo State". The checklist which is also known as 'compliance checklist' was used to ascertain the level of compliance of packaged water plants to guidelines and it has just one section that carefully x-rayed the regulations by which these packaged water companies are established and function. This enabled the researchers to investigate and ascertain the true state of these companies and their compliance to guidelines as approved by the relevant regulatory agency (NAFDAC). The questionnaire has two sections: section 'A' covers knowledge of workers of packaged water plants on the guidelines for establishment of packaged water plants and section 'B' covers the attitudes of workers of packaged water plants toward the guidelines for establishment of packaged water plants.

The checklist was scored as follows: compiled was scored '1' while not compiled was scored '0'. In the knowledge section, a correctly answered question was scored '1' while an incorrect answer was scored '0'. The attitudinal items were scored as follows: Strongly Disagree (SD) '1', Disagree (D) '2', Agree (A) '3' and Strongly Agree (SA) '4'. Besides, to determine the level of compliance, a bench mark was set as follows: 95% and above as adequately compiled while 94% and below as not complied.

The face and content validity of the instrument titled "Compliance with Guidelines for the Establishment of Packaged Water Plant in Benin Metropolis of Edo State" was carried out by three (3) experts in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin, Benin City. The experts considered the suitability of the contents of the instrument to the research. Their corrections and suggestions were used to develop the final draft of the instrument.

The researchers determined the reliability of the instrument using the test retest reliability method by administering the instrument to ten (10) respondents who were not part of the study sample. After two (2) weeks, the same instrument was administered again to the same respondents. The scores obtained from the first and second administrations were subjected to Pearson's Product Moment Correlation and a coefficient value of 0.87 was obtained. Thus the instrument was reliable.

A letter of introduction was collected from the Head of Department which was presented to the regulatory body of water packaged plants in the state that compelled/encouraged all the water packaged plants to grant the researcher audience or permission to use their plants for the study in the cause of administering the

instrument. The instrument was administered by the researchers alongside three other research assistants. Thereafter the questionnaires were retrieved.

The data collected were sorted, coded and analyzed using frequency count, simple percentage, and bar chart while Chi-Square was used to test the formulated null hypotheses at 0.05 alpha level of significance.

Results and Discussion

Research question one: What is the level of compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State?

Table one: Level of compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State

Level of compliance	Frequency	Percentage
Compliance	3	8.1
Non compliance	34	91.9

- Adequate Compliance: 95% to 100% and Non-compliance 0% to 94%

The table one shows the level of compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State. It can be seen that 8.1% of the package water plants complied with the guidelines for establishment of package water plants while 91.9% did not comply with the guidelines for establishment of package water plants. Thus the majority of the package water plants do not comply with the guidelines for establishment of package water plants.

Figure two: Compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State

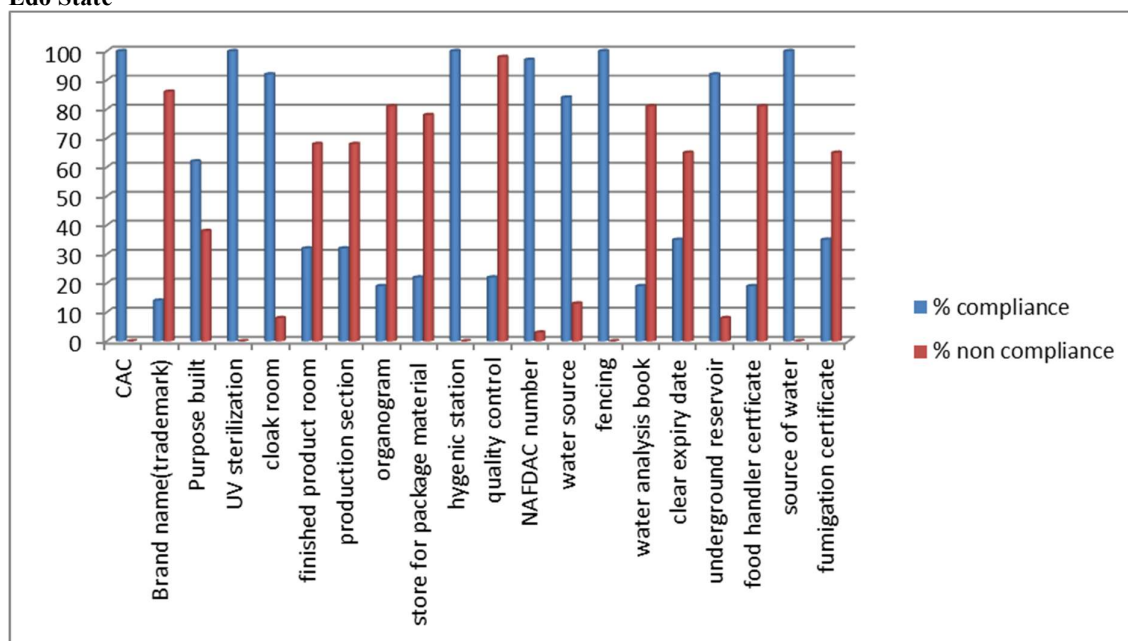


Figure two reveals compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State. It can be seen that the water plants complied to certificate of registration/incorporation (100%), availability of purpose-built or suitably adapted facility(62%); Use of Ultra Violet (UV) sterilization lamp(100%); Presence of: Cloak room with wall hangers/cupboard, shoe rack/lockers and netted door at the entrance (92%); Provision of hygiene station and toilet facilities for personnel (100%); Packaged water labelling regulations stating: Name of product, Pack size, Batch No., Manufacturing Date, Best Before Date, NAFDAC Registration Number and Factory location address (97%); water source at least 30m to 50m away from the nearest septic tank(84%); fencing of entire factory premises from other buildings (residential or commercial) (100%); Underground reservoir made of concrete and fully tiled or the tanks and reservoir made of PVC or stainless steel (92%); source of water Borehole, Public mains or spring water (100%). In same vein majority of the water plants do not comply to certificate of brand name with trade mark (14%); finished products’ room with pallets/shelves and netted door (32%); production section with air conditioner and screened windows with insect-proof nets and not dust trapping (32%); organogram of the Company with Names and Qualification of the key officers (19%); packaging materials’ store with pallets/shelves (22%); quality control unit (22%); water

analysis log book (19%); expiring Date clearly written on the company's packaged water products (35%); workers food handlers' Certificate (19%); quarterly fumigation Certificate (35%).

Research question two: What is the level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State?

Table two: Level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State

Knowledge level	Frequency	Percentage
High	3	8.1
Moderate	30	81.1
Low	4	10.8

- **High- 16-20 (76 - 100)%;**
- **Moderate- 11-15 (51 - 75)% and**
- **Low- 0-10 (0 - 50)%**

Table two shows the level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State. It can be seen that 8.1percent of the workers of packaged water plants have a high level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State. Also 10.8percent have low knowledge and 81.1percent have moderate level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State. This shows that majority of the package water plants workers have moderate level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State.

Research question three: What are the attitudes towards guidelines for the establishment of packaged water plant among workers in Benin Metropolis, Edo State?

Table three: Attitudes towards guidelines for the establishment of packaged water plant among workers in Benin Metropolis, Edo State

S/N	Items	SA	A	D	SD
1.	Any plant not complying adequately to guidelines should be closed.	26(70%)	0	0	11(30%)
2.	Any staff not complying adequately to guidelines should be sacked.	0	17(46%)	8(22%)	12(32%)
3.	Any staff not complying adequately to guidelines should be fined.	0	10(29%)	16(43%)	11(32%)
4.	Best compliance staff should be awarded yearly.	37(100%)	0	0	0
5.	Compliance to guidelines for the establishment of packaged water plants should be encouraged.	33(89%)	4(11%)	0	0
6.	Regular cleaning of plants' equipment to prevent contamination is necessary because contamination is preventable.	34(92%)	3(8%)	0	0
7.	Periodic medical examination for staff is necessary.	17(46%)	9(24%)	4(11%)	7(19%)
8.	Staff of packaged water plants should be bothered about compliance to guidelines.	0	2(5%)	10(27%)	25(68%)

9.	It is not the sole responsibility of the packaged water plant's owner to comply to guidelines.	0	0	5(13%)	32(87%)
10.	Compliance to guidelines for the establishment of packaged water plant is not optional.	1(2%)	7(19%)	4(11%)	25(68%)

The table above revealed the attitudes towards guidelines for the establishment of packaged water plant among workers in Benin Metropolis, Edo State. It was observed that 70% of the respondents indicated that they strongly agree that any plant not complying adequately to guidelines should be closed; 46% agree that any staff not complying adequately to guidelines should be sacked; 100% agree that best compliance staff should be awarded yearly; 89% strongly agree that compliance to guidelines for the establishment of packaged water plants should be encouraged; 92% stated that regular cleaning of plants' equipment to prevent contamination is necessary because contamination is preventable; 46% of the respondents indicated that periodic medical examination for staff is necessary and 68% strongly disagree that compliance to guidelines for the establishment of packaged water plant is not optional. Meanwhile 43% of the respondents indicated that they disagree that any staff not complying adequately to guidelines should be fined; 68% stated that they disagree that staff of packaged water plants should be bothered about compliance to guidelines; 87% strongly disagree that it is not the sole responsibility of the packaged water plant's owner to comply to guidelines. Thus these show that the majority of the respondents have a positive attitude towards guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State.

Research question four: Does knowledge of workers in Benin Metropolis of Edo State influence compliance to guidelines for establishment of packaged water plants?

In answering this research question, consider table two on the "level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State". It reveals that the majority of the packaged water plants workers (81.1 percent of workers) have moderate level of knowledge of guidelines which does not reflect in the level of compliance of packaged water plants as shown in table one on "level of compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State", where a low number of packaged water plants (only 8.1 percent of packaged water plants) adequately complied to the said guidelines. This is contrary to the position of Rossi (2010) who said compliance with the relevant guidelines for establishment of packaged water plants, gives an indication of knowledge of the rules.

Research question five: Do attitudes of workers in Benin Metropolis of Edo State influence compliance to guidelines for establishment of packaged water plants?

To answer this research question, see table three on the "attitudes toward guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State. It shows that the majority of the respondents (workers of packaged water plants) have positive attitudes toward guidelines for the establishment of packaged water plants in Benin Metropolis, Edo State. This again, does not reflect on the level of compliance of packaged water plants as shown in table one, on "level of compliance to guidelines for establishment of packaged water plants in Benin Metropolis, Edo State", where a low number of packaged water plants (only 8.1 percent of packaged water plants) adequately complied to the said guidelines and 91.9 not complied. This is contrary to the position of Haste (2018), who said that attitudes of workers of packaged water plants appear to be crucial as they ultimately play a direct role in ensuring compliance to guidelines for the establishment of packaged water plants.

Hypothesis one: Knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants.

Table four: Independent sample chi-square on Knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants.

		Crosstab			df	Chi-square value	Sig.
		Knowledge					
			High	moderate	Low		
Compliance	compliance	Count	1	2	0	2	0.22
		Expected Count	.2	2.4	.3		
	non-compliance	Count	2	28	4		
		Expected Count	2.8	27.6	3.7		
Total	Count	3	30	4			
	Expected Count	3.0	30.0	4.0			

The table four above shows the chi-square statistics on knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants. It can be seen that the degree of freedom is 2, chi-square value of 2.99 and level of significance of 0.22 which is greater than the set alpha level of 0.05. Thus the null hypothesis which states that knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants is accepted. This implies that knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants.

Hypothesis two: Attitudes of workers in Benin Metropolis of Edo State do not significantly influence compliance to guidelines for establishment of packaged water plants.

Table five: Independent sample chi-square statistics showing attitudes of workers in Benin Metropolis of Edo State do not significantly influence compliance to guidelines for establishment of packaged water plants.

		Crosstab		Df	Chi-square value	Sig.
		Attitude Positive	Attitude negative			
Compliance	compliance	Count	3	1	0.28	0.59
		Expected Count	2.8			
non-compliance	Count	31	3			
	Expected Count	31.2	2.8			
Total	Count	34	3			
	Expected Count	34.0	3.0			

The table five above shows the chi-square statistics on attitudes of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants. It can be seen that the degree of freedom is 1, chi-square value of 0.28 and level of significance of 0.59 which is greater than the set alpha level of 0.05. Thus the null hypothesis which states that attitudes of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants is accepted. This implies that attitudes of workers in Benin Metropolis of Edo State do not significantly influence compliance to guidelines for establishment of packaged water plants.

Discussion of findings

The study investigated the compliance to guidelines for establishment of packaged water plants in Benin Metropolis of Edo State. In view of this, it was observed in research question one that the majority of the package water plants did not comply with the guidelines for establishment of package water plants. This finding agreed with Airaodion, Ewa, Ogbuagu, Ogbuagu and Agunbiade (2019) who stated that despite the strong effort by NAFDAC in the regulation and quality assessment of packaged water in Nigeria, most manufacturers have still not adequately complied with the agency’s regulations. This was further ascertained as they do not comply to certificate of brand name with trademark; finished products’ room with pallets/shelves and netted door; production section with air conditioner and screened windows with insect-proof nets and not dust trapping; organogram of the Company with Names and Qualification of the key officers; packaging materials’ store with pallets/shelves; quality control unit; water analysis log book; expiring Date clearly written on the company’s packaged water products; workers food handlers’ Certificate; quarterly fumigation Certificate . This finding makes the researcher doubt the quality of packaged water produced by the water plants. This is contrary to provisions of NAFDAC Act CAP N1 (LFN) 2004, other related Legislations and the accompanying Guidelines. It stated that besides the administrative requirements, package water plants also have the physical or structural requirements to be met as contained in the guidelines. These include: Organization and Personnel, Building, Facilities and Equipment, Water treatment process, Hygiene Station and Toilet Facilities, Sanitation, Standard Operating Procedures (SOPs), Consumer Complaint and Recall, Distribution System and Transportation and Handling.

For research question two, it was discovered that the majority of the packaged water plants workers have a moderate level of knowledge of guidelines for the establishment of packaged water plants among workers in Benin Metropolis, Edo State. This is contrary to the findings of Gelderman, Ghijsen and Brugman (2013) which their study revealed that a sizable number of workers of packaged water plants have low levels of knowledge regarding guidelines for establishment of packaged water plants. They maintained that the public or organisations will comply with the rules or guidelines if they have adequate knowledge of the guidelines or

perceive them as clear. It is further argued that Lack of clarity or inadequate knowledge is believed to increase the possibilities for deliberate non-compliance.

Findings from research question revealed that majority of the respondents have positive attitude towards guidelines for the establishment of packaged water plant among workers in Benin Metropolis, Edo State. This is corroborated by Haste (2018) who stated that attitudes of workers of packaged water plants appear to be crucial as they ultimately play a direct role in ensuring compliance to guidelines for the establishment of packaged water plants.

Hypothesis one which stated that knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants was accepted because chi-square value of 2.99 and level of significance of 0.22 which is greater than the set alpha level of 0.05 were obtained. This implies that knowledge of workers in Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants. This finding contradicts the finding of Rossi (2010) which stated that compliance with the relevant regulations, laws or guidelines for establishment of packaged water plants, gives an indication of knowledge of the rules.

Findings have shown that inadequate and inappropriate knowledge of guidelines for establishment of packaged water plants may result in contamination of packaged water. Also Heyan and Oluka, (2011) stated that lack of familiarity with extant rules results in poor compliance. They also found out that familiarity with regulations significantly predicted compliance with regulations.

Finally, hypothesis two revealed that the attitude of workers in the Benin Metropolis of Edo State does not significantly influence compliance to guidelines for establishment of packaged water plants. This is opposed by Jain, Sawla, Mathur, Nihlani, Ayair and Prabu (2010) who stated that Attitudes and attitude objects are functions of affective and cognitive components. When there are good or positive attitudes towards guidelines for establishment of packaged water plants, it will reflect positively on compliance to the guidelines, in other words it will bring about adequate compliance to guidelines.

Conclusion

Conclusively, the study concluded that:

- the majority of the package water plants in Benin metropolis did not comply with the guidelines for establishment of package water plants. This was evident as they do not comply to certificate of brand name with trademark; finished products' room with pallets/shelves and netted door; production section with air conditioner and screened windows with insect-proof nets and not dust trapping; organogram of the Company with Names and Qualification of the key officers; packaging materials' store with pallets/shelves; quality control unit; water analysis log book; expiring Date clearly written on the company's packaged water products; workers food handlers' Certificate; quarterly fumigation Certificate .
- the managers of the package water plants had moderate knowledge and positive attitude towards the guidelines for establishment of package water plants.
- both knowledge and attitude did not significantly influence their level of compliance to the guidelines for establishment of package water plants.

Recommendations

Based on the findings of the study, the following recommendations are proposed for the study:

1. The regulatory body (NAFDAC) should embark on routine monitoring of water plants in order to ensure strict compliance to the guidelines for establishment of package water plants.
2. In collaboration with other independent research agencies, manufacturers' association and law enforcement agencies, manufacturers should be subjected to occasional, unannounced plant inspections demonstrating compliance with this code of practice.
3. Beyond processing and packaging, the manufacturers should be encouraged to develop recall plans to address tracing and retrieval of product. Consequently, much more emphasis would have to be made on printing on batch numbers or date of manufacture on the sachet labels.
4. Beyond registration of intended manufacturers, regular call-ups by the regulatory agency for training activities on latest developments will help foster post-certification communications which seem to be missing between the two parties. It should be mandated for each packaged water factory to recruit at least two qualified personnel that will serve as liaison officers with the agency.
5. The study further suggests investigation regarding personal and environmental hygiene practices and the related disease implication in the study area.

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ASSESSMENT OF KNOWLEDGE AND PRACTICE OF PERSONAL HYGIENE AMONG PUBLIC JUNIOR SECONDARY SCHOOL STUDENTS IN KADUNA STATE, NIGERIA

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Abstract

The purpose of this study was to assess the knowledge and practice of personal hygiene among public junior secondary school students in Kaduna State of Nigeria. The study adopted descriptive survey design. The population of the study comprised of two hundred and ninety-seven thousand one hundred and thirty-nine (297,139) male and female public junior Secondary School Students and a sample size of 700 was used. The respondents were drawn using multistage sampling procedure. A close ended researcher structured questionnaire was used to obtain responses from the respondents. All copies of the questionnaire distributed were retrieved. However, only 698 (99.5%) copies of the questionnaire were used as they were properly filled, while two (1.5%) copies of the questionnaire were not used as they were not dully filled. With the aid of Statistical Package for Social Sciences (SPSS), descriptive statistics of frequencies and percentages were used to describe the demographic characteristics of the respondents. Means and standard deviation were used to answer the research questions. Inferential statistics of one sample t-test was used to test the significance of knowledge and practice of personal hygiene, while Pearson Product Moment Correlation (PPMC) was used to test the relationship between knowledge and practice of personal hygiene among junior secondary school at 0.05 alpha level of significance. The findings showed that there was significant knowledge of personal hygiene among the students (P-value=0.01), the results also showed that their practice of personal hygiene was not significant (P-value=0.06). It was concluded that the students have knowledge of personal hygiene but their practice of personal hygiene was poor. It was recommended that knowledge of personal hygiene should be maintained through continuous health talks and further enlightens about the benefit of personal hygiene by the school authorities and parents. Parents, school management and Ministry of Education should create means of monitoring students' practice of personal hygiene both in school and at home.

Keywords: Knowledge, Practice, Personal Hygiene, Junior Secondary, Public School

Introduction

Personal hygiene is the science of healthy living and embraces all those day-to-day activities that contribute to health and wellbeing of an individual, (Rajbhandari, Dhaubanjari, Bahadur & Dahal 2018). The components of personal hygiene include body hygiene (skin care), oral hygiene (oral care), hand washing (hand care), face hygiene, fingernail and toe nail hygiene (nail care), ear hygiene, hair hygiene, foot hygiene, arm pit and bottom hygiene, clothes hygiene and menstrual hygiene, (Ali, Rahman & Siddiqui, 2013). Personal hygiene is a term used both in medical and public health practices. The public health purposes of personal hygiene include the prevention of faecal-oral transmitted diseases, aesthetic values and social impact (Bastos, 2010). Therefore, it is clearly evident that the aim of personal hygiene is not only to promote the standards of personal cleanliness within the setting of the condition where people live, but also to reduce the prevalence and incidence of communicable diseases, (Kumar & Akoijam, 2015).

The teaching of personal hygiene to junior secondary school students begins in the family and continues in the school which represents their first social environment, (Mohammed, Amin, Ramlin, Isahak & Salleh, 2016). Since junior secondary school students are in close contact with one another in the classrooms and during their activities, the transmission of diseases is facilitated and potentially, the infectious pathogens are transported from school to the home (Arikan, Dibeklioglu, Arik & Gulcan, 2014). This makes the necessity of personal hygiene important and junior secondary school students with better knowledge, and practices of personal hygiene have fewer sick days and absenteeism from school and achieve much higher grades than their colleagues who don't have, (Ghanim, Dash, Abdullah, Issa, Albarazi & Saheli, 2016).

Dong (2015), defined knowledge as the capacity to acquire, retain and use information. It is also a mixture of comprehension, experience, discernment and skill. In the context of this study knowledge refers to,

as the estimation of the level of understanding of junior secondary school students in Kaduna State concerning personal hygiene. Knowledge acquired through basic education and public knowledge influences junior secondary school students to become aware of the meaning of self-protection and also to adopt health promoting behaviours as well as equip them with skills to serve as peer educators and community educators of personal hygiene, (World Health Organization, 2014, Balogun, 2015, Ilesani, 2016). It should be borne in mind that it is not easy to form personal hygiene habits without adequate information and knowledge of what it all entails. However, when students are educated on basic skills related to personal hygiene at different stages of their lives, it will not be difficult for them to continue this throughout life.

Personal hygiene instructions should be presented creatively to students; personal hygiene for instance can be integrated and taught in subjects like integrated science, nutrition, biology and health education, (Balogun, 2015). External resource persons who are specialists in field relating to personal hygiene could be invited to discuss with students. In passing across instructions people must be taught on issues they are already familiar with, before moving on to complex aspects. Local resources can be used to buttress this fact, (Balogun, 2015).

Practice is the act of doing something customarily, or habitually, or to do something regularly or constantly as an ordinary part of your life. Practice in the context of this study is what the junior secondary school students in Kaduna State do to promote their personal hygiene and prevent contracting any communicable diseases. Good personal hygiene practice encouraged through health education has been reported to be associated with low prevalence of communicable diseases in school children. Therefore, Personal hygiene practices plays an important role in preventing the spread of respiratory infections, helminthiasis, skin infections, eye infections, food borne diseases, spread of new pathogens as in epidemics (Oyibo, 2012). Personal hygiene practice is closely linked to the availability of water and sanitation facilities; despite this, there are so many places where these are lacking and this situation thus reduces the effectiveness of the personal hygiene of the people particularly students. Communal areas which offer facilities for hand-washing, bathing and laundry may effectively encourage good hygiene, (Balogun, 2015). Lack of personal hygiene resources or facilities can prevent students from adopting personal hygiene practices. Lack of resources such as soap and water are two of the main reasons why children do not wash their hands (Vivas, Bizu, Nigusu, Abera, Yemane & Williams, 2010). In addition to personal hygiene resources, it is necessary to equip students with adequate knowledge relating to personal hygiene.

The personal hygiene status of junior secondary school students in Kaduna State has become an issue of concern, considering the alarming rate of child mortality through the outbreaks of communicable diseases. Most parents and schools have over the years place so much emphasis on junior secondary school student's academics, providing food and other basic needs, hence the importance of personal hygiene has been neglected. The knowledge and practice of personal hygiene of the junior secondary school students can be affected by many factors such as; values, habits, socioeconomic and cultural factors, level of knowledge, personal preferences, family characteristics, physical and living environments as well as facilities required for such practices. Therefore, personal hygiene habits of each individual differ, meaning that these habits are unique to individuals.

Research Questions

This study answered the following proposed questions:

- i. Do junior secondary school students in Kaduna State of Nigeria have knowledge of personal hygiene?
- ii. Do junior secondary school students in Kaduna State of Nigeria practice personal hygiene?

Hypotheses

On the basis of the structured research questions, the following hypotheses were formulated for the purpose of the study:

- (i) Junior secondary school students in Kaduna State of Nigeria will not have significant knowledge of personal hygiene.

- (ii) Junior secondary school students in Kaduna State of Nigeria will not significantly practice personal hygiene
- (iii) There is no significant relationship between knowledge and practice of personal hygiene among junior secondary school students in Kaduna State of Nigeria.

Methods and Materials

The research design for this study was a descriptive survey design. The population of the study comprised of two hundred and ninety-seven thousand one hundred and thirty-nine (297,139) male and female junior secondary school students in Kaduna State based on the 2018/2019 academic session.

The sample size for this study was made up of seven hundred (700) junior secondary school students. Multi stage sampling procedure was adopted. First, Kaduna State was stratified into the already existing Senatorial (3) zones. Each of the senatorial zones have four (4) education zones making a total of twelve (12) zones. Out of which four (4) education zones were randomly selected using balloting. The education zones selected from each of the three senatorial zones of the state were Kaduna, Lere, Sabon Tasha and Zonkwa zone respectively. There are one hundred and fifty eight (158) junior secondary schools in the selected education zones. Since the numbers of schools are not evenly distributed among the zones, a proportional sampling technique was used to determine the number of schools in each zone for the study. And using a simple random sampling technique, sixteen (16) junior secondary schools which constituted about 10% of the total number of junior secondary schools in the sample zones were selected using the balloting method. To get the number of respondents in each of the selected schools for the study the proportionate sampling technique was used. The researcher divided the population of the junior secondary school students at each school by the total population from all the schools selected and multiplied it by the sample size (700).

At each of the sixteen (16) selected Junior Secondary Schools selected for the study, a systematic random sampling technique was used to draw the respondents for the study. The researcher used the class register starting from the first student on the register, all students who fall under the odd numbers in the class register were selected to serve as respondents for the study.

A close-ended researcher structured questionnaire on the knowledge and practice of personal hygiene among Junior Secondary School Students in Kaduna State of Nigeria was used for data collection. Descriptive statistics of frequencies and simple percentages was used in describing the demographic characteristics of the respondents. Mean scores and standard deviations were used to answer the research questions based on the modified Likert scale used. One sample t-test statistical analysis was used to analyse hypotheses 1 and 2 while Pearson Product Moment Correlation Coefficient (PPMC) statistics was used to analyse hypotheses 3 at 0.05 alpha level of significance.

Results and Discussion

Research Question one: Do junior secondary school students in Kaduna State of Nigeria have knowledge of personal hygiene?

Table 1: Mean scores of responses on the knowledge of personal hygiene among junior secondary school students in Kaduna State of Nigeria?

	Mean	Std. Deviation
1. Bathing twice a day helps to remove dead skin cells from my skin	3.15	.47
2. Washing my hair regularly with soap keeps it healthy	3.25	.54
3. I am aware that trimming my fingernails will reduce the risks of ingesting harmful bacteria hidden under them	3.20	.48

4. I know that washing my hands with soap and water after using the convenience helps to prevent them from getting contaminated	3.16	.40
5. Brushing my teeth at least twice daily after meal reduce the risk of tooth decay	3.23	.45
6. I know that flossing my teeth at least once a day prevents the formation of plaque on my gum	3.40	.61
7. I am aware that it is necessary to use handkerchief to blow my nose in order to prevent cross infection	3.20	.49
8. I am aware that washing my clothes always prevents the spread of diseases through soiled clothing	3.23	.49
9. I am aware that washing my feet with soap and water will prevent the risk of athlete's foot disease	3.24	.45
10. I am aware that cleaning my ears with cotton buds will keep them clean and prevent any infection	3.17	.40
Cumulative Mean	3.22	0.49

(Decision mean =2.50)

The result in table 1 showed a cumulative mean of 3.22 which is above the decision mean of 2.50, this shows that junior secondary school students in Kaduna State have knowledge of personal hygiene.

Research Question Two: Do junior secondary school students in Kaduna State of Nigeria practice personal hygiene?

Table 2: Mean score of responses on the practice of personal hygiene among junior secondary school students in Kaduna State of Nigeria

	Mean	Std. Deviation
1. I bath twice a day to remove dead skin cells from my skin	1.21	.49
2. I wash my hair regularly with soap to keep it healthy	1.27	.52
3. I trim my fingernails frequently to reduce the risks of ingesting harmful bacteria hidden under them	1.31	.60
4. I always wash my hands with soap and water after using the convenience to help prevent them from getting contaminated	1.28	.57
5. I brush my teeth at least twice daily after meals to reduce the risk of tooth decay	1.27	.52
6. I floss my teeth at least once a day to prevents the formation of plaque on my gum	1.39	.60
7. I use handkerchief to blow my nose in order to prevent cross infection	1.25	.53
8. I wash my clothes always to prevent the spread of diseases through soiled clothing	1.22	.48
9. I always wash my feet with soap and water to prevent the risk of athlete's foot disease	1.28	.53
10. I clean my ears with cotton buds to keep them clean and prevent any infection	1.21	.47
Cumulative Mean	1.27	0.53

(Decision mean =2.50)

The result in table 2 showed a cumulative mean of 1.27 which is below the decision mean of 2.50, this shows that junior secondary school students in Kaduna State do not practice personal hygiene.

Hypothesis One: Junior secondary school students in Kaduna State of Nigeria will not have significant knowledge of personal hygiene

Table 3: One Sample t-test analysis on knowledge of personal hygiene among junior secondary school students in Kaduna State of Nigeria

Variable	N	Mean	SD.	SE	t-cal	Df	P-value
Knowledge	698	3.22	0.49	0.018	60.44	697	0.01
Decision mean		2.50	0.00	0.000			

$t(697)=1.96 < 0.05$

Table 4.5 reveals that the junior secondary school students are knowledgeable about personal hygiene. This is because the one-sample t-test calculated value was 60.444 and higher than the t-critical of 1.96 at degree of freedom 697 with p-value 0.01 which is less than 0.05 level of significance. Thus, this result showed that the hypothesis which states that “Junior secondary school students in Kaduna State of Nigeria will not have significant knowledge of personal hygiene” was rejected. This means that the respondents have knowledge of personal hygiene.

Hypothesis Two: Junior secondary school students in Kaduna State of Nigeria will not significantly practice personal hygiene

Table 4.7: One Sample t-test on practice of personal hygiene among junior secondary school students in Kaduna State of Nigeria

Variables	N	Mean	Std. D.	Std. Error	t-cal	t-critical	Df	P-value
Practice	698	1.27	0.53	0.021	-43.22	1.96	697	0.062
Decision mean	698	2.50	0.000	0.000				

$t(697)=1.96 > 0.05$

Table 4.7 shows that practice of personal hygiene among junior secondary school students in Kaduna State of Nigeria was not adequate. This is because the one-sample t-test calculated value indicated -43.22 which was less than the t-critical of 1.96 at degree of freedom 697 with p-value 0.62 which was greater than 0.05 level of significance. Thus, this result reveals that the hypothesis which states that “Junior secondary school students in Kaduna State of Nigeria will not significantly practice personal hygiene” was therefore retained. Thus, this means they respondents do not practice personal hygiene.

Hypothesis three: There is no significant relationship between knowledge and practice of personal hygiene among junior secondary school students in Kaduna State.

Table 4.9: Pearson Product Moment Correlation coefficient on relationship between knowledge and practice of personal hygiene among junior secondary school students in Kaduna State

Variables	M	SD	R	Df	P
Knowledge	3.22	0.49			

	0.643	697	0.073
Practice	1.27	0.53	

P- Value =0.073

The table 4.9 shows the Pearson Product Moment Correlation coefficients analysis aimed at finding the relationship between knowledge and practice of personal hygiene among junior secondary school students in Kaduna State. The results reveals that there was no significant relationship between knowledge and practice of personal hygiene among junior secondary school students in Kaduna State. This is because the calculated p value of 0.073 was found to be higher than the 0.05 alpha level of significance at a correlation index value of 0.729. Therefore, the hypothesis which states that “There is significant relationship between knowledge and practice of personal hygiene among junior secondary school students in Kaduna State” is hereby retained. This proved that the knowledge of personal hygiene does not translate to its practice among the respondents.

Discussion

The knowledge of personal hygiene is crucial to healthy lifestyle among junior secondary school students. This study revealed that the overall knowledge of personal hygiene among junior secondary school students in Kaduna of Nigeria was good as indicated by the various mean scores of responses and the standard deviations of each statement made as well as the hypotheses. Based on the findings, respondents have good knowledge on basic personal hygiene with a mean score of 3.22 which is greater than 2.5 decision mean. This was perhaps due to their usual understanding on personal hygiene, obtained from formal and informal learning processes. This observation implies that the students have the knowledge that bathing twice a day helps to remove dead skin cells from their skin, also they are aware that it is necessary to use handkerchief to blow their nose in order to prevent cross infection and that washing of feet with soap and water will prevent the risk of athlete's foot disease.

This finding revealed that the practice of personal hygiene among junior secondary school students in Kaduna State of Nigeria is poor. This is because most of hygiene practices are contingent upon availability of sufficient resources. Well-designed and well located hand washing facilities and latrines that include adequate amounts of soap and water, which are essential in promoting personal hygiene of which are not readily available for students. The mean score value of 2.5 was used as a benchmark for acceptance or rejection of the state of practice of personal hygiene by the junior secondary school students. The result showed that the respondents do not observe proper practice of personal hygiene as revealed by the various means scores of responses and the standard deviations of each statement made. Most of the means were much lower than the fixed mean of 2.5. The highest mean score was 1.38 (SD .60) revealing that the respondents do not flossing their teeth at least once a day prevents the formation of plaque on their gums. The least mean scores were 1.21 (SD .49) do not bath twice a day helps to remove dead skin cells from their body. 1.21 (SD .47) do not clean their ears with cotton buds keep them clean and prevent any infection. Mean 1.22 (SD .48) do not wash their clothes always to prevent the spread of diseases through soiled clothing respectively. The hypotheses also revealed that there no significant practice of personal hygiene among junior secondary school students in Kaduna State of Nigeria. This is because the one-sample t-test calculated value is -43.22 less than the t-critical of 1.96 at degree of freedom 697 with p- value 0.00 which is less than 0.062 level of significance.

To implement daily hygienic practices and avoid hygiene-related diseases, junior secondary school students need to possess knowledge of, and appreciation for, the importance of personal hygiene. It is the only way they can make informed decisions regarding hygienic practices. (Mudia, 2013). Although the result of this study revealed that junior secondary school had knowledge of personal hygiene it was not translated into practice by them. Therefore, key hygiene habits such as good hand washing practice that are likely to be taken further into adulthood can be adopted by encouraging millions of school children to engage in these good repetitive, non-reflective behaviours. Inadequate sanitary conditions and poor hygiene practices play major roles in the increased burden of communicable disease within these developing countries. The level of practice of the respondents in this study is poor indicating that much need to be done by the various stakeholders in junior

secondary education in Kaduna State public schools in improving the status of personal hygiene education and personal hygiene practices

Conclusion

On the basis of the results of the study, the following conclusions were drawn:

1. The junior secondary school students in Kaduna State of Nigeria have knowledge of personal hygiene.
2. The junior secondary school students in Kaduna State of Nigeria do not practice personal hygiene.
3. The junior secondary school students in Kaduna State of Nigeria knowledge of personal hygiene relates with their practice of personal hygiene.

Recommendations

Based on the drawn conclusion above, the following recommendations are made:

1. The knowledge of personal hygiene among junior secondary school students should be maintained through continuous health talks and further training on the benefits of personal hygiene by the school authorities and parents.
2. Parents, School authorities and State Government to create means of monitoring students practice of personal hygiene both in school and at home through periodic routine checks especially during general assembly.
3. Parents and school authorities should provide students with facilities which will enhance their practice and observance of personal hygiene they are taught in school so that they can maintain a healthy life style.

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BENEFITS OF EXERCISE FOR IMPROVING HEALTH STATUS OF AN **INDIVIDUAL'S** AMONG UNDERGRADUATES, UNIVERSITY OF ILORIN, ILORIN, NIGERIA

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Abstract

The study assessed the benefits of exercise for improving health status of an **individual's** among undergraduates, University Of Ilorin, Ilorin, Nigeria. The purpose of the study was to examine if exercise improves physical and mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria. A descriptive research design of the survey type was used for the study. The population for the study comprised all undergraduates of University of Ilorin, Ilorin, Nigeria. A sample of three hundred and eighty (380) respondents was selected using multi-stage sampling procedure. A researcher developed questionnaire validated by three experts and tested for reliability using a split half method was used as instrument for the study. Data was analysed using frequency and percentage for demographic data while an inferential statistics of chi-square (χ^2) was used to test the formulated null hypotheses. Findings revealed that exercise improves physical and mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria. Findings also revealed that exercise significantly influence physical health status (calculated χ^2 value 60.29 > table χ^2 value 16.92) and mental health status (calculated χ^2 value 88.76 > table χ^2 value 16.92) of an individual. It was therefore concluded that exercise improves both physical and mental health status of an individual. The researcher recommended amongst others that students should maintain regular exercise as routine activity which can help to improve healthy muscular strength and flexibility.

Keywords: Benefits, Exercise, Health-status, An-individuals, Undergraduates

Introduction

Disciplines such as nutrition, psychology and exercise science are increasingly coming together in order to understand wellness in a holistic way. The study of wellness has developed across disciplines to describe a holistic approach for understanding human development and for improving quality of life. Exercise does not only mean to go to gym or some club for daily activity; it means to do some physical activity no matter how and where.

Health According to World Health Organisation (WHO) in Ravi (2017) work refers to a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Different experts have also defined health in different ways: An expert in anatomy define health to when the body is confirm to normal anatomical structures; a physiologist viewed health as normal body functions; a biochemist refers to it when the body has normal biochemical levels / values; a pathologist, health means normal cellular make up; a geneticist viewed that health means correct existence of genetic potential and to a psychiatrist, health means well adjusted and a balanced personality.

Any physical activity could be considered exercise, but doing exercise mean activities that individual does purposely for fitness or training, rather than something that's part of daily routine, thus, exercise is a subcategory of physical activity which is structured, repetitive and purposeful which is used to improve health, maintain fitness and as a means of physical rehabilitation (Westerterp, 2013).

The WHO reported that physical inactivity is the fourth risk factor for mortality in the world and about 3.2 million people die each year from physical inactivity related illnesses but the people who make exercise as essential part of their routine are more happy and efficient than others (Mohammed, 2016; WHO, 2020). As a result, there are increasing number of wellness programs being created on university campuses in the recognition of the importance of the holistic development and well-being of college students.

Exercise is also considered as any bodily movement produced by skeletal muscles that require energy expenditure (Westerterp, 2013). In this context, it is widely recognised that regular physical activity and exercise reduces the risk of pre-mature death, improves muscular strength and flexibility, enhance the functioning of the immune system, lowers the risk factors of various chronic diseases such as cardiovascular

disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis to keep the body healthy (Ravi, 2017). As a consequence, exercise is often related with maintenance or improvement of physical fitness (Bherer, Erickson & Liu-Ambrose, 2013).

There are various kinds of exercise such as calisthenics, flexibility (Stretching), isokinetic, isotonic and muscle-fitness (Ravi, 2017). Calisthenics means muscle-fitness exercise that overloads muscles by forcing the muscles to work at a higher level than usual. Flexibility (stretching) means exercise designed to stretch muscles and tendons to increase joint flexibility or range of motion. Isokinetic refers to as muscle-fitness exercise in which the amount of force equals the amount of resistance, so that no movement occurs. Isotonic is defined as a fitness exercise in which the amount of force exerted is constant throughout the range of motion and muscle-fitness is considered as exercise designed to build muscle strength and endurance by overloading the muscles.

The outlook on the participating in an exercise activities or programmes has generated uncertainty, some even gave the notion that engaging in exercise has no health benefits other than to catch fun while some students assumed that it hinders academic ability. Considering well-documented benefits of exercise, some students ignored exercise programme or course and tag it to people who are less busy with activities occupation. With a low level of exercise activities among students been a national health issues and physical and cognitive functioning has become increasingly concerned (Bakinde, Dominic & Adebayo, 2020) while exercise is associated with decreased obesity risks, enhanced cardio-vascular fitness, better wellness and academic success (WHO, 2020) as well as to correct the misconception of participating in exercise particularly among University of Ilorin students. The purpose of the study was to assess the benefits of exercise for improving physical and mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Research Questions

This study answered the following research questions:

- Will exercise improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria?
- Will exercise improve mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria?

Research Hypotheses

This study tested the following hypotheses formulated:

- Exercise will not significantly improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.
- Exercise will not significantly improve mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Methods and Material

This study employed a descriptive design of survey type. The researcher adopted the method because it has the advantage of covering a wide scope and a great deal of information can be obtained from large population. Therefore, the choice of the descriptive research design of the survey type makes it possible for the researcher to make representative sample among the population of the study. The target population comprised all undergraduates of University of Ilorin, Ilorin, Nigeria with population of 44,515. A sample of three hundred and eighty (380) was used for the study. This comprised students who were selected across the 15 faculties in University of Ilorin. A multi-stage sampling procedure was used to select the sample for the study. This included simple random, proportionate and convenience sampling techniques. A researcher developed questionnaire was used as instrument for the study. The instrument was validated by three experts in the Department of Health Promotion and Environmental Health Education, University of Ilorin. Cronbach alpha reliability was used to determine the reliability of the instrument. The result was 0.78. The researcher with the help of four instructed research assistants administered the questionnaire. The 380 copies of the questionnaire were administered to the respondents for two weeks. Copies of the questionnaire were retrieved immediately to avoid any loss and influence of any extraneous variable. Data collected were coded and analysed using a descriptive statistics of frequencies and percentages while an inferential statistics of chi-square (χ^2) was used to analyse the hypotheses for the study at 0.05 alpha level of significance.

Results

Table 1: Frequency distribution of the Respondents

S/N	Variables	Frequency	Percentage (%)
1.	Name of Faculty		
	Agriculture	84	22.2
	Basic Medical Science	18	4.7
	Education	165	43.4
	Engineering and Technology	56	14.7
	Life Science	57	15
	Total	380	100
2.	Gender		
	Male	221	58.2
	Female	159	41.8
	Total	380	100
3.	Age Range		
	15-19yrs	91	24
	20-24yrs	189	49.7
	25yrs and above	100	26.3
	Total	380	100
4.	Ethnicity		
	Yoruba	350	92.1
	Hausa	7	1.8
	Igbo	23	6.1
	Total	380	100

The frequency distribution of the respondents participating in the analysis is revealed in table one. It was revealed that Education (43.4 percent) has the highest number of the respondents. It was also revealed that 221 respondents were male (58.2 percent), while 159 respondents were female (41.8 percent). This indicates that most of the participants were male. The age range also indicated that respondents between the ages of 20 – 24 years participate mostly in the study. The ethnicity of the respondents showed that 350 respondents Yoruba (92.1 percent) have the most of the participants.

Research Question One: Will exercise improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria?

Table 2: Percentile analysis on the influence of exercise on physical health status improvement of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria

S/N	Items	SA	A	PR	D	SD	NR
1.	Participation in exercise can help to prevent obesity	66 (17.4%)	268 (70.5%)	334	22 (5.8%)	24 (6.3%)	46
2.	Exercise strengthen immune system and prevent risk of illness and infections	116 (30.5%)	220 (57.9%)	336	24 (6.3%)	20 (5.3%)	44
3.	Exercise such as gymnastic training leads to better body flexibility	155 (40.8%)	189 (49.7%)	344	16 (4.2%)	20 (5.3%)	36
4.	Involvement in exercise training enhance muscular strength	144 (37.9%)	192 (50.5%)	336	20 (5.3%)	24 (6.3%)	44
Total				337.5 (88.8%)			42.5 (11.2%)

Note: PR= Positive response, NR= Negative response

Table two shows the result to Research Question One. The mean percentage of positive responses 337.5 (88.8%), which is greater than the mean percentage of negative responses 42.5 (11.2%). This implies that exercise improves physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Research Question Two: Will exercise improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria?

Table 3: Percentile analysis on the influence of exercise on mental health status improvement of an individual among undergraduate, University of Ilorin, Ilorin, Nigeria

S/N	Items	SA	A	PR	D	SD	NR
1.	Exercise enhance lasting and satisfying personal relationships	108 (28.4%)	192 (50.5%)	300	60 (15.8%)	20 (5.3%)	80
2.	Exercise helps to restore overwhelmed emotions such as fear and anger	188 (49.5%)	100 (26.3%)	288	68 (17.9%)	24 (6.3%)	92
3.	Participating in exercise helps to feel comfortable with other people	100 (26.3%)	184 (48.4%)	284	72 (18.9%)	24 (6.3%)	96
4.	Involvement in exercise enhance students intellectual capacity	172 (45.3%)	132 (34.7%)	304	52 (13.7%)	24 (6.3%)	76
Total				294 (77.4%)			86 (22.6%)

Table three shows the result to Research Question Two. The mean percentage of positive responses 294 (77.4%), which is greater than the mean percentage of negative responses 86 (22.6%). This implies that exercise improves mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Hypothesis One: There is no significant influence between exercise and physical health status improvement of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Table 4: Chi-square summary on exercise and improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria

S/N	Items	SA	A	D	SD	df	Cal. χ^2 Val.	Tab. χ^2 Val.	Decision
1.	Participation in exercise can help to prevent obesity	66 (17.4%)	268 (70.5%)	22 (5.8%)	24 (6.3%)				
2.	Exercise strengthen immune system and prevent risk of illness and infections	116 (30.5%)	220 (57.9%)	24 (6.3%)	20 (5.3%)				
3.	Exercise such as gymnastic training leads to better body flexibility	155 (40.8%)	189 (49.7%)	16 (4.2%)	20 (5.3%)	9	60.29	16.92	H ₀ is Rejected
4.	Involvement in exercise training enhance muscular strength	144 (37.9%)	192 (50.5%)	20 (5.3%)	24 (6.3%)				
	Total	481	869	82	88				

$\alpha=0.05$

Table four shows the result of hypothesis one which states that exercise will not significantly improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria. The table reveals that the calculated chi-square value of 60.92 is greater than the table value of 16.92 with the degree of freedom 9 at 0.05 alpha level. Hypothesis one was therefore rejected. This implies that exercise improve physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Hypothesis Two: Exercise will not significantly improve mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Table 5: Chi-square summary on exercise and improve mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria

S/N	Items	SA	A	D	SD	df	Cal. χ^2 Val.	Tab. χ^2 Val.	Decision
1.	Exercise enhance lasting and satisfying personal relationships	108 (28.4%)	192 (50.5%)	60 (15.8%)	20 (5.3%)				
2.	Exercise helps to restore overwhelmed emotions such as fear and anger	188 (49.5%)	100 (26.3%)	68 (17.9%)	24 (6.3%)	9	88.76	16.92	H ₀ is Rejected
3.	Participating in exercise helps to feel comfortable with other people	100 (26.3%)	184 (48.4%)	72 (18.9%)	24 (6.3%)				
4.	Involvement in exercise enhance students intellectual capacity	172 (45.3%)	132 (34.7%)	52 (13.7%)	24 (6.3%)				
Total		568	608	252	92				

Table five shows the result of hypothesis two which states that exercise will not significantly improve mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria. The table reveals that the calculated chi-square value of 88.76 is greater than the table value of 16.92 with the degree of freedom 9 at 0.05 alpha level. Hypothesis two was therefore rejected. This implies that exercise improve mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Discussion of Findings

The result from the analysis of hypothesis one showed that exercise improves physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria. The finding agrees with the view of Downward and Rascuite, (2015) who found that participating in exercises improves health, increases cardiovascular performance, improves muscular strength, flexibility and bone health, reduces hip and spinal cord fractures and enhance colon functioning. The researcher is of the opinion that engaging in an exercise improves physical health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

The result from the analysis of hypothesis two showed that exercise improves mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria. The finding corroborates with the finding of Ali, (2018) who found that maintaining regular exercise every day can bring about healthy body and strength, improving mental wellbeing of the general public, improves mood and self-perceptions, relieve stress and anxiety and enhance cognitive ability. The researcher is of the opinion that participating in an exercise improves mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Conclusion

Based on the findings of the study, the researcher concluded that exercise improves physical and mental health status of an individual among undergraduates, University of Ilorin, Ilorin, Nigeria.

Recommendations

Based on the conclusion of the study, the researcher recommended that students should maintain regular exercise as routine activity which can help to improve healthy muscular strength and flexibility; school management should encourage students to participate in exercise and utilize the available sport facilities which will help to improve students’ intellectual capabilities.

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INFLUENCE OF CHILD TRAFFICKING ON THE ACADEMIC PERFORMANCE AMONG SENIOR SECONDARY SCHOOL STUDENTS IN SABON-GARI LOCAL GOVERNMENT AREA OF KADUNA STATE

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Abstract

This study investigated the influence of child trafficking on the academic performance among senior secondary school students in Sabon-Gari local government area of Kaduna state. Descriptive survey design was used. The population of this study consisted of students, and teachers who are directly or indirectly involved in secondary school education in Zaria Local Government Area of Kaduna State. Questionnaire was used to elicit responses from the respondents. Inferential statistics of independent sample t-test and Pearson Product Moment Correlation were used. Result revealed that there was no significant gender difference between male and female students on the influence of child trafficking and there was a significant negative relationship between the influence of child trafficking and academic performance among senior secondary school student. It was concluded that there was no significant difference between male and female students on the influence of child trafficking in Sabon-Gari and there was a significant negative relationship between effect of child trafficking and academic performance. It was recommended that Parents should also not give out their children to relations as a result of hardship because those they are giving out their children to may have an ulterior motive for taking such children from their parents and government should alleviate the suffering in the society by providing palliative measures by creating employment opportunities and provision of food at a subsidize rate to reduce suffering the masses are passing through.

Keywords: Child Trafficking, Student's academic performance

Introduction

Trafficking in children (child trafficking) is a global problem affecting large number of children. Some estimates have as many 1.2 million children being trafficked every year. There is a demand for trafficked children as cheap labour or for sexual exploitation. Children and their families are often unaware of the danger of trafficking, believing that better employment and life lies in other countries. Child trafficking is lucrative and linked with criminal activity and corruption. It is often hidden and hard to address. Trafficking always violates the child's right to grow up in a family environment. In addition, children who have been trafficked faced a range of dangers, including violence and sexual abuse. Trafficked children are even arrested and detained as illegal aliens.

United Nation Children's Fund (UNICEF) (2001) estimates that 1,000 to 1,500 Guatemalan babies and children are trafficked each year for adoption by couples in North America and Europe. Girls as young as 13 (mainly from Asia and Eastern Europe) are trafficked as "mail-order brides". In most cases, these girls and women are powerless and isolated and at great risk of violence. Large numbers of children are being trafficked in west and Central Africa, mainly for domestic work but also for sexual exploitation and to work in shops or on farms. Nearly 90 percent of these trafficked domestic workers are girls. Children from Togo, Mali, Burkina Faso and Ghana are trafficked to Nigeria, Ivory Coast, Cameroun and Gabon. Children are trafficked both in and out of Benin and Nigeria. Some children are sent as far away as the Middle East and Europe (UNICEF, 2012).

There are international legal frameworks and conventions to protect children from the worst forms of labour and trafficking, as well as to enhance their rights. The Convention on the Right of the Child (CRC), the United Nation Trafficking Protocol to Prevent, Suppress and Punish Trafficking in Persons (also referred to as the Palermo Protocol), the Convention on the Worst Form of Child Labour (and recommendation 190), the Optimal

Protocol to the CRC (on the involvement of children in armed conflict (CRCOPAC) and on the sale of children, child prostitution and child pornography (CRCOPSC), the Abolition of Forced Labour Convention (International Labour Organization, ILO Convention 29) all aim to protect children from all kinds of abuse and exploitation (Handbook for action-oriented research, 2020).

Human trafficking can be caused by a wide array of factors depending on the region, type of trafficking and cultural and social factors. However, there are some trends that are found with trafficking in general and across a wide range of regions. These include violence like civil unrest, internal conflict and war, lack of human rights, poverty, oppression and a general lack of opportunity. Some of the most vulnerable people to trafficking are those who are migrating or displaced. This can be caused by a 'push', like conflict or natural disaster, or a 'pull', like the change for a better economic and social opportunities. Poverty is a major cause of vulnerability to human trafficking. Because people who are impoverished are more motivated to seek better conditions, they tend to be exposed to conditions that make human trafficking easier. Vulnerable people seeking better conditions for themselves and their families may be trafficked through job offers, training and false economic opportunities (Bowly, 1958).

People can be initially trafficked in a variety of ways due to a variety of reasons, most of which circle back to poverty. A few of these include kidnapping, the sale of children by parents, false marriages, false economic opportunities or sham job or educational advertisement. A large contributing factor to child slavery is the false hope of escape, either on the part of the children or their parents. Runaway children are especially vulnerable because they generally have no one looking out for their safety and well-being and are easy to make disappear. Parents oftentimes entrust their children to wealthier neighbours or friends who then take advantage of the situation and sell the children. Every country in the world is somehow involved in human trafficking, making it a truly global problem (Ejikeme, 20156).

The root causes of trafficking are various and often differ from one country to another. Trafficking is a complex phenomenon that is often driven or influenced by social, economic, cultural and other factors. Many of these factors are specific to individual trafficking patterns and to the states in which they occur. These are, however, many factors that tend to be common to trafficking in general or found in a wide range of different regions, patterns or cases. One such factor is the desire of potential victims to migrate is exploited by offenders to recruit and gain initial control or cooperation, only to be replaced by more coercive measures once the victims have been moved to another state or region of the country, which may not always be the one to which they had intended to migrate (OSCE Action Plan, 2014)

Several studies have shown that a close relationship exists between the physical environment and academic performance of pupils and that there is an explicit relationship between the physical characteristics of school building and educational outcomes (Loubser, 2009). United States Department of State (2004) reported that was growing evidence of a correlation between the adequacy of a school facility and pupils' behavior and performance. Olesin (2020) investigated the relationship between pupils' performance, school facilities, attendance behavior and teachers turnover rate. The study supported the research that school facilities that were well designed and maintained would enhance the learning environment for teachers and pupils. Olesin (2020) further explored whether improving school facilities had a positive effect on pupils behavior, attendance, pupils learning and teachers turnover rate.

Academic performance among secondary school students and adult life depend not only on people's abilities but on their motivation reactions to school and other performance situation (Newcombe, 20155). There are some attributions and coping strategies to save children who are easily discourage by failure that one can teaches through emotional care and feeling of school age children (Fong, & Berger-Cardoso, 2010). Despite the elements and features of child trafficking, attention to other forms of abuse has been increased in recent years by researchers such as Logan, Walker, & Hunt, (2009) in his study; harmful cultural practice and their consequences for children; Jaja (2014) in her own work titled: child abuse and neglect in the educational system and Olesin (2020), in her own study; psychological factors as correlates of child abuse in selected secondary schools in Oyo state-Nigeria. Thus, little or no understanding of the incidences of child trafficking are common because of greater attention were not given to it as it were often given to other child abuse like physical and sexual abuse.

In the Nigerian society, there are even common practices that have been seriously affected secondary school students such as poor child rearing practices among parents (Olesin, 2020; Oyegbeli, 20156; Ejikeme, 20156; Jaja, 2014; Ebigbo, 20153 and Gotified, 1984), frequent teacher strikes and general socioeconomic problems, which reduce the education system to nothing, as the major cause of child abuse and neglect (Jaja, 2014). Similarly these studies were pointed to parental neglect, polygamy and cultural or traditional influences as major

factors that send children into the street life instead of to the school especially girl child where they can prepare themselves for proper adult life (Olesin, 2020, Jaja, 2014 and Okunade, 1986).

In addition to this cultural practice, cultural and social economic condition of girl child is more harmful and she is more vulnerable to operation, economic, and sexual exploitation and abuse. For instance, there are more girls than boys that are pulled out of school for child labour and marriage (Olesin, 2020) and girl education is generally perceived as being less profitable while girls child is also deprived of the rights to free education and right to fully opportunity for play and recreation (Okunade, 20159 and Olesin, 2020). As Saran (2014) also reported that girls babies are often breastfed for shorter period and for shorter number of months than boy babies.

In some schools especially in rural and peri-urban areas, head teachers and teachers alike use students for manual labour on their farms and in their homes (Jaja, 2014). These are cases of unwarranted punishment, which may not serve as the intended corrective measure (Yakubu, 2014). However, in relevant to this background and its implications on student academic performance, child trafficking may interfere with a student academic development in various ways, such as reading habit, school attendance, relationships with other people, self-esteem, physical activity and psychological functioning (Bales, 2017). The study intends to ascertain the child trafficking common among secondary school students and ascertain the effect of child trafficking on student's academic performance among senior secondary school students in Sabon-Gari Local Government Area of Kaduna State, Nigeria.

Hypotheses

The following research hypotheses will guide this study:

1. There is no significant gender difference on the effect of child abuse among secondary school students
2. There is no significant influence between child abuse and academic performance among secondary school students.

Material and Methods

The descriptive survey design was used in this study. This is because the survey research allowed structured questionnaire to be used for data collection from the teachers and to investigate the result of students' academic performance. The population of this study consisted of students, and teachers who are directly or indirectly involved in secondary school education in Zaria Local Government Area of Kaduna State. Information obtained from the supervising ministry indicate that there are over forty-one public and private secondary schools in Zaria Local Government Area with students and teachers population put at thirty-six thousand and seven hundred and eleven (36, 711) and one thousand, three hundred and sixty-six (1, 366). It therefore shows that there are thirty-eight thousand and seventy-seven (38,077) respondents all together.

A sample size of one hundred respondents was selected for the study. Simple random sampling technique was used to select two hundred and ninety (290) senior secondary school students in Sabon-Gari Local Government Area of Kaduna State. Before handling the questionnaires to the students, a simple introductory discussion was conducted stating the intent of the research so as to gain the respondents' cooperation and sincerity. Simple random sampling technique was adopted. The respondents were met in their classrooms and the questionnaires were administered.

Questionnaire was used to elicit responses from the respondents. This was done with the view that the respondents were literates and could fill the questionnaire. The instrument has two sections. Section "A" comprises the bio data of the respondents. Section "B" sought the respondents' opinion on influence of child trafficking on academic performance which has three aspects. The data was analyzed using (Statistical Package for Social Sciences) SPSS 22.0. The inferential statistics of independent sample t-test and Pearson Product Moment Correlation were used.

Results

Hypothesis One: There is no significant gender difference on the effect of child trafficking among secondary school students.

Table 1: Summary of Independent Sample t-test on gender difference on the effect of child trafficking among senior secondary school students.

Gender	N	Mean	S D	T calculated	T critical	Df	Sig (p)
Male	104	39.4815	7.22088	1.545	1.96	350	.973
Female	86	37.3696	6.30118				

Result of the independent t-test statistics showed that there is no significant difference between male and female students on the influence of child trafficking among senior secondary school students. This is because the t-calculated value of 1.545 is less than the table value of 1.96. Also, the mean value for males =39.4815 and females=37.3696. This means that there is no significant gender difference on the influence of child trafficking among senior secondary school. Therefore the null hypothesis which states that there is no significant gender difference on the influence of child trafficking on the academic performance of senior secondary school students was retained.

Hypothesis Two: There is no significant relationship between the effect of child trafficking and academic performance among secondary school students.

Table 2: Correlation of Influence of Child Trafficking and Academic Performance among Senior Secondary School

Variable		Child Trafficking	Academic Performance
Child Trafficking	Correlation	1	-290
	Sig. (2- tailed)		.058
	N		100
Academic Performance	Correlation	-290	1
	Sig.(2-tailed)	.058	
	N	100	

Table 2 shows that there was a significant negative correlation between child trafficking and academic performance among senior secondary school students. R= (-190, N=100, p=.058). This implies that, academic performance is significantly affected by child trafficking.

Discussion

Result of hypothesis one revealed that there was no significant gender difference between male and female students on the influence of child trafficking. Both male and female students are victims of child trafficking in our society today. We see these children on a daily basis been used as house help or shop attendants in most cities across Nigeria and even beyond in the name of eking a living. Most of them are even denied education, and those that are allowed to go to school either missed school or go to school late because of the activities they are asked to carry out on the instruction of their benefactors. It is a known fact that at times the girls are exposed to sexual abuse too but both boys and girls are equally victim of child trafficking in our society.

The result of hypothesis two revealed that there was a significant negative relationship between the influence of child trafficking and academic performance among senior secondary school student. Even though the relationship is statistically low and negative (r=-290). When a child is being trafficked, it means that they are

been separated from their parents and families, the love they were supposed to receive from the families will not be there, they will consider their selves as slaves or even worst. When this happens, even if they are allowed to go to school, they will not be able to concentrate with their studies.

Conclusion

From the results and implications of findings in this study, It was conclude that there was no significant difference between male and female students on the influence of child trafficking in Sabon-Gari town, because both boys and girls are victims of child trafficking.

The result also revealed that there was a significant negative relationship between effect of child trafficking and academic performance. This is as a result of the fact that only a stable mind can learn or study in our society, when one is not comfortable, there is no way, one can learn.

Recommendations

1. Parents should give birth to the number of children they can cater for, rather than having many children they cannot care for considering the economic situation in our society today.
2. Parents should also not give out their children to relations as a result of hardship because those they are giving out their children to may have an ulterior motive for taking such children from their parents.
3. Government should alleviate the suffering in the society by providing palliative measures by creating employment opportunities and provision of food at a subsidize rate to reduce suffering the masses are passing through.
4. Education of the child should be paramount in the country; no child should be allowed to be trafficked notwithstanding the situation the parents are facing.
5. There should be a law against child hawking, and the Kaduna state government should be commended for such a noble idea.
6. Peace should be preach at all time by the different religious leaders because, conflict can result to trafficking in the society as is been observed in some parts of the country today.
7. Parents should watch the type of company their children keep, because their friends can innocently lure them into being trafficked for exploitation which will affect them.
8. Parents should try and provide their basic needs for survival, such as food, medication, learning materials; clothing etc. for this will discouraged them from trying to make money on their own.

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**SEDENTARY LIFESTYLE AND NUTRITION AS A PERCEIVED CAUSES OF HYPERTENSION
AMONG THE ELDERLY ATTENDING CENTRAL HOSPITAL BENIN CITY, EDO STATE**

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Abstract

Hypertension is now a burden to the society and several modifiable risk factors contribute directly to this burden. The purpose for this study was to investigate sedentary lifestyle and nutrition as perceived causes of hypertension among elderly people attending central hospital Benin City, Edo State. Descriptive survey research design was used for this study. The population comprised of all elderly people attending central hospital Benin city totaling 400. Systematic sampling technique was used to select 200 elderly people attending the clinic. A self structured questionnaire was used to elicit information from the respondents. The validity of the instrument was ascertained by three experts from the department of health, safety and environmental education university of Benin. While test-retest method was used to test reliability, reliability coefficient of 0.73r. The hypotheses were tested with chi-square statistical method at 0.05 level of significance. The findings revealed that sedentary lifestyle significantly causes hypertension since calculated χ^2 value of 105.6 > table χ^2 value of 16.92. It was concluded that, sedentary lifestyle and nutrition significantly cause hypertension among elderly people attending central hospital Benin city, Edo State. It was, therefore, recommended in the study that; elderly people should avoid sitting, watching and lying down for more than reasonable hours.

Keywords: Lifestyle, Nutrition, Hypertension, Elderly, Hospital

Introduction

Hypertension is a medical condition in which there is a persistent raise in blood pressure or the elevation of blood pressure in the arteries (Naish, Court & Denise, 2014). Hypertension is a blood pressure of over 140/90mmHg or being on anti hypertensive medications. Longterm hypertension is a risk factor for coronary disease and other heart related problems such as stroke, heart failure, peripheral vascular disease, loss of vision and kidney disease (Lackland, & Weber, 2015). Hypertension is now a public health emergency worldwide. In developing countries, it has been projected that by year 2025, there will be an 80% increase in the number of hypertensive individuals (Kearney, Whelton, Reynold, Muntner, & Whelton, 2005). Nakamura, Kouda, Fan, & Takeuchi, (2002) stated that prevalence of hypertension might be associated with sedentary lifestyle and nutrition. Hypertension is controllable and a small decline of 2mmHg in blood pressure can prevent stroke and other cases. According to Whitworth (2003) hypertension ranked third in the list of six factors contributing to the global disease burden.

Globally, the older adult populations are between the range of 65years and above and his pollution has increased tremendously, it is estimated to reach approximately 22% of the world's population by 2050 and they are more vulnerable to non communicable diseases (Scully, 2013). The risk of non-communicable diseases and disability increases with age, providing a challenge for health and social care resources. Federal Interagency Forum on Age Related Statistics (FIFARS), (2012), World Health Organization (WHO), (2012). It is a well established facts that behavioral modification and physical activity plays a key role in the prevention of chronic diseases and

disabilities that largely affect the elderly. Today in our society diseases such as cardiovascular, hypertension, cancer, type 2 diabetes, accidental falls, obesity, mental distress, and musculoskeletal diseases can be prevented by engaging in physical activities. However, sedentary lifestyle is a lack of energy expenditure, irregular physical activities. In the last decade, sedentary lifestyle has emerged as one of the risk factor for hypertension, it is characterized by a state of been inactive and a less energy expenditure such sitting, reclining posture, television viewing and excessive computer use (Patei, O'Neil & Lobelo, 2008). According to WHO (2010) sedentary lifestyle has been attributed to 2 million death and 19 million disability adjusted life years among the elderly. Sedentary lifestyle contributes to low quality of life. It is a modifiable risk for diabetes, obesity, hypertension, osteoporosis, fracture, cardiovascular diseases, cancer, psychiatric disorder and death.

Nutrition is the process by which food is taken into the body, it provides nourishment to the various cells in the body, it includes the ingestion and digestion of food so that in can be absorbed into the blood stream and the utilization of the nutrient for the benefit of the entire body (Udoh 2000). Nutrition plays a key role in the growth, and repair of worn out tissue, providing heat for body metabolism and the regulation of body process. Nutrition influences all life process irrespective of the age. Adequate nutrition helps to maintained, improved and promote the health of the elderly. According to (Udoh 2000), there is a closed association between nutrition and hypertension and the elderly. Consumption of excessive carbohydrate and fatty foods consumed by elderly people promote the deposition of cholesterol which is responsible for the narrowing of the arteries. High fat diet (nutrition) can lead to obesity a condition which has been linked to hypertension, high blood cholesterol, strokes, and diabetes and kidney disease. According to Guimaraes, Jardin, Sousa and Jarim (2015) high intake of salts such as sodium, and high carbohydrate intake cause high blood pressure and cardiovascular diseases if not properly checked.

The extent of knowledge of the elderly about hypertension, determine how they would seek intervention for the disease. A study carried out in North Caroline, USA by Viera et al in 2008 revealed that 22% of known hypertensive patients sampled were not sure whether anything could be done to prevent high blood pressure or to control it (Viera, Cohen, Mitchell, & Sloane, 2008). In Brazil, Borges, Rombaldi, Knuth, and Hallal (2009) in a study conducted on the knowledge of risk factors for hypertension, it was observed that inadequate diet (nutrition) and sedentary lifestyle had the highest mean score.

Blood pressure reading has systolic (top number) and diastolic (bottom down). Normal blood pressure is less than 120 over 80 (120/80), pre hypertension: 120-139 over 80-89, Stage 1 hypertension : 140-159 over 90-99, Stage 2 hypertension : 160 and above over 100 and above The exact causes of hypertension is not yet known, however several factors and conditions may play a major role in its development, some of the cause include Smoking, overweight, Lack of physical activity (Sedentary lifestyle), too much salt in the diet (Nutrition), Stress, Older age, Genetics, Family history of high blood pressure, kidney disease, thyroid disorders and Sleep disorder (WebMD, 2015)

Sedentary lifestyle and inadequate nutrition may contribute to the elevation of blood pressure levels, which, in the long run, can lead to the development of hypertension. Researcher have argued that sedentary lifestyle is one of the major risk factors for cardiovascular diseases This was observed in a survey conducted to evaluate the control of blood pressure and cardiovascular outcomes in patients aged from 50 years. Thus, the lack of physical

exercise can be seen as a social problem that requires interventions, however, a change in lifestyle and adequate nutrition can reduce morbidity and mortality related to chronic diseases that affect the elderly (Guimaraes Filho, Sousa, Jardim, & Souza, 2015). High intake of salts such as sodium, and high carbohydrate intake causes high blood pressure and cardiovascular diseases if not properly checked (Guimaraes, 2015).

Hypertension is the driver of cardiovascular diseases epidemic in Africa. It is a major, independent risk factor for heart failure, stroke and kidney failure. The researcher observed that there is high reported case of hypertension among elderly people that come to the hospital. Studies have shown that as of 2000, more than 900 million people were living with hypertension worldwide particularly in developing countries (Kearney et al, 2005). It is against this background that the researcher intends to investigate sedentary lifestyle and nutrition as perceived causes of hypertension among the elderly attending Central Hospital Benin city, Edo State

Research Questions

The following questions guided the study:

1. Will sedentary lifestyle cause hypertension among elderly people attending Central Hospital Benin City, Edo State?
2. Will lack of nutrition cause hypertension among elderly people attending Central Hospital Benin City, Edo State?

Hypotheses

H₀₁: Sedentary lifestyle will not significantly cause hypertension among elderly people attending central hospital Benin City, Edo State

H₀₂: Nutrition will not significantly cause hypertension among elderly people attending central hospital Benin City, Edo Stat.

Methods and Materials

The study adopted the descriptive research design of the survey. The population used for this study comprised of 400 elderly people attending Central Hospital, Benin City, Edo. The Sample size for this study was 200 elderly people between ages of 50 years and 80 years. Systematic sampling techniques was used to select the elderly people which involves picking every even number on the list. A self structured questionnaire was used to gather information for this study. The questionnaire was subdivided into two sections A and B. Section 'A' sought the information about personal characteristics of the respondents while section 'B' elicited information on the causes of hypertension among elderly people.

The validity of the instrument was ascertained by experts in health, safety and environmental education, while test-retest method was used to established reliability of the instruments. A statistical tool of chi-square was used to test the hypothesis at 0.05 level of significance.

Results and Discussions

Hypothesis One

1. **H₀₁**: Sedentary lifestyle will not significantly causes hypertension among elderly attending Central Hospital Benin City Edo State.
1. **Table 1**: Chi-square analysis of sedentary lifestyle as a causes of hypertension among elderly attending Central Hospital Benin city, Edo State

S/N	Items	SA	A	D	SD	Total	x ² Cal	Df	x ² tab	Decision
1.	Too much lying down can lead to hypertension among elderly.	88	104	8	0	200				Ho Rejected
2.	Long sitting with screen based entertainment may result to hypertension.	26	133	35	6	200				
3.	Spending of long hours watching television is strongly associated with hypertension.	30	153	16	1	200	105.6	9	16.92	
4.	Going every places by motor or motorcycle among elderly people may make them vulnerable to hypertension	27	154	16	3	200				
Total		171	544	75	10					

In Table 1, the findings indicates that calculated chi-square result of sedentary lifestyle as a cause of hypertension among elderly people attending central hospital Benin City, Edo State in which calculated x^2 value of 105.6 is higher than the table value of 16.92 with the degree of freedom of 9 at 0.05 alpha level of significance. The null hypothesis was rejected since calculated x^2 value of 105.6 > table x^2 value of 16. 92 this indicated that sedentary lifestyle significantly causes hypertension among elderly people attending central hospital Benin City, Edo State.

H₀₂: Nutrition will not significantly cause hypertension among elderly attending central hospital Benin city, Edo State.

Table 2: Chi-Square result of Nutrition as a cause of hypertension among elderly people

S/N	Items	SA	A	D	SD	Total	χ^2 Cal	Df	χ^2 tab	Decision
5	High intake of salt has been found to be strongly related with hypertension	44	136	18	2	200				
6	Jogging and running in the morning can serve as a measure against hypertension	19	114	65	2	200				
7	Risk of hypertension can be multiplied by excess intake of carbohydrate.	15	147	36	2	200	113.77	9	16.92	Ho Rejected
8	High intake of food rich in cholesterol causes hypertension.	13	162	25	-	200				
	Total	91	559	144	6					

Table 2 showed chi-square result of nutrition as causes of hypertension among elderly people attending central hospital Benin City, Edo State in which calculated χ^2 value of 113.77 is higher than the table χ^2 value of 16.92 with degree of freedom of 9 at 0.05 alpha level of significance. The null hypothesis was rejected since calculated χ^2 value of 113.77 > table χ^2 value of 16.92 which indicated that nutrition significantly causes hypertension among elderly people attending central hospital Benin city, Edo State.

Discussion

The tested hypothesis one revealed that there was a significant influence of sedentary lifestyle as a cause of hypertension among the elderly attending central hospital Benin City, Edo State. These findings supported the view of WHO (2010) who stated that sedentary lifestyle has been attributed to 2 million death and 19 million disability adjusted life years among the elderly. The same authority further maintained that sedentary lifestyle contributes to low quality of life, risk for diabetes, obesity, hypertension, osteoporosis, fracture, cardiovascular diseases, cancer, psychiatric disorder and death.

The tested hypothesis two revealed that nutrition significantly causes hypertension among elderly people attending central hospital Benin City, Edo State. The findings is in consistent with Udoh (2000) noted that there are a closed association between nutrition and hypertension and the elderly, therefore consumption of excessive carbohydrate and fatty foods by elderly people promote the deposition of cholesterol which is responsible for the narrowing of the arteries. The authority further stressed that high fat diet can lead to obesity a condition which has been linked to hypertension, high blood cholesterol, strokes, and diabetes and kidney disease. According to Guimaraes, (2015) high intake of salts such as sodium, and high carbohydrate intake cause high blood pressure and cardiovascular diseases among the elderly.

Conclusion

Based on the findings of this study it was concluded that: Sedentary lifestyle and nutrition are strong predictors for hypertension among the elderly attending central hospital Benin City, Edo State.

Recommendations

Based on the conclusion, it was therefore, recommended that;

1. Elderly people should be health educated on the need to avoid sitting, watching and lying down for more than reasonable hours and there is the need for elderly people to engage in physical activities such light jogging, walking, and gardening to reduce risks of developing hypertension.
2. Health educators, medical personnel, and other social workers should carry out awareness programme for the elderly people on the various causes of hypertension and how it can be prevented.

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SOCIO-ECONOMIC EMPOWERMENT OF COMMERCIALIZATION OF VIEWING CENTRES OF PREMIERSHIP LEAGUE AMONG YOUTHS IN ILORIN METROPOLIS, KWARA STATE

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ABSTRACT

This study examined the Socio-Economic Empowerment of Commercialization of Viewing Centres of Premiership League among Youths in Ilorin Metropolis, Kwara State. The Descriptive survey design of the survey of survey types was adopted. The population of the study was made of youths, who are English premierships league followers and make use of viewing centres in the study area; simple random participation and purposive sampling technique were used to select the 150 respondents. The instrument used was a researcher structured-questionnaire. The instrument was validated by three experts in the Department of Human Kinetics and Sociology Department, University of Ilorin. The reliability of the instrument was obtained using the test-retest method. Through Pearson's Product Moment Correlation (PPMC) and a coefficient of 0.76 was obtained. Inferential statistics of Chi-square was used to test the hypotheses at 0.05 alpha level. The results of this study revealed that: poverty alleviation have significant influence on commercialization of viewing centres of premierships league among youths, unemployment have significant influence on commercialization of viewing centres of premierships league, and Sport betting have significant influence on commercialization of viewing centres of premierships league. Base on the finding of this study. It was therefore recommended that Youths should become owners of viewing centres in order to become employer of labour and self-reliance.

Keywords: Socio-economic, commercialization, Premiership league, Youth

Introduction

Empowerment can be viewed as a method of further developing the government assistance administrations through intervening social organizations. The individual process involves the will to impact the climate on all levels: it starts with a feeling of confidence in one's own solidarity, advances to movement in between close to home spaces, and proceeds from that point to action for social change. (Eze, 2015).

Thus, Empowerment is an intelligent interaction which happens between the individual and his current circumstance, throughout which the feeling of the self as useless changes into an acknowledgment of the self as a decisive resident with socio-political capacity. (Cox, Ganons, Noel, Vavra, Wing Farrel & Deadman 2020)

Social empowerment is perceived as the method involved with fostering a feeling of independence and self-assurance, and acting exclusively and by and large to change social connections and the foundations and talks that prohibit poor individuals and keep them in poverty (Nwekeaku & Ossai 2019). Poor individuals' empowerment, and their capacity to view others to be responsible, is unequivocally affected by their singular resources (like land, lodging, investment funds) and capacities of all types: human (like great wellbeing and training), social (like social belonging, a feeling of character, initiative relations) and mental (confidence, self-assurance, the

capacity to envision and try to a superior future). Additionally significant are individuals' aggregate resources and abilities, like voice, association, portrayal and identity (Namai, 2020).

Economic empowerment is thought to permit destitute individuals to think past prompt day by day endurance and to practice more prominent command over both their assets and life decisions. For instance, it empowers families to settle on their own choices around making interests in wellbeing, instruction, organizations and facing challenges to expand their pay. There is additionally proof that economic empowerment can fortify weak gatherings' investment in decision making, this recommends that financial force is regularly handily 'changed over' into expanded societal position or decision making (Morris, Santos & Neumeyer 2020).

These mechanical headways are currently pervasive even in non-industrial nations. This condition has engaged transnational media partnerships and associate satellite and digital TV organizations like DSTV, Sky Sports, CNN, which currently hold influence in Nigeria. Therefore, foreign programmes, particularly football broadcasting, have become pervasive (Onwumehili, & Oloruntola 2014). Football (soccer) is the most popular and globalised sporting activity in the world. Among global televised (viewed) football competitions and leagues around the world, European leagues, such as the English Premier League, Spanish La-Liga, Italy Serie A, German Bundesliga, French League 1, and the UEFA Champions League are at the top of quality organisation and coverage. In fact, it has been the dream of most local football agents to facilitate their movement to Europe (Onwumehili & Akpan 2020). On the other hand, non-footballers (fans), especially the youths in Nigeria, engage in massive support for European football clubs and tournaments. Hence, the transmission of live football matches from the European Leagues is creating a huge base of fanatics of European football clubs across non-industrial nations, most particularly Nigeria. A similar overview further uncovered that most devotees of European associations frequently observe live matches in commercial viewing centres (Onyebueke 2015).

Micro, small and medium enterprises is an essential part of Nigeria economy and it is indicated in the Nigeria Strategy for Growth and Poverty Reduction as a basic stage towards keeping an eye on the concerns and longing of the Nigeria vision 2020 (Naradda, Ekanayake, Abeyrathne, Prasanna, Jayasundare, & Rajapakshe 2020). Nigeria has been the focal point of exchange for a long time. Nigeria relies upon business exercises for monetary development and a large portion of them are occupied with the limited scale business as the significant method for acquiring their income. The MSMEs in Nigeria create job opportunities among the low skilled people and therefore hold the key to employment creation and income generation (Kowo, Adenuga & Sabitu, 2019).

One of the most critical problems of development confronting the continent of Africa and Nigeria, in particular, is poverty, which is majorly caused as a result of unemployment of youths. In the contention of Olukayode (2017), despite preventing some economies from attaining economic significance and aspirations of development, it has positioned them as countries without a job-growth economy. The up-surge in youth unemployment and poverty has turned out to be an all-reaching concern in the present-day global world. Youth joblessness is a test facing most nations all around the world (Oyekunle 2020). Despite being more articulated in non-industrial nations, industrial economies are not unsusceptible to this terrifying social issue. The topic of youth joblessness and destitution is among the principal issue facing the acknowledgment of the all-encompassing destinations of the public authority, seeing the objectives of advancement as embedded in the medium-term Economic Recovery and Growth Plan (ERGP) and Vision 20:2020 of the Federal Republic of Nigeria.

According to Yarima (2014), governments and development partners should see youth as an 'investment opportunity' and invest in them for the acceleration of economic growth and reduction of poverty, since their condition offers an unprecedented opportunity for that. The critical role of the youth population in national development made the issue of youth development, with particular emphasis on youth employment, unemployment, and poverty, appear among the issues of concern on the front burner of the agenda of international development. The Federal Ministry of Youth Development (2008) made the accompanying accommodation on youth, 'the energy, abilities, and yearnings of youngsters are important resources that no nation can bear to waste, and assisting them with understanding their maximum capacity by accessing business is no question a precondition for destitution annihilation, feasible turn of events, and enduring harmony. Young people make up the dynamic populace of any general public' (Akanle&Omotayo 2020).

The dynamic populace of any general public is its productive sector, and this decides generally the degree of improvement of that society. At the point when youngsters, being the dynamic populace, are made inefficient, deliberately or unknowingly, society will in general stay stale in its formative steps. As indicated by Bora, kirikkaleli, Bekunand Ekwueme (2020), youth joblessness and destitution are as of now one of the best worldwide improvement challenges confronting nations internationally. Relating this to the African continent, he affirmed that Africa, which has more than 60 percent of its population currently under the age of 44, is the fastest growing and most youthful population in the world. With regards to Nigeria, unemployment and poverty among youths are one of the major problems inhibiting the growth of the economy.

Furthermore, the affection for Premiership league has prompted commercialisation of viewing centres which as of late has taken another measurement with the approach of sports betting organizations as a method of building an organization of avid supporters and allies of football rivalries (Damms 2021). Sport betting is the action of gauging and anticipating the consequence of sports matches or sports and putting a cash stake or award on it. Today, internet (online)betting is exceptionally normal among adolescents and surprisingly more seasoned individuals likewise participate in web based wagering (Lavojo, Bala, Arogundade& Collins 2020).Njemanze, Nwokporo, Agha, andNwosu (2020), sees sport betting as an act of placing a financial wager on the outcome of a sporting match, as well as on events that occur within the larger match or fixture. It also covers betting on other events such as the outcome of a political election or a reality television program.

In Nigeria, an expected 60 million dynamic bettors matured 18-40 burn through N1.8billion day by day adding up to N730billion yearly, News Agency of Nigeria (2014). Their investment in sports betting comes from different assumptions for social and money related prizes. One of the significant motivations behind why young people include in sports betting is to win cash; this is trailed by amusement, and as a method for get out and the power of allurements with respect to the issue bettor (Adebisi, Alabi, Arisukwu, &Asamu2021). Calado1, Alexandre and Griffiths (2018) in a diverse report set up 'sensation looking for' as significant connection factor of issue betting. For the Nigerian populace, NOI surveys (2019) detailed that the craving to win cash (30%), Unemployment (21%) and voracity 15% as the significant justifications for why individuals take part in wagering exercises. It has additionally turned into a well known past-time action for the grown-ups as well as for individuals underneath age 18 particularly on the internet wagering stages.

Nigerian young people have a colossal football culture which Sports wagering organizations like Bet9ja, Nairabet, Merrybet, Accessbet, Betking, Sportybet and so forth have utilized on to their advantage (Njemanze, Nwokporo, Agha, &Nwosu 2020). For the most part, there exist enormous

aficionados of the English Premier League and Spanish Laliga groups. Dissimilar to in the past where young people just spend assets to watch matches at viewing centres, betting shops as a feature of significant worth added administrations as well as a method of drawing in clients by and by show matches to bettors. The chief explanation being that it gives speedy and simple money (Calado, Alexandre, & Griffiths 2020). However, this study focuses on the socioeconomic empowerment of commercialisation of viewing centres of premiership league among youths in Ilorin metropolis.

Statement of the problem

Recently the unemployment rate and poverty level among the youths are major concern of government and other stakeholders because its hindered the Economic growth to some extent, socio-economic empowerment of commercialisation of viewing centres of premiership leagues, and these problem influences the commercialization viewing centres of premiership league in Nigeria, and these include disasters, competition, infrastructure, taxes, accounting, management, poor mobilisation of savings, marketing, and planning. The researcher observed that financial assistance has been one of the major challenges facing commercialisation of viewing centres. The impact of monetary help could be felt as it poses severe consequences on the establishment of viewing centres of premiership league by operators (youth).

This has led to the onset of sport betting, of which its existence in the country has raised several ethical questions for the youths, parents and other caregivers given the disorientation and dissonance it infuses in the existing social norms and values of hard work. Thousands of people follow live matches of European football leagues through satellite TV in commercial viewing centres across urban and rural areas in Nigeria, as a result of this, there is high participation of youths in sport betting. The researcher observed that high rate of youth participation in sports betting which is as a result of commercialisation of viewing centres of premiership league causes considerable discomfort within the family, community and the larger society. The challenges of how unemployment, tax, sport betting and poverty can lead to socio-economic empowerment of youths still remain unexplored. In view of this, this study therefore investigated socio-economic empowerment of commercialisation of viewing centres of premiership league among youths in Ilorin metropolis.

Hypotheses

The following hypotheses were formulated and tested for this study:

1. Poverty alleviation has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin metropolis, Kwara State
2. Unemployment has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin metropolis, Kwara State
3. Sport betting has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin metropolis, Kwara State

Methodology

A descriptive research method was used for this study. The population for this study comprises of all youth between the ages brackets of 20-35 years old in Ilorin metropolis. A multi – stage sampling technique (consisting of simple random, stratified, proportionate and purposive sampling techniques) was adopted for the selection of 150 respondents. A questionnaire was the main instrument that was used for this study. The validity of the instrument was done by given copies to

three experts in the Department of Human Kinetics Education and one lecturer in the Sociology Department, University of Ilorin. The research instrument was tested for reliability through test retest method using Pearson Product Moment Correlation (PPMC). The data collected were analysed using inferential statistics of chi-square (χ^2) to test the hypotheses formulated at 0.05 alpha levels.

Results

Ho1: Poverty alleviation has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin metropolis

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE	TABLE VALUE	REMARK
1	Commercialization of viewing centres will increase the standard of living among youths thereby eradicating poverty	58 (38.7%)	69 (46.0%)	21 (14.0%)	2 (1.3%)	150				
2	Commercialization of viewing centres lead to employment of youths	36 (24.0%)	99 (66.0%)	10 (6.7%)	5 (3.3%)	150				
3	Commercialization of viewing centres spurs rural development	51 (34.0%)	69 (46.0%)	23 (15.3%)	7 (4.7%)	150	9	362.079	16.92	Ho Rejected
4	Commercialization of viewing centres encourages patronage and leads to poverty eradication	34 (22.7%)	79 (52.7%)	30 (20.0%)	7 (4.7%)	150				
Column Total		179	316	84	21	600				

Table 1: Chi-square (χ^2) analysis showing the significant influence of poverty alleviation has significant influence on commercialization of viewing centres of premiership league among youths in Ilorin Metropolis

P<0.05 alpha level

The table 1 indicated a calculated Chi-square value of 362.079 and a table value of 16.92 with a degree of freedom of 9 at 0.05 alpha level. Since the calculated value is greater than the table value, the null hypothesis is rejected. This implies that poverty alleviation has significant influence on commercialization of viewing centres of premier league among youths in Ilorin Metropolis

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE	TABLE VALUE	REMARK
1	Commercialization of viewing centres can lead to provision of job opportunity	68 (45.3%)	71 (47.3%)	8 (5.3%)	3 (2.0%)	150				
2	Social vices (e.g Smoking, drug, trafficking, kidnapping, stealing etc) among youths is reduced through commercialization of viewing centres	47 (31.3%)	46 (30.7%)	54 (36.0%)	3 (2.0%)	150				
3	Commercialization of viewing centres leads to youth development both locally and internationally	36 (24.0%)	73 (48.7%)	34 (22.7%)	7 (4.7%)	150	9	321.12	16.919	Ho Rejected
4	Commercialization of viewing centres encourages other side attractions (Businesses), which leads to creation of employment opportunities among	76 (50.7%)	62 (41.3%)	10 (6.7%)	2 (1.3%)	150				

youths

Column Total **224** **255** **106** **15** **600**

Ho2: Unemployment has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin Metropolis.

Table 2: Chi-square (χ^2) analysis on unemployment has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin Metropolis

P < 0.05 alpha level

The findings from table 2 reported a calculated Chi-square value of 321.12, table value of 16.92 with the degree of freedom of 9 at 0.05 alpha level. Since the calculated value is greater than the table value, the null hypothesis is rejected, which implies that unemployment has significant influence on commercialization of viewing centres of premiership league among youths in Ilorin Metropolis.

Ho3: Sport betting has no significant influence on commercialization of viewing centres of premiership league among youths in Ilorin Metropolis.

Table 3: Chi-square (χ^2) analysis on Sport Betting has no Significant influence on Commercialization of Viewing Centres of Premiership League among Youths in Ilorin Metropolis.

P < 0.05 alpha level

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE	TABLE VALUE	MARK
1	Participating in Sport betting encourages youth to become owners of football viewing centres	34 (22.7%)	39 (26.0%)	60 (40.0%)	17 (11.3%)	150				
2	Sport betting serves as a source of income for youths	31 (20.7%)	76 (50.7%)	36 (24.0%)	7 (4.7%)	150				
3	Establishment of viewing centres will encourage participation in Sport betting which will promote business initiative	45 (30.0%)	81 (54.0%)	21 (14.0%)	3 (2.0%)	150	9	212.64	16.92	Ho Rejected
4	Sport betting encourages laziness among youths which is promoted through commercialization of viewing centres	58 (38.7%)	44 (29.3%)	37 (24.7%)	11 (7.3%)	150				
Column Total		168	240	154	38	600				

The findings from the analysis in table 3 reported a calculated Chi-square value of 212.64, table value of 16.92 with the degree of freedom of 9 at 0.05 alpha level. Since the calculated value is greater than the table value, the null hypothesis is rejected, which implies that Sport betting have significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis.

Discussion of the Findings

Findings on hypothesis 1 implies that poverty alleviation have significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis. This result supported the finding of Eze (2015), who asserted that the promotion and development of entrepreneurial activities such as ownership of commercial viewing centres, would aid the dispersal and diversification of economic activities and induce development in the country thereby reducing poverty. Namai (2020), also added that entrepreneurial development in Nigeria should be perceived as a catalyst to increase the rate of economic growth, create job opportunities, and decrease trade deficits that results from importation of manufactured goods which will foster poverty alleviation. In addition, if Nigeria wants to reach its full potential in terms of economic and social developments, it cannot afford to ignore the importance of its indigenous commercial viewing centres owners and the contributions they make to the nation's economy, especially in reducing poverty.

Hypothesis 2 showed that unemployment has significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis. This finding is in line with the assertion of Morris, Santos & Neumeyer (2020), who asserted that small and medium enterprises for example viewing centres are a noteworthy driver of economic development, being vital to most economies across the world, particularly in developing and emerging nations representing 99% of all businesses in the European Union (EU) and in the last five years, provided about 85% of new jobs, also ensuring two-thirds of the total private sector. Small and medium enterprises (Commercial viewing centres) are viewed as backbone of an economy, since they exert a significant role in lessening poverty, employment creation and contributing meaningfully to the growth of developing countries (Kowo, Adenuga & Sabitu 2019).

Hypothesis 3 showed that Sport betting has significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis. This finding is agreement with Ifeoma, Purity & Yusuf (2018) who reviewed that extant literature has recorded the insight and impacts of sport wagering on society are negative instead of positive, fairly certain in the short-run however experientially negative at a long run with no practically protected degree of commitment. A review in Uganda shows that due to commercialization of premier ship league viewing centres, dependent adolescents to Sport betting left profitable business and turned to betting with other peers showing huge unexpected issues (Onwumechili & Oloruntoba 2014)

Conclusions

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

1. Poverty alleviation has significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis.
2. Unemployment has significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis.
3. Sport betting has significant influence on commercialization of viewing centres of premier ship league among youths in Ilorin Metropolis.

Recommendations

Based on the findings of this study, the following were recommended:

1. Government should provide source of funds in form of loans, grants and incentives for the establishment of viewing centres by youths
2. Youths should become owners of viewing centres in order to become employer of labour and self employed
3. Adequate information or more awareness, should be put in place by the government on the long-term implication of Sport betting through commercialization of viewing centres of premiership league

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**RELATIONSHIP BETWEEN SPORTS ADVERTISMENT AND PARTICIPATION OF
SPORT ADMINISTRATORS IN SPORTING ACTIVITIES AMONG SECONDARY SCHOOLS IN
CROSS RIVER STATE, NIGERIA.**

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Abstract

This study determined the relationship between sports advertisement and participation of sport administrators in sporting activities among secondary schools in Cross River State, Nigeria. For the purpose of the study, survey research design was used. The population for the study was 246 sport administrators in public secondary schools in Cross River State and was all involved in the study because of the manageable size. A 30-item structured questionnaire tagged “Sport Advertisement and Participation Questionnaire (SAPQ)” was the instrument for data collection in this research. The instrument was validated by three experts in Measurement and Evaluation in the Department of Educational Foundations, Faculty of Education, and University of Calabar. The reliability of the instrument was established using Cronbach alpha reliability method. The questionnaire was administered on 246 sport administrators with the help of three research assistants. A total of 246 copies of the questionnaire were administered, retrieved and analyzed using Pearson Product Moment Correlation Coefficient from SPSS version 20. The results revealed and concluded that significant relationships exist between advertisement and participation of sport administrators in sporting activities among secondary schools in Cross River State, Nigeria. The study therefore recommends among others that there should be continued sporting programmes like football, volleyball, table tennis and advertisement of sporting programmes on the radio, television or newspapers to enhance participation of sports administrators in selected sports of interest.

Keywords: Sports, Administrators, Advertisement, Participation and Sponsorship

Introduction

Sports participation refers to the gradual involvement of individuals in sporting activities. The philosophy of sports in Nigeria is to encourage participation in sports as avenue for enhancement of health, exhibition of innate physical attribute, expression of talents, skills and alleviation of poverty (The Federal Republic of Nigeria Sports Development Policy, 2019). Caroll and Caroll (2015) conducted a study to determine enablers that could promote participation in sports and physical activities and communication of simple health messages to support national NCD (Non Communicable Diseases) prevention efforts in Nauru, Tonga, Fiji and Samoa. The study utilized teenagers (aged 15 - 17 years), young adults (18-34 years) and adults (35-50 years) through Focused

Group Discussions and structured interviews. They identified the following as enablers of sport participation and physical activity:

Ensuring inclusive sports policies and programmes are provided and sustained through a multi-sectoral approach.

Providing national leadership and advocacy about the importance of regular physical activity.

Providing regular communication and advocacy by local community leaders, for examples, village chiefs about physical activity.

Political leaders, church leaders, community leaders and sports leaders visibly modelling active behaviour.

Village committees prioritising time for village members to be active each day through exercise and sports.

More people of all ages being seen exercising and playing sports; and

Village champions, village members promoting personal achievements in getting physically active (not necessarily a sport champion) (Caroll & Caroll 2015).

Participation in physical activity is important to students' current and future health. It assists in the control of body weight by increasing energy expenditure, this is important in teaching children and young people how to achieve a healthy 'energy balance', and avoid developing adult obesity. It reduces the risk of developing premature cardiovascular disease, type-2 diabetes, metabolic syndrome and some site specific cancers (Hallal, Victora, Azevedo & Wells, 2016). Weight bearing physical activity is important in bone formation and remodelling. In addition, physical activity reduces depression and anxiety (especially in shy students), enhances mood, self-esteem and quality of life (Boreham, Twisk, Murray, Savage, Strain & Crain, 2011). Sporting activities could be football, basketball, volleyball, hockey, relay races, javelin, rugby, cricket, motor sports, swimming among others and individuals are at liberty to choose any sports as it appeals to them. Individual involvement in these sporting activities could be enhanced through promotional activities.

Sport advertisement involves collaboration or partnership between an individual, group or business firms, non-governmental organization and sport federation like football, cricket, hockey among others to encourage such sporting activities. The relationship indeed is mutual in that sporting activities are promoted on one hand and the business partners on the other hand. Yazid (2015) described sponsorship as the life blood of sports. He explained that it is a relationship/partnership that plays to the relative strengths of the two parties and provides each with handsome reward. For instance, sporting activities like football, boxing and tennis are visual entertainment at the highest level and have benefitted from such sponsorship partnerships. All over the world sports thrive on sponsorship from corporate organizations and wealthy individuals.

The secondary schools as one of the levels of education in Nigeria are made up of students who are mostly in their youthful years between the ages 10-16. Musa (2019) noted that secondary school age bracket constitute the critical period for acquisition and mastery of sports skills. This is a unique and fascinating period in human development because students are usually in their formative period of development. Therefore, Secondary school sports is seen as a promising setting to encourage adolescents to begin and maintain a physically active life style and also to acquire and develop high standard skills for major games and sports. Furthermore, secondary school sports connote competitions particularly in football, athletics and a few popular sports according to the objective of the promoting sponsors who always donated cash, cup or shields to boys or girls schools or to individual sports and schools where houses are named after them.

In Cross River State, the management of sports programs has been severally involved in the advertisement of sporting activities in secondary schools through provision of funds and competitive trophies. In spite of these support for sporting activities, few school administrators have taken advantage of the development; while many others, especially the public schools seem not to be interested. The low participation and interest level of secondary school administrators in sporting activities experienced at the moment is very discouraging. This development which has recorded low involvement in competitive sporting activities in the State at the secondary school level of education does not identify sport talents in the students and prepare them for future gains in such sporting activities after completion of secondary education. Most secondary schools at the moment restrict themselves to inter-house sporting activities within their schools. It is not however certain as to whether these administrators are motivated by these sports advertisement strategies to get involved in sports or otherwise.

Castelli, Hillman, Buck and Erwin (2017) affirmed that participation in regular health enhancing physical activity reduces rule-breaking behaviour and improves attention span and classroom behaviour. The authors explained that it has positive effects on academic performance, including achievement in mathematics and reading, academic grades and perceptual skills. Involvement in sport and physical education can play a significant role in the enrichment of a child's social life and the development of social interaction skill (Sibley & Etnier, 2013). It is against this backdrop that the researcher intends to determine the relationship between sports advertisement strategies and participation among secondary school sport administrators in Cross River State. Lack of interest and low participation of secondary school sport administrators in Nigeria generally and Cross River State in particular is a source of worry to secondary school students who are young, energetic and multi-talented in various sporting sports. This development has placed these students in a disadvantageous position as young talents are not identified among these youthful population for participation in school sporting activities and beyond after completion of secondary schooling.

In the same vein, Nestle Company, wealthy individual and philanthropists have made concerted efforts in the advertisement of sports but little is being achieved in the direction of full involvement by administrators of secondary schools in the State. It is not certain as to whether these advertisement activities are not made public or outright display of unwillingness by many school administrators not currently involved in sporting activities. Interestingly, participation in sporting activities by students is capable of improving the physical and mental health of individual (World Health Organization, 2014). Physical activity can promote health and prevent the onset of disease including cardiovascular disease, type II diabetes and osteoporosis, forms of cancer, obesity and injury. It also has potentials to reduce depression, stress and anxiety, and improves self-confidence, self-esteem, energy levels, sleep quality, ability to concentrate and by extension academic performance of students. At the moment, efforts of some school administrators have not justifiably encouraged their students' participation in sporting activities and the gains from sports advertisement. There is every need to break into relationships in order to improve school sports participation in the State. The researcher's concern over this development therefore necessitated this study.

According to Wikipedia (2018), grassroots sport marketing is part of the field of marketing known as social marketing. This refers to marketing something that is of benefit to the public, and is normally done by government or charities rather than private sector organizations. It is normally done with a much smaller budget than marketing of sports teams and event or marketing of products through sports as it does not bring any direct financial benefit. Although this marketing normally drives people to clubs where they will pay to play sport it still needs to be subsidized in order to be run. The money therefore comes from local councils with a remit to increase participation or from public health sector which wants to decrease the cost of disease. Examples of the promotion of sport to increase participation is the United States Golf Association's initiatives to increase golf participation Luis (2020) as well as MLB's One Baseball campaign, which attempts to unify baseball organizations at all levels with the overall goal of increasing youth participation and consequently creating new fans.

Horne, (2016) carried out a study to investigate the relationship between advertisement and participation in sporting programmes in the United State of America. A sample of 350 athletes were selected and used for the study. A well validated structured questionnaire was used for data collection. Data collected was analyzed using descriptive statistics and Pearson product moment correlation coefficient. The findings revealed that there is a significant relationship between advertisement and participation in sporting programmes. The author equally discovered that advertising has taken a leading role in consumerist culture, and athletic brands have taken full advantage of its powerful effects. Brands have transformed from being businesses that merely sell goods and services into unique identities with reputations and personalities. Advertising is the platform in which those unique brand personalities are shown to audience (Horne, 2016).

One of the most prominent ways athletic brands promote their identities is through the use of celebrity athlete endorsers. Athlete endorsers are paid by brands to appear in advertisements or promote goods and services. Celebrity endorsements have become a primary way to promote brands and professional sports. The

“Jordan Effect” is a prime example of how effective celebrity endorsers can be when it comes to purchasing power. Michael Jordan, an NBA legend, was sponsored by several athletic brands and appeared in many advertisements during his career. In 2013, it was estimated that his impact on the global economy was \$13 billion. Horne (2016) also studied professional soccer player David Beckham as a living ad. The Beckham family is seen as the ultimate goal for families to achieve, demonstrating a vision to the perfect life that everyone wants to strive for. Advertisers have made the public believe that in order to obtain a life like the “Beckhams” they must purchase the products that the family endorses.

In another related study Grau, Roselli and Taylor (2012) investigated the influence of sport promotion on the participation in sporting programmes. Four research questions and hypotheses were formulated to guide and direct the study. One of the hypotheses investigated that although celebrity endorsements are common in the sport industry; recent research has revealed the lack of female athlete endorsers in advertising today. One content analysis examined 169 advertisements in six different types of magazines that contained athlete endorsers. The researchers found that despite women’s participation in sports, only 12% of advertisements featured female athlete endorsers. Advertisements that included female athlete endorsers were only printed in traditional women’s magazines and nonexistent in men’s and teens’ magazines. The authors concluded that this may pose a potential problem with specific audiences, such as teens and fitness buffs, both of whom are not exposed to many female athletes’ endorsers in magazines.

Another advertising strategy used by athletic brands is the use of the heroic narrative. Peetz (2012) looked at how sport media uses heroes to portray athletic victories and performance. The study defined the historical meaning of myths and provides examples of how sport advertising, specifically Nike, uses athletic heroes to convey messages to audiences. The findings showed that Nike uses masculine strategies to define the meaning of a hero.

Advertisement can be done using the social media. Use of global communication and interaction channel, social media has changed the conventional offline business to customer relationship into a tool that enables customers’ engagement into an instantaneous and active back-to-back conversation (Drury, 2018) Customers are increasingly incorporating social media within their daily lives and using it as part of their communication mix (Mangold & Faulds, 2019). Today, sport businesses can use social media to actively listen to their customers, recognise and follow their specific needs and wants rather than use out-dated methods of data collection such as surveys and focus groups, which do not provide rich information to better understand customers. It allows sport businesses to keep their customers updated on the latest news and information as well as interacting with them on an individual basis (Williams & Chinn, 2020). This instant, two-way dialogue available to sport businesses, which allows them to provide quality content within short time frames, can be seen as a form of competitive advantage. They are able to interact the way they want, in the way that they wish, through whichever medium they feel best. This gives sport businesses an added impetus to effectively utilise social media in order to provide their customers with the best possible experience and to expand their marketing abilities, Woodcock, Broomfield, Downer, & Starkey, 2011)

Modell, Rider and Menchetti (2017) surveyed the parents of children with developmental disabilities and found that 55% of the sports activities occurred with their families. The top three activities listed (swimming, walking/jogging and bicycling) are individual rather than team-oriented sports. Rimmer (2019) found that less than 10% of African-American women with physical disabilities participated in any kind of structured physical activity programmes and cites other studies such as Santiago, Coyle and Kinney (2013) Coyle and Santiago (2015) and that show that physical activity is a missing component in the lives of many people with disabilities. Other research in the US shows that some of the most common leisure activities for people with disabilities are watching television and listening to the radio (Modell et al, 2017) and that many adults with disabilities are socially isolated from their communities (Kaye, 2017). In a study by Sands, (2014) 80% of people with disabilities had not gone to an athletic club in the past year. In the same study 71% of people with disabilities had not attended any sporting event in the year compared to 43% of people without disabilities.

Objective of the study

The main objective of this study is to find out the relationship between sports advertisement and participation of sport administrators in sporting activities among secondary schools in Cross River State, Nigeria.

Hypothesis

There is no significant relationship between advertisement and participation of school sport administrators in sporting activities in Cross River State.

Method and Materials

Survey design was adopted for this study. The research covers Cross River State of the Federal Republic of Nigeria. The target population of the study was 446 sport administrators in public secondary schools in Cross River State obtained from State Secondary Education Board, Calabar. The study employed the census approach as all the sport administrators were involved in the study. The researcher employed the stratified sampling technique to draw out the population for the study. The researcher then used purposive sampling technique to select the numbers of sports administrations in public secondary schools in Cross River State, Nigeria. The researcher then used simple random sampling technique to select 246 sport administrators in public secondary schools in Cross River State for the study. Cronbach alpha reliability method was used to test the reliability of the study. A structured questionnaire was used for data collection. Pearson Product Moment Correlation Coefficient from SPSS version 20 was used in analysing the data.

Results and Discussions

Pearson Product Moment Correlation Analysis of the Relationship between Advertisement of Sporting Programme and Participation of School Sport Administrators in Sporting Activities

Variables	N	M	SD	r-value	Sig
Advertisement	246	16.68	2.32		
Participation of school sport administrators in sporting activities	246	17.99	2.23	0.654*	0.00

**Significant at .05 level, df = 244, table value= 0.195*

Discussion of findings

The result in Table 5 revealed that the calculated r-value 0.654* was greater than the table value of 0.195 at .05 level of significance with 244 degree of freedom. With this result, the null hypothesis which states that there is no significant relationship between advertisement and participation of sport administrators in sporting activities in Cross River State was rejected with an indication that there is a significant relationship between advertisement of sporting programme and participation of school sport administrators in sporting activities in the study area. It can be inferred that advertisement of sporting programmes on the radio, television or newspapers by companies could encourage the participation of school sports administrators in Cross River State. This is very true most advertisements are backed by the power of conviction on the audience. Findings of the of the study revealed that a strong relationship between advertisement and participation of school sport administrators in sporting activities in Cross River State. This therefore implies that promotion of sporting programme by paid announcement on radio, television or newspaper could build up sport administrators' interest to participate in such sporting activities. The finding of the study agreed with Horne (2016) who

determined the relationship between advertisement and participation in sporting programmes in the United State of America and found that there was a significant relationship between advertisement and participation in sporting programmes. The author equally averred that advertising had taken a leading role in consumerist culture, and athletic brands had taken full advantage of its powerful effects. He therefore concluded that advertising was the platform in which those unique brand personalities were shown to audience. The findings further strengthen the research efforts of Grau, Roselli, and Taylor, (2012) on the influence of sport promotion on the participation in sporting programmes. He concluded that the use of men or women pictorial arouses the interests of the audience. They continued placement of adverts on television, radio, newspapers among others was apt to arouse consciousness in sport administrators to engage in sporting activities.

Conclusion

The study concentrated on sports promotion and participation of school sport administrators on sporting activities in Cross River State, Nigeria. Based on the result of the data analysis, it was found out that a significant relationship existed between advertisement and participation in sporting activities among sport administrators in Cross River State. The relationship between these variable and participation in sports by sport administrator was established in this study to be positive. It follows therefore that promotional of sporting activities by companies should be encouraged, publicized and sustained to enhance participation by the Nigerian public in general and sport administrators in Cross River State in particular.

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EFFECTS OF MENTAL IMAGERY AND MODELLING ON SELF-EFFICACY AND FRONT JUMP SHOT ABILITY

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Abstract

This study was designed to assess the effectiveness of mental imagery supplemented with video-modeling on self-efficacy and Jump shot strength in handball (three repetition maximum; 3RM). Subjects (13 male, 7 female) who had at least 6 months of front Jump shot experience were assigned to either an experimental ($n = 10$) or a control ($n = 10$) group. Subjects' 3RM and self-efficacy for the 3RM were measured at baseline. Following this, subjects in the experimental group followed a structured imagery protocol, incorporating video recordings of both their own 3RM performance and a model lifter with excellent technique, twice a day for three days. Subjects in the control group spent the same amount of time viewing a placebo video. Following three days with no physical training, measurements of front Jump shot 3RM and self-efficacy for the 3RM were repeated. Subjects in the experimental group increased in self-efficacy following the intervention, and showed greater 3RM improvement than those in the control group. Self-efficacy was found to significantly mediate the relationship between imagery and front Jump shot 3RM. These findings point to the importance of mental skills training for the enhancement of self-efficacy and Jump shot in handball performance.

Keywords: Strength and Conditioning; Mental Skills; Psychology; Three repetition maximum (3RM)

Introduction

The Jump shot, which is used extensively in strength training programs at the clubs level and higher is one of the few exercises which can develop the majority of the lower body musculature as well as increase abdominal and lower back strength and stability (McKean, Dunn, & Burkett, 2010). Strength training programs are often created based on percentages of a one repetition maximum (1RM) in order to train for the desired results (e.g., hypertrophy, strength, power). The Jump shot is instrumental for all three aspects of training. Given the prevalence and importance of the Jump shot exercise in strength training programs, providing a method of increasing the number of shot during the exercise seems valuable. Increasing an Athlete's 1RM shows an improvement in strength/and in the case of the jumps, indicates an increased ability to produce force into the ground, increasing attributes such as vertical jump and acceleration for the enhancement of sports performance (Baechle, & Earle, 2008). The Jump shot is also a vital component of the scissors, an important Olympic vertical jump for the development of power, as the jump requires the ability to exert power on the ground in the same position as one in jump shot from. Achieving proper depth is also paramount when performing the scissors techniques with greater repetition on the leap, as it requires the performer to drop down quickly and lower their upper body towards the abdomen, so as to maintain balance. One often overlooked aspect in strength development is the use of psychological strategies, particularly more, complex techniques such as mental imagery.

Mental imagery, defined as a cognitive process during which people use their minds to create (or recreate) experiences that are similar to real-life situations has been found to enhance performance in a variety of sport settings. However, the use of imagery during weight training has not been studied, in great depth, to date. In early experimental studies/mental imagery was largely shown to be ineffective in enhancing the performance of strength-based tasks. A meta-analysis conducted by Feltz and Landers found a relatively small effect size (Cohen's $d = 20$) for the effects of imagery on strength tasks (Clark, Tremblay, & Ste-Marie, 2003). However, Wright and Smith [15] point out that the majority of these studies used a traditional "visualization" imagery approach, (focusing on the visual aspects of imagery) in contrast to a more comprehensive (physical, response-based) imagery approach. They argue that the lack of functional equivalence afforded by these 'visualization'-type interventions may, therefore, explain their ineffectiveness".

Based upon the principle that imagery enhances performance because the same neurophysiologic processes underlie imagery and actual movement, Holmes and Collins, developed the PETTLEP model. PETTLEP is an acronym for the proposed key elements to an effective imagery intervention (*i.e.*, physical, environment, task, timing, learning, emotion, and perspective components); this approach aims to maximize functional equivalence by ensuring that the imagery performed, is a close representation of the actual movement (Fox, Pardo, Petersen, & Raichle, 1987). Wright and Smith demonstrated the superiority of PETTLEP imagery supplemented with video over traditional (visualization) imagery in a strength task (bicep curl 1RM). In evaluating the results of their study, Wright and Smith highlighted the need for future research on the strength training effects of the PETTLEP model, and suggested that future; studies focus on muscles of different sizes and on the PETTLEP imagery effects over different periods of time.

Modeling, or observational learning, has been defined as a process in which the performer attempts to imitate an observed action or skill performed by another individual like imagery, modelling is a cognitive process by which people can learn a variety of skills and behaviours indeed, athletes: frequently use modelling for motor skill acquisition and execution (Woodman, & Hardy, 2003). It is theorized that in doing so, an athlete symbolically encodes information about the skill as the demonstration is observed (*i.e.*, 'they create an internal cognitive representation of the skill), and then uses this encoded information as a guide for future action. It is important to note that this need not be a deliberate process. Cross *et al* for example, provide evidence of similar neural representations for physically rehearsed and passively observed movement sequences.

Research has typically addressed modeling and imagery as separate and distinct processes, however several investigators have noted that modelling and imagery are similar; both involving the use of cognitive representations and rehearsal prior to the actual physical execution of the skill. During modelling, information about the skill is encoded into a cognitive representation, while during imagery a cognitive representation or image is recalled from memory; these mechanisms have been shown to have similar neural involvement. While the distinction between modeling and imagery is important from an academic perspective, the effects of a combined intervention may be of greater practical interest to coaches and practitioners. Indeed, it has been suggested that, in order to optimize functional equivalence, performers can make use of pictures, sound, and/or video clips to provide stimulus and response information for imagery. McCullagh, Law and Ste-Marie (2012) have recently advocated for research on imagery interventions that include modeling as a component.

Self-efficacy (SE), which is defined by Bandura as “beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments”, is derived from four sources of information; mastery experiences (*i.e.*, past performances), vicarious experiences, verbal persuasion, and physiological states. Compared with persons who doubt their capabilities, those with high SE for accomplishing a task participate more readily, set more challenging goals for themselves, persist longer in the face of adversity, and achieve at a higher level. Previous research in a strength setting has examined the effect of perceptions of goal difficulty on lower body strength performance. Participants who were misinformed during a 3RM dead lift task (*i.e.*, were unknowingly lifting 10% above their actual 3RM to create lower perceived demand), lifted a significantly heavier load compared to participants who received correct lift information (high perceived demand). This finding highlights potential SE barriers to performance success.

Modeling and imagery are classified as similar processes within SE theory; both can serve as vicarious experiences and provide information that affects SE. Imagery itself can also serve as a source of SE, as enactive mastery experience can be attained through the use of imagery. Bandura if has placed much emphasis on the mediating role that SE plays in the observation-behaviour change relationship. To date, little research has examined this mediating effect, but that which has is largely; supportive of Bandura's theoretical proposition. For example, using hierarchical multiple regression analyses, Beauchamp *et al* demonstrated that pre-competition imagery use accounted for significant variance in both SE and performance in collegiate golfers. Moreover, SE was predictive of golf performance, and imagery use mediated the relationship between SE and performance. The mediating role of SE, in regards to the effects of imagery, has yet to be examined in a strength setting.

The current study was primarily designed to determine if mental imagery (using the PETTLEP model) supplemented with video-modelling, would be effective in increasing jump shot 3RM. Self-efficacy was measured in order to probe the underlying mechanism by which imagery may have an effect on 3RM; that is to determine if imagery effects on jump shot were mediated by SE. It was hypothesized that imagery would significantly enhance SE for jump shot; imagery would significantly enhance jump shot 3RM; and the effect of imagery on jump shot 3RM would be mediated by changes in SE for the 3RM. The effect on front Jump shot was expected to be small, given the upper limits of performance, but it is noted that even a slight trend towards a greater 3RM may still be of practical importance.

Materials and Methods

The objective of this study was to determine the effects of mental imagery supplemented with video-modeling on SE and performance during the jump shots exercise. Subjects were assigned to either an experimental (mental imagery supplemented with video-modelling) group or a control (placebo video) group. Pre- and post-intervention measurements of front Jump shot 3RM (Ibs.) and SE for the 3RM were collected and compared using two 2 (group) x 2 (time) mixed factorial analyses of variance (ANOVAs).

A power analysis was conducted, using G*Power 3, to establish appropriate sample size for a 2 (Group) x 2 (Time) mixed-factorial ANOVA. Alpha was set at 0.05 and power at 0.8 to protect beta at four times the level of alpha. Predicting a moderate size effect ($f = 0.28$) of the intervention on the dependent variables, it was estimated that 20 subjects would be required.

Twenty subjects (13 male, 7 female; age, 22.67 ± 1.79 years) were recruited and placed into one the control groups (experimental or control) in an alternating fashion by gender, based on the order in which each subject was recruited. There were a total of 10 subjects in the treatment group and 10 in the control group. None had any prior experience using imagery deliberately for the purpose of rehearsing or improving performance on an athletic task. Inclusion criteria were that all subjects had at least 6 months of experience with the jump shot exercise (*i.e.*, intermediate training status and had no recent injuries; that would prevent them from effectively performing the jump shot exercise).

Two days of testing were required for this study. To allow for complete recovery of skeletal muscle contractility and to provide adequate time for subjects to practice the imagery protocol testing sessions were separated by three days. Prior to the first test subjects, were asked to refrain from any training involving the legs for two days and to refrain from all training for 24 h prior to testing. No exercise was allowed between testing sessions. The subjects were also asked to consume a similar diet before each testing session and to refrain from caffeine consumption for 6h prior to testing. Test ingressesions for each individual were conducted at the same time of day to control for any potential diurnal variation. Each session began with self-myofascial release using a foam roller followed by a series of activation exercises and static and dynamic stretches (see supplementary materials for details).

Subjects performed jump shots a standard kempa balls (made in Germany). The subject's foot position, grip on the ball and grip style were self-selected (all elected to use gum for better grip). A 3RM test was chosen over a 1 for reasons of safety. Each subject started the warm-tip 5 x 60% of estimated 3RM (estimation based on recent training logs) and then progressed through the following sets: 4 x 70% estimated 3RM, 3 x 80% estimated 3RM, and 2 x 90% estimated 3RM. After these warm up sets were completed, a 3 x 100% attempt was made. If successful, the angle will be narrowed by 10-20 inches per subsequent attempt until their 3RM was determined. The intervention for the experimental group consisted of a video-enhanced imagery protocol. Each subject, was recorded using a Samsung Schneider Kreuznach Camcorder (Taegu, Korea) during their 3RM jump shot on Day 1. Recording took place slightly forward of the subject's right side for the entire three repetitions in order to be able to determine proper jump depth (*i.e.*, femur parallel to the ground). If the subject was able to successfully complete a subsequent 3RM with a greater score, only the highest successful 3RM video was saved.

Following completion of the 3RM protocol, subjects viewed their own video, and were provided with a corresponding imagery script. Subjects were then sent an e-mail with a copy of their video as well as a video of one of two individuals (one male, one female) completing the jump shot with excellent technique. As perceived similarity to models is an important attribute for maximizing SE, the models were the same age range as the subjects, and subjects were each sent a video-model matching their identified gender. Subjects were asked to view both videos six times between testing sessions (twice each day), and to use the script provided to image themselves performing the jump shot with the same technique as the model shooter. Reminder texts were sent to the subjects once each day between testing days in order to remind them to watch the videos. The imagery script followed PETTLEP guidelines; subjects were directed to visualize the jump shot in their usual style environment and to visualize the movement in real time, paying particular attention to the technical 'aspects' of the movement (*e.g.*, head, spine and the arm and hip alignment) using the model as a guide. They were also directed to exert emotional control and to feel their muscles activate as if they were physically performing the

exercise. Subjects kept an imagery log in which they recorded the time and date of their imagery sessions; this log was checked prior to the second session to ensure adherence to the protocol. The control group received a placebo video, a video of a baby Jump shooting, which they were asked to view the same number of times (*i.e.*, twice a day for three days) as the experimental group. This video was intended to parallel the videos seen by the experimental group by providing similar visual material, but no usable information.

On Day 2, following all warm-up procedures and prior to beginning the testing set, experimental subjects viewed the model video as well as their own 3RM video from Day 1. After viewing the videos subjects were guided through the imagery protocol by the researcher. Particular emphasis was placed on kinaesthetic elements and imagining the shot at the speed at which it would occur. Subjects were told that they may view either video again prior to: the testing set if they desired (two subjects elected to do so) Control group subjects viewed the placebo video prior to beginning the testing set.

Subjects SE for the 3RM was assessed immediately prior to each testing set using a task-specific SE scale, which was constructed according to Bandura's guidelines Bandura asserts that "scales of perceived self-efficacy must be tailored to the particular domain of functioning that is the object of interest", therefore subjects were asked to rate their confidence in their ability to perform the jump shot with maximal force (*i.e.*, the weight of the ball currently being attempted) and proper technique on a scale ranging from 0 (cannot do at all) to 100 (highly certain I can do). If a subsequent set of three repetitions was completed successfully, this measurement process was repeated. Only the SE data associated with the highest successful 3RM was saved and used for data analysis.

Two 2 x 2 mixed factorial ANOVAs were conducted to analyze the SE and 3RM data the independent groups factor was group (experimental/ control) and the repeated measures factor was time (pre/post). The significance level for each ANOVA was set at 0.05. Additional post-hoc tests were conducted using independent as well as paired samples t-tests; the Bonferroni adjusted significance level for the West's was set at 0.00625. Cohen's effect sized was also computed for all post hoc comparisons relying on pooled standard deviations when appropriate.

Where interaction effects were significant, regression analyses were conducted to investigate the hypothesis that SE mediates the effect of mental imagery on 3RM performance. To facilitate this analysis, change scores (*i.e.*, pre intervention post intervention) were calculated for SE and 3RM. The first step of the analysis was to regress the dependent variable (3RM change) on the independent variable (group) in order to confirm that the independent variable was a significant predictor of the dependent variable. Following this the mediator (SE change) was regressed on the independent variable (group) to confirm that the independent variable was a significant predictor of the mediator. Finally] the dependent variable (3RM change) was regressed on both the mediator (SE change) and independent Variable (group) in order to confirm that the mediator was a significant predictor of the dependent variable, while controlling for the independent variable. IBM SPSS version 21 was used for data analysis.

Results and Discussion

The current study was designed to determine if mental imagery supplemented with video-modeling was effective in increasing self-efficacy and 3RM in the jump shot. Twenty subjects (exp = 10 and n_{ctrl} = 10) completed the study. 3RM tests were separated by 3 days to allow for full recovery and to provide time for subjects to practice the imagery protocol. Descriptive statistics for the dependent variables are presented in Table 1.

Table 1: Descriptive Statistics and effect sizes for experimental and control groups.

Variable	Pre test		Post test		Cohen's d
	Mean	SD	Mean	SD	
3RM (ibs.)					
Experimental	183.00	61.92	191.50	62.41	-2.52
Control	179.00	36.04	181.50	37.57	-0.35
Self Efficacy					
Experimental	820.40	6.75	90.101	7.85	-1.49
Control	83.50	11.10	76.70	11.27	+0.40

Analyzing the SE data, a significant group x time interaction was revealed, $F(1, 18) = 6.65, p = 0.019, \eta^2 = 0.27$. Follow-up post-hoc tests indicated no significant difference in SE scores between groups pre intervention, $t(18) = 0.27, p = 0.792, d = 0.12$; however, a significant difference was determined post intervention with the experimental group reporting higher SE scores, $t(18) = 3.08, p = 0.006; d = 1.40$. In addition, no significant difference in SE scores of the control group was found from pre test to post test, $t(9) = 1.26, p = 0.238, d = 0.40$, while the SE scores of the experimental group increased significantly from pre test to post test, $t(9) = -4.71, p = 0.001, d = -1.49$.

The analysis of the 3RM strength data also revealed a significant group by time interaction, $F(1,18) = 573, p = 0.028, \eta^2 = 0.24$. Follow-up post-hoc tests indicated no significant difference in 3RM strength between groups pre, $t(18) = 0.18, p = 0.862, d = 0.08$, and post intervention, $t(18) = 0.43, p = 0.669, d = 0.2Q$. The experimental group, however, showed a significant increase (Mdiff = 8.5 lbs.) in 3RM strength from pre test to

post test, $t(9) = -7.97, p = .000, d = -2.52$. The pre- to post test increase for the control group (Mdiff = 2,5 lbs.) was not significant, $t(9) = -1:10, p = 0.299, d = -0.35$.

Given the significant group by time interactions for both dependent variables, linear regression was used to investigate the hypothesis that SE mediates the effect of video-supplemented mental imagery on 3RM performance. Regression results indicated that Group was a significant predictor of SE change, ($\beta = 0.532, p = 0.016$), and that SE change was a significant predictor of 3RM change, ($\beta = 0.654, p = 0.002$). These results support the mediational hypothesis. Experimental group initially predicted 3RM change (step one of the analysis; $\beta = 0.492, p = 0.028$), but was not a significant predictor of 3RM change after controlling for change in SE, $\beta = 0.250, \beta = 0.257$, consistent with partial mediation. Approximately 46% of the variance in 3RM change was accounted for by change in SE ($R^2 = 0.457$).

Discussions

The results of this study indicate that a mental imagery protocol supplemented with video-modeling is one mechanism by which SE might positively influence front Jump shot 3RM. Subjects who followed the video-imagery protocol showed a 10.7% increase in SE while subjects in the control group decreased in SE by a similar amount (12.3%). It is unknown why SE would decrease in the Control group. It could be speculated that, without any meaningful intervention, the control subjects may have lacked motivation to repeat the task in such a short time-frame. Given the proposed bidirectional relationship between SE and motivation, this could account for the decline in SE.

Overall, our findings are in agreement with Silbernagel *et al* (2007) who found a positive association between imagery use and SE. This notion is of importance to strength coaches because SE is significantly and positively related to athletic performance. Moreover, previous research has shown SE to have greater influence on performance in non-continuous sport conditions (consisting of discrete trials) when compared to continuous, dynamic sports suggesting that strength and conditioning settings may be optimal for implementing this type of intervention. Future research involving elements of strength training other than 3RM would be valuable.

It has previously been reported that athletes who were more confident in their ability to use imagery used it more often, creating a positive cycle of imagery use and SE. Although pre-task imagery I use was found to influence SE and performance in the present study, future research should consider the theorized bidirectional relationship between SE and imagery use and examine the interplay of¹ these variables in greater depth.

According to SE theory enhanced SE should lead athletes to set higher goals, exert more effort and persist resiliently in the face of adversity, all of which are likely to contribute to improved performances in this study, there was a significantly greater increase in 3RM for the experimental, group than for the control group. These findings are in line with those previously reported by Wright and Smith who observed superior strength gains following a video-supplemented PETTLEP imagery program compared to other conditions (*i.e.*, traditional imagery, physical practice, and control).

Thus, the results of the study provide additional empirical support for the use of comprehensive, video-supplemented imagery in strength tasks. This study extends previous findings demonstrating the mediating role of SE in the imagery-performance relationship in a strength task. While the results of the present study are encouraging, some methodological limitations should be noted. The completed imagery logs suggest that participants attempted to complete the intervention task as instructed, but without a direct measure of imagery

success we can only infer that they indeed used an imagery strategy. It is possible that the experimental subjects used a declarative observational strategy instead of (or in addition to) imagery, wherein they made visual comparisons between their performance and that of the model and subsequently changed certain aspects of their technique to match the model lifter. Further, despite the use of a control group, it is not possible to rule out potential effects of subject expectations. While neither group was explicitly advised that the intervention was designed to improve performance; it is more likely that the experimental group considered that the intervention might improve their 3RM. Perhaps a more effective control, for future studies seeking to "replicate these findings, might be to use the same videos as for the experimental group but assign a different task (one that precludes the explicit use of imagery; e.g., making verbal descriptions of what they see) No attempt was made to control for individual differences in modelling or imagery ability. As with any skill, imagery may be more effective for some individuals than others, depending on their ability to utilize imagery effectively. Future studies might be conducted over a longer time period in order to develop imagery skills before post test data are recorded. Such research may also be beneficial to better understand how imagery affects maximal leaping and shooting over time, as subtle changes in technique may require more time to translate into improved 3RM scores. Bandura advocates that gradations of challenge be built into efficacy scales. In the present study we adopted the staggered approach described as 3RM values were not known at the first trial. Studies taking a more longitudinal approach could make use of a graded SE scale, specific to each individual's previous 3RM (*i.e.*, subjects' efficacy to achieve a 3RM that is 3%, 6%, 9%, *etc.* greater than before). A baseline trial to establish 3RM could also be used to achieve this.

Subjects' current athletic status or background was not considered in the current study, thus a comparison of competitive vs recreational athletes may be a worthwhile future endeavour. It might also be interesting to explore the effects of mental imagery with video-modelling in less-trained populations, particularly as neuro imaging studies have shown that the neural networks activated by mental imagery differ between novices and experts. Another valuable extension of the present study might be to couple mental imagery with movement sequences (*i.e.*, dynamic imagery). Recent research indicates dynamic imagery may be superior in terms of enhancing technical efficacy and temporal congruence between imagery and performance. The present study did not separate the effects of self- and other-modeling. Thus, it is unclear whether vicarious experience (viewing others) or personal accomplishment (viewing self) combined with mental imagery was more enhancing to SE and/or 3RM. Future research that endeavours to disentangle these effects is warranted and may further our understanding of the effects of imagery and video-modelling in a strength and conditioning setting.

Conclusion and Recommendations

The use of mental imagery with video-modelling appears to be an effective intervention to enhance SE for the jump shooters 3RM. Specifically, the current study demonstrates that jump shot SE and 3RM are significantly ($p < 0.001$) increased following a brief (3-day) video-supplemented imagery intervention. As far as a contribution to theory, the results of the mediational analysis predicting performance are consistent with theorizing by Bandura, and point to mental imagery with video-modeling as a factor through which SE influences performance.

The application of mental skills, such as imagery, in the strength and conditioning field is growing but remains under-utilized at present. Mental skills are an important aspect of athletic development and, like physical skills, should be practiced often and with purpose. One benefit to mental imagery is that, once learned, it can be practiced anywhere at any time, moreover recent advances in technology have made digital recording more accessible than ever before and video can be easily distributed to athletes to supplement their mental skills training.

Video-supplemented imagery may be particularly useful for athletes who have difficulty generating, maintaining, and controlling mental images. For college/university strength coaches who generally have athletes over a 4 to 5 year span, the opportunity exists to develop a comprehensive program of mental imagery supplemented with video-modelling which may be very helpful for assisting in athlete learning and development/potentially leading to improved SE and performance in the training sessions room as well as in athletic competition. In sum, mental imagery should be considered as a part of strength and conditioning programs with a goal to improve athletic performance and team success.

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BLENDED LEARNING AND TEACHER EDUCATION IN NIGERIA: PROSPECTS AND CHALLENGES

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Abstract

Information and communication technologies (ICTs) have become an essential component of the modern world, and the school system around the world has been impacted in a variety of ways as well. Nigeria's tertiary educational institutions are heading in the direction where technology will be the main method of delivery. In order to discuss teacher education in Nigeria, the advantages and disadvantages of traditional instructional strategies, blended learning, obstacles to e-learning in Nigeria's tertiary institutions, and the future of e-learning technologies in Nigeria's tertiary educational institutions were examined. This research adopted a qualitative methodology. The developing justifications for combining traditional teaching and learning methods with virtual learning were reiterated, and policy proposals were also made.

Key Words: Blended learning; ICTs; E-learning; Teacher Education; Tertiary Education Institutions

Introduction

E-learning is a term used to describe a computer-based learning process that links digital information, system-based administrations, and mentoring support to students and instructor interaction. In a similar vein, Eze, Chinedu-Eze and Bello (2018); Abdulhamid, Shafiu and Murtala (2017) were of the opinion that E-learning is referred to as a computer-based learning process. Private Higher Education Institutions (HEIs) have implemented several e-learning tools that enhance interest among students and the institutions in enhancing performance through the development of new human competences. Also, Mason & Rennie (2006); Eze, Chinedu-Eze and Bello (2018); Franco and Garcia (2018) contended that an increase in e-learning platforms has led to a lot of research papers and materials that address students' educational demands.

Despite being a substitute for traditional classroom teaching techniques, e-learning has had a rocky road. Johnson, Bartholomew and Miller (2006); Eze, Chinedu-Eze and Bello (2018) opined that lack of awareness, poor management support, inadequate funding, inadequate infrastructures, and abysmal management commitment to interactive learning environments as the main bottle necks to the adoption of e-learning systems by the majority of HEIs. E-learning, often known as the use of technology in education, is now a requirement for many courses. Eze, Chinedu-Eze and Bello (2018) also stated that ICT is permeating academic institutions more and more as it gets more reliable and user-friendly.

In Nigeria's higher institutions, e-learning started with the storage of prepared lecture materials on CD-ROMs that could be played back at a later time as needed. Despite the fact that e-learning has increasingly been adopted and assisted in the creation of virtual universities in the majority of western countries, only a handful private tertiary institution in Nigeria fully utilize e-learning for all their academic operations. Eze, Chinedu-Eze and Bello (2018); Olaniyi (2006) equally admitted that despite early setbacks, Nigerian colleges of education have invested more and more in course management software to offer virtual student learning environments that would enhance and aid in the delivery of the courses. It is always encouraged for lecturers to explore ways to help students study both within and outside of the classroom. The term "e-learning" refers to the employment of digitally enabled and technology-enabled learning tools, such as digital cameras, digital movies, personal computers (PCs), tablets, and projectors, as well as software operating systems (Markus and Robey, 1998; Olojo, Adewumi & Ajisola 2012; (Eze, Chinedu-Eze & Bello 2018).

In order to transit from traditional learning methods to modern technology-driven, synergistic, and adaptive learning methods, every institution needs to incorporate e-learning. In contrast to the learner-focused approach that is centered on technology that help students distribute and access knowledge effectively, the traditional style of learning was thought to be teacher-focused.

Teacher Education in Nigeria

The planning and structuring of contemporary society places a high priority on teacher education and this in turn necessitates that the Nigerian people and government promote teaching and teacher education as highly desirable careers. That is supported by the National Commission for Colleges of Education (N.C.C.E. 2012) which identified the following as the objectives of teacher education in Nigeria: the production of highly motivated teachers with high personal and professional discipline, integrity, and competence for all levels of the educational system; the preparation of teachers with appreciable expertise in curriculum planning, development, and delivery, as well as competence in research, guidance, and counseling; the production of professionals who can combine the use of conventional teaching methods with the use of newer technologies to enhance student learning; the production of teachers with appreciable expertise in curriculum planning, development, and delivery.

Blended Learning

Blended learning is a form of teaching that blends conventional classroom techniques with online learning resources and chances for online participation. Both the teacher and the pupils must be there physically with some elements of student control over time, place, or pace. A strategy that mixes online and in-person learning environments and experiences is known as blended learning (Teach-Thought, 2019). The Station Rotation, Lab Rotation, Remote, Flex, Flipped Classroom, Individual Rotation, Project-Based, Self-Directed, Inside-Out, Outside-In, Supplemental, and Mastery-Based Blended Learning were among his additional 12 forms of blended learning.

Indirect instruction, collaborative teaching, one-on-one computer-assisted learning, and direct instruction are all included in blended learning. Laliman and Kiran, (2017) equally identified component activities of blended learning to include: in-person instruction; student engagement with course material; peer group interaction; group discussion and idea exchange; access to an online library; a virtual classroom; online assessments; e-tuitions; access to and maintenance of educational blogs; webinars; viewing expert lectures on YouTube; and online learning using videos and audios.

Blended learning is a method of instruction that mixes face-to-face training with the incorporation of technology in our classrooms. Thyatt (2018) also agreed that it combines face-to-face instruction with chances for students to use technology in the classroom. A La Carte, Station Rotation, Individual Rotation, Flipped Classroom, Flex Learning, Enriched Virtual, and Lab Rotation are seven other blended learning models that he recognized.

For a blended learning program to be successful, educators and schools must put an emphasis on engagement as they try to raise student accomplishment. Andrew (2012) outlined five strategies and models for putting blended learning into practice: Leverage Virtual Class Meetings with Collaborative Work; Create the Need to Know; Reflect and Set Goals; Differentiate Instruction Through Online Work; and Use Tools for Mobile Learning.

Blended learning can be categorized based on their intended use: enabling blends, which emphasize access and flexibility; enhancing blends, which aim to supplement traditional pedagogy; and transformative blends, which aim to change pedagogy, that learners could play a more active role in the learning process. Graham (2018) also categorized Blended learning models using four dimensions, four levels, and three types. He distinguished between physical and virtual space, time, sensuous richness (high, all senses/low, text alone), and humanness (high, no machine/low, high machine). These are associated with blended learning as it is understood by bimodal delivery. His analysis of blended learning levels introduces a second and altogether new element of classification: activity, course, program, and institution.

The Strengths and Weaknesses of the Conventional Instruction Strategy

A strong value system can be formed using the traditional face-to-face method. The personalities of students are directly influenced by the actions and attitudes of teachers. They only tolerate face-to-face interaction along with cognitive and psychomotor objectives. In the same vein, Laliman and Kiran (2017) claimed that despite a few minor limitations, the traditional form of instruction gives a crucially important personal touch to the teaching and learning process. They found that traditional methods of instruction promote the growth of social skills like teamwork, sharing, communication, and respect for others' opinions. Students can learn from their classmates in addition to from books and teachers in the classroom by interacting with their peer groups, the playground, and small-scale social interactions.

Despite the remarkable advantages of the conventional method of learning, it has the following shortcomings: The insufficient student to instructor ratio is mostly to blame for the failure to address the demands of each individual student in the class; It is not making the necessary adjustments to accommodate the needs of physically challenged kids; Because attendance is required and the assessment system is based on the annual exam, teachers are not prepared to handle the issues presented by irregular students. Similarly, Laliman and Kiran (2017) also outlined some of its demerits to include: lack of qualified counselors, the unsuitable attitude of the teachers, and the paucity of follow-up activities in the schools; Since not all children can attend school, universal education remains a lofty ideal; Children from underprivileged groups, from physically remote regions, and students who are medically unfit are unable to benefit from this formal, traditional manner of teaching; At the same time, pupils suffer because there are not enough teachers; courses are not routinely updated, books are not updated, and teachers are not motivated to further their education and professional development.

Challenges to E-learning in Nigeria's tertiary institutions

Postsecondary institutions in Nigeria, particularly colleges of education, have a difficult time implementing e-learning because of Computer illiteracy, epileptic electricity, high computer costs and insufficient E-learning facilities. Olojo, Adewumi, and Ajisola (2012) also identified a high demand on learners who must be more proactive and concentrated in their study than in traditional brick and mortar learning as a drawback to e-learning. The following are the key issues preventing full implementation of e-learning: high hardware acquisition costs, high bandwidth costs, a lack of people, poor telecommunications infrastructure, and high costs associated with purchasing and maintaining e-learning equipment. Oye, Iahad, and AbdulRahim (2012) observed that the approaches to learning and teaching must be altered before the introduction of technology could be of any advantage to both the learners and the teachers,

Majority of institutions used the internet to enhance the delivery of their services, but they were unable to maintain the internet infrastructure due to the high cost of operating the computer systems. Adu, Eze, Salako, and Nyangechi (2013) also observed that the pupils are compelled to use public internet cafés as a result high cost of procuring e-learning facilities. The majority of students, according to Ajadi, Salawu, and Adeoye's (2008) observation, use public cybercafés. However, due to the high volume of students using the internet, there is an issue with inadequate bandwidth, which prevents multimedia interactivity. Despite the significance of e-learning adoption and use in Nigeria, they further argued that some universities and other higher educational institutions do not have any access to these resources.

Due to inadequate and underdeveloped technological infrastructures, the majority still find using e-learning challenging, and for some, it remains a pipe dream (Anene & Odumuh, 2014; Dubé, Fang, Fong & Luo, 2017). Although Nigerian academics have expressed interest in the adoption of e-learning facilities at HEIs, it is still extremely difficult for students to acquire the skills and knowledge necessary to use those services effectively even when they are available (Eze, Chinedu-Eze & Bello 2018).

Prospects of E-learning technologies to Nigeria's tertiary educational institutions

The implications of the various blended learning models depend on the adoption's desired aims and how successfully the implementation obstacles are overcome. It is also noted that cost-effectiveness was taken into account when creating this methodology. Bryan and Volchenova (2018) equally opined that self-study might appear like an appealing delivery method to someone who is concerned with cost savings. Graham (2018) provided six explanations for why blended learning should be used, including pedagogical richness, access to knowledge, social interaction, personal agency, cost effectiveness, and ease of revision. He added that among

these, instructional richness, knowledge accessibility, and cost-effectiveness have been determined to be the most common explanations.

Blended learning is dynamic for both teachers and students as a medium of learning when it is used as a technique to implement learning contents and components. It is a dynamic method that enhances self-study, ongoing testing, and assessments that spur honest scrutiny of educational development and patchy success (Kajetanowicz and Wierzejewski, 2010). Blended learning is a cutting-edge idea that combines the benefits of both traditional classroom instruction and ICT-supported learning, including both offline learning and online learning. Laliman and Kiran (2017) thought that learning required diligent work, the appropriate mentality, and a sufficient budget. Blended it offers opportunities for computer-assisted learning, constructive learning, and collaborative learning.

From blended learning, students benefit from online learning and computer-assisted learning without losing social interaction elements and the human touch of traditional teaching, and it also provides more scope for communication. Laliman and Kiran (2017) supported that, with blended learning, students become more technologically savvy and they gain enhanced digital fluency. The students also have more time in the classroom for creative and cooperative exercises. Blended learning is a revolutionary technology that, when correctly implemented, might support a learner-centered environment. If blended learning is properly implemented by the tertiary educational institutions in Nigeria, it will: make collaborative learning possible by enabling learners to access all digital softcopies of academic materials without being constrained by time or distance; and lead to efficient administration of distance learning.

Conclusion

In order to deliver services effectively and efficiently, developed nations have included blended learning into their tertiary education systems. Institutions of higher learning in Africa, particularly those in Nigeria, have not yet fully embraced the learning and research opportunities provided by ICT for both staff and students. This is due to several enduring structural issues like the high cost of computer acquisition, a shortage of technical manpower, and the expense of bandwidth. To prepare instructors for a blended learning approach, both in-service and pre-service teacher training programs need to be reoriented. The management of educational institutions and educational authorities must commit fully to implementing blended learning. It requires a carefully thought-out design that includes everyone in the educational hierarchy.

Recommendations

The Nigerian Government should invest in ICT, manpower development, and infrastructure. Tertiary educational institutions should invest in alternative and renewable energy sources. Institutions should provide all the fundamental and essential requirements for implementing a successful blended learning system with well-trained teachers, complete facilities, and effective technology.

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WORK MOTIVATION, TEACHER EFFECTIVENESS, AND EMOTIONAL INTELLIGENCE AS CORRELATES OF SENIOR SECONDARY SCHOOL TEACHERS' PRODUCTIVITY IN ILORIN SOUTH, KWARA STATE

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Abstract

The study examined work motivation, teacher effectiveness and emotional intelligence as correlates of Senior Secondary School (SSS) teachers' productivity in Ilorin South, Kwara State. A descriptive survey research design was used for this study. The target population consisted of all public Senior Secondary School teachers in Ilorin South, Kwara State. The sample consisted of 312 teachers who were proportionately selected as the number of teachers in each of the schools was not the same. In addition, four administrators (Principal/VPs and HODs) were purposively selected from each of the schools to assess their respective school's teacher effectiveness and productivity. The instruments that were used for data collection include: Teacher Work Motivation Scale (TWMS), Teacher Emotional Intelligence Scale (TEIS), Teacher Effectiveness Scale (TES), Teacher Productivity Scale (TPS) with reliability indexes of 0.71, 0.86, 0.71 and 0.73 respectively. The data collected were analyzed using percentage and Multiple Regression Analysis at 0.05 significant level. The findings of the study revealed that the level of teacher work motivation in SSS, Ilorin South, Kwara State was average. The level of teacher effectiveness in SSS, Ilorin South, Kwara State was average. The level of teacher emotional intelligence in SSS, Ilorin South, Kwara State and productivity was high. The level of teacher productivity in SSS, Ilorin South, Kwara State was average. There was a significant relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in SSS, Ilorin South, Kwara State. It was recommended that educational managers and employers should adopt motivational strategies that could enhance teachers' work performance such as regular payment of salary, prompt remuneration, increasing their entitlement package, providing adequate work incentives and conducive work environment to encourage greater work commitment

Keywords: Work Motivation, Teacher Effectiveness, Emotional Intelligence and Teachers' Productivity.

Introduction

There is increased consensus that highly qualified and effective teachers are necessary to improve student performance. The most important task of teachers is to educate or affect desirable behaviours among the learners. Teachers are the source of help to the learners facing emotional or interpersonal problems. A teacher is a very resourceful person with the ability to impart knowledge to their students as well as serve as a guide, a mentor, a confidant, a friend, a disciplinarian, an informer and a provider to his students or learners. Therefore, the quality of an educational system depends to a great extent on the quality of teachers in terms of competence, work incentives and dedication among others. A teacher that is well-motivated on his job would be more focus, assertive, responsible and cope better with stress in the workplace. Scholars such as Ofoegbu (2004), Ololube (2005), Salami and Ogundokun (2009) have also affirmed this. Hence, when teachers are not well motivated, their level of job commitment may be low and the objectives of the school may not be accomplished.

Similarly, Fadipe (2003) posted that teachers are the largest most crucial inputs of an educational system and they tend to influence to a great extent the quality of the educational output. He stressed further that teacher irregular promotion, low pay package, societal perception of the job and many more have dampened the morale of teachers. This is why Ofoegbu (2004) says that teachers naturally would find it difficult to effectively and efficiently perform, no matter the level of their commitment and dedication, if their works lack motivation.

Work motivation can, therefore, be defined as anything done to make teachers happy, satisfied, dedicated and committed in such a way that they bring out their best in their place of work so that students, parents, and the society will greatly benefit from their services. Apart from this definition, other scholars also define work motivation. For instance, Pinder (2008) defines work motivation as a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behaviour, and to determine its form, direction, intensity, and duration. In addition, Diyakhan (2007) views work motivation as the discovery and utilization of the stimuli that would bring desired pattern in particular individual or groups of

individuals in a workplace. From the above definitions, work motivation can be seen as a potent force that enables an individual to maintain focus on goal accomplishment, exhibit desired behaviours and achieve any meaningful thing in the place of work. This therefore, connotes that any organisation or institution that wants its employees or staff to sustain focus on the accomplishment of organisational goals/objectives or to display certain desirable behaviours and also be well-satisfied on the job, work motivation is very key.

More so, Ololube (2004) stresses the need why every organisation/institution including schools to compensate staff/ teachers adequately in order to have the desired result as compensation is one of the important considerations in human resource management. He further noted that increased motivation of teachers would make them to be more committed and this could enhance their productivity. Also, Filak and Sheldon (2003) are of the opinions that teacher work motivation is crucial to the long term success and performance of any educational system. This means that a well-motivated teacher can be more effective in teaching and learning task than a teacher that is less motivated. Teachers' work motivation is, therefore, closely linked with teacher effectiveness.

Teacher effectiveness involves a teacher's deep understanding of subject matter, learning theory, student differences, classroom instructional strategies, as well as teacher's ability to reflect, collaborate with colleagues and continue ongoing professional development. Effective teachers are acutely aware of their task orientation and engagement in the learning process as they display a remarkable ability to keep students involved actively in an activity with a task. Effective teachers add more values to the system of education by taking more active roles in shaping the lives of their students and preparing them adequately for better career choices. As such, teachers need to develop a variety of valuable skills that would make them discharge their functions dutifully and productively so as to contribute positively to their students' physical, intellectual, socio-economic, psychological and emotional wellbeing. This corresponds with the views of Afe (2001), Owoyele (2008), Anderson, Green and Loewen (2001).

Similarly, the National Policy on Education (FGN, 2004) succinctly states that no education system can rise above the quality of its teachers, thus implying the important role played by teachers in facilitating teaching and learning and in determining the quality of education service delivery. In addition, school administrators, parents, and students themselves widely support the notion that teacher productivity is vital to students' achievement. Studies that estimate the relation between students' achievement and teachers' productivity have produced enough consistent evidence that students perform better when their teachers have more desirable characteristics like being friendly, cheerful, skilful, understandable and emotionally stable. It is in this wise that Magno and Sembrano (2007) highlights some of the desirable characteristics that a teacher should possess in order to influence his/her students positively as follow:

- a. A good teacher must be cheerful and good tempered;
- b. A good teacher must look nice and dress well;
- c. A good teacher must be well mannered, polite and have a good sense of humour;
- d. A good teacher must be patient, understanding, kind and sympathetic; and
- e. A good teacher must be friendly with children in and out of school.

From the above-mentioned teachers' characteristics as pointed out by Magno & Sembrano (2007), it can be easily deduced that for a teacher to be effective, he should be able to relate well with his students by showing understanding, sympathy, friendliness and emotional stability or maturity. In other words, a good teacher should be friendly, good tempered and be able to control his emotions in order to deal successfully with his students and other stakeholders in the school settings. Goleman (2005) submits that effective teachers are those who display empathy towards others and have emotional ability to interact harmoniously with their environment. He further posits that emotional skills are very critical to personal/organisational success and then identifies five (5) emotional abilities to include:

- a) Self-awareness or having a realistic assessment of one's own feelings;
- b) Self-regulation or managing emotions appropriately so that they would assist and not hinder;
- c) Motivation or internal inspiration;
- d) Empathy or the ability to create an awareness of others' feelings; and
- e) Social skills or the ability to handle others' emotions in a positive manner.

We can thus, deduce from the above that any teacher that can manage his emotions effectively and also possesses many or all of the abilities identified by Goleman (2005) can be said to be emotionally intelligent. Emotional intelligence is, therefore, not a new concept. The construct has been studied by scientists using varied terminologies. In 1937, Thorndike used the term "social intelligence" to describe Emotional Quotient (Thorndike & Stein,1937) while Wechsler used the term "non-intellective" to refer to affective, personal and social domains (Wechsler, 1940). However, the work of these pioneers was largely forgotten or overlooked until 1983 when Gardner began to put forward the theory of "multiple intelligence". Gardner (1983) conceptualized "emotional intelligence" as constituting intrapersonal and interpersonal intelligence. Emotional intelligence is therefore commonly defined as the ability to sense, understand and effectively use the power of emotions to guide, motivate and even influence others. Emotional intelligence in the form of emotional adaptability and

agility is essential to enhance personal and leadership qualities. According to Goleman (1995), the rules for work are changing and performance is rarely judged by one's ability to complete a task but by the ability to empower oneself and others.

Furthermore, Parker, Summerfeldt, Hogan and Majeski (2003) found that emotional intelligence is a significant predictor of academic success. They further discovered that various emotional and social competencies were strong predictors of academic success and teacher productivity. Therefore, productivity of a teacher is a product of how effective a teacher displays his professional and emotional abilities coupled with how well-motivated he is in his work. To support this, Akinloye (2013) conceives teacher's productivity and learning outcome as the product of the quality of implementing the curriculum by the teacher in a conducive and well-motivated environment. A productive teacher therefore, is one who strives to implement the curriculum in such a way as to bring about productive learner.

According to Ijaiya (2000), teachers' productivity are determined by effective teaching measured by his students' academic performance in examinations, punctuality at school and class, giving extra lessons to students and contribution to the progress of the school through participation in co-curricular activities such as sports, students' discipline, committee assignments as may be given by the principal or the school authority. Therefore, if teachers fail to measure up in these various assignments they may be perceived uncooperative and unproductive because principals or the school authorities are mainly concerned with achieving results as they want to work with and through teachers who are competent, cooperative, emotionally intelligent, socially responsible and highly productive (Adu, Akinloye & Adu, 2015).

From the foregoing, it can be deduced that how effectively a teacher manage his emotion and that of others can determine the success of his career. Besides this, it has also been pointed out by Ofoegbu (2004) that no matter how work emotionally stable or intelligent a teacher is, without adequate work motivation, the teacher may find it difficult to be dedicated and committed to his work despite the love he may have for the job. Thus, teacher's ability to understand emotions is not enough without motivation to do the job, just the same way teacher motivation without an ability to manage emotions is inadequate to ensure the effectiveness of teaching-learning process. Therefore, the inability of teachers to use emotions appropriately coupled with not being well-motivated might have been responsible for the low productivity of teachers and poor students' academic outcomes in our various secondary schools in Nigeria which has been a matter of serious concern to educators, educational psychologists, parents, students, government, researchers and all stakeholders that have something to do with students' academic progress. As a result of this, the researcher examined work motivation, teacher effectiveness, and emotional intelligence as correlates of senior secondary school teachers' productivity in Ilorin South, Kwara State.

Statement of the Problem

There are hues and cries among stakeholders in education over the growing rate of failure and subsequent drop-out in the Nigerian secondary schools in recent times. The growing failure rate could be noticed in the yearly decline in students' performance in the Senior School Certificate (SSCE). According to Bello, Kolajo and Uduh (2010), one of the major problems facing the educational system in Nigeria is the abysmal failure of students in public examinations, particularly at the secondary level of education. He notes further that the high percentage of candidates who failed WASSCE yearly is reflected in the low percentage of the candidates that meets the university admission requirements.

Also, the revelations from the Public Affair Department of WAEC in Lagos have shown that in the past five years, most of the students who sat for the SSCE each year did not have credit passes in at least five subjects including English Language and Mathematics as reflected in the Table 1 below:

Table 1: Failure Rate of Students in the May/June West African Senior School Certificate Examinations (WASSCE) from 2011-2015

Year	% of Candidates with at least five (5) credit passes including English and Maths	% of Candidates without at least five (5) credit passes including English and Maths
2011	30.90	69.10
2012	38.81	61.19
2013	36.57	63.43
2014	31.28	68.72

2015	38.68	61.32
Average%	35.25	64.75

Source: Public Affair Department of WAEC, Lagos

Results in Table 1 show mass failure of students in May/June WASSCE from 2011 to 2015 with an average of 64.75% of students without at least five credit passes including English Language and Mathematics. From the results in Table1, year 2012 recorded the highest percentage (38.81%) of candidates who had at least five credit passes including English and Maths while 2011 recorded the lowest (30.9%). The situation in year 2011 almost repeated itself in year 2014 where just only 31.28% of the candidates had five (5) credit passes including English and Maths. However, there is a slight improvement in the performance of students in May/June WASSCE 2015 where 38.68% had five (5) credits and above. But this performance is still lower than that of year 2012. More importantly, the above Table has clearly shown that over the years, the percentage of candidates who successfully had five (5) credits including English and Maths is less than 40% which means over 60% of students who registered for WASSCE May/June exams regularly failed to meet the required credit passes.

The above concern on poor students' academic outcomes in our various secondary schools in Nigeria has, therefore, raised several questions on the effectiveness of teachers and how productive they are in our secondary schools in Nigeria. This has been a matter of serious concern to educators, educational psychologists, parents, students, government, researchers and all stakeholders. Thus, this has prompted researchers like Ofoegbu (2004), Muraina, Ojo, Nyorere and Muraina (2014) to name but a few to seek solutions to the problem but they are still limited in their scope of study and the variables they considered. However, there is a need to examine the relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in senior secondary schools in Kwara State, Nigeria. Based on the forgoing, the study sought to answer the following research questions:

Research Questions

- What is the profile of the teachers involved in this study?
- What is the relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in senior secondary schools, Ilorin South, Kwara State?
- What is the level of work motivation of teachers in senior secondary schools, Ilorin South, Kwara State?
- What is the level of teacher effectiveness in senior secondary schools, Ilorin South, Kwara State?
- What is the level of emotional intelligence of teachers in senior secondary schools, Ilorin South, Kwara State?

Research Hypotheses

H₀: There is no significant relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in senior secondary schools, Ilorin South, Kwara State.

Methods and Material

The research designed adopted for this study was a descriptive survey design of correlational type. The population of this study covered all the teachers in senior secondary schools in Ilorin South, Kwara State. While the target population for this study was all public senior secondary school teachers in Ilorin South, Kwara State. The sample for this study was drawn from the target population. In order to obtain the sample for this study, 15 schools were selected, using simple random sampling technique, from the 22 public senior secondary schools in Ilorin South, Kwara State. More so, 320 teachers were selected based on proportionate sampling technique from the 15 schools randomly selected as the number of teachers in each of the schools is not the same. As such, twenty six percent (26%) of the teachers in each school were randomly selected (i.e. $320/1223 \times 100 = 26.17$ approximately 26%). Out of the 320 respondents, only 312 fully completed their questionnaires and this was used for the analysis. In addition, four administrators (Principal/Vice Principals and HODs) were selected purposively from each of the schools based on purposive sampling technique to assess their respective school's teacher effectiveness and productivity. The Principal/Vice-Principals and HODs are in the best position to determine the effectiveness and productivity of the teachers as they look through teacher's lesson plan, supervise teaching delivery and also get feedbacks from students about the performance of their teachers in the classroom. They also assess the teachers through the completion of each teacher's Annual Performance Evaluation Report (APER) form.

The research instrument used to elicit data from the respondent were adapted from Teacher's Emotional Intelligence Scale (TEIS), Teacher's Work Motivation Scale (TWMS), Teachers' Effectiveness

Questionnaire (TEQ) and Teachers' Productivity Scale (TPS). The research questionnaire was a four-point Likert type rating scale of Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD),

The instrument was given to 3 experts for content and construct validity. Their corrections and suggestions were incorporated before the final draft and the administration of the questionnaire on the respondents. Reliability of the Teacher's Work Motivation Scale (TWMS), Teacher's Emotional Intelligence Scale (TEIS), Teacher Effectiveness Scale (TES) and Teacher Productivity Scale (TPS) yielded Cronbach Alpha of 0.710, 0.861, 0.709 and 0.728 respectively.

The data elicited from the respondents were subjected to descriptive statistics of frequency, percentage and multiple regressions. The hypothesis was tested at 0.05 level of significant

Results and Discussions

Research Question 1: What is the profile of the teachers involved in this study?

This question concerned the demographic data of the respondents and it is presented in Table 2 below:

The data presented in Table 2 concerned the demographic characteristics of the respondents. The variables used included gender, age and teaching experience.

Table 2: Demographic Data of the Respondents

Variable	Frequency	Percentage (%)	
Gender	Male	92	29.5
	Female	220	70.5
	Total	312	100
Age	Below 30 years	61	19.6
	30 – 39 years	141	45.2
	40 years and Above	110	35.2
	Total	312	100
Teaching Experience	1 – 10 years	153	49.0
	11 - 20 years	121	38.8
	21 years and Above	38	12.2
	Total	312	100

Results in Table 2 reveal that out of the 312 teachers that participated in the study, 92 representing (29.5%) of the teachers were male, while 220 representing (70.5%) of the teachers were female. This shows that there were more female teachers than male teachers in this study.

Similarly, results in Table 2 reveal that out of the 312 teachers that participated in the study, 61 representing (19.6%) of the teachers were below 30 years, 141 representing (45.2%) of the teachers were between ages 30 – 39 years, while 110 representing (35.2%) of the teachers were between ages 40 years and above. This shows that there were more female teachers than male teachers in this study.

In addition, results in Table 2 reveal that out of the 312 teachers that participated in the study, 153 representing (49.0%) of the teachers had 1 - 10 years of teaching experience, 121 representing (38.8%) of the teachers had 11 - 20 years of teaching experience, while 38 representing (12.2%) of the teachers had 21 years and above of teaching experience. This shows that there were more teachers that had 1 – 10 years of teaching experience than teachers that had between 11 – 20 years and 21 years and above in this study.

Research Question 3-5:

The research questions 3, 4 and 5 were combined into one as follows:

What is the level of work motivation, teachers' effectiveness, and emotional intelligence of teachers in senior secondary schools, Ilorin South, Kwara State?

In order to answer these research questions, respondents' responses on the teacher work motivation, teachers' effectiveness, teacher emotional intelligence and teachers' productivity questionnaires were collated. The respondents' responses were estimated and subjected to percentage analysis. The minimum, maximum and range scores of respondents for each questionnaire were calculated and the range was divided by three levels (low, average and high) and the cut-off score was obtained.

For instance, the minimum, maximum and range scores of respondents for teacher work motivation and teacher effectiveness scales were 16, 64, and 48 respectively as the two questionnaires had 16 items each based on 4-likert scale of Strongly Agree (4 points), Agree (3 points), Disagree (2 points) and Strongly Disagree (1 point). The range score (48) divided by three levels equals to 16 which represented the cut-off score. Thus, 16 – 32, 33 – 48 and 49 – 64 indicated low, average and high teacher work motivation and teacher effectiveness respectively.

Similarly, the minimum, maximum and range scores of respondents for teacher emotional intelligent scale were 33, 132, and 99 respectively. The range score (99) divided by three levels equals 33 which represented the cut-off score. Thus, 33 – 66, 67 – 99 and 100 – 132 signified low, average and high teacher emotional intelligence respectively. In the same vein, the minimum, maximum and range scores of respondents for teacher productivity scale were 20, 80, and 60 respectively. The range score (60) divided by three equals 20 which represented the cut-off score. Thus, 20 – 40, 41 – 60 and 61 – 80 indicated low, average and high teacher productivity respectively.

The statistics of respondents' scores are summarized and presented in Table 4:

Table 4: Percentage of Level of Teacher Work Motivation, Emotional Intelligence, Effectiveness and Productivity in Senior Secondary Schools, Ilorin South, Kwara State

Variable	Levels	Frequency	Percentage (%)	Comment
			49.0	
Work Motivation	High	153	*50.3	There is average level of teacher work motivation in Ilorin South, Kwara State
	Average	157	0.6	
	Low	2	100.0	
	Total	312		
Emotional Intelligence	High	225	*72.1	There is high level of teacher emotional intelligence in Ilorin South, Kwara State
	Average	87	27.9	
	Low	-	-	
	Total	312	100	
Effectiveness	High	1	0.3	There is average level of teacher effectiveness in Ilorin South, Kwara State
	Average	303	*97.1	
	Low	8	2.6	
	Total	312	100	

Results in Table 4 reveal that out of the 312 respondents that participated in the study, 153 representing (49.0%) of the teachers had high level of motivation, 157 representing (50.3%) of the teachers had average level of motivation, while 2 representing (0.6%) of the teachers had low level of motivation. This implies that the level of work motivation of the teacher was average in senior secondary schools, Ilorin South, Kwara State which may still be normal for the teachers to perform effectively in their job.

Also from results in Table 4, out of the 312 teachers that participated in the study, 225 representing (72.1%) of the teachers had high level of emotional intelligence, 87 representing (27.9%) of the teachers had average level of emotional intelligence, while none of the teachers had low level of emotional intelligence. This shows that the level of emotional intelligence of the teachers was high.

More so, from results in Table 4, 1 representing (0.3%) had high level of teachers' effectiveness, 303 representing (97.1%) had average level of teachers effectiveness, while 8 representing (2.6%) had low level teachers' effectiveness. This shows that the level of teachers' effectiveness in senior secondary school in Ilorin South, Kwara State was average.

Hypotheses Testing

Having considered the demographical data of the respondents, the researcher proceeded to test the null hypothesis generated in the study

H₁: There was a significant relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in senior secondary schools, Ilorin South, Kwara State.

Results of Regression Analysis Relationship among Independent and Dependent Variables

Table 3a: Summary of the Multiple Regression Analysis

Variable in the Equation
 Dependent variable = Productivity
 Multiple R = 0.798
 R Square = 0.637
 Adjusted R Square =0.634
 Standard error of the estimate = 4.171

Table 3b: Results of Regression Analysis Relationship among Independent and Dependent Variables

Analysis of variance	Df	Sum of squares	Mean Square	F ratio	Sig.	Decision
Regression	3	9408.18	3136.06	180	0.000	Rejected
Residual	308	5358.43	17.39			
Total	311	14766.61				

Results in Table 3a and b show that the result of multiple regression yielded a multiple correlation of 0.79 between scores in productivity and the other 3 variables listed with 63.7% conservative estimate of the percentage of variables explained and F ratio of 180 significant at 0.05 alpha level. Clearly the subjective independent variable predicted the subjective measure of the respondents' productivity. The researcher further examined the unstandardized regression with (B) , standard regression weight (Beta) and Error of Estimate STD error B, T scores and significant indices of the variables as shown below in Table 3c

Table 3c: Results of Regression Coefficients for Independent (Work Motivation, Emotional Intelligence, Effectiveness) and Dependent Variables (Productivity)

Model	Unstandardized Coefficients				
	B	Std. Error	Adjusted Beta	t	Sig.
(Constant)	7.64	3.38		2.26	.02
Work Motivation	.07	.04	.06	1.60	.11
Emotional Intelligence	.03	.03	.05	1.26	.21
Effectiveness	1.12	.05	.79	23.09	.00

a. Dependent Variable: Productivity

The Unstandardized regression weights range from 0.03 to 1.12, and the Standard regression weight range from 0.05 to 0.79 and standard error range from 0.03 to 0.05 with T score ranging from 1.26 to 23.09 and

Significant level ranging from 0.00 to 0.21. It can be observed that the teachers' effectiveness is the only variable that has a significant value of 0.00. On the basis of results analysis, the null hypothesis is rejected and restated as research hypothesis that

Discussions

From the analysis so far, the following discussions were made: the first variable considered in this study was teacher work motivation and it was discovered that the level of work motivation of the teachers in senior secondary schools, Ilorin South, Kwara State was average. This revelation is not surprising as most teachers in Senior Secondary Schools are not being paid their salaries as at when due talk less of being given work incentives and is even worse when compare to teachers in lower basic schools that are being owed salaries for several months by the government. This is closely linked to that of Bennell and Akyeampong (2007) who reported that sizeable percentages of school teachers are poorly motivated in sub-saharan Africa and South Asia. This is similar to situation in Nigeria because most countries in sub-saharan Africa and other third world countries were seriously hit by global economic recession which they are just trying to recover from, this may have been a factor that contributed to average or low teacher motivation witnessed.

Another variable of interest in this study was teachers' effectiveness and it was revealed that the level of teachers' effectiveness in senior secondary school in Ilorin South, Kwara State was average. This finding is expected as averagely/poorly remunerated employees find it difficult to discharge their duties effectively. Teachers who are working in a deplorable condition and in an unproductive school climate with inadequate instructional resources cannot deliver their services qualitatively. In line with this, Ayeni (2005) reported that school principals often complained about teachers not willing to work because of delays in payment of their salaries. This gives credence to the submission by Ofoegbu (2004) that poor academic performance of students in Nigeria has been linked to poor teachers' performance in terms of accomplishing the teaching task, negative attitude to work and poor teaching habits which have been attributed to poor work motivation. Also, Aja-Okorie (2016) reported teacher productivity in secondary schools in Delta State, Nigeria was high. The reason for this may not be too far-fetch as the socio-economic situation in Delta State is relatively better than that of Kwara State in term of revenue allocation/generation and capacity to meet the vital needs of teachers. Delta State is one of the oil-producing states in Nigeria that enjoys special budgetary allocation unlike the State of the locale of this study.

The researcher also considered the variable of emotional intelligence and it was found out that the level of emotional intelligence of the teachers in senior secondary schools, Ilorin South, Kwara State was high. This is a very interesting discovery that despite the fact that the level of teacher work motivation and effectiveness was average, the teachers' level of EI was considerably high. This shows that irrespective of what teachers are facing in term of disincentive to work and low encouragement to high instructional quality, they are still able to manage their emotions as well as others and display emotional maturity expected of them in relating with students, co-teachers and other stakeholders. This finding is in agreement with that of Oke (2013) who found out that the level of emotional intelligence of secondary school students in Ado-Ekiti was high. The consistency in the revelations from Ado-Ekiti and Kwara State might be attributable to similarity observed in their socio-economic, geographical and demographic characteristics.

The study went further to test the relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in senior secondary schools, Ilorin South, Kwara State and the result showed that there was a significant relationship among work motivation, teacher effectiveness, emotional intelligence and teachers' productivity in senior secondary schools, Ilorin South, Kwara State. This means that work motivation, teacher effectiveness, emotional intelligence serves as predictors of teachers' productivity in senior secondary schools, Ilorin South, Kwara State.

The above finding is in consonance with that of Abejirinde (2009) who found that promotion (as a motivator) has significant relationship with employees' performance including academic performance in the education enterprise. This finding is also supported by Jimoh, Saadu, Akinboboye and Ipem (2013) who found that emotional intelligence is a determinant of teachers' productivity in middle level basic schools in Kwara State, Nigeria. Also, Muraina, Ojo, Nyorere and Muraina, (2014) reported work motivation and emotional intelligence significantly correlates of secondary school teachers' productivity in South Western Nigeria. Akiri (2009) found out that teachers' classroom effectiveness has influence on the academic performance of students in public secondary schools in Delta State, Nigeria.

Conclusion

Based on the findings of this study, it was concluded that the general schooling conditions of Nigerian public secondary school could be improved upon by devising ways and means of sustaining teachers' effectiveness in terms of allowing qualified and experienced teachers to teach in our schools with adequate provision of relevant instructional materials as teachers' effectiveness was found to be a significant predictor of

productivity of teachers in secondary schools. It has also been equally discovered that conditions that would make for effective teaching such as resources available to teachers, general conditions of infrastructure as well as instructional materials in public secondary schools in Nigeria are lacking. These prevailing conditions would definitely show a negative influence on the instructional quality in public schools, which may translate to poor academic performance, attitude and values of secondary school students. These factors are challenges to teachers as they find it difficult to fulfill their primary responsibilities, leading to students' absenteeism and dropouts from school.

It is therefore imperative for something urgent to be done by educational authorities/managers, policy makers and other relevant stakeholders to salvage the Nigerian educational system by paying adequate attention to the various dimensions of teacher effectiveness such as teacher personality, subject matter expertise, relational competence with students, professional competence, teaching style, and classroom management style so as to keep teachers always at their best for maximum productivity. There is need to re-direct the attention of the authority to promote the capacity and wellbeing of the teachers and lift the standard of public secondary schools and build confidence in people, which will further boost the morale of teachers towards work ethics and will consequently affect student's attitudes to school positively. Adequate training cum retraining programmes would also lead to effectiveness within the school system. Staff training will lead to preparation for higher responsibilities for teachers and can as well enhance the administration of disciplinary measures in schools.

In addition, this research study is very helpful for top management in making decisions regarding inquiry of various dimensions which lessen employee's performance working in educational institutions. Better employee's job performance can be accomplished through identifying the factors which can create trouble in normal schedule of psychological working. In order to maintain and generate enthusiasm and excitement, the teachers must be able to handle their emotions as well as that of others greatly, being professional and knowledgeable in their subject matter and relate effectively with their students in a well-motivated and conducive work environment.

Recommendations

Based on the findings of this study, it is hereby recommended that educational managers and employers should ensure that teachers are properly developed in the core areas of teaching effectiveness through regular seminars, conferences and workshops so as to build the capacity of teachers for higher performance. In other words, relevant stakeholders in Nigerian secondary schools should pay adequate attention to the various dimensions of teacher effectiveness such as teacher personality, subject matter expertise, relational competence with students, professional competence, teaching style, and classroom management style so as to keep teachers always at their best for maximum productivity.

In addition, teaching should not be made a stepping stone for other professions rather it should be made lucrative such that it will command higher socio-economic status like other highly remunerated professions by providing adequate work incentives, regular payment of salary/prompt remuneration and conducive work environment to encourage greater work commitment.

Also, regardless of a teacher's emotional intelligence level in this study, emotional intelligence can be learned and improved upon through periodical sensitization, seminars/workshops in an attempt to further recognize, manage and improve emotional intelligence of co-teachers and students. Thus, it implies that teachers can learn to be more emotionally intelligent which may, upon further study, provide insight into student learning.

To crown it all, Ministry of Education, principals and other relevant stakeholders should ensure regular monitoring and supervision of teachers to keep them always at their best for maximum teachers' effectiveness and productivity.

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THE BALL DRIBBLING PERFORMANCE SKILL PROFILE OF NIGERIAN ELITE BASKETBALL PLAYERS PLAYING AT DIFFERENT LEVELS IN NIGERIA.

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ABSTRACT

Performance skill tests are vital for successful outing in every sport. Basketball coaches are faced with the problem of guiding standards for assessing their players and that of their training. Previous studies on performance skills have applied various methods of measuring the standards of their players. However, there is a dearth of literature on standardized field tests for assessing such skills in Nigeria. This study, therefore, adapted the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) skill tests developed in America and reported by Joyner and Macmanis, (2007) for basketballers' performance skills assessment in ball dribbling. The ex post facto research design was used for the study. The systematic sampling technique was used involving where every second of other subject in the population was chosen. In all, two hundred and sixteen (216) participants were used for the study out of the total population of four hundred and thirty –two (432). The instruments used for the study were the AAHPERD (2002) basketball skill tests and the physical fitness profile tests. The descriptive statistics used in the data analysis for the study were the mean, standard deviation, and range. The inferential statistics applied for the data analyses were the one way analysis of variance (ANOVA), and multiple regressions. The alpha was set at 0.05 level of significance. The findings of the study revealed that ball dribbling performance skills were significant, depicting that the Nigerian elite basketballers are not doing well in this area of performance skill. It is, therefore, concluded that physical fitness profile and performance skills are the relevant determinants of playing levels in the game of basketball in Nigeria. It is, therefore, recommended that regular training and mastery of skills which promote fitness status, high quality health, and wellness should be instituted in coaching and conditioning Nigerian basketballers. Also, testing and measurement of these skills should be carried out periodically for the purpose of collecting information upon which subsequent skill training and performance evaluations for decision making should be based on enhance team performance in basketball.

Keyword: Dribbling, Performance, Basketball, Skills

Introduction

Basketball is one of such sports where amateur and elite players are easily differentiated. Through the intensive training provided for competition, various components of physical fitness such as muscular strength, muscular endurance, speed, agility, balance and co-ordination are developed. The participants are subjected to an arduous training programme, essential to excellence in competitive sports. Many basketball players willingly and voluntarily participate in these vigorous conditioning programmes to prove their worth and ability in basketball competitions, thus enhancing their play status. The basketball skill to be assessed is: dribbling.

The American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD, 2002) indicated that basketball test for skills consists of tests of shooting, of throwing accuracy, and of dribbling the ball round hurdles, or cones and catching/rebounding if conducted under standardized conditions. Joyner and Macmanis (2007) however cautioned that it does not necessarily follow that a person who does well in the tests will do well in a game, but testing provide an incentive for some people and incidentally encourages practice in skills which are of use to the game.

Ojeme and Uti (2002) reported that basketball is the only major sport that originated from United States of America. They further indicated that it was introduced by Dr. A. Naismith to a class at the Young Men Christian Association College (YMCA), now spring Field College in Massachusetts, on January 20, 1892. Naismith wanted winter sports that could appeal to his students as much as American football and baseball did during their respective seasons. During the game's first season, it spread to all corners of the United States with

both male and female folk showing great interest in the game. Before the game was two years old, it was being played in several foreign countries. The game was brought into Nigeria by the Colonial Masters that introduced it to the early missionary schools and the military personnel. Since then, the game has gained popularity which Ojeme and Uti (2002) attributed to the following factors:

- A small or large floor could be used, depending upon the number of players in the game
- The equipment used was not complicated or expensive
- It was not a hazardous sport, and
- It provided recreative exercises.

It is based on these attributes that the development and spread of the game became visibly unprecedented even in Nigeria.

According to Igbanugo (2006), motor performance is the makeup of an athlete which is inherited from his/her parents. Franklin (2003) indicated that a skill is a learned trait based on the motor performance that a person possesses. Both authorities agreed that while motor performances are more innate than skills, skills are more sports specific than motor performance, which are more general. Skill learning is more of learning specific sports techniques while at the same time building on the athlete's innate abilities. Igbanugo (2006) affirmed that motor performance underpins and contributes to skills in that no one can develop specific sports skills to any extent without having an abundance of the general motor performance. She asserted that experience has shown that when two teams are evenly matched in skills specific to the sport, it is the team with the greater endurance (a general motor performance) that often emerges as the winner.

It is therefore important to assess general motor performance in the management of athletes. Joyner and Mcmanis (2007) established the need for the assessment of performance skills by the measurement of performance skills levels (Galkihue & Donnelly, 2003; Morrow, Jackson, Disch & Mood, 2005; Mackenzie, 2007). Mackenzie (2007) stated that assessment is the act of measuring resulting in the assigning of a number to the character of whatever is being assessed while the tool or instrument used for the assessment is a test. He explained that a test is used to access the character of whatever is being assessed so as to reach a decision (evaluation) regarding its quality, goodness, merit, value or worthiness. Testing and measurement are hence the means of collecting information upon which subsequent performance evaluations and decisions are made. There are several characteristics to skills and motor performance, and these must be well identified, defined and isolated in skills and motor performance testing because for tests of skills and motor performance to be meaningful, they should be capable of measuring one character only at a time (American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD, 2002).

The identification and definition of sports skills performance have been established and general motor performances are demonstrated to be essentially perceptual, essentially motor or a combination of both. Most abilities that have to do with action are a combination and are referred to as psychomotor performances. Psychomotor performances are made up of components identified to include muscle strength, muscle endurance, power, speed, balance, reaction time, agility and coordination (Morrow, Jackson, Disch & Mood, 2005; Mackenzie, 2007).

There are a few fundamental that must be observed at all styles of dribbling. The most important is to dribble low for maximum protection. The wrist should be kept relaxed and the fingers nimble. Because the ball is controlled by these parts; the fingers control the direction of the ball, and the wrist supplies the force. The ball should be pushed forward and downward as the player moves down the court, in a straight or zig-zag movement

Statement of Problem

There is a yardstick used to measure those who play at this level in the developed countries of the world who are succeeding in a basketball game. Other sports such as track and field athletics have standards at this similar levels all over the world including Nigeria. There are standard for determining playing level in other countries in the world, the implication is that there are norms for playing different level in the developed countries that are excelling in basketball. Though there are international standards for determining basketball skill levels, these have not been used to establish norms for different playing levels in Nigeria. Athletes/players are selected subjectively rather than objectively for the National team (Nabofa,

2011). There is a glaring gap in the literature that needs to be filled. The chances are that this could have been responsible for the dismal performance of the National team outside Africa. Nigeria cannot continue to subjectively select national team players in this world of science, it should be done objectively (Nabofa, 2011).

Research question

The following research question was generated to guide the study.

1. What is the ball dribbling performance skill profile of Nigeria elite basketball players playing at different levels?

Hypothesis

The following hypothesis was formulated and tested at 0.05 significant level:

1. Ball dribbling performance skill will not significantly be a determinant of playing level among Nigeria elite basketballers playing at different levels.

Methods and Materials

The design for this study is an ex-post facto.

The population of the study was four hundred and thirty -two (432) comprising twenty four elites male regular basketball players from each of Edo, Oyo, Abia, Katsina, Niger and Borno States as well as all the 24 male regular basketball players of Egun Comet (Ondo State), (2011, National Sports Festival), Royal Hopper (Rivers), Delta Force (Delta State), First Bank (Lagos), Iruwa Horse (Kaduna) and Kano Pillars (Kano) (2011, National Basketball League), Twenty-four (24) each from the following tertiary institutions: University of Benin, Federal University of Technology, Minna, Nnamdi Azikiwe University Awka, University of Maiduguri, University of Lagos, Ahmadu Bello University, Zaria were also part of the population (2011, Nigeria University Games).

The sample for this study was two hundred and sixteen (216) Nigeria elite basketball players, from the selected States, clubs, and tertiary institutions. The sample was based on all the top ranked basketball players as purposively selected from the population, which comprised State teams of Edo, Oyo, Abia, Katsina, Niger and Borno as well as the zonal champions at the 2011 national sports festival from which 12 players were selected from each. Club teams (Egun Comet, Royal Hopper (Rivers), Delta Force (Delta State), First Bank (Lagos), Iruwa Horse (Kaduna), Kano Pillars were the first six teams at the 2011 national basketball pro-league championship from which 12 players were selected from each tertiary institutions teams (UNIBEN, FUTMINNA, UNIZIK, UNIMAID, UNILAG, ABU) were all the zonal champions at the last Nigerian University Games) which contributed 12 players each.

The sample specifically included forty (40) point guards, forty (40) shooting guards, (assistant point guards), forty (40) small forwards, forty (40) power forwards, and fifty-six (56) big men or centre players. The selection of every second (2nd) player on the serialized list of the population was adopted. The adopted systematic random sampling technique is one in which each sampling unit or individual in the population had an equal chance of being selected, and that all combinations were equally probable. The adopted systematic sampling was done without replacement which is in tune with (Hassan, 1995) recommendation.

The research instrument that was used in this study is an adaptation of American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) skill test protocol developed in 2002 as reported by Joyner and Macmannis (2007) for basketball performance skills assessment in ball dribbling. The basketball courts, stop watch, cones, basketballs, were the equipment needed and used for administering the tests.

Regarding the statistical treatment, the mean and standard deviations served as the descriptive statistics, while analysis of variance (ANOVA) and multiple regressions were used to test the hypotheses. Where there was a significant difference, Tukey's Honest Significant Difference post-hoc test was used to identify the source of the significance among the groups. The alpha level was set at 0.05.

Results and Discussion

The comprehensive raw data of the performance of all the participants, descriptive statistics results, calculated regression analysis, and analysis of variance (ANOVA) as well as

Tukey Honesty Significant Difference.

Table1:Descriptive Statistics of the ball dribbling skill of all the participants.

Variables	Ball dribbling		
	\bar{x}	S.D	Range
University level	3.13	1.05	2-5
State level	3.58	1.21	2-8
Club level	3.68	0.73	2-5

The ball dribbling results recorded by the participants at the University, Club and State levels were 3.13 ± 1.05 , 3.58 ± 1.21 , 3.68 ± 0.73 , with a range of 2-5, 2-8 and 2-5 respectively.

What is the ball dribbling performance skill profile of Nigeria elite basketball players playing at different levels?

Table 2: Tabular presentation of participants’ performance of the ball dribbling skills.

Variables	Ball Rebound		
	\bar{x}	SD	Range
Club Level	3.68	0.73	2.5
University Level	3.13	1.05	2-5
State Level	3.58	1.21	2-8

The ball dribbling skill of the participants’ performance recorded at the Club, University and State levels were 3.68 ± 0.73 , 3.13 ± 1.05 , 3.58 ± 1.21 , with a range of 2-5, 2-5, and 2-8 respectively.

From these results the following conclusions were made:

The results reveals that research question 1, which states that, what is the ball dribbling performance skill profile of Nigeria elite basketball players playing at different levels? Can be answered thus, the results agreed with the submission of Joyner and Macmanis (2007) that less than 3 to 5 points scores in the various movement executed during the tests is regarded as a poor or weak performance. Therefore, there is the need for the participant to work hard for improvement in the dribbling skill

Hypothesis one: The ball dribbling performance skill will not significantly be a determinant of playing level among Nigerian elite basketballers playing at different levels.

Table3:Multiple Regression analysis showing significant difference in the ball dribbling performance skill of the participants.

	Unstandardized coefficients	Standardized	T	Sig
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			coefficient		
	B	Std error	Beta		
Ball Dribbling	1.447	.179	.210	8.100	.000
	.159	.049		3.237	.001

$R^2 = 0.044$

Multiple regression analysis was used to determine the significance of the ball dribbling performance skill of the participants. The R^2 - value of 0.044 was found to be statistically significant at 0.05 level of significance. Thus, the hypothesis that the ball dribbling performance skill would not significantly be a determinant of playing level among Nigerian elite basketballers playing at different levels was rejected. This shows that there was a significant difference in the ball dribbling performance skill as a determinant of playing level among Nigerian elite basketballers playing at different levels ($P < .05$).

Discussion of results

The results of the present study provided the information required for deciding fitness and health promotion, increase in performance skill levels and conservation of energy and prevention of injury in basketball and indeed, any sports. Thus, mastery of this performance skill may lead to perfection and help in winning competitions, meets, and also ensure improvement in playing at different levels of sports.

The rejection of hypothesis one revealed that there was significant difference in the ball dribbling performance skill of the participants. The result seems justified as it is in support of the submission of Joyner and Macmanis (2007) that when the participants perform the test less than between 3 and 5 points, it is regarded as a poor or weak performance. Therefore, this signifies that the ball dribbling performance skill of the participants needs to be worked on for improvement.

Conclusion

Nigerian elite basketball players need to be developed to aid in improving their movement proficiency and capacities in the court for enhanced ball dribbling.

It is therefore emphasized that performance skills of Nigeria basketball players should be taken proper care of in-training and for competitions as determinants of playing levels in the game of basketball. Regular training and mastery of skills should be instituted to promote fitness, high quality health and wellness of Nigerian basketball at State, Tertiary educational institution and Club levels and fitness status.

Recommendations

Based on the results of this study, the following recommendations were made.

1. The coaching crew of the Nigerian elite basketballers playing at different levels should always carry out the basketball skill test for selection, assessment, and evaluation of basketball players.
2. Qualified coaches that know the technicalities of basketball game should be engaged to train the players and follow the modern trends of basketball training and practice.
3. The management of Nigerian basketball teams should engage the services of experts to help them carry out performance skill measurement protocols.
4. Testing and measurement of basketball players' performance skill should be carried out periodically for the purpose of collecting information upon which subsequent performance evaluations and decisions can be based about the players.

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IMPACT OF FINANCIAL MANAGEMENT ON THE DEVELOPMENT OF KANO STATE SPORTS COMMISSION, NIGERIA

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Abstract

The purpose of this study was to find out the impact of financial management on the development of Kano State Sports Commission, Nigeria. To achieve this purpose, survey research design was used. The population of this study comprised of five hundred (500) athletes of Athletics Association of Kano State Sports Commission and all the Management staff of the State Sports Commission which includes directors of sports, coaches, organizing secretaries, Head of departments. The sample used was two hundred and seventeen (217) respondents. The sample of the study was guided by research Advisor (2006). A researcher developed questionnaire (Likert Type Scale) was used as an instrument for data collection for this study. For the analysis of the research questions, the criterion or acceptance mean of 3.5 was used in taking decisions. Mean and standard deviation (Sd.) were used to answer research questions, while one sample t-test was used in testing all the null hypotheses at 0.05 level of significance. The results showed that Budgetary allocation has significant impact on the development of Kano State Sports Commission, Nigeria ($p = 0.000$). It was further concluded that financial management is a significant impact on development Kano State Sports Commission in Nigeria. It was therefore recommended that the process of accountability should be enhanced as found in this study to ensure enhanced development of Kano State Sports Commission.

Keywords: Development, Financial Management, Impact, Sports Commission

Introduction

Sport is perceived in many ways by different individuals and organizations as all forms of physical activity, through causal or organized participation aimed at expressing or improving physical fitness and wellbeing forming social relationship or obtaining result in competition at all levels. International participation in Sports is universally accepted, thus making Sports a social phenomenon of modern time (Onifade, 2003).

Financial Management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. It means applying general management principles to financial resources of the enterprise. Financial management is the planning, raising, controlling, and administering of funds within a business (Mangan, 2011). Financial management incorporates a variety of elements including Financial planning (determining how much money is needed to provide goods or services, determining how the money needs to be spent, and so on and so forth), Financial budgeting (managing cash flow and making sure a company has the resources to meet its financial obligations on time (Omolawon, 2003). Financial resources are the money available to a business for spending in the form of cash, liquid securities and credit lines. Before going into business, an entrepreneur needs to secure sufficient financial resources in order to be able to operate efficiently and sufficiently well to promote success (Robertson, 2010).

Good financial management is key to achieve the goals of the organization. Situations in which the shortage of funds can compromise the short term operations must be avoided. For example, if the organization doesn't have enough funds to pay salaries or buy raw materials. On the other side, an excess of financial management can lead to a high opportunity cost. Budget control and analysis play an important role in Financial Resources Management. Efficient management should react quickly to changes in the environment and pursue a healthy stock of finances, according to the needs (Mangan, 2011). In financial management for a sport organization is to determine the type of business entity the organization is: a sole trader, a partnership, a corporation, a co-

operative or a nonprofit. Sport financial management begins with determining what funds are available and how to allocate them. Examining previous financial records is essential for established programs, while creating a strategy and budget from scratch for a new program requires working with owners and key stakeholders to best allocate finances (Smith, 2003).

In creating a financial strategy it will involve taking into account current trends in the specific sport industry in which the team or organization operates, examining internal constraints (factors affecting the organization that have come about through past decisions) versus external constraints (outside factors that affect the organization), breaking down all expenses, including venue costs, insurance, equipment costs, travel, accommodations, marketing, promotions and personnel salaries, accounting for revenue forecasts, including membership fees, ticket sales, donations and sales from dining and apparel and organizing financial information into a dashboard that is easy for stakeholders to read and understand (Williams, 2006). For any organization to achieve its aims and objectives manpower input has to be given great consideration and this could be done when financial resources is implemented effectively (Houlihan, 2007). Most of the challenges recorded in major sports competition in Kano State Sports Commission might be as a result of financial management and observation by the researcher that most of the states from the South-South and western part of the country had a solid foundation in sports. This could explain why State like Delta, Edo, Lagos, Ogun, Rivers State, in the last four editions of the National Sports Festival have maintained top position among all the State Sports Commission in Nigeria. The researcher believed that with the challenges of recruitment, selections, training and retraining of coaches, assigning responsibility and creating enabling and conducive environment for staff to work lies with financial management. Therefore, financial management begins with placement, advertisement, workforce designing, recruitment, assigning among others and that when all these are put in place, the likelihood is that management will have work force that will be very productive. Kano State Sports Commission the body that is saddled with the responsibility of running sports in the State has not been able to achieve its goals as stated above. This might be due to some logistics and administrative problems, ranging from substandard pitches, absence of basic infrastructure. It is on these bases that this study assessed the impact of financial management and the development of Kano State Sports Commission, Nigeria.

Research Questions

The following research questions are raised to guide this study:

1. Does budgetary allocation has impact on the development of Kano State Sports Commission, Nigeria?.
2. Does provision of sports facilities has impact on the development of Kano State Sports Commission, Nigeria?

Research Hypotheses

Based on the research questions, two (2) sub-hypotheses were raised as follows:

1. There is no significant impact of budgetary allocation on the development of Kano State Sports Commission, Nigeria.
2. There is no significant impact of provision of sports facilities on the development of Kano State Sports Commission, Nigeria.

Materials and Methods

For the purpose of this study, a survey research design was used. The population of this study comprised of five hundred (500) athletes of Athletics Association of Kano State Sports Commission and all the Management staff of the State Sports Commission which includes directors of sports, coaches, organizing secretaries, Head of departments. For the purpose of sampling, purposive sampling technique was used to select the number of staff and athletes for the study from Athletics Sports Associations. A total number of two hundred and seventeen (217) respondents were formed. The sample of the study was guided by research Advisor (2006) which opined

that for a population of five hundred (500), that 217 is an adequate sample. Based on the confidence level of 95% with a marginal error of 5.0%, the sample gotten for the study from the population of 500, a sample size of 217 using research Advisor (2006) was used. This sample size was spread across the sports associations in the sports commission. A researcher developed questionnaire on impact of financial management on the development of Kano State Sports Commission in athletics competition in Nigeria was used as an instrument for data collection. The questionnaire was divided into seven sections, A to G. The questionnaire response was based on a 5-point Likert-rating Scale. For the analysis of the research questions, the criterion or acceptance mean of 3.5 was used in taking decisions. For the purpose of establishing content and face validity of the instrument, the instrument developed was given to Professionals from the Department of Human Kinetics and Health Education and the Sports Directorate of Ahmadu Bello University Zaria. Cronbach's Alpha index was established at 0.881 for the average measure of intra-class Correlation. The obtained reliability coefficients all indicated that the instrument was considered reliable and internally consistent for the study. Mean and standard deviation were used to analyze the research questions relating to the components of financial management and development. The hypotheses were tested with inferential statistics, specifically, the one sample t-test was used in testing all the null hypotheses at 0.05 level of significance.

Results and Discussions

Research Question one: Does budgetary allocation has impact on the development of Kano State Sports Commission, Nigeria?

Table 1: Mean scores by respondents on impact of budgetary allocation in relation to development of Kano State Sports Commission

Sn	Budgetary allocation	Mean	Std. Dev.
1.	The chairman of the Sports Association's is involved in the budget planning of Kano State Sports Commission	4.48	0.877
2.	All Sports Associations received their budgetary allocation when funds are released to the Sports Commission	4.06	0.794
3.	Secretaries of Sports Association prepare receipts to account for audit verification.	4.01	0.928
4.	Each Sports Association is given a free hand to operate its budget.	4.11	0.916
5.	Budget is allocated to the sports commission by the state government	4.11	1.011
Aggregate mean		4.15	0.91

(Decision mean = 3.50)

Decision on the mean score for the items and variable is based on a midpoint average of 3.50 as the decision mean. The aggregate mean for table 1 is 4.15 which is far higher than the decision mean of 3.50. This implied that the respondents agreed with the opinion that budgetary allocation has impact on the development of Kano State Sports Commission. Among others, respondents were of the view that the Chairman of Kano State Sports Commission is involved in the budget planning and that all Sports Associations receives their budgetary allocation when funds are released. On development of accountability in the management of funds, the respondents agreed that Secretaries of Sports Association prepare receipts to account for audit verification. They agreed that each of the Sports Association is given a free hand to operate her budget and that budget is allocated to the sports commission by the state government. With the aggregate mean of 4.15, it could be concluded that

respondents were of the agreement that budgetary allocation has impact on the development of Kano State Sports Commission.

Research Question two: Does provision of sports facilities has impact on the development of Kano State Sports Commission, Nigeria?

Table 2: Mean scores by respondents on impact of provision of sports facilities on development of Kano State Sports Commission

Sn	Provision of sport facilities	Mean	Std. Dev.
1.	Sports facilities are provided for the development of the commission	4.2	1.00
2.	Kano State Sports commission have adequate sports facilities	3.8	1.06
3.	Sports facilities are available but adequate in the sports commission	4.0	0.95
4.	Sports facilities are available in the Sports commission	4.1	0.84
5.	Sports facilities in Kano State Sports commission are adequate	4.2	0.84
Aggregate mean		4.1	0.94

(Decision mean = 3.50)

The opinions of the respondents in Table 2 showed that they were of the view that provision of sports facilities has major impact on development of Kano State Sports Commission. The aggregate mean score for table is 2 with a standard deviation of 0.94. As shown in the table, the respondents agreed that sports facilities were provided for development of the Sports Commission and that the organization has adequate sports facilities. They were of the view that such facilities were available in the organization. The aggregate mean score (4.1) for the table is higher than the decision mean fixed at 3.50. It would therefore be concluded that provision of sports facilities has impact on development of Kano State Sports Commission.

Sub-Hypothesis I: There is no significant impact of budgetary allocation on the development of Kano State Sports Commission, Nigeria.

Table 3: One sample t-test on impact of budgetary allocation on development of Kano State Sports Commission

Variables	N	Mean	Std. Dev.	Std. Error	t-value	df	p-value
Budgetary allocation	217	4.15	0.373	0.025	25.759	216	0.000
Test mean	217	3.50	0.000	0.000			

(critical value = 1.96, p < 0.05)

The test revealed that budgetary allocation had significant impact on development of Kano State Sports Commission. The t-value obtained for test in Table 3 is 25.759 obtained at $df = 216$. The p-value obtained for the test was 0.000 ($p < 0.05$). These observations provided sufficient evidence for rejecting the null hypothesis. The null hypothesis that, there is no significant impact of budgetary allocation on the development of Kano State Sports Commission, Nigeria is therefore rejected.

Sub-Hypothesis II: There is no significant impact of provision of sports facilities on the development of Kano State Sports Commission, Nigeria.

Table 4: One sample t-test on impact of provision of sports facilities on the development of Kano State Sports Commission

Variables	N	Mean	Std. Dev.	Std. Error	t-value	df	p-value
Provision of facilities	217	4.06	0.355	0.024	23.314	216	0.000
Test mean	217	3.50	0.000	0.000			

(critical value = 1.96, $p < 0.05$)

The result in Table 4 revealed that the provision of sports facilities has significant impact on development of the state sports Commission. The observed t-value for the test is 23.314 and a p-value of 0.000 ($p < 0.05$) obtained at $df = 216$. The null hypothesis that, there is no significant impact of provision of sports facilities on the development of Kano State Sports Commission, Nigeria is therefore rejected.

Discussions

The study found that budgetary allocation had a significant impact on development of the state sports commission. It was found that respondents were of the view that budgetary allocation has major impact on development of the State Sports Commission (Williams, 2006). The study found that respondents were of the opinion that the involvement of Sports Associations; Chairman in the budget planning remittance of funds allocated in the budget to the respective sports had positive impact on the state sports commission (Onifade, 2003). It was found in this study that respondents were of the view that provision of sports facilities has major impact on development of the State Sports Commission (Smith, 2003). It was found that respondents were of the view that sports facilities were provided for development of the Sports Commission and that the organization has adequate sports facilities (Mangan, 2011). It was found that respondents agreed that such facilities were available in the organization. The finding here is in line with Okuneye (2015), who stated that facility planning requires a team approach that involves different professionals like architects, consultants, physical education and athletics, specialist.

Conclusion

All these variables were found to have positive and significant impact on development of the state sports commission in the state. It is therefore concluded that financial management is a significant impact on development Kano State Sports Commission in Nigeria.

Recommendations

Based on the findings of this study, the researcher therefore recommended the following:

1. The process of accountability should be enhanced as found in this study to ensure that budgets are allocated to enhance development of Kano State Sports Commission.
2. There is need for improved sports facilities provisions and effective maintenance because of wear and tear.

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ASSESSMENT OF PERCEIVED CULTURAL DETERMINANTS OF MATERNAL MORTALITY AMONG NOMADIC WOMEN IN KADUNA STATE

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Abstract

This study was conducted to assess perceived cultural determinants of maternal mortality among nomadic women in Kaduna State, Nigeria. To achieve this purpose, descriptive survey research design was used. A total sample of 400 nomadic women in Kaduna state, Nigeria from a population of 96,774 were selected through multi-stage sampling procedures comprising of stratified random sampling, purposive sampling, simple random sampling, systematic random sampling and proportionate sampling techniques. The instrument used for the study was researcher developed close ended questionnaire. Out of the 400 copies of questionnaire distributed, (381, 95.2%) were retrieved and considered valid for analyses while (19, 4.8%) of the response were considered invalid. Mean and standard deviation was used to answer the research questions and inferential statistics of one sample t-test was used to analyse the formulated hypotheses at 0.05 alpha level. The results revealed that religious practice ($p=0.000$) and tradition belief ($p = 0.000$) are determinants of maternal mortality among Nomadic women in Kaduna State. Based on the results, it was concluded that religious practices and traditional beliefs of nomadic women are determinant of maternal mortality in Kaduna state. Based on the conclusions, it was recommended among others that health educators in collaboration with non-governmental organizations and religious leaders should carry out campaigns against ill religious practices that predisposes women to maternal mortality so as to help women make informed decisions and healthful practices in the state.

Keyword: Cultural, Religion, Societal, Maternal mortality, Nomadic

Introduction

There has been increasing concern about the high maternal mortality rates particularly in the developing countries like Nigeria (World Health Organization, 2012). WHO (2012) defined maternal death as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, its management but not from accidental or incidental causes. Maternal mortality in poor-resource settings have been attributed to “three delays”- delay in deciding to seek care, delay in reaching care in time and delay in receiving adequate treatment (UNFPA, 2013).

World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF, 2010) released estimates indicating that globally, the number of women who die each year in pregnancy and childbirth is around 585,000, almost 20 percent higher than previous estimates. An estimated 300 million women suffer lasting damage to their health due to pregnancy or childbirth (UNICEF, 2010). The gap between developed and developing countries is wider in terms of maternal mortality than for any other health indicator.

In Africa, maternal mortality ratios are highest with figures of up to 100 per 100,000 reported in rural areas of several countries, and ratios of over 500 in some cities (WHO, 2015). In Western, Central and Eastern Africa, the risk of pregnancy is xiii generally higher than in Northern and Southern Africa (WHO, 2010). This is due to high fertility rate and poor access to medical services. Maternal mortality in Nigeria is very high, second to India with an estimated 52,900 Nigerian women dying from pregnancy – related complications out of a global total of 529,900 maternal deaths. Nevertheless, the achievements of SDG targets are yet to yield desired results. According to Udoma et al.'s (2013) research, the majority of women do not receive official antenatal care (ANC) and are instead attended to by evangelistic spiritualists who run spiritual churches while giving birth. Therefore, understanding how women perceive the reasons of maternal death is essential to reducing MMR in Nigeria.

One of the major health challenges facing Nigeria particularly in the northern states is the dominance of cultural and traditional practices arising from women in different ethnic and religious groups in the country. Culture can be described as central to the existence of any society on earth without which there will be no language of expressions, self-consciousness and ability to think or reason (Fawole, 2015). While Nayak and Kehily, (2013) refer to culture as values, beliefs, and behaviours that are shared by members of a society and which provide direction for people as to what is acceptable or unacceptable in given situations. Researches have shown that on average in Nigeria, urban population constitute 50% of total population and most Nigerians (irrespective of where they live) are strongly influenced by the cultural and traditional norms of their ethnic origin. Also, it is obvious that basically there are two dominant ethnic groups in Kaduna state; Hausa and Fulani groups, but within these groups there are sub-categories each with specific norms and value attached to it. This explains the differences in socio-cultural behaviours that affect the lifestyles of entire society (Majali, 2012).

Nigeria is a patriarchal society and Kaduna state is not an exception. The patriarchy influences all aspects of social life and relationships particularly in seeking for health services by the women folks. In Kaduna state, the determinants of maternal mortality extend beyond health care delivery. Most maternal mortality cases can be attributed to socio-cultural factors includes cultural and religious influences and other social factors that affect individual preferences as preceded by researcher. There are demand factors that can be controlled at the community, household or individual levels which are amenable to policy intervention (Tim, Ensor & Cooper 2014). Although, individual characteristics that determine need, such as age and sex are not considered since they cannot be controlled (Tim, Ensor & Cooper, 2014). This prompt the researcher to “assess the perceived socio-cultural determinants of maternal mortality among Nomadic women in Kaduna State.”

Statement of the Problem

The current interest in maternal health and maternal mortality marks a widening of this understanding of women’s health and recognition that, in the contest of maternal and child health programmes mothers have in the past been neglected in favour of measures to improve infant and child health. A narrow focus on maternal mortality runs the danger of falling into an old-fashioned welfares approach, seeing women primarily as mothers. According to World Health Organization (2012), about 536,000 women die of pregnancy related causes every year and approximately 10 million women suffer complications related to pregnancy or child birth. In Nigeria, current estimate indicates that Maternal Mortality rate (MMR) is 560 per 100,000 live births, United Nation International Children Fund (UNICEF, 2013). This is to say, Nigeria accounts for about 13 percent of the global maternal death rates with an estimated 36,000 women dying in pregnancy or at child birth each year.

The researcher observed that despite the existing interventions by government international bodies to reduce maternal mortality in Nigeria, nomadic women are still holding on to unhealthy cultural practices which might endanger their lives and contribute to the increase in maternal mortality nationwide. Kana, Doctor, Paletero, Ucnet and Barros (2014), pointed out that most interventions targeted at women are mostly on health-seeking behaviour and access to services, with little focus on the social and cultural factors that influence maternal mortality.

The researcher also observed that nomadic women have the tendencies to result into use of herbs or traditional medicine than to report any health issue to the hospital for diagnosis and treatment. Because they are nomads who often times migrate to other areas as well as live in areas that are in far proximity to a health facility they hold on to their traditional medicines and prefer to use local remedies. Therefore, most of their husbands do not accept the modern medicine or support the women to seek for healthcare services in the hospitals. No matter how equipped a health facility is, it is the level of patronage that makes the difference to good health of both mother and child. The consequence of these factors on the use of health facility among pregnant nomadic women is a major cause of maternal morbidity and mortality in Nigeria and a powerful brake on the road to the achievement of Sustainable Development Goals (SDGs) as well as overall development of the society. Therefore, this prompted the researchers to conduct research on the perceived cultural determinant of maternal mortality among Nomadic women in Kaduna State. The main purpose of this study is to assess the perceived cultural determinants of maternal mortality among the Nomadic women in Kaduna State. The specific purposes of the study are to assess the perception of nomadic women about religious and cultural practices of mothers as a determinant of maternal mortality in Kaduna State

Research Questions

The study was carried out with the following questions:

1. What is the perception of nomadic women about religious practices as determinants of maternal mortality among Nomadic women in Kaduna State?
2. What is the perception of nomadic women about traditional as determinant of maternal mortality among Nomadic women in Kaduna State?

Hypotheses

On the basis of the structured research questions, the following hypotheses are formulated for the purpose of the study:

1. Perception of nomadic women about religious practices do not significantly determine maternal mortality in Kaduna State.
2. Perception of nomadic women about traditional beliefs do not significantly determine maternal mortality in Kaduna State.

Methods and Material

The research design adopted for this study was a descriptive survey research design. A total sample of 400 nomadic women in Kaduna state, Nigeria from a population of 96,774 were selected through multi-stage sampling procedures comprising of stratified random sampling, purposive sampling, simple random sampling, systematic random sampling and proportionate sampling techniques. Stratified sampling technique was used to divide the state into the three already existing senatorial districts, thus, constituting three (3) strata. Purposive sampling technique was used to select six (6) Local Government Areas in Kaduna state with Ruga settlements where nomadic women live. These LGAs include Giwa, Makarfi, Birnin Gwari, Igabi, Kajuru and Kagarko respectively. The researcher randomly selected three (3) Ruga settlements from each LGA selected for the study. A total of eighteen (18) Ruga settlements were selected for the purpose of the study. Systematic sampling technique was used in the selection of the respondents whom copies of the questionnaire was distributed to. This involves assigning even numbers to all women of child-bearing age in their various Ruga settlements. Only women who were assigned even numbers became eligible participants to be used for data collection: Proportionate sampling technique was used to determine the number of the respondents in each Ruga settlement sampled. Proportionate sampling was employed due to the differences that exist in the population of nomadic women per settlement. The instrument used for the study was four point-Likert scale researcher developed close ended questionnaire. Means and standard Deviation was used to answer the structured research questions while Inferential statistics of one sample t-test was used to analyse the formulated hypotheses at 0.05 alpha level

Results and Discussions

Research question One: What is the perception of nomadic women about religious practices as determinants of maternal mortality among Nomadic women in Kaduna State?

Table 1: Mean scores of respondents on religious practices as a determinant of maternal mortality among Nomadic women in Kaduna State

Sn	I ever experienced one or more of the following problems that took the life of a woman, because religion does not give proper attention to problem.	Mean	Std. Deviation
1	Complication of pregnancy	2.68	0.569
2	Obstructed labour	3.09	0.919
3	Unsafe abortion	2.68	0.568
4	Haemorrhage	2.69	0.543
5	Hypertensive disorder	2.70	0.559
6	Heart break injuries	2.70	0.800
7	Accessibility to health facilities	2.71	0.792
8	Affordability of the services	2.73	0.810
9	Nutritional deficiency	2.63	0.716
10	Accessibility to quality personnel	2.70	0.779
11	Food taboo	2.92	0.897
12	Delay in decision making	2.53	1.047
13	Husband dominance in decision making	2.29	0.785
14	Female genital mutilation	2.33	0.830
15	Infection	2.60	0.648
16	Domestic violence	2.99	0.918
17	Pre-term labour	2.75	0.702
18	Premature birth	2.69	0.611
19	Genetic malfunction (diabetic)	2.66	0.624
20	Early child marriage	2.13	0.856
	Aggregate mean	2.65	0.584

The aggregate mean score of 2.65 with a standard deviation of 0.584 on Table 1 supported the perception that religious practices of mother is a major determinant of maternal mortality among Nomadic women in the state. In the table, the respondents associated experiences of Complication of pregnancy, Obstructed labour, Unsafe abortion, Haemorrhage or experience of Hypertensive disorder by the Nomadic women during processes of pregnancy of delivery. The respondents were of the view that experiences of Heart break injuries, Nutritional deficiency, Accessibility to health facilities, Affordability of health care services and Accessibility to quality health care personnel, Food taboo and Delay in decision making during child labour as issues attributable to religious practices of the mothers among the Nomadic women. Other factors associated with religious practices were Infection, Domestic violence, Pre-term labour, Premature birth and Genetic malfunction (diabetic). With an aggregate mean of 2.65 for the table, it could be concluded that the respondents were of the view that religious practices of mothers as a determinant of maternal mortality among Nomadic women in the state.

Research question Two: What is the perception of nomadic women about traditional as determinant of maternal mortality among Nomadic women in Kaduna State

Table 2: Mean scores of respondents on traditional beliefs as a determinant of maternal mortality among the Nomadic women

Sn	I ever experienced one or more of the following problems that took the life of a woman, because traditional beliefs of the family do not recognized given attention to these problems.	Mean	Std. Deviation
1	Complication of pregnancy	3.17	0.974
2	Obstructed labour	3.12	0.983
3	Unsafe abortion	3.13	0.981
4	Haemorrhage	3.12	0.982
5	Hypertensive disorder	3.22	0.966
6	Heart break injuries	3.22	0.968
7	Accessibility to health facilities	3.19	0.975
8	Affordability of the services	3.18	0.978
9	Nutritional deficiency	3.27	0.954
10	Accessibility to quality personnel	3.28	0.951
11	Food taboo	3.24	0.963
12	Delay in decision making	3.25	0.962
13	Husband dominance in decision making	3.24	0.963
14	Female genital mutilation	3.22	0.962
15	Infection	3.26	0.953
16	Domestic violence	3.24	0.953
17	Pre-term labour	3.23	0.939
18	Premature birth	3.22	0.941
19	Genetic malfunction (diabetic)	3.20	0.938
20	Early child marriage	3.15	0.948
	Aggregate mean	3.21	0.884

Result on table 2 revealed that the respondents agreed that traditional beliefs of mothers is a determinant of maternal mortality among Nomadic women in the state. This conclusion is drawn from the aggregate mean score of 3.21 with a standard deviation of 0.884 for Table 2. Furthermore, the respondents were of the opinion that traditional beliefs of mothers could be associated with Complication of pregnancy, Obstructed labour, Unsafe abortion, Haemorrhage, Hypertensive disorder and Heart break injuries experiences by the Nomadic women during processes of pregnancy or child delivery. The respondents were of the view that traditional beliefs of mothers were attributable factors to experiences of Accessibility to health facilities, Affordability of the services, Nutritional deficiency, Accessibility to quality personnel, Nutritional deficiency, Food taboo and Delay in decision making during child labour by some Nomadic women. The problem of Husband dominance in decision making, Female genital mutilation, Infection, Domestic violence, Pre-term labour, Premature birth and Early child marriage among the Nomadic women were perceived as related to traditional beliefs of the mothers by the respondents. They were of the opinion that Genetic malfunction (diabetic) could be attributable to traditional beliefs of the mothers among the Nomadic women. With an aggregate mean of 3.21 for the table, it could be concluded that the respondents agreed that traditional belief of mothers was one of the major determinants of maternal mortality among Nomadic women in Kaduna state.

Null hypothesis 1: Perception of nomadic women about religious practices do not significantly determine maternal mortality in Kaduna State.

Table 3: One sample t-test on religious belief as a determinant of maternal mortality among Nomadic women in Kaduna state.

Variables	N	Mean	Std. Dev.	Std. Error	t-value	Df	p-value
Religious practices	381	2.65	0.584	0.030	5.148	380	0.000
Test mean	381	2.50	0.000	0.000			

(t-critical = 1.96, $p < 0.05$)

From the result in Table 3 it reveals that religious belief is perceived as a significant determinant of maternal mortality among Nomadic women in the state. The observed mean score of 2.65 is significantly higher than the test-mean of 2.50. The t-value obtained at Df = 380 is higher than the critical value of 1.96. The observed t-value for the test was 0.000 ($P < 0.05$). These observations provided sufficient evidence for rejecting the null hypothesis. The null hypothesis that Perception of nomadic women about religious practices do not significantly determine maternal mortality in Kaduna State is therefore rejected.

Null hypothesis 4: Perception of nomadic women about traditional beliefs do not significantly determine maternal mortality in Kaduna State.

The impact of traditional beliefs as a determinant of maternal mortality among the Nomadic women in the state assessed in Table 4 was tested here for significance. The result of the one sample t-test procedure used for the analysis is summarized in Table 4.

Table 4: One sample t-test on traditional beliefs as a determinant of maternal mortality among Nomadic women in Kaduna state.

Variables	N	Mean	Std. Dev.	Std. Error	t-value	Df	p-value
Traditional beliefs	381	3.21	0.884	0.045	15.665	380	0.000
Test mean	381	2.50	0.000	0.000			

(t-critical = 1.96, $p < 0.05$)

In Table 4, the observe mean value of 3.21 is higher than the test-mean of 2.50. The observed t-value for comparing the means obtained at Df = 380 was 15.665. The level of significance obtained for the test was 0.000 ($p < 0.05$). These observations are clear indications that the respondents were of the agreement that traditional beliefs of mothers could be considered a significant determinant of maternal mortality among Nomadic women in the state. The null hypothesis that Perception of nomadic women about traditional beliefs do not significantly determine maternal mortality in Kaduna State is therefore rejected.

Discussion

With regards to religious belief, the findings from this study revealed that religious practices were perceived by the respondents to be a significant determinant of maternal mortality among Nomadic women in the state. Among others, respondents were of the view that religious practices of Nomadic mothers significantly influenced their experiences of Complication of pregnancy, Obstructed labour, Unsafe abortion, Haemorrhage or experience of Hypertensive disorder by the Nomadic women during processes of pregnancy of delivery. Other processes of maternal health where such practices were viewed to have adverse effects included Heart break injuries, Nutritional deficiency, Accessibility to health facilities, Affordability of health care services and Accessibility to quality health care personnel, Food taboo and Delay in decision making during child labour. In the test of the related null hypothesis, the variable was found to be a significant determinant of maternal mortality among the Nomadic women in the state. The finding here is similar to the finding of Udoma et al (2013) who found out from their study that most women do not have formal Antenatal care (ANC) and that they were attended to during delivery by evangelistic spiritualists who own spiritual churches. The finding agreed with (Iwelunmor & Airhihenbuwa, 2017) who reported that religious principles which forbid women from

owing a land or heading the house, early marriage, food restrictions and taboos were part of the determinant of maternal mortality.

With regards to traditional belief, this study found out that traditional beliefs were perceived to be significant determinant of maternal mortality among Nomadic women in Kaduna state. Respondents were of the view that experiences of Complication of pregnancy, Obstructed labour, Unsafe abortion, Haemorrhage, Hypertensive disorder and Heart break injuries experiences by the Nomadic women during processes of pregnancy or child delivery could be associated with traditional beliefs of the women. Among others, the respondents were of the opinion that experiences of Female genital mutilation, Infection, Domestic violence, Pre-term labour, Premature birth and Early child marriage among were attributable to traditional beliefs of Nomadic women. In the test of the related null hypothesis, the variable was found to be a significant determinant of maternal mortality among the Nomadic women in the state. The finding of this study is agreed with the report of Ononokpono, and Odimegwu, (2014), who explained that the majority in both urban areas and rural areas do not consider about the human health during the time of maternity life, most of the women are not attending clinical check-up due to accumulation of work at home and lack of advice from their family members. Also, some do not need women to make decision on maternal health care, this causing labour difficulties during the time of conceiving. The finding here is consistent with the report of Shamaki and Buang (2017) who conducted a similar study on socio cultural and traditional practices associated with maternal health in Sokoto state, Nigeria and reveal that tradition-inspired practices and norms such as unattended labour and delivery, low level of education, hot-bath (Wankan jego) during new birth, use of herbs, forced marriage, early marriage, child spacing, female genital mutilation and traditional gender discrimination play a significant role in maternal health, and are believed to account for the high maternal mortality rates in the state.

Conclusion

Based on the findings of the study, the following conclusions are drawn:

1. Religious practices are a determinant of maternal mortality among Nomadic women in Kaduna state.
2. Traditional belief of nomadic women in Kaduna state predisposes them to maternal mortality.

Recommendations

Based on the findings from the analysed data, the researcher recommend as follows:

Health educators in collaboration with non-governmental organizations and religious leaders should carry out campaigns against ill religious practices that predisposes women to maternal mortality so as to help women make informed decisions and healthful practices in the state.

Health educators and community mobilization officers with the help of Jauros and ward Heads should create awareness and sensitize the residents in the nomadic settlement of the state through organised health talks and campaigns so as to correct the traditional beliefs and norms that has health implications and leads to maternal mortality among the nomadic women in the state.

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RELATIONSHIP OF ROUTINE PHYSICAL ACTIVITY ON BLOOD PRESSURE AND RESTING PULSE RATE OF ACADEMIC STAFF IN TERTIARY INSTITUTIONS IN KATSINA STATE, NIGERIA.

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Abstract

This research was conducted to determine out the influence of routine physical activity on body composition and cardiovascular fitness status of academic staff in tertiary institutions in Katsina State, Nigeria. For the purpose of this study the ex-post-facto research design was used. The population was all male academic staff in tertiary institutions in Katsina State, purposive, proportionate and random sampling procedures were used to select 176 male academic staff to participate in the study. Sphygmomanometer (K-112 aneroid type) and Dual Head stethoscope (Model No. S-223) was used to determine blood pressure and resting heart rate of the participants. Routine physical activity questionnaire was used to determine routine physical activity of the participants of this study. The data collected were statistically analysed using regression analysis with significant level at $P=0.05$. Systolic blood pressure ($F = 1.202, P=0.008$), diastolic blood pressure ($F = 0.802, P=0.00$) and resting pulse rate ($F = 0.675, P=0.010$) at the end of study. It was recommended that Academic staff should be encouraged to engage themselves in routine physical activities with a view to improve their cardiovascular variables in order to achieve the best of health results, PA should be practised at a moderate intensity level on everyday life, Individuals no matter their status should be involved in physical activities and recreation which should last for at least 30 minutes three (3 days a week) and Sedentary individuals should be encouraged to begin with low-intensity physical activity.

Keywords: Routine physical activity, systolic blood pressure, diastolic blood pressure, resting pulse rate

Introduction

Routine physical activity (RPA) is defined as regular and habitual activity performed to improve health and maintain one or more components of physical fitness done on daily basis. The major contributors are everyday activities that involve moving the body around, such as walking, cycling, climbing stairs, housework, and going for shopping, workplace, sports and recreational activities with much of it occurring as incidental part of our routine physical activity. RPA may include activities performed around the home, during leisure time and at workplace (Fariasa, Gonçalves, Morcillo, Guerra-Junior, & Amancio, 2015).

Physical activity (PA) is any bodily movement produced by contraction of skeletal muscles that results in energy expenditure beyond resting level. This is a broad definition of PA which involves virtually all types of activities like walking, cycling, dancing, games, gardening, household work, sports and other recreational activities (WHO, 2012; Odunaiya & Oguntibeju, 2013)

RPA has been shown to reduce blood pressure, improve autonomic tone (American College of Sports Medicine, 2009) reduce systemic inflammation; decrease blood coagulation, improve coronary blood flow, augment cardiac function and enhance endothelial function (American College of Sports Medicine (ACSM), 2009, 2011; Kravitz, & Heyward, 2017). Chronic inflammation as indicated by elevated circulating levels of inflammatory mediators such as C-reactive protein has been shown to be strongly associated with most of the chronic diseases whose prevention has benefited from exercise. Researchers have shown that exercise training may cause marked reductions in C-reactive protein levels (Narayani & Sudhan Paul Raj, 2010). Each of these factors may explain directly or indirectly the reduced incidence of chronic disease and premature death among people who engage in routine physical activity (Narayani & Sudhan Paul Raj, 2010). Physical inactivity is one of the main causes of the increase in body fat. In the case of adult, the increase in body mass is conditional by slower speed of walking and functional limitation (Jorgic, Pantelic, Milanovic & Kostic, 2011). In addition, it is also considered that

there are three factors which lead to the increase of body fat during the aging process, including the increase in an inadequate diet, reduced physically activity and the decrease in the ability for burning fat (Wilmore and Costill, 1999; Jorgic *et al.*, 2011).

Blood pressure (BP) is the force or pressure exerted by the blood on the arteries (vessels walls) and the term usually refers to arterial blood pressure (Heyward, 2010; Guyton & Hall, 2012; Powers, & Howley, 2012). It is expressed by two numbers; systolic blood pressure and the diastolic blood pressure. The highest pressure (systolic BP) reflects the pressure in the arteries during systole of the heart when myocardial contraction forces a large volume of blood into the arteries, which exerts high pressure on the arterial walls and corresponds to ventricular systole of the heart (Heyward, 2014). The lowest pressure (diastole BP) represents the lowest pressure in the artery, corresponding to ventricular diastole when the heart is at rest (Guyton& Hall, 2012). Resting systolic BP usually varies between 110- and 140-mm Hg and diastolic BP between 60- and 80-mm Hg (Heyward, 2014). Usually, a person is not classified hypertensive unless the BP remains elevated (>140/90 mm Hg) on two occasions (ACSM 2009; Heyward, 2010; Mani, Venkateswarlu & Dikki, 2012).

Resting heart rate (RHR) is one of the simplest and most important cardiovascular parameters asses during RPA (Quinn, 2014). Measuring it involves simply taking the subjects pulse, usually at radial or carotid veins. The RHR refers to the ventricular rate of beating per minutes. It can be determined by counting either the arterial pulse, the heart sound (using stethoscope) or number of cycles in an ECG record/minutes (American Heart Association (AHA), 2014). Normally, it averages 75 beats/minutes in young adults' male during rest. It is basically determined by the strength of the vagal tone, and is normal subjected to many physiological variations (Kenney, Wilmore & Costill, 2012).

The strong relationship between RPA, health and wellness is not in doubt because RPA has many health and fitness benefits well documented. These benefits are enjoyed due to regular participation in an exercise programme. At the time when exercise scientists demonstrated the association between longevity and exercise, researches (Venkateswarlu, 2010; Kenney, *et al.*, 2012; & Heyward, 2014) in the field of cardiology began to understand that RPA reduces cardiovascular risk by reducing blood pressure.

The essence of exercise may dictate the mode (type), frequency, duration and in of the exercise prescription. The concern about the proper dose of exercise prescription that will bring about a desired effect (response) is similar to the physician's need to know the type and quantity of a drug as well as the time frame over which it must be taken to cause the desired health effects (Powers & Howley, 2012). It is a common fact that the dose of RPA improves the health-related outcomes, such as lower mean arterial blood pressure (MABP), resting heart rate (RHR), and percent body fat. Research evidences from (Venkateswarlu, 2011; Powers & Wilmore, 2012; Heyward, 2014) have shown that RPA positively influences cardiovascular variables that include MABP, RHR, BP, and %BF.

Recent research studies clearly demonstrated strong evidence that regular participation in routine physical activity enhances fitness benefits as well as cardiovascular function among adults, such as heart and muscular functions, build and maintain healthy bones, enhance blood circulation and metabolic rate, and favourably influence body composition (Gibala, Little, MacDonald & Hawley, 2012; Heyward, 2014; Gladmohesh & Sundaramurthy, 2015).

The routine physical activity level is decreasing among adult population in countries around the world, especially in poor urban areas and it is estimated that less than one third of the world population are sufficiently active to have a strong impact on their present future health and well-being (World Health Organisation, 2010; Maruf, Akosile & Umunnah, 2012). Nearly half of the adults are not vigorously active on a regular basis and RPA declines dramatically with age, with male adolescents being more affected. Thus, RPA is no longer a natural part of human existence especially among adult population in both developed and developing countries (WHO, 2012) like Nigeria. Research evidences have shown that physical inactivity and a negative life-style seriously threaten the health and hasten the deterioration of bodily functions (Olubayo-Fatiregun, Ayodele & Olurunisola, 2014; Nina, 2016). In addition, recent research studies on effect of PA on nutritional or dietary intake revealed significant portion of weight loss due to dietary control in weight training programme which serves as a measure of prevention and management of overweight adults in Nigeria (Chado, 2011; Yahya, Lyons, Dodd & Anwar, 2015). Therefore, this study was to investigate the influence of routine physical activity on body composition of academic staff in tertiary institutions in Katsina State.

Research Questions

This study was proposed to answer the following specific research questions.

- i. Would involvement in daily routine physical activity influence blood pressure of male of male academic staff of tertiary institution in Katsina State?
- ii. Would involvement in daily routine physical activity influence resting pulse rate of male academic staff of tertiary institution in Katsina State?

Hypotheses

- i. Routine physical activity has no significant influence on blood pressure of male academic staff in tertiary institutions in Katsina State.
- ii. Routine physical activity has no significant influence on resting pulse rate of male academic staff in tertiary institutions in Katsina State.

Methods and Materials

The ex-post-facto research design was used for this study. In this study multi-stage sampling of purposive, proportionate and random sampling procedures were used. The non-awarding degree institutions excluding paramedical institutions in Katsina State were purposively selected; they are Isa Kaita College of Education, Dutsin-ma, Hassan Usman Polytechnic, Katsina, Federal College of Education, Katsina, and Yusuf Bala Usman College of Legal and General Studies, Daura. Only male academic staff were purposively selected for this study. Proportionate sampling technique was used to assign number of questionnaires to be administered in each of the institutions selected and random sampling techniques was used to select respondents. One hundred and seventy-six (176) male academic staff were drawn from the above named institutions. This was in agreement with Nworgu (2015).

The following instruments were used for data collection in this study.

- i Sphygmomanometer K-112 Aneroid type and Dual Head stethoscope Model No. S-223, manufactured in India to measure BP and resting heart rate.
- ii Routine Physical Activity Questionnaire.

Although there are several methods that can be used to measure blood pressure, the auscultatory method was used for this research. The method which requires the use of a stethoscope and sphygmomanometer has a dual advantage of being simple and is commonly used in many health-related fields. Instruments to be used for this measurement are the KA – 112 Aneroid Sphygmomanometer and Dual Head Stethoscope.

Participants were required to sit on a chair close to a table whose height was of the same height as the heart. With left hand arm on the table, a cuff was placed around the upper arm and attached to the aneroid manometer. The cuff fitted snugly and inflated manually by repeatedly squeezing a rubber bulb until the brachial artery was completely occluded. With the help of the stethoscope, the tester listened to the brachial artery at the elbow. The tester slowly released the pressure on the cuff. When the occluded blood started to flow in the artery, the turbulent flow created a “whooshing” or pounding sound. The pressure at which this sound was first heard is the systolic blood pressure. The pressure in cuff was further released until no sound was heard and here, the diastolic blood pressure was read and recorded accordingly for each participant. The blood pressure was measured by qualified Nurses together with the researcher. Two measurements were taken with 5-10 minutes rest between the measures and the mean of the systolic and diastolic pressure and the pulse rate was recorded for each participant.

Routine physical activity questionnaire for adults was adapted to be administered simultaneously with the measurement of cardiovascular variables of each participant. The questionnaire comprised demographic data of the respondents and two sections on work activity and leisure activity. All the items on work activity were not changed while some items on leisure activity were added to the questionnaire. The questionnaire tested the

routine physical activity participation of the participants. The total points obtained by each respondent for all responses were used as routine physical activity scores.

Descriptive statistics of mean, standard deviation, and standard errors of means were used to describe the demographic data and responses obtained on the routine physical activity questionnaire. The inferential statistics of multiple regression analysis was used to assess the influence of routine physical activity on the variables. The formulated hypotheses were tested at 0.05 level of significance.

Results and Discussion

One hundred and seventy-six (176) copies of the questionnaire were administered to the respondents and one hundred and seventy-five (175) were received, upon which the data were analysed.

Hypothesis one: There is no significant influence of routine physical activity on systolic blood pressure of male academic staff of tertiary institutions in Katsina State.

Table 2: Multiple Regression Analysis on Routine Physical Activity and Systolic Blood Pressure

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.721 ^a	.520	.517	22.29141	1.863	
Model	Sum of Squares		Df	Mean Square	F	Sig.
1	Regression	8903.169	15	593.545	1.202	.008 ^b
	Residual	78511.289	159	493.782		
	Total	87414.458	174			
Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1	Routine physical activity	169.542	17.267	.011	9.819	.008

Table 3 shows the regression analysis of the influence of routine physical activity on systolic blood pressure of male academic staff of tertiary institutions in Katsina State. The result recorded a coefficient of R² value of 0.517 which implies that the 51.7% of variation in the systolic blood pressure were explained by the routine physical activity. The remaining 48.2% can be attributed to error in specification and the exclusion of other factors from the model. The result also indicated strong correlation coefficient of 0.721 existed between routine physical activity on systolic blood pressure. R squared showed that there is 0.521 proportion of variance. The *t*-value of 9.819 is greater than the *t*-critical 1.97. F-calculated value of 4.194 is greater than the F-critical of 2.68. The P-value of 0.008 is less than 0.05 level of significance. Therefore, the null hypothesis which states that there is no significant influence of routine physical activity on systolic blood pressure of male academic staff of tertiary institutions in Katsina State, is hereby rejected.

Hypothesis two: There is no significant influence of routine physical activity on diastolic blood pressure of male academic staff of tertiary institutions in Katsina State.

Table 3: Multiple Regression Analysis on Routine Physical Activity and Diastolic Blood Pressure

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.835 ^a	.697	.618	12.94463	2.114

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	2004.312	15	133.621	0.802	.006 ^b
	Residual	26475.044	159	166.510		
	Total	28479.356	174			

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	Routine physical activity	112.067	10.027	-.016	11.176	.006

Table 4 shows the regression analysis of the influence of routine physical activity on diastolic blood pressure of male academic staff of tertiary institutions in Katsina State. The result recorded a coefficient of R² value of 0.618 which implies that the 61.8% of variation in the diastolic were explained by the routine physical activity. The remaining 38.2% can be attributed to error in specification and the exclusion of other factors from the model. The result also indicated that strong correlation coefficient of 0.835 existed between routine physical activity on diastolic blood pressure. R squared showed that there is 0.697 proportion of variance. The *t*-value of 11.176 is greater than the *t*-critical 1.97. F-calculated value of 5.797 is greater than the F-critical of 2.68. The P-value of 0.006 is less than 0.05 level of significance. Therefore, the null hypothesis which states that there is no significant influence of routine physical activity on systolic blood pressure of male academic staff of tertiary institutions in Katsina State, is hereby rejected.

Hypothesis three: There is no significant influence of routine physical activity on resting pulse rate of male academic staff of tertiary institutions in Katsina State.

Table 4: Multiple Regression Analysis on Routine Physical Activity and Resting Pulse Rate

Model Summary ^b					
	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.745 ^a	.555	.729	12.12334	1.745

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	1478.888	15	98.593	0.675	.010 ^b
	Residual	23222.106	159	146.051		
	Total	24700.994	174			

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	Routine physical activity	90.305	9.391	-.018	9.616	.010

The Table 5 above shows the regression analysis of the influence of routine physical activity on resting pulse rate of male academic staff of tertiary institutions in Katsina State. The result recorded a coefficient of R² value of 0.729 implies that the 72.9% of variation in the resting pulse rate were explained by the routine physical activity. The remaining 27.1% can be attributed to error in specification and the exclusion of other factors from the model. The result also indicated that strong correlation coefficient of 0.745 existed between routine physical activity on resting pulse rate. R squared showed that there is 0.555 proportion of variance. The *t*-value of 9.616 is greater than the *t*-critical 1.97. F-calculated value of 3.671 is greater than the F-critical of 2.68. The P-value of 0.010 is less than 0.05 level of significance. Therefore, the null hypothesis which states that there is no significant influence of routine physical activity on resting pulse rate of male academic staff of tertiary institutions in Katsina State, is hereby rejected.

Discussion

The findings of this study revealed that routine physical activity had influence on systolic BP on male academic staff of tertiary institutions in Katsina State, Nigeria. This result agreed with the findings of Sheehan (2010), indicated that routine physical activity not only makes the heart stronger, but also more efficient. As the heart becomes more efficient, it becomes more able to pump greater amount of blood with less effort. As a result, the heart does not need to beat quickly to deliver blood to the body. Since the heart is pumping of a slower rate, it is also placing less stress and most especially systolic BP. Similarly, Manna, Kanna, and Dhara, (2012) found significant influence on SBP and DBP after 12 weeks of aerobic, anaerobic and skilled training. In support of this study ACSM (2010), and Duwai and Chado (2012) concluded that people with mild hypertension can expect systolic BP and diastolic BP to fall on average of 8-10 mm Hg and 6-10 mm Hg, respectively in response to routine physical activity. They reported that even people with normal resting BP, RPA is expected to lower SBP and DBP by an average of 4 mm Hg and 3 mm Hg respectively. Equally, Ylisela (2016), found that regular jogging of 30minutes of 3-5 days/week improves heart health benefits, weight-loss benefits, mental benefits and muscles development.

The findings of this study revealed that routine physical activity had influence on diastolic BP on male academic staff of tertiary institutions in Katsina State, Nigeria. This result agreed with the finding of Duwai and Chado (2012), who concluded that people with mild hypertension can expect systolic BP and diastolic BP to fall on average of 8-10mm Hg and 6-10 mm Hg respectively in response to routine physical activity. They reported that even people with normal resting BP, RPA are expected to have lower SBP and DBP by an average of 4 mm Hg and 3 mm Hg, respectively. Similarly, Manna *et al.* (2012) found significant influence on SBP and DBP after 12 weeks of aerobic, anaerobic and skilled training. Equally, Fagard, (2011), Manna *et al.* (2012) and Gladmohesh and Sundaramurthy, (2015) concluded that, there is remarkable decrease in blood pressure (diastolic and systolic blood pressure) as a result of aerobic exercise in the case of participants with hypertension and normotension and participants with excessive and normal weight. The influence is due to regular physical and recreational activities the individual engaged. In another finding Anisa & Waseem (2015) concluded that physical activity correlate of blood pressure indicates a positive association of moderate activity and energy expenditure with diastolic blood pressure of adults. They also reported that relationship between physical activity (PA) and BP in adults in several studies. The RPA and restriction of sedentary activity will improve efforts at weight management and may prevent an excess increase in blood pressure over time.

The findings of this study revealed that routine physical activity had influence on resting heart rate on male academic staff of tertiary institutions in Katsina State, Nigeria. This result agreed with the finding of Paul (2016) who found that both total exercise amount and aerobic exercise amount were significantly related to resting heart rate, total exercise amount was a better overall predictor of resting heart rate than was aerobic exercise amount. All forms of exercise were associated with cardiovascular health, with cardiovascular benefits accruing according to the amount of exercise performed, even in optimally healthy young adults. Similarly, Sheehan (2010), observed that, though RPA has a long-term effect on BP and pulse, these beneficial effects require a continued exercise programme, and that the benefit last only as long as individual continue to exercise.

Conclusion

Based on the findings of this study, the following conclusion was made;

Routine physical activity significantly influenced Routine physical activity significantly influence systolic blood pressure, routine physical activity significantly influenced diastolic blood pressure

And routine physical activity significantly influenced resting pulse rate of academic staff in Tertiary Institutions in Katsina State.

Recommendations

On the basis of the findings of this study, the following recommendations were made:

1. Academic staff should be encouraged to engage themselves in routine physical activities with a view to improve their cardiovascular variables in order to achieve the best of health results.
2. PA should be practised at a moderate intensity level on everyday life.

3. Individuals no matter their status should be involved in physical activities and recreation which should last for at least 30 minutes three (3 days a week).
4. Sedentary individuals should be encouraged to begin with low-intensity physical activity.

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