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ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF STAKEHOLDERS TOWARDS SUSTAINABILITY OF DRUG REVOLVING SCHEME OF PRIMARY HEALTH CARE IN IREPODUN LOCAL GOVERNMENT, KWARA STATE, NIGERIA

Yusuf, A.N, Ogunsola, M.T, & Fagbamila, S.O

Abstract

Drug Revolving Scheme (DRS) is part of the series of primary health care services which ensures that essential drugs are made available in all government hospitals in rightful prescription. The stakeholders are central to the sustainability of the scheme, hence this study assessed the knowledge and attitude stakeholders towards the sustainability of drug revolving scheme of primary health care in Irepodun local government area(L.G.A).Descriptive research survey design was used for this study. Multi-stage sampling technique was adopted to select two hundred and forty three (243) health workers and patients in the elevenselected health centres in Irepodun L.G.A. and this formed the population for this study. Data was collected using structured questionnaire, validated by three experts and tested for reliability using test re-test method. The reliability obtained was 0.78r. Copies of the questionnaire were administered by the researchers and the four trained research assistants. The formulated hypotheses were tested with the inferential statistics of independent sample t-test using Statistical Package for Social Science (SPSS) version 20.0 at 0.05 alpha level of significance.The null hypotheses were rejected because the calculated t-values (21.216, 10.732, 25.332 and 7.732) were greater than the critical value of 1.96 @df=242. This implies that there were significant differences in the knowledge and attitude of stakeholders towards sustainability of drug revolving scheme. From the findings of this study, it was concluded that there is significant difference in the knowledge and attitude of stakeholders towards drug revolving scheme especially in the rural areas where there is lack of awareness, religion and cultural beliefs.It was recommended that; the male and female stakeholders should be properly trained and equipped with appropriate knowledge of DRS irrespective of their gender and the literate and illiterate stakeholders should adhere to the rules guiding DRS to reduce the issues of counterfeit drugs.

Keyword: Drug revolving scheme, stakeholders, primary health care, counterfeit drugs, essential drugs and health centres

Introduction

Drug is any substance or mixture of substances manufactured, sold or advertised for use in the diagnosis, treatment, mitigation or prevention of any disease disorder, abnormal physical state and symptoms, in man or in animals, restoring, correcting or modifying organic functions in man or in animals (World Health Organization, 2007). Drugs are not sufficient to guarantee good health but without them there may be no meaningful health care delivery, hence, drugs need to be made available in all government hospitals at all times.

The concept of drug revolving scheme is to ensure that essential drugs are available and accessible all-year-round in government hospitals at rightful prescription (Lemuel, 2013). One of the state's core roles in meeting the essential needs of people is maintaining a functioning health system with an adequate supply of essential drugs and enabling its citizens to exercise their rights to standard of living that guarantee health and well-being as outlined in the Universal Declaration of Human Rights (Kohler, 2012). Drug Revolving Scheme (DRS) was part of a series of Primary Health Care (PHC) component services initiated by the Nigerian government

after the meeting of African Health Ministers at Bamako in 1987. The scheme was to be self-funded while improving on prescribing services and increasing equitable access to services (Uzochukwu & Onwujekwe, 2005). According to World Health Organization, (2009) one of the methods for financing drugs is through drug revolving fund in which after an initial capital investment, drug supplies are replenished with monies collected from the sales of drugs.

Medicines offer simple and effective solutions to many health problems, provided they are available, accessible, affordable and properly used. Availability of drugs is one of the most visible indicators of quality DRS from the household perspective. Studies in Nigeria have shown that when health facilities run out of commonly used drugs, visits by patients dropped by 50-75% (Sambo, Lewis & Sabitu, 2009).

Essential drugs are those that satisfy the priority health care needs of the population. They are selected with due regard to public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. Essential drugs are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford (Sitanshu, Himanshu & Guru, 2011). There is need for publication of Essential Drugs List (EDL), and a National Drug Formulary (NDF), the establishment of a statutory agency with responsibility for drug administration and control, and the introduction of drug registration procedures (World Health Organization, 2007). However, much more still remains to be done in many areas, the essential drugs vary from one geographical area to another. Some of the essential drugs in Irepodun Local Government area include: paracetamol, multivites, ferrous, Bco, vitamin A, B, C, and cough syrups.

Primary health care is an important sector in Nigerian health system. It includes all areas that play a role in health, such as access to health services, environment and lifestyle (Public Health Agency, 2011). Shehu (2006) in Michael (1981) also stated that the World Health Organization in 1978 articulated the components of Primary Health Care into broad health objectives in which the provision of essential drugs is inclusive among others. The initial government outlay to start the scheme, primary health care was expected to fund future purchases through drug sales and user fees (Uzochukwu & Onwujekwe, 2005). In the last decades, PHC has been in shambles, with its dismal state having a direct consequence on the overall performance of the health system. Inadequate funding has been highly labeled as one of the problems of PHC in Nigeria.

Most health expenditures of developing countries are on drugs and medical sundries but inappropriate use of such resources is common by the stakeholders (Adebayo & Hussain, 2010). The author further stated that government in developing countries expends between 20% and 50% of their rational health budgets on drugs and medical sundries. Unfortunately, World Health Organization belief that most of such expenditure is mis-applied as irrational use of drugs is prevalent especially in developing countries.

According to Federal Ministry of Health, (2010) the National Drug Policy (NDP)'s key objective that was launched in 1990 and implemented in 2005, stated that sustainable and uninterrupted supply of efficacious, high quality and affordable essential drugs is the most critical success factor for achievement of optimal drug revolving scheme and *a sine qua non* for making DRS services accessible particularly to the vulnerable and underserved in a developing and resource limited country like Nigeria. It was also agreed and concluded that with the poor

quality of service offered by the health centers, health care that is not considered appropriate will not be used (Nankwanga, 2004).

The stakeholders of DRS in the health centres of Irepodun Local Government are the governments, health workers, school children, parents, teachers, market men and women that are beneficiaries of the scheme in the community. The stakeholders can behave either positively or negatively towards DRS. Nigeria Health Conference Communiqué in 2009 have outlined lack of clarity of roles and responsibilities among different levels of government. To have compounded the situation, the Ministry Of Health established a central DRS in the country; in the provinces, there are four levels of DRS: provincial, district, health centre and village. At each level, there is a committee for supervising and monitoring the implementation of the scheme, with the exception for the village level, where a village health volunteer (VHV) is the only one responsible for the supervision of the village DRS committee which includes the village leader, and representatives from different mass organizations at the village level (Lamphone, Swung, Charith, Solveig & Rolf, 2008).

Community members such as the farmers, school children, parents, teachers, market men and women still procure medicines from patent vendors due to weak regulations (Afolabi, 2008). The fact that a patient has attained knowledge regarding DRS does not guarantee compliance as many individuals self-medicate due to long waiting times in the facilities, inaccessibility of health facilities, cost and a feeling that the ailment is minor (Auta, Bamvat, Dayom, Shakur & Avu, 2012). The motivation of the health workers to deliver health services improved significantly because they had basic drugs to work with and they benefitted from the drug gains accruing through the operations of DRS. However, as time went on some got de-motivated and their attentions became more focused on revenue generations and profit making through sales of own drugs at the expense of the people as no incentives were paid and salaries were delayed (Uzochukwu & Onwuejekwe, 2005).

In addition, stakeholders have identified poor access to quality essential drugs as a major problem of the scheme. Non adherence to the rules setting up the Drug Revolving Scheme (DRS) does not allow an equitable and fair input by other stakeholders in the process of policy formulation in the system. Adherence to the rules of DRS by stakeholders also limits the issues of fake drugs in the country.

Government of Nigeria has taken a bold step to strengthen drug revolving scheme by constructing over five hundred model health care centres and equipping them with medical equipment and seed of drugs for drug revolving fund scheme. Yet, most of the facilities are non-functional and where functional, are poorly utilized (National Health Bill, 2010). Most health expenditures of developing countries are on drugs and medical sundries but inappropriate use of such resources are common. Unfortunately, most of such expenditures are mis-applied as irrational use of drugs is prevalent especially in developing countries. Irrational prescriptions and use of drugs are characterized by high levels of antibiotic prescriptions with diurnal variation in prescribing practices where the training background of the prescriber influenced the pattern of prescription.

The Nigeria health has also suffered several downfalls due to certain religious and cultural injunctions. The reasons proffered for taking herbal medications include perceived better safety of (being natural) and efficacy than conventional medications, easier access and lower cost of herbs, as well as cultural belief in its ability to cure many illnesses. Many of them do not combine herbs with conventional medicines to fore-stall drug-herb interaction, thus depriving them of the benefits of prescribed medication. Some are even faith healers; they don't take drugs

at all. Despite Nigeria's strategic position in Africa, the country is greatly underserved in health care sphere. Health facilities (health centres, personnel, medical equipments are inadequate especially in the rural areas, lack of co-ordination and fragmentation of services, dearth of resources including drugs and supplies, inadequate and decaying infrastructure, inequality in resource distribution and access to very deplorable quality of care. Some people are not even aware of DRS and those that have the knowledge are not utilizing the scheme effectively.

Majority of the rural dwellers are at variance with reality when it comes to treatment of chronic diseases such as diabetes mellitus, bronchial asthma, hypertension, congestive heart failure, arthritis, epilepsy and schizophrenia. Due to repeated failure in follow-up treatments and check-ups they conclude wrongly that orthodox medicine does not have remedy for such diseases.

Various reforms have been out forwarded by the Nigeria drug revolving scheme stakeholders to address the wide ranging issues in the health care system but they are yet to be implemented at the state and local government area levels due to discontinuity in government, change of government policy, misappropriation of funds; therefore, this study examines the knowledge and attitudes of stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Research Questions

- Is there any difference in the knowledge of male and female stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State?
- Is there any difference in the knowledge of rural dwellers and urban dwellers stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State?
- Is there any difference in the attitudes of male and female stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State?
- Is there any difference in the attitudes of rural dwellers and urban dwellers stakeholders towards drug revolving scheme of primary health care in Irepodun Local government area of Kwara State?

Hypotheses

There is no significant difference in the knowledge of male and female stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

1. There is no significant difference in the knowledge of rural dwellers and urban dwellers stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.
2. There is no significant difference in the attitudes of male and female stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.
3. There is no significant difference in the attitudes of rural dwellers and urban dwellers stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Methodology

A descriptive research design of survey method was used for this study. The population for this study comprised all the residents of Irepodun Local Government Area of Kwara State which is (147,594) one hundred and forty seven thousand, five hundred and ninety four (National Population Census, 2006). Multi-stage sampling technique was employed, purposive sampling technique was used to select 11towns representing each of the 11 wards in Irepodun Local Government Area.

The second stage, the stakeholders in the eleven health centres were divided into two strata which were the health workers and the community members (patients). An adequate sample of seventy (70) which represented all the health workers (chairman, supervisor for health, primary health care coordinator, assistant co-ordinator, doctors and nurses) were selected and a simple random sampling technique was used to select one hundred and seventy three (173) respondents from three hundred and forty six (346) patients. The total respondents were two hundred and forty three (243). The instrument used was the researchers' designed questionnaire, validated by experts in the related field. The reliability of the instrument was ascertained by test-retest method of two weeks interval. The two results obtained were correlated using Pearson Product Moment Correlation. The co-efficient of 0.76r was obtained. Copies of two hundred and forty three (243) questionnaire were administered by the researchers and four trained research assistants. Data were collected and analyzed using inferential statistics of test to test the hypotheses formulated for the study at 0.05 level of significance.

Results and Discussion

Hypothesis 1: There is no significant difference in the knowledge of male and female stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Table 1: The t-test Analysis on Knowledge of Stakeholders Towards Drug Revolving Scheme of Primary Health in Irepodun Local Government Area Care Based on Gender.

S/N	GENDER	N	MEAN	S.D	Df	CRI-T	CAL-T	Decision
1.	Female	120	13.57	4.32	242	1.960	21.216	Ho is Rejected
2.	Male	123	25.27	5.910				

@ 0.05 alpha level of significance

Table 1 shows the calculated t-value analysis and the mean of respondents' responses on the knowledge of male and female stakeholders towards drug revolving scheme in Irepodun L.G.A.

The calculated t-value of 21.216 of the respondents is greater than the critical value of 1.960 with 242 degree of freedom at 0.05 alpha level of significance. Therefore, the null hypothesis is rejected which implies that there is significant difference in the knowledge of male and female stakeholders towards drug revolving scheme in Irepodun L.G.A.

Hypothesis 2: There is no significant difference in the knowledge of rural and urban dwellers' stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Table 2: t-test Analysis on Knowledge of Rural and Urban Dwellers' Stakeholders Towards Drug Revolving Scheme of Primary Health Care in Irepodun Local Government Area.

S/N	LOCATION	N	MEAN	S.D	DF	CRIT-T	CAL-T	DECISION
1.	Rural	105	15.43	4.90	242	1.960	10.732	Ho is Rejected
2.	Urban	138	19.02	7.61				

@ 0.05 alpha level of significance

Table 2 shows that the calculated t-value of 10.732 is greater than the critical value of 1.960with 242 degree of freedom at 0.05 alpha level of significance. Therefore, the null hypothesis is rejected which implies that the knowledge of urban and rural dwellers' stakeholders significantly differs towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Hypothesis 3: There is no significant difference in the attitudes of male and female stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Table 3:The t-test Analysis on the Attitudes of Male and Female Stakeholders Towards Drug Revolving Scheme of Primary Health Care in Irepodun Local Government Area.

S/N	GENDER	N	MEAN	S.D	DF	CRIT-T	CAL-T	DECISION
1.	Female	120	12.30	3.14	242	1.960	25.332	Ho is Rejected
2.	Male	123	24.59	5.46				

@ 0.05 alpha level of significance

Table 3 revealed that the calculated t-value of 25.332 is greater than the critical value of 1.960with 242 degree of freedom at 0.05 alpha level of significance. Therefore, the null hypothesis is rejected which implies that the attitudes of male and female stakeholders have significant difference towards drug revolving scheme in Irepodun Local Government Area of Kwara State.

Hypothesis 4: There is no significant difference in the attitudes of rural and urban dwellers' stakeholders towards drug revolving scheme of primary health care in Irepodun Local Government Area of Kwara State.

Table 4: The t-test Analysis on the Attitudes of Rural and Urban Dwellers' Stakeholders on Drug Revolving Scheme of Primary Health Care

S/N	LOCATION	N	MEAN	S.D	DF	CRIT-T	CAL-T	DECISION
1.	Rural	105	16.43	5.90	242	1.960	7.732	Ho is Rejected
2.	Urban	138	19.02	7.61				

@ 0.05 alpha level of significance

Table 4 revealed that the calculated t-value of 7.732 is greater than the critical value of 1.960with 242 degree of freedom at 0.05 alpha level of significance. Therefore, the null hypothesis is rejected which implies that the attitudes of literate and illiterate stakeholders
have significant difference towards drug revolving scheme in Irepodun Local Government Area of Kwara State.

Hypothesis I: - There is no significant difference in the knowledge of male and female stakeholders towards drug revolving scheme. The hypothesis tested at 242 degree of freedom at 0.05 alpha level of significance is rejected because the calculated t-test value of 21.216 is greater than the table value of 1.960. This means there are clear differences in the knowledge of male and female stakeholders towards drug revolving scheme. The mean for the female (13.57) and the male (25.27) respondents from the table revealed that, the mean of the male respondents is more than the female counterparts on their knowledge towards drug revolving. This means the male respondents have more knowledge towards drug revolving scheme than their female counterparts in Irepodun L.G.A.

In this study, not all the stakeholders selected are aware of the existence of drug revolving scheme within their localities. Ordinarily, it would be expected that all the women should be aware of the availability of health centers in their area. Although appreciable percent of the women (73%) are aware, yet this negates the spirit of bringing DRS to the door step of the people. This is in line with the findings of Ogbosnnaya (2011) that inadequate awareness among the females has contributed to the irregular or varied use of the health center services such as DRS than the males.

Hypothesis II: - There is no significant difference in the knowledge of rural and urban dweller stakeholders towards drug revolving scheme. This analysis showed that the calculated t-test value of 10.732 is greater than the critical value 1.960 at 242 degree of freedom of 0.05 alpha level of significance. The result of the tested hypothesis III revealed that there is clear difference in the knowledge of rural and urban dweller stakeholders on drug revolving scheme. The mean for the rural (15.43) and the urban (19.02) respondents from the table revealed that, the mean of the urban respondents is more than the rural counterparts on their knowledge towards drug revolving scheme. This means the urban respondents have adequate knowledge towards drug revolving scheme than their rural counterparts in Irepodun L.G.A.

The finding corroborated with Onwujekwe, Onoka, Uguru, Nnema, Uzochukwu and Eze (2010) which states that the inadequacy of the health care delivery system in Nigeria could be attributed to the peculiar demographics of the Nigerian populace. Most drug revolving scheme programmes don't reach the rural areas and about 55% of the population lives in the rural areas and only 45% live in the urban areas. The rural dwellers are therefore less informed compared to their urban counterparts on most subsidized drugs.

Hypothesis III: - There is no significant difference in the attitudes of male and female stakeholders towards drug revolving scheme. The analysis of the calculated t-test value 25.332 is greater than the table value of 1.960 at 242 degree of freedom of 0.05 alpha level of significance. Therefore the null hypothesis stated above is rejected based on the computation. It implies that the attitudes of male and female stakeholders are clearly different on drug revolving scheme. The mean for the male (24.59) and the female (12.30) respondents from the table revealed that, the mean of the male respondents is more than the female counterparts on their knowledge towards drug revolving. This means the male respondents exhibit positive attitudes towards drug revolving scheme in Irepodun L.G.A than their female counterparts.

This finding is in accordance with Jahic, Jahic, Nurkic and Nurkic (2008) that opined that the attitudes of female stakeholders is significantly different to the males on drug revolving scheme especially in rare cases such as pregnancy. Their focus group discussion in a rural community revealed that some women do not use hematinics, fearing it will make the baby big or result in excessive blood and therefore excessive blood loss at delivery. Another study about IPT with sulfadoxine-pyrimethamine reported concerns expressed about its effect on pregnancy though it was dispensed at the antenatal clinic and some did not use the drug on the account of this (Akinleye, Falade &Ajayi 2009). All these rare cases of non-compliances are peculiar to women and hence have greater effect on drug revolving scheme.

Hypothesis IV: -. There is no significant difference in the attitudes of rural and urban dweller stakeholders towards drug revolving scheme. The computed t-test statistical outcome of 7.732 is greater than the table value of 1.960 at 242 degree of freedom with 0.05 alpha level of significant. Therefore the null hypothesis is rejected. Based on the result one can conclude that the attitudes of rural and urban dweller stakeholders are significantly different on drug revolving scheme. The mean for the rural (105) and the urban (138) respondents from the table revealed that, the mean of the urban respondents is more than the rural counterparts on their knowledge towards drug revolving. This means the urban respondents exhibit positive attitudes towards drug revolving scheme in Irepodun L.G.A than their rural counterparts.

The result is in accordance with the findings of Perrotta, Piskorski, Souli-Fogeliman and Steinberger, (2008) which revealed that at the primary health care level, some have sought solutions to some health flaws. For example, several community health financing schemes [Community Based Health Insurance (CBHI)] from individuals' (taxi drivers, market women and so on effort to provide the health needs for their communities are documented in which mostly urban sub populations have initiated more on the scheme.

Conclusions

1. There is significant difference in the knowledge of rural and urban stakeholders towards drug revolving scheme in Irepodun Local Government Area. This is evident in the responses of the health workers and patients to questions on knowledge of rural and urban stakeholders towards drug revolving scheme.
2. There is significant difference in the attitudes of male and female stakeholders towards drug revolving scheme in Irepodun Local Government Area. This is evident in the responses of the health workers and patients to questions on attitudes of male and female stakeholders towards drug revolving scheme.

3. There is significant difference in the attitudes of rural and urban stakeholders towards drug revolving scheme in Irepodun Local Government Area. This is evident in the responses of the health workers and patients to questions towards attitudes of rural and urban stakeholders on drug revolving scheme.

Recommendations

Based on the findings of this study, the researcher therefore made the following recommendations that since the stakeholders have different knowledge and attitudes towards DRS:

- Rural and urban dwellers health workers need to be properly and equally supported for in-service training, monitoring and supervisory activities to improve their knowledge andattitudes to work.
- Rural and urban dwellers' health workers should be equally equipped with incentives **irrespective** of locations such as working condition and monetary incentives to motivatethem to improve their performances as to serve the consumers better.
- Male and female health workers need to have more cordial relationship with their patients irrespective of gender and be mindful of rightful prescription.

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ASSESSMENT OF PRACTICE, SCOPE AND DETERMINANTS OF SCHOOL E-HEALTH SERVICES IN KOGI STATE, NIGERIA

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Abstract

This paper presents the assessment of practice, scope and determinant of school health services in Kogi State. A healthful school environment is that which embraces the health and safety of learners and other members of the school community. Undergoing Pre-School Medical Education (PSME) is not only necessary to screen for previously undiagnosed health conditions and subsequent recognition of those with special care but it is also imperative to have base-line health information about the pupils. This study seeks to elucidate the practices and determinants of school health services (SHS) in Kogi State. In the cross-sectional descriptive study, a total of 229 heads of schools (102 primary and 127 secondary) in Kogi State were interviewed using a self-administered Questionnaire. Data were analyzed with SPSS Version 16. Level of significance was set at 0.05. The results: All the respondents aware of SHS with 114(50.7%) having good knowledge. Although, up to 209 (91.3%) having good knowledge and 188(83.6) agreed that it was necessary, only 46 (20.1%) have their pupils undergo PSME. Most schools (76.8%) provide toilet facilities mainly of the pit type. Overall knowledge of SHS was good in 114 (50.7%) of the respondents. Services are provided through the first aid box. 221 (96.5%) and school clinic 43 (19.5%) most (92.7%) of which are free. The overall practice of SHS was good in 42 (18.7%) of the respondents. Respondents from secondary and private schools had better knowledge and practice of SHS. It is recommended that there is need to improve knowledge of Heads of schools concerning SHS through massive enlighten programme.

Keywords*: School Health Service; pre-school medical examination First aid; practice.*

Introduction

Globally, even though school-aged learners do not suffer from the high mortality of school age learners, there exists a high burden of morbidity among them. Varying in prevalence from one country to another, the health problems in this group of learners includes infections, diseases, accidents and injuries, nutritional and mental disorders including substance abuse. School health services refers to the procedures that are carried out by physicians, Nurses, Dentists, Teachers and other personnel to appraise, protect and promote the health of school learners and school personnel. It includes health appraisal, treatment to common ailments, including the provision of emergency care, supervision of health of the learners (normal and handicapped) and personnel's control of communicable diseases, record keeping, and the school nutrition programme. School health services is essential component of the school health programme.

School Health policy is aimed at promoting the health of learners to achieve the goals of Education for all. The promotion of the health of learners in schools is a critical step towards quality achievement in Education; therefore, implementation of the school Health Programme (SHP) is core to the realization of the goal. SHP includes prevention services, education, emergency care, referral, and management of acute and chronic health conditions. It is designed to promote the health of students, identify and prevent health problems and injuries, and ensure care for students. School Health services (SHS) provides an approach for facilitating access to primary health care through screening and referral from the school-based clinics.

Previous studies from Katsina, FCT, and Kwara state and Nigeria as a whole indicate poor state of the SHP. Aside from pre-school medical screening and first aid medical services, a healthy school environment in terms of water and sanitation is also imperative to the health of school children as contained in the national school health policy, but studies by Kent and Nafiu (2016), reported that protable water was 100%, inadequate in public schools studied and adequate in private schools. The effects of inadequate water and sanitation are obvious; though some works have seen published on SHS; therefore, this study is ought to assess the practice, scope and determinants of school Health Services in Kogi State, Nigeria.

Methods and Material

Study Design:

Descriptive Cross-sectional Survey

Study population

Heads of schools or their representative in primary and secondary schools in Kogi State. Inclusion Criteria for schools were only those registered by the government and are on the list obtained from the Kogi state ministry of education.

Sampling Size Determination

Using Leslie Fishers formula with p =16.5% (proportion of schools undergoing –re-school medical examination in kogi state (12) n = 220.

Sampling Technique

A stratified random sampling technique was used in which the schools were stratified into public and private. The sampling ratio of 50% was applied to each group to select the required number of schools. A table of random numbers was used to select the school studied from the sampling frame.

Instrumentation

A pre-tested semi-structured self-administered questionnaire was used to obtain information. The questionnaire sought to elicit the scope of school health services rendered, the personnel involved, the presence or absence of a sickbay, the water and environmental sanitation, the knowledge and practice of entrance school medical examination for the pupils type of health instructions for the pupils as well as factors affecting the successful implementation of the services.

Ethical Consideration

Permission to conduct the study was obtained through the Ministry of Education in Kogi State and the heads of schools. Informed consents were obtained and confidentiality of both respondents and the school was assured.

Data Analysis

Data were manually sorted out and entered into the computer. Data were analyzed with Statistical Package for Social Sciences (SPSS) version 16. Descriptive summary frequency tables were generated. Bivariate analysis was done with a level of significance set at 0.05.

RESULTS

Table 1. Respondents' Designation

Variable	Frequency(n)	Percentage(%)
Designation (n=229)		
Principal	54	23.6
Vice principal	72	31.6
Head master	80	34.7
Assistant headmaster	16	7.0
Administrative staff	7	3.0
Level of school (n=229)		
Primary	102	25.0
Secondary	127	65.5
Type of school (n=229)		
Public	158	68.9
Private/Mission	71	31.1
Years of teaching (n=299)		
1-2	46	20.0
3-5	69	30.2
>5	114	49.8

Table 1 shows respondents' designation. The secondary schools were 127 (55.5%) with remaining 102 (44.5%) being primary schools. Eighty (34.7%) of the respondents interviewed were headmaster, while seventy two (31.6%) were vice principal, others were principal (54 (23. 6%) assistant headmaster (16 (7.0%) and administrative staff (7(3.1%). The public schools were 158 (68.9%) and respondents with teaching experience greater than five years were 114 (49.8%).

Table 2. Respondents' knowledge and perception of pre-school medical examination

Variable	Frequency(n)	Percentage (%)
Ever heard about pre-school medical Examination for pupils (n=229)		
Yes	209	91.3
No	20	8.7
Is the examination necessary (n=229)		
Yes	209	4.3
No	20	8.8
Reasons why examination is necessary (n=209 With multiple responses)		
Appropriate caution or care	71	340
Early detection of disease	43	20.6
Proper education and counseling	92	44.0
Pupils know about themselves	32	15.3
Know children with special needs	12	5.7
Why not necessary (n=20with multiple responses) no benefit to pupils' health		
Undue financial burden	14	70.0
Overall knowledge	11	56.0
Good	114	49.8
Fair	84	27.9
Poor	51	22.3

In Table 2, 91.3% (209) of respondents have heard of pre-school medical examination for pupils and said the examination is necessary for appropriate care (34.0$), early disease detection (20.6%), proper education and counseling (44.0%), for the pupils to know about themselves (15.3%) and in order to identify the pupils with special need (5.7%). The remaining 8.7% (20) have not heard of the examination before and said it was not necessary because it is of no benefit to pupils' health (70.0%) and it causes an undue financial burden.

Assessment of the practice of school health services revealed that 215 (93.8%) carried out health inception of pupils and the school uniform (97.2%), nails (93.0%), teeth (86.8%), skin (81.3%) and hair (88.7%) were usually examined. The examinations were mostly carried out daily (46.9%) and usually in the assembly ground/hall (77.5%). Other practices related to school health services were the availability of procedure for sick pupils (78.6%) school health clinic (18.8%), student health perfect (91.7%), and staff health maser (89.9%) among others. Respondents' overall practices of school health services result showed that 42 (18.3%) had a good practice, 109 (47.6%) had average practice while 78 (34.1%) had poor practice (Table 3).

Table showed the environmental health facilities present in the schools at the time of this study. Ninety-two (40.3%) schools had tap water/borehole located within the school premises, other

drinking water sources were sachet water for sale (40 (17.6%), well water within the school premises (4(19.4%) and 53 (22.7%) said their pupils bring drinking water from home. Toilet facilities were available in 176 (76.8%) schools, 96 (54.6%) of this were pit latrine and the remaining 80 (45.4%) were water closet. Commonest waste is disposal method was open dumping in 90 (39.1%) schools followed by burning among 72 (21.7%) schools, other disposal methods were burying [50(21.7%)] and disposal through private collectors [17(7.7%)].

Table 2, above revealed the level of knowledge of the respondents on pre-school medical examination. 209(91.3%) of the respondents are aware of pre-school medical examination, while 20(8.7%) of the respondents were not aware of the pre-school medical examination. This indicates that majority of the respondents has adequate knowledge of pre-school medical examination.

Table 3.practices concerning pupils' health in school

Variable	Frequency(n)	Percentage(%)
Health Inspection (n=229)		
Yes	215	93.8
No	14	6.2
What is examined (n= 215 with multiple responses)		
Nail	200	93.0
Teeth	187	86.8
Skin	175	81.3
Hair	191	88.77
School uniform	209	97.2
Frequency (n= 215 with multiple responses)		
Daily	101	46.9
Weekly	99	46.0
Irregularly	15	7.0
Where inspection is done (n=215)		
Classroom	48	22.5
Assembly ground/hall	167	77.5
Other practices (n=229 with multiple responses)		
Pupils undergo pre-school medical examination	46	20.1
presence of policy/procedure for sick pupils	180	73.6
have school Health Clinic/Sick Bay	43	18.8
Have student health prefect	210	91.7
Pupils pay for treatment	205	89.9
Routine medical inspection	16	7.3
Maintain first aid box	213	93.1
Contents of the first aid box (n=221 with multiple responses)		
Analgesics	194	87.8
Antibiotics	77	34.8
Anti-malaria	17	7.7
Iodine	187	84.6
Dressing materials	221	100.00
Overall Practice (n=229)		
Good	42	18.3
Average	109	47.6
Poor	78	34.1

Table 3, above shows the practices of school health service in the school. All the responses were positive which shows in table 3 above.

Table 4. Health related topics being taught (n=229)

	Present in school Curriculum Frequency (%)	Taught in other forum in school frequency (%)	Agency/organization invited to called about it frequency (%)
Sexuality Education	116 (50.7)	155 (67.7)	112 (48.9)
HIV/AIDS Education	133 (58.1)	138 (60.3)	135 (59.0)
Personal Hygiene	188 (82.1)	177 (77.3)	120 (52.4)
Good health Habits	185 (80.8)	179 (78.2)	104 (45.4)

School type was related with the practice of pre-medical examination and more of the private schools (40.0%) significantly practiced more than the public schools (11.6%); also the secondary schools (31.5%) significantly practiced more than the primary schools (5.9%) ($p<0.001$). Knowledge of school health practices was also related with overall school health practices and more of those with poor knowledge (31.4%) had poor overall practice than those with fair (28.1%) and good (17.5%) knowledge.

Table 5. Environmental health facilities present in schools

Variable	Percentage(%)	Frequency(n)
Drinking water resources (n=229)		
Students bring from home	53	2.7
Tap water/Borehole within school	92	0.3
Sachet water for sale	40	7.6
Well within school	44	9.4
Availability of toilet (n = 229)		
Yes	176	76.8
No	53	23.2
Toilet type (n = 176)		
Pit latrine	96	54.6
Water closet	80	5.44
Water availability in toilet (n=176)		
Always	16	.3
Most times	120	38.0
Rarely	40	22.7
Waste disposal methods used (n= 229)		
Open dumping	90	39.1
Burning	72	31.6
Burying	50	3.7
Private collector	17	.7

Table 6. Relating respondent's knowledge with practice of school health service

School types		Practice of school health service			
		Good	Average	Poor	Total
Knowledge of school health Service	Good	22 (19.3%)	72(63.2%)	155	X2=2.18;
	Fair	10(15.6%)	36(56.3%)	18(28.1%)	64 P<0.001
	Poor	10(19.6%)	25(49.0%)	16(31.4%)	51
	Total	14	109	78	229

Discussion of Findings

The importance of a good and functional SHP as the child health component of primary health care in the overall development of children and the citizenry of nation cannot be over emphasized. With less than half having a good knowledge of SHS as found in this study among heads of schools, the practice of SHS will definitely be affected. This knowledge of SHS is noted not to be significantly different among the respondents in all types of schools giving a reason with its need might not be taken very seriously. Previous studies are also in consonant with this; for instant a study in Benue state Nigeria reported that none of the head teachers in both private and public schools had adequate knowledge of SHS but respondents form public schools were better than their counterparts in the private schools. Similar study in Southwestern Nigeria also indicated good knowledge of SHS in only and poor knowledge.

The findings of this study revealed that there are significant differences between public and private secondary schools in Kogi State in respect of the practice of school health services similar to the findings in Benue state where private school has a better SHP but at variance with that of Cross River state. The respondents' poor understanding of the benefits of school entrance medical screening is revealed in the fact that only about one out of five schools reported their pupils undergo the examination. This goes to undermine documented reports of early detection and treatment of various defects and diseases among school pupils. This will definitely also affect their learning resulting in poor performance especially sight and hearing impairment. Specifically, however, the study showed that more private schools have their pupils undergo pre-school medical screening teaching of health related topics. Both formal and informal procedures and to be utilized in giving the best in health education to children and adolescents and this study also showed that the private schools did better in providing adequate exposure of the students to health related teachings than the public ones. This is understandable because such non-operation.

These findings are not unusual because the private schools and to be more competitive and funded, therefore strive to pull users through various amenities which they communities which depend mainly on free education and since SHS such as pre-school medical examination is not covered by such, it suffers. However, school feeding programme as part of SHP seem to do well in the state. Most of the schools lack a sick day as previously reported even though almost all maintain first aid services as also found in previous studies. Though, about a third was recorded by Kent it was just about a fifth in our study. The presence of teachers and pupils in monitoring the first aid box is commended. School health programme, if implemented well, has great potential in improving the health status of school pupils.

CONCLUSION

School health services were generally low both in public and private schools in Kogi State, Nigeria. Although the situation is better in private schools than public school health services aimed at promoting, protecting and maintaining the health status of the learners to achieve the goals of education for all. The promotion of the health of learners in schools is a critical step towards quality achievement in Education. Therefore, the implementation of such goal is the realization of prevention services, education emergency care, referral and management of chronic health conditions in the school.

RECOMMENDATIONS

On the basis of the above findings, the following recommendations were made:

- Health services at all levels including planning, implementation, supervision, and evaluation should be recognized and run by the school health teams.
- School health teams should be reactivated and empowered to perform their functions.

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CHALLENGES OF INFORMATION COMMUNICATION TECHNOLOGY APPLICATION IN TEACHING PHYSICAL EDUCATION IN KWARA STATE COLLEGES OF EDUCATION

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Abstract

Information and Communication Technology (ICT) is one of the most efficient tools for advancing knowledge and skills. It is necessary for quality education in institutions of learning. This has made the world to become a global village. In developed countries, the traditional face-to-face method of teaching is gradually being replaced by online teaching and learning for effectiveness in the educational sector. Despite the Keenness of some institutions of higher learning to establish effective ICT education programs, they are confronted with enormous challenges that may impede the proper implementation of these programs. Therefore this paper examined the Challenges of Information and Communication Technology (ICT) application in teaching and learning of Physical and Health Education in Kwara State Colleges of Education. The population for the study comprised the students and staff of the Physical Education Department of Colleges of Education in Kwara State. A total of 286 respondents were selected using stratified sampling techniques. The instrument used for data collection was a self-structured questionnaire which was validated and tested for reliability. A reliability coefficient of 0.68 was obtained. Inferential statistics analysis of chi-square was used to analyze the data collected. The results of the findings revealed that:There was a significant difference in the use of application devices and teaching of physical education in Kwara State Colleges of Education with Cal x2 val. of 1.645 < Crit. x2val of 23.59 with 9 df at 0.05 alpha level. There was a significant difference in the supply of electricity to the ICT devices and teaching of physical education in Kwara State Colleges of Education with Cal x2 val. of 1.352< Crit. x2val. 23.59 with 9 df at 0.05 alpha level. There was a significant difference in the availability of ICT devices for the teaching of physical education in Kwara State Colleges of Education with Cal x2 val. of 5.293 < Crit. x2val. 23.59with 9 df at 0.05 alpha level. This implies that there was a significant difference in the use of application devices by expertise, epilepsy supply of electricity, inadequate availability of ICT devices and its application in teaching physical education in Kwara State Colleges of Education. Based on the findings, it was recommended that qualified personnel should be employed to champion the course of ICT in terms its application in the schools, adequate supply of electricity to power the available ICT infrastructures so as to give the students and teachers easy opportunity to interact with computer and fund should be made available to procure enough ICT devices to accommodate a large number of students in schools.

Keywords: Challenges, ICT, Application, Teaching and Physical Education

Introduction

Information and Communication Technology (ICT) have created a niche and instrument for the emancipation of human society, in our present society; it has carved a self-recognition for adoption and integration of all spheres of human living. Hardly can there be any sector of human life that ICT has not penetrated; teaching, learning and sport inclusive.

Adesina (2015) explained that communication is the livelihood of today's business. Electronic data communication is becoming the industrial standard of transacting media and is widely used in such areas like education, payment of bills, video conferencing and group work collaboration among others. Information and communication technology means different things to different educators and researchers; hence there are various views and definitions of ICT. Osakwe, (2012) described ICT as an electronic technology used for accessing, processing, gathering, manipulating, presenting and communicating information. Emphasizing that when ICTs are employed in education, they can accelerate, enrich and deepen basic skills in reading, writing, arithmetic and the sciences beside motivating and encouraging students to learn as they become more independent and responsible for their learning.

ICT is now making a change technologically in the world and virtually converting the world into a global village, where countries in the world are at different stages of integrating Information Communication Technology (ICT) into the everyday practice of its citizens, including teaching and learning process, politics, industry, economy and others. Though every nation has prices to pay for technological developments, science and technology is the bedrock of their development. Information and Communication Technology (ICT) deals with handling and processing of information using, all kinds of electronic devices, these electronic systems can be used for broadcasting, telecommunication and all forms of computer-mediated communications. Mosier (2014) defined ICT to mean computers, ancillary equipment, software, hardware, other services and researches interconnected together to form networks that are used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information. People in modern society are becoming more and more familiar with Information and Communication Technology. ICT refers to the technology that enables communication and the electronic capture, processing and transmission of information (Parliamentary Office of Science and Technology 2006). Therefore, information and communication technology is the use of computer and telecommunication facilities to store and retrieve information from various sources, generate and transfer ideas, and also impart knowledge to recipients. Given the meaning of ICT as described above, it could be concluded that to prepare students for that kind of technological education, complete internet and intranet services should be made available in secondary schools. ICT is not just the bloom of the education system, but also the primary and secondary options required to improve effective and meaningful interaction between teachers and students in schools.

ICT can play an important role in evaluating wing students during a physical education class. Focusing on this section Perlman; Fisette and Collier (2013) wrote that the current trend by teachers to the assessment is to document the physically active participation of students. This is possible by using, for example, heart rate monitors, accelerometers, pedometers, to mention but few, which provide a wealth of information on the work done in the sessions that the teacher can take into account when evaluating the work done per students.

Adesina (2015) recorded that the National Universities Commission (NUC) Benchmark, made the study of computer compulsory for all university undergraduates in the bid to assist in the acceleration of global integration and understanding. He, therefore, posited that a working knowledge of the computer is necessary for areas of health education, law, engineering, science and technology, politics, accounting, to mention but few. Truly, the use of a computer is relevant in all fields of human endeavour.

The link between ICT and education industry has revolutionized the educational sector, and this new revolution has started to emerge and is seriously changing the old systems in which individuals, government, public and private sectors operate (Casey & Jones, 2011). Technology has been used to support teaching and learning most especially post-secondary education. Quite often, technology has been practiced to supplement classroom teaching. Computers are now commonly used to present seminars at conferences and also to deliver lectures and the internet is now more in use to assess web sites to support lectures.

Despite the keenness of Kwara state colleges of education, to establish effective ICT education programmes, they are confronted with enormous problems that impede the proper implementation of these programs. The most significant of these are:

1. i. Inadequate knowledge of personnel (Technical Expertise)
2. ii. Epilepsy supply of electricity
3. iii. Inadequate availability of ICT device (cost of internet service)

Inadequate knowledge of personnel (Technical Expertise)

Inadequate knowledge of the personnel in the use of computer system poses a great challenge in Kwara state colleges of education which is very disappointing in this modern digital world. Anene, Imam and Odunuh (2014) observed that computer illiteracy in this current age of ICT boom is a great threat to any establishment, talk more of educational institutions as almost all human activities depend on ICT. Rodríguez, (2015) writes that one of the main barriers of the teachers using ICT in physical education is the lack of systematized knowledge, not only about the vastness of programs and resources that can be used but also on how to integrate ICT properly within the class. Teachers should be aware that ICT is not just another tool so that these prove effective should be incorporated appropriately in curricular projects.

Epilepsy supply of electricity

It is not more news in Nigeria that electricity supply constitutes a big challenge to the growth and development of the nation even in terms of industries, education sector, business, to mention but few. This problem could be linked to the greed of rich and influential individuals who went to sell their imported electricity generators at the expenses of the masses. Countries like the Republic of Benin and Niger Republic whom we supplied with electricity enjoy it better than the supplier (Nigeria).

The government of Nigeria has in the past few years privatized electricity supply with the aim of improving its availability in solving individuals and group use but up till now, the problem is still lingering. This constitutes a big challenge to ICT application in Nigerian colleges of education and indeed all industries that require electricity to operate their ICT devices. Babatunde and Pascal (2015) opined that it is so bad that lecture halls and academic offices are run under very hot weather without electricity supply to power air conditioners, fans, projectors and other basic learning gadgets.

Inadequate availability of ICT device (cost of internet service)

This is one of the challenges of ICT in Kwara state colleges of education. The staff lacks basic gadgets like projectors, computer systems, printers, photocopier machines, internet services etc. these constitute to the challenges of ICT application in the teaching and learning of physical education in Kwara state colleges of education. The high cost of internet data and electronic services poses a great threat to many Nigerian colleges of education from enjoying the services.

Therefore, higher institutions need to make do with the little resources in their possession just to meet up with the minimum standard requirements set by the regulatory bodies (Abdullahi & Olaniyi, 2017). Other factors include; fear of being rendered redundant, inadequate internet security and cost of training and re-training of staff among others. Above all, lack of access to much-needed infrastructures is as a result of insufficient funds (Casey & Jones, 2011).

Therefore, this study was embarked upon to investigate the challenges of information communication technology application in teaching physical education in Kwara State Colleges of Education.

Research Questions

- Would there be any significant difference in the use of information communication technology (ICT) devices by the technical expertise and teaching of physical and Health Education in Kwara State Colleges of Education?
- Would there be any significant difference in the supply of electricity to information communication technology (ICT) devices and teaching of physical and Health Education in Kwara State Colleges of Education?
- Would there be any significant difference in the inadequate availability of information communication technology (ICT) devices and teaching of physical and Health Education in Kwara State Colleges of Education?

Hypotheses

The following hypotheses were formulated to guide the study:

Ho_1: There would be a significant difference in the use of ICT application devices by the technical expertise and teaching of Physical Education in Kwara State Colleges of Education.

Ho_2: There would be a significant difference in the supply of electricity to ICT devices and teaching of physical education in Kwara State Colleges of Education.

Ho_3: There would be a significant difference in the inadequate availability of ICT devices and teaching of Physical Education in Kwara State Colleges of Education.

Methodology

The descriptive survey design was used for this study because it entails the direct observation in the collection of data. The population for the study comprised all the academic staff and the students of Physical and Health Education Department: College of Education, Ilorin, College of

Education, Oro and Muhydeen College of Education, Ilorin using purposive sampling technique. The staff from the three colleges of education were twelve (12), Five (5) from college of education Ilorin, Three (3) from College of education Oro and Four (4) from Muhydeen College of Education, Ilorin while, the total number of students were seven hundred and five (705). Five Hundred and Sixty-Two (562) from College of Education, Ilorin, Eighty-Five (85) from College of Education Oro, and Fifty-Eight (58) from Muhydeen College of Education. Therefore, the entire population for the study was seven hundred and seventeen respondents as at the time of the study. A total number of two hundred and Eighty-six (286) respondents were selected from three colleges using stratified sampling technique. Two hundred and twenty-six (226) from College of Education Ilorin, thirty- five (35) from the college of education Oro and twenty-five (25) from Muhydeen college of Education Ilorin. The selection was based on (40%) per cent of the entire population from each stratum. A self-structured questionnaire designed based on the variables of the study was used to collect data from the respondents. The questionnaire was validated by three experts in Human Kinetics and Health Education Department, Kwara State University, Malete. The reliability of the instrument was ascertained through test-retest method within two weeks interval and the scores were correlated using Spearman Brown Correlation coefficient (r). The result of 0.68 was obtained. Inferential statistics analysis of chi-square was used to analyze the data collected.

Result of the Finding

Table 1:there would be significant difference in the use of application devices by the technical expertise and teaching of Physical Education in Kwara State Colleges of Education

Items	SA	A	D	SD	N	DF	Cal.x^2val.	Crit. x^2val	Decision
Appropriate use of ICT application will enhance teaching and learning of physical education in Kwara State Colleges of Education.	33 (47.8%)	26 (37.7%)	7 (10.1%)	3 (4.3%)					
The use of ICT application will hinder the teaching of Physical Education in Kwara State Colleges of education.	5 (6.3%)	7 (8.9%)	36 (45.6%)	31 (39.2%)	286	9	1.645	23.59	$H0_1$ Accepted
The use of ICT application will provide up to date information on Physical Education programs.	32 (48.5%)	29 (43.9%)	4 (6.1%)	1 (1.5%)					
The use of ICT application improves efficiency and quality of teaching and learning.	44 (61.1%)	25 (34.7%)	1 (1.4%)	2 (2.8%)					
Colum Total 114	87	48	37						

0.05 Alpha Level

Table one shows that the cal. x^2 value is 1.645 which is less than the crit. x^2 value of 23.59 at 0.05 alpha level of significant with 9 degree of freedom. Therefore, the hypothesis that statedthere would be significant difference in the use of application devices by the technical expertise and teaching of Physical Education in Kwara State Colleges of Education is retained.

This implies that the use of application devices by the technical expertise will enhance the teaching and learning of physical education in Kwara state Colleges of education.

Table 2: there would be significant difference in the epilepsy supply of electricity to the ICT devices and teaching of Physical Education in Kwara State Colleges of Education.

Items	SA	A	D	SD	N	DF	Cal.x^2val.	Crit. x^2val	Decision
Regular supply of electricity to ICT device will enhance teaching of Physical Education.	42 (50.6%)	23 (27.7%)	12 (14. 5%)	6 (7.2%)					
Epilepsy supply of electricity to ICT device will slow down the teaching of P. E in Colleges of Education in Kwara State.	54 (71.1%)	12 (15.8%)	6 (7.9%)	4 (5.3%)	286	9	1.352	23.59	Ho_2 Accepted
Regular supply of Electricity to ICT will not necessarily improve teaching of Physical Education in Kwara state Colleges of Education	3 (4.7%)	7 (10.9%)	30 (46.9%)	24 (37.5%)					
Intermittent supply of electricity to ICT will not necessarily slow down the teaching of P. E in Kwara State Colleges of Education	4 (6.3%)	9 (14.. 3%)	27 (42.9%)	23 36.5%)					
Colum Total	103	51	75	57					

0.05 Alpha Level

Table one shows that the cal. x2 value is 1.645 which is less than the crit. x2 value of 23.59 at 0.05 alpha level of significance with 9 degree of freedom. Therefore, the hypothesis that stated there would be a significant difference in the use of application devices by the technical expertise and teaching of Physical Education in Kwara State Colleges of Education is retained. This implies that the use of application devices by the technical expertise will enhance the teaching and learning of physical education in Kwara state Colleges of education.

Table 2: there would be significant difference in the epilepsy supply of electricity to the ICT devices and teaching of Physical Education in Kwara State Colleges of Education.

Items	SA	A	D	SD	N	DF	Cal.x^2val.	Crit. x^2val	Decision
Regular supply of electricity to ICT device will enhance teaching of Physical Education.	42 (50.6%)	23 (27.7%)	12 (14. 5%)	6 (7.2%)					
Epilepsy supply of electricity to ICT device will slow down the teaching of P. E in Colleges of Education in Kwara State.	54 (71.1%)	12 (15.8%)	6 (7.9%)	4 (5.3%)	286	9	1.352	23.59	Ho_2 Accepted
Regular supply of Electricity to ICT will not necessarily improve teaching of Physical Education in Kwara state Colleges of Education	3 (4.7%)	7 (10.9%)	30 (46.9%)	24 (37.5%)					
Intermittent supply of electricity to ICT will not necessarily slow down the teaching of P. E in Kwara State Colleges of Education	4 (6.3%)	9 (14.. 3%)	27 (42.9%)	23 36.5%)					
Colum Total	103	51	75	57					

0.05 Alpha Level

Table two revealed that the cal. x^2val is 1.352 which is less than the crit. x^2 value of 23.59 at 0.05 alpha level of significant with the degree of freedom of 9. Therefore, the hypothesis that stated there would be significant difference in the epilepsy supply of electricity to the ICT devices and teaching of Physical Education in Kwara State Colleges of Education is retained. This implies that adequate electricity supply to power the ICT devices will enhance the teaching and learning of physical education in Kwara state Colleges of education.

Table 3:there would be significant difference in the inadequate availability of ICT devices and teaching of Physical Education in Kwara State Colleges of Education.

Items	SA	A	D	SD	N	DF	Cal.x^2val.	Crit. x^2val	Decision
Availability of ICT devices such as projector, computer, slides etc will make teaching and learning of P.E more efficient inKwara State Colleges of Education	28 (41.2%)	33 (48.5%)	5 (7.4%)	2 (2.9%)					
Availability of ICT devices will not necessary enhance teaching and learning of P. E in Kwara State Colleges of Education	32 (45.1%)	34 (47.9%)	3 (4.2%)	2 (2.8%)	286	9	5.293	23.59	Ho_3 Accepted
Availability of ICT devices will enable easy dissemination of information to the students in Kwara State Colleges of Education	34 (50.0%)	30 (44.1)	2 (2.9%)	2 (2.9%)					
Availability of ICT devices will enhance practical performance of students in Kwara State Colleges of Education	41 (51.9%)	35 (44.3%)	3 (3.8%)	0 (0%)					
Colum Total	135	132	13	6					

0.05 Alpha Level

Table Three shows that cal. x2 value is 5.293 which is less than the crit. x2 value of 23.59 at 0.05 alpha level of significance with 9 degrees of freedom. Therefore, the hypothesis that stated there would be a significant difference in the inadequate availability of ICT devices for the teaching of Physical Education in Kwara State Colleges of Education is upheld. This implies that adequate availability of ICT will significantly influence the teaching and learning of physical education in Kwara state Colleges of education.

Discussion of the Findings

This study was carried out to examine the challenges of information and communication technology in teaching Physical Education in Kwara State Colleges of Education. Hypothesis one indicated that there was a significant difference in the use of application devices by the technical expertise and teaching of Physical Education in Kwara State Colleges of Education. This implies that the use of application devices will not deter the teaching of physical education in Kwara state Colleges of education. Rodríguez, (2015) writes that one of the main barriers of the teachers using ICT in physical education is the lack of systematized knowledge, not only about the vastness of programs and resources that can be used but also on how to integrate ICT properly within the class. Teachers should be aware that ICT is not just another tool so that these prove effective should be incorporated appropriately in curricular projects.

Hypothesis two revealed that there was a significant difference in the supply of electricity to the ICT devices and teaching of Physical Education in Kwara State Colleges of Education. This implies that adequate electricity supply to power the ICT devices will improve the teaching and learning of physical education in Kwara state Colleges of education. Babatunde & Pascal (2015) opined that it is so bad that lecture halls and academic offices are run under very hot weather without electricity supply to power air conditioners, fans, projectors and other basic learning gadgets. Casey & Jones (2011) mentioned that technology has been used to support teaching and learning most especially post-secondary education. Quite often, technology has been practiced to supplement classroom teaching. Computers are now commonly used to present seminars at conferences and also to deliver lectures and the internet is now more in use to assess web sites to support lectures.

Hypothesis three shows that there was a significant difference in the inadequate availability of ICT devices and teaching of Physical Education in Kwara State Colleges of Education. This implies that adequate availability of ICT devices will significantly influence the teaching and learning of physical education in Kwara state Colleges of education. Mosier (2014) opined that if ICT devices like; computers, ancillary equipment, software, hardware, other services and researches interconnected together to form networks that are used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information are available, students' performance in physical education shall be enhanced.

Conclusions

Based on the result of the findings, it is therefore concluded that:

1. There was a significant difference in the use of application devices by the technical expertise and teaching and learning of physical education in Kwara State Colleges of Education.
2. There was a significant difference in the epilepsy supply of electricity to power the ICT devices and teaching of physical education in Kwara State Colleges of Education.
3. There was a significant difference in the inadequate availability of ICT devices for the teaching and learning of physical education in Kwara State Colleges Education.

Recommendations

Based on the discussion of the findings, it's therefore recommended that:

1. Qualified personnel should be employed to champion the course of ICT in terms of its application in the schools.

2. There should be an adequate supply of electricity to power the available ICT infrastructures to give the students and teachers an easy opportunity to interact with a computer.
3. An adequate fund should be made available to procure enough ICT materials that would accommodate a large number of students in schools.

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ATTITUDE TOWARDSMALARIA PREVENTION STRATEGIES AMONG MOTHERS OF UNDER-FIVE IN OGUN STATE, NIGERIA

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Abstract

This study assessed the attitudes of malaria prevention strategies among mothers of under-five in Ogun State, Nigeria. This study employed ex-post facto research design.The population of this study was 641,445 mothers of under-five in Ogun State, Nigeria. A multi-stage sampling approach was used to select 216 mothers of under-five through a stratified random sampling technique, simple random sampling technique, and purposive sampling techniques. The instrument used for data collection was a structured questionnaire. Collected data were analyzed using simple percentage, frequency count, descriptive statistics and one sample t-test analysis at 0.05 alpha levels. The results revealed that mothers of under-five children in Ogun state had no significant attitude of malaria prevention strategies. Based on the findings, it was recommended that mothers of under-five should be encouraged by health educators on how to maintain positive attitudes toward malaria prevention strategies through mass media, seminars/ workshops and community health-related programs.

Keyword: Attitude, malaria prevention strategies, mothers of under-five

Introduction

Malaria presently remains one of the worst menaces of tropical countries of the world, it is one of the most severe public health problems worldwide, and a leading cause of death in many developing countries, where under-five children and pregnant women are the groups most affected. According to the World Health Organization (WHO) Malaria Report (2013), 97 countries had ongoing malaria transmission. Out of the 3.4 billion people who are at risk of malaria, an estimated 1.2 billion are said to be at high risk of the disease. In 2012 alone, the report estimated that approximately 207 million cases and an estimated 627,000 deaths resulted from malaria (WHO, 2013).

In the health belief model, individuals perceive themselves to be at risk of the health threat before they will take action to reduce risk behavior or engage in healthy alternative behaviors. This may explain why people take their health for granted because they view themselves as not at risk or threatened by potential water borne diseases. It is further stated that people define their personal needs rather than good health. According to Williams (2005), attitude is a persistent tendency to feel and behave in a particular way towards some object. Attitudes are complex cognitive process which consists of three components, the emotional, informational and behavioral.

According to Okoli & Enna (2014) reviewed that mothers prefer the use of one preventive strategies than the other especially the use of insecticide Treated mosquito net. Mother's attitudes toward this disease as well as its treatments and preventions greatly influence

their compliance; knowing these attitudes and ideas will help educators and health care providers modify their plans for decreasing the spread of malaria (Oyedeji, Yussuf, AbdulWasiu-Idowu & Oyedeji, 2009).

Oyewole and Ibidapo (2013) reported that attitudes towards preventive measures adopted against mosquito bite by mothers were treated and untreated mosquito nethas4.2%, door and window screening 9.2%, cover cloth 13.8%, mosquito repellant/insecticides spray 9.8%, environmental hygiene 6.5%, herbal decoction 6.5%, and chemoprophylaxis 11.3%. Also in the study, self-treatment (medication) accounted for 66.8% as against hospital treatment 23.3%. In a study by Oyedeji et al (2009) on the use of ITNs among children aged 3months to 13 years in south western Nigeria. The prevalence of the use of ITNs was 1%. The major reasons why ITNs were not used was because of ignorance, unavailability, use of alternative barrier methods and financial constraints. The alternatives were insect sprays, mosquito repellant coils, screened doors and windows and topical cream agents. Mothers also complained of lack of freedom of access and exit thus making the tool a cumbersome daily exercise and fear of their child developing allergy.

There is a definite need for further research and more recent research, especially now that so many plans to fight malaria have been implemented. People's attitudes toward this disease as well as prevention greatly influence their compliance; knowing these attitudes and ideas will help health educators and health care providers modify their plans for decreasing the spread of malaria. This prompted the researchers to assess the attitude of malaria prevention strategies among mothers of under-five children in Ogun State, Nigeria.

Statement of the Problem

Malaria presently remains one of the worst menaces of tropical countries of the world. It is a killer and debilitating disease that affects the physical and economic well-being of people living in endemic areas of Africa. The high intensity of the spread of malaria makes it an enormous public health problem. African countries are most hard hit by the disease, where it ravages communities. In most parts of Nigeria, malaria is a preventable and curable disease that is highly endemic, where the vast majority of cases occur in children under the age of five, due to this, mother of under-five children need to be more empower concerning malaria preventive strategies. Malaria prevention strategies have been implemented in the recent past and intensified as an effort to attain the World Health Assembly, Roll Back Malaria, and Millennium Development universal targets with the aim of reducing and interrupting disease transmission in Nigeria. Ogun state is one of malaria endemic area in Nigeria, in which malaria prevention strategies such as the use of Insecticide Treated bed Nets (ITNs), Indoor Residual Spraying of insecticide (IRS), use of repellent, use of door net, use of window net, electric mosquito zapper for the high risk population especially the under-five children have been implemented by the government and non-governmental organization. Despite of all these efforts, the overall prevalence of malaria infection remains high among the under-five. This reveals that mothers of under-five still lack the attitude towards malaria prevention strategies in Ogun State. The

question iswhat is the attitude of mothers of under five children towards malaria prevention strategies? Is there attitude good towards the prevention strategies? Thus it is very essential that operational research need to be conducted to fill this gaps. Therefore, this prompted the researchers to assess attitude of malaria prevention strategies among mothers of under-five children in Ogun State, Nigeria.

Research Question

1. What are the attitudes toward malaria prevention strategies among mothers of under-five children in Ogun State, Nigeria?

Hypotheses

Ho: The attitude of malaria prevention strategies among mothers of under-five in Ogun State is not significant positive or negative.

Methodology

The population of this study is 641,445 mothers of under-five in Ogun State, Nigeria. A multi-stage sampling approach was used to select 218 mothers of under-five from the population through a stratified random sampling technique, simple random sampling technique and purposive sampling techniques. The instrument used for data collection was a structured questionnaire. A reliability result of 0.814 was obtained using Cronbach alpha test. Two hundred and sixteen (216) copies of the instrument were used for data collection. With the use of Statistical Package for Social Science (SPSS) version 22, descriptive statistics of mean and standard deviation was used to analyze the research questions and one sample t-test was used to analyze the data.

Results

Research Question One: What is the attitude of mothers of under-five children towards malaria prevention strategies in Ogun State?

Table 1: Mean scores of the Attitude of Mothers of under five Children towards Malaria Prevention Strategies

Items	Mean	Std. Dev.	Decision
I do not feel comfortable sleeping under mosquito net	2.5231	1.12866	Agree
I do not like using repellent on my child	1.8148	0.66591	Disagree
I do not like using mosquito coil in my room	2.0246	1.09967	Disagree
I often like to sanitize my surroundings	2.6144	0.94459	Agree
I sleep under mosquito net rather than using mosquito coil to prevent mosquito bites	2.9137	0.15645	Agree
I use door net rather than sleeping under mosquito net to prevent entering of mosquitoes to my room	1.8133	1.17335	Disagree
I sleep under mosquito net rather than Indoor residual spraying of insecticide to prevent mosquito bites	1.8781	0.8346	Disagree
I use mosquito coil rather than indoor residual spraying of insecticide to prevent mosquito bites	2.537	1.07769	Agree
I sleep under mosquito net rather than wearing protective cloths for my child	1.2593	0.83382	Disagree
I use insect repellent rather than sleeping with my child under the mosquito net.	1.6389	0.02034	Disagree
Aggregate mean	**2.101**		

Observation of table 1 shows the mean score of the responses on the attitude of mothers of under five children towards malaria prevention strategies. Feel comfortable sleeping under mosquito net has a mean 2.5231 > 2.5, using repellent has mean of 1.8148 < 2.5, using mosquito coil has a mean of 2.0246 < 2.5, sanitizing the surrounding has a mean of 2.6144 > 2.5, sleeping under mosquito net rather than indoor residual spraying of insecticide to prevent mosquito bites has a mean of 1.8781 < 2.5, use of insect repellent than sleeping under the mosquito net has a mean of 1.6389 < 2.5.The aggregate mean score of the items is 2.101 which was found to be lesser than benchmark score of 2.5. This implies that attitude of mothers of under five children towards malaria prevention strategies are not good.

Hypothesis One: Mothers of under-five in Ogun State do not have significant attitude towards malaria prevention strategies

Table 2: One sample t-test analysis on attitude towards malaria prevention strategies among mothers of under-five in Ogun State

Variable	Mean	Std. Dev.	Df	t-value	P-value
Attitude	2.101	0.794	215	2.101	0.21

Table 2 revealed that the observed t-value of 2.101 for the test at 215 degree of freedom and significance level of .21 ($p>0.05$) is enough evidence to reject the null hypothesis. Therefore,

the null hypothesis was retained that mothers of under-five children in Ogun State do not have significant attitude towards malaria prevention strategies.

Discussions

Finding revealed that mothers of under-five in Ogun State had significant attitude towards malaria prevention strategies which is in agreed with the position of Okoli & Enna (2014) that with regards to the attitudes of the children's mothers regarding malaria, 73.2% of the children's mothers always referred their children to hospital with 54.7% of them having post-secondary education and its was also reviewed that mothers prefer the use of one preventive strategies than the other especially the use of insecticide Treated mosquito net. Mother's attitudes toward this disease as well as its treatments and preventions greatly influence their compliance; knowing these attitudes and ideas will help educators and health care providers modify their plans for decreasing the spread of malaria (Oyedeji, Yussuf, AbdulWasiu-Idowu & Oyedeji, 2009).

Conclusion

Based on the findings, conclusion was drawn that attitude of mothers of under-five in Ogun State towards malaria prevention strategies is negative.

Recommendations

On the basis of the conclusion drawn, the following recommendations were made:

1. Seminars/workshop and community health related programs should be organized by government and non-governmental organizations for mothers of under-five on attitude towards malaria prevention strategies in other to maintain their knowledge.
2. Mothers of under-five should be encouraged by health educators on how to maintain positive attitude towards malaria prevention strategies through mass media, seminars/ workshops and community health-related programs.

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Comparative analysis of Anthropometric and Physiological Characteristics of Javelin and Shot-put Athletes in Kwara State Nigeria

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Abstract

The purpose of this study was to find out the difference between anthropometric and physiological characteristics of Kwara State Javelin and Shot-put Athletes. Total enumeration procedure was adopted for this study. The population for this study comprised all Javelin and Shot-put throwers who was training in Kwara State. Purposive sampling technique was used to select ten (10) male Javelin and ten (10) male Shot put throwers in Kwara State. Standardized instrument were used to collect the following data for analysis. Physical characteristics: age, height and weight. The anthropometric variables of body girths of thigh, hip, relaxed, contracted, waist circumference and physiological parameters of resting heart rate,blood pressure, speed, and muscular endurance of push up, sit up were measured using measuring tape, stop watch and stethoscope. The descriptive statistics of mean, standard deviation (SD) were used to describe the data collected and t-test for the differences between the two groups(Javelin throwers and Shot-put throwers) at 0.05 level of significant. There was no significant difference in age, height and weight with the following results 31.5±3.57, 31.2±2.62 and t value of 0.72 for age. Height was 183.4±5.25, 190.8±5.16 and t value of 0.01. Weight was 88.0±2.49, 90.9±3.35 and t value of 0.41 respectively. It was found that there was no significant difference in the body circumference. This showed that Javelin and Shotputters had mean, standard deviation and t-value of 31.5±3.57, 31.2±2.62 and 1.22 for waist circumference. Hip girth was 98.6±2.76, 101.5±2.80 and 0.07. Thigh girth has 59.8±4.21, 60.26±0.84 and 4.31. Contracted arm girth was 43.2±2.97, 46.1±1.29 and 3.43. Flexed arm girth was 33.4±3.40, 39.7±1.95 and 4.36 respectively. This result shows that Shotputters has a higher anthropometric measure compared to their Javelin counterpart in this study. This result shows that Kwara state Javelin throwers are better in speed and muscular endurance in pushup and Sit-up while other physiological parameters such as Systolic, Diastolic and heart rate fall under normal for both categories. It was that Shot-putters are more different to Javelin in height, weight and body girths respectively. Therefore, it was recommended that trainers and coaches should consider the Anthropometric, Physiological and body composition necessary for each game in terms of selection of athlete.

Keyword: Physical characteristics, Anthropometrics, Physiological, Muscular fitness, Javelin and Shot-put athletes

Introduction

Anthropometry is the science that deals with the measurement of size, weight and proportions of the human body size, physique and body composition these are important factor in physical performance and fitness. It is also defined as the science of measuring the human body parts or segments in order to ascertain the average dimensions of the human form at different ages, and in different divisions of race, class among others (Maud & Foster 1995).

Anthropometric dimension and morphological characteristics are very important in determining the success of an athlete (Koley, Singh &Sandhu 2010. Slater, Rice,Mujika, Hahn, Sharp & Jenkins (2005) confirmed that studies have demonstrated that specific physical characteristics and anthropometric profile such as age, weight, height with body girths indicate whether the player will be suitable for the competition at the highest level in a specific Sport. Anthropometry is useful to build up a normative data base of physical fitness components thought to be important in a particular sport in order to compare young athletes' performances at various levels Koley et.al, (2010).Physiological testing is commonly used to assess the overall fitness level of athletes and to set guidelines for individualized training (Emerson, Alexandre, Josue&Fabricio 2007) and Singh, Gaurav, Malhotra (2011). Physiological profiling has been recommended by several researchers for fitness assessment, developing norms, and for establishing a basis for longitudinal tracking (Groppel&Roetert 1992). The test data obtained from physical fitness testing also provides a good baseline and references for coaches, sport scientists, physiotherapists as well as future researchers.

Physical characteristics such as age, body weight and height and other standardized tests such as Body Mass Index (BMI) and Waist to Hip Ratio (WHR) has been established to differentiate clearly between physically active and less active counterpart, and also among athletes in different sports and degree of achievements.

The reason for excellent performance of today's athletes is as a result of a complex blend of many factors (Mac Dougall et al, 1991; Lieshout, 2002). These factors include genetic endowment, physiology, biomechanics, training health status and experience among others Champion athletes depending on their specific sports; vary considerably in their physiological attributes (Daniels, 1974; Lieshout, 2002).

Track and field events such as Javelin and Shot-put are marked by an exceptional variety of duration of a single event, energetic demands and a high tempo of energy release. Power athlete in field athletic events most times, need to overcome the force of gravity on different distances or height, so also with implement thrown, this point to the need of specific lean body as a pre requisite for more efficient and economic performance in a single event. Athletes who have acquired the optimal physique for particular events are more likely to succeed than those who lack the general characteristics (Abraham, 2010). Therefore athletics like other dynamic sports requires variety of different and important features such as anthropometric, psychological, physiological, environmental, organic- functional, including other specific sports factors like equipment, instrumentation, tactics, techniques and others Amusa et.al, (2003).

Statement of the Problem

Studies have been carried out on inter and intra track and field athletes such as Javelin and Shot-put. Both Sports demand of the athlete speed, strength and power qualities if the athletes must excel. Not only this Javelin and Shot-put throwers predominantly perform explosive movements with their legs and arms, anaerobic energy pathways and require fat free mass to generate the force required for their Sports.

Some studies compared Javelin throwers with other athletic events (Abraham, 2010) and others yet to be seen.

The researcher from his observation believes that the Athletic throwers such as Javelin and Shot-put have some qualities in common especially for those training in Kwara state, since they are both power Sports which require explosive power to be successful. Though the implement thrown is different but wants to know if anthropometric and physiological parameters are significant for Javelin and Shot put athletes.

Research Questions

- Will there be any difference in the physical characteristics of age height and weight of javelin and shot-put throwers of Kwara state athlete.
- Will there be any difference in the anthropometric characteristics such as waist girth, hip girth, thigh girth, contracted arm girth and flexed arm girth of javelin and shot-put throwers of Kwara state athlete.
- Will there be any difference in physiological characteristics such as blood pressure, heart rate and muscular endurance of push up, sit up and speed of javelin and shot-put throwers of Kwara state athlete?

Hypotheses

- There is no significant difference in the physical characteristics of age height and weight of javelin and shot-put throwers of Kwara state athlete.
- There is no significant difference in the anthropometric characteristics such as waist girth, hip girth, thigh girth, contracted arm girth and flexed arm girth of javelin and shot-put throwers of Kwara state athlete.
- There is no significant differences in the physiological characteristics such as blood pressure, heart rate and muscular endurance of push up and sit up and speed of javelin and shot-put throwers of Kwara state athlete.

Methodology

Expost facto was adopted for this study.The population comprised of the Javelin and Shot-put athlete in Kwara state. Total enumeration procedure was adopted since the population was few.A total respondent of twenty participants were used. The participants were purposively sampled while they were selected for the two groups. Ten (10) Available participants were selected from each of the Javelin and Shot-put throwers making a total of 20 participants all together.

Weight and Height: The bathroom weighing scale manufactured by Camry Company (Ultra slim touch button) was used to measure the weight of the participants with ISO 9001:2008 Certified SGS / model number: EF902. The height scale is calibrated in meters from 0.75cm to 2.5metres. Height was recorded to the nearest 0.1m (0.1kg) the weight scale is calibrated in Kilograms from 0kg to 140kg. The participants were asked to stand erect backing the stadiometer barefooted;the head when placed on the Frankfort plane not touching the scale. The recorder then placed the head board firmly down on the vertex. The heels were ensured not to elevate from the floor. The height was measured and recorded to the nearest 0.1M. Weight was measured and recorded to the nearest 0.05 kilograms (5grams). The weighing scale has a reliability of 0.96 (Safrix & Woods, 2002). Stadiometer has a reliability coefficient of 0.96 (Willet, 2001).

Anthropometric Characteristics: Includes Waist circumference, Hip girth, and Thigh girth Contracted arm and flexed arm girth will be measured in centimetres. These measures were taken at standard anatomical sites around the body as recommended by kin anthropometric ISAK, (2003).

Blood pressure/ Heart rate: Digital blood pressure machine was used; blood pressure monitor kit (Omron healthcare, Inc, 300 lake view parkway, Vernon Hills, IL 60061, USA). **Procedure:**The machine will be fixed in the hand of the participant and press the start button. The participant were made to sit on a comfortably on a chair with back rest. The left arm was supported on a table and elbow in a relaxed position such that the arm lies at mid chest level; blood pressure apparatus Cuff was rolled on the upper arm of Triceps and Bicep muscles of the participants. The sphygmomanometer button was pressed after the participant has been made to sit for ten minutes. The systolic, diastolic and heart rate will be analyzed immediately and the result will be saved on the screen.

Push-Up test: To measure the endurance of the arms and shoulder girdle muscles
Equipment: Mat and stop watch.
Procedure: Form a straight arm front leaning, rest position the performer lowers the body until chest touches the mat and then pushes upward to the straight arm support. The exercise shall be conducted as many times as possible without rest. Subject has to maintain straight line throughout the exercise.Scoring: The number of correct push-ups performed in 30 seconds.

Sit-up test: Aim: To measure abdominal muscles, strength and endurance
Equipment: Mat spread on the floor and stop watch
Procedure: The performer sit on his back with knees flexed, and feet together on the floor, with the heels not more than twelve (12) inches to the buttocks. Partner holds the ankles and the performer interlock fingers of both hands and place it at the back of his head. Tightens the abdominal muscles, bring the head and elbow forward and finally bringing elbows to knee. Return to starting position with the back on the mat before repeating the exercise.
Scoring: A point is made as soon as the performer returns to lying position without the back touching the ground. The number of points or counts at the end of 60 second will be recorded as the score in the test.

Speed test: (50metres dash**)** Aim: To measure speed
Equipment: Three stop watches and a running track
Procedure: Three subjects at a time, take position behind the starting line. The starter use the command “On your mark” “set” “go” as in sprint races. The subjects try to cover 50metres distance at the shortest possible time.
Scoring: The score shall be the time it takes the subjects to cover the 50metres distance. Time will be recorded in seconds to the nearest second.

Age: was determined as given by the subject

Results

For the analysis of anthropometric and physiological characteristics of the subject mean and standard deviation are used, test ‘t’ was also used to determine the significant difference between the anthropometric, physiological and muscular endurance of Kwara state Javelin and Shot-put athletes.

Table 1: Differences between Physical characteristics of Javelin and shot-put Athletes of Kwara State

variables	N	Group	x̄	SD	t	Sig
Age (years)	10	Javelin	31.5	3.57	0.72	.407
	10	Shotput	31.2	2.62		
Height(CM)	10	Javelin	183.4	5.25	0.01	.938
	10	Shotput	190.8	5.16		
Weight(Kg)	10	Javelin	88.0	2.49	0.41	.528
10	Shotput	90.9	3.35			

Table 1 showed that Javelin and Shotputters have mean, standard deviation and t- value of 31.5±3.57, 31.2±2.62 and t value of 0.72 for age. Height has 183.4±5.25, 190.8±5.16 and t value of 0.01. Weight has 88.0±2.49, 90.9±3.35 and F value of 0.41 respectively. Table above shows that Shotputters are the youngest, tallest and heaviest. The result also shows that there is no significant difference in age, height and weightwhich led to the acceptance of the hypothesis.

Table 2:Differences between the anthropometric characteristics of javelin and shot-put throwers

Variables	N	Group	x̄	SD	t	Sig
Waist circumference	10	Javelin	31.50	3.57	1.22	.283
	10	Shot-put	31.20	2.62		
Hip girth	10	Javelin	98.60	2.76	0.07	.936
	10	Shot-put	101.50	2.80		
Thigh girth	10	Javelin	59.80	4.21	4.31	.052
	10	Shot-put	60.26	0.84		
Contracted arm girth	10	Javelin	43.20	2.97	3.43	.080
		Shot-put	46.10	1.29		
Flexed arm girth	10	Javelin	33.40	3.40	4.36	.051
	10	Shot-put	39.70	1.95		

0.05 Alpha Level

Table2 showed that Javelin and Shotputters have mean, standard deviation and t- value of 31.5±3.57, 31.2±2.62 and 1.22 for waist circumference. Hip girth has 98.6±2.76, 101.5±2.80 and 0.07. Thigh girth has 59.8±4.21, 60.26±0.84 and 4.31. Contracted arm girth has 43.2±2.97, 46.1±1.29 and 3.43. Flexed arm girth has 33.4±3.40, 39.7±1.95 and 4.36 respectively. This result shows that Shotputters has a bigger Anthropometric parameters compared to their Javelin counterpart in this study.

Table 3:Differences between the Physiological characteristics and muscular endurance of Javelin and Shot-put throwers

Variables	N	Group	$\bar{x}$	SD	t	Sig
Systolic(mmHg)	10	Javelin	116	1.65	16.99	.001
	10	Shot-put	123	4.92		
Diastolic(mmHg)	10	Javelin	66.90	2.18	0.04	.843
	10	Shot-put	71.00	2.31		
Heart rate(bpm)	10	Javelin	67.20	7.57	9.46	.007
	10	Shot-put	64.60	3.84		
Speed(Sec	10	Javelin	5.29	0.21	2.22	.154
	10	Shot-put	5.62	0.33		
Pushup(Sec)	10	Javelin	76.60	9.64	1.70	.209
	10	Shot-put	73.60	7.72		
Situp(Sec)	10	Javelin	97.90	19.95	1.38	.256
	10	Shot-put	76.00	22.93		

Table 3 showed that Javelin and Shotputters have mean, standard deviation and t- value of 116±1.65, 123±4.92 and 16.99 for systolic blood pressure. Diastolic blood pressure has 66.90±2.18, 71.00±2.31 and 0.04. Heart rate has 67.20±7.57, 64.60±3.84 and 9.46. Speed has 5.29±0.21, 5.62±0.33 and 2.22. Pushup has 76.60±9.46, 73.60±7.72 and 1.70. Sit up has 97.90±19.95, 76.00±22.93 and 1.38 respectively. This result shows that Kwara state Javelin throwers are better in speed and muscular endurance in pushup and Situp while other physiological parameters such as Systolic, Diastolic and heart rate fall under normal for both categories.

Discussion of findings

Age has been affirmed to be an important issue in all human Endeavour's especially where certain level of performance is expected Ajayi-vincent, (2003). He also buttress that age either increases or decreases performance and also that physical performance improve rapidly from early childhood to a maximum somewhere between the late teens and about age thirty. This is when functional capacities declines in performance are independent of the level of activity of the athletes particularly beyond thirty years of age, meaning that at any given age, a trained athlete like the field athletes would demonstrate a superior level of performance to the untrained.

This study shows in the result that Shotputters was the youngest, tallest and heaviest. The hypothesis 1 which states that there is no significant difference between the physical characteristics such as age weight and height was rejected since the calculated value was greater than the table value. Difference in weight of successful athletes have been documented to be a normal phenomenon which this study has demonstrated between javelin and shot-put throwers.(Wilmore,1983; Ajayi-vincent,2003). t test result demonstrated distinct differences between the Javelin and Shot putters throwers. This buttressed the opinion that the athlete who have acquire the optimal physiques for a particular event, like the athletes being studied , are more likely to succeed than those who lack the general characteristics (Abraham, 2010). Therefore, the significant differences in age, weight of the Javelin and Shot-put throwers shows uniqueness of the pre-requisite for their sports. Although there is no significant difference between physical characteristics of age (0.722>0.214) and insignificant difference was also found between weight (0.414<.528) and height (0.006<0.938). This implies that there is no significant difference between the two groups of athletes and they have relative height and

weight. The result from table 1 indicated that shot putters are the heaviest tallest and the oldest while javelin is the youngest between the groups.

Hypothesis two which stated that there is no significant difference between the body circumferences of Javelin and shot-put throwers of Kwara state athlete was also accepted (table 2). There was no Significant differences found among contracted arm girth (3.43>.080), flexed arm girth (4.36>0.051), waist girth (1.22>.283), thigh girth (4.31>.052) and hip girth (0.07<.936) except in hip girth where significant difference was not found. The entire body circumference variable revealed that there is no significant difference in contracted arm girth, flexed arm girth, waist girth, hip girth and thigh girth which led to the acceptance of hypothesis 2, that there is no significant difference between the body circumference of Javelin and Shot-put throwers of Kwara state athletes. Hypothesis which stated that there is no significant difference between the physiological characteristics of Javelin and Shot-put throwers of Kwara state athlete was rejected for some variables such as systolic (16.99>.001) and heart rate (9.46>.007); there was no significant differences in Speed (2.22>.0154); Pushup (1.70>.209) and Situp (1.38>.256) of the Javelin and Shot-put athletes. However, no significant difference was found in Diastolic blood pressure (0.04<.843). The insignificant difference demonstrated relationship between the mentioned variables for Javelin and Shot-put throwers means the body lengths are relative for both sports under study such as javelin and Shot-put throwers.According to Amusa (2003), athletes with poor speed are unable to accelerate and sprint to the same high level repeatedly during competition because of fatigue. The ability to make repeated short sprints at the same speed with minimum rest as in Shot put and Javelin. An athlete can gain several advantages in their sports by developing adequate speed. This study supported Adesipo (1989) who said relationships occur among athletes in terms of their body type, physiology and physical characteristics. However, there is a difference in girths proportionality as a result of specificity of training in relation to sport.

Therefore, it was found that shot putters are better in contracted, flexed, waist girth, hip girth and thigh. Javelin throwers were better in speed, pushup and sit-up. The significant found in the variables might be due to some difference in body structure and physiology of sport persons involved in the game. Therefore, there is need to plan training programs in relation to each skills, technique and body build.

Conclusion

1. Shot put throwers are significantly different to javelin throwers in weight, height, waist girth, contracted arm girth, systolic, diastolic and heart rate.
2. Javelins are better in speed, pushup and sit-up.
3. Significant relationship was revealed, which shows that Javelin and shot-put athletes has common body variables

Recommendations

1. Trainers and coaches should consider the Anthropometric and Physiological characteristics and muscular endurance required for selection of javelin and short-put in terms of selection of athlete.
2. Research is needed to know if there are sex differences in the different characteristics peculiar to specific sports.
3. Age, weight, height, contracted arm girth, BP and heart rate should be a pre-requisite for selection of athletes.

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ATTITUDETOWARDS WATER SANITATION AMONG SENIOR BOARDING SECONDARY SCHOOLS STUDENT IN KADUNA STATE, NIGERIA

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Abstract

This assesses the attitudestoward water sanitation among senior boarding secondary school students in Kaduna State, Nigeria. A multi-stage sampling approach that involved a stratified random sampling technique, simple random sampling technique and purposive sampling techniques was used for this study. The instrument used for data collection was a structured questionnaire. Out of three hundred and eighty one (381) copies of questionnaire administered, three hundred and eighty (380) were valid and used for the analyses. Data collected was analyzed using one sample t test at 0.05 alpha levels. The results revealed that senior boarding secondary school students in Kaduna state do not have significant attitudestowardswater sanitation. It was recommended that the school authorities should monitor the attitudes of senior boarding secondary school students toward water sanitation whenever they are using water at any point for any activities and teachers as a matter of fact should sustain and improve the practice of water sanitation by always reminding the students about the importance of sanitizing water.

Keywords: Attitude, Water Sanitation, senior boarding secondary school students,

Introduction

Water is a very important resource needed to sustain life, and safe drinking water is a fundamental requirement for human health. According to Ariyabandu (2009), easy accessibility, reliability and timely availability of adequate safe water to satisfy basic human needs ensures water security. Safe drinking water for human consumption should be free from pathogenic bacteria, viruses and parasites, chemical and radiological hazards and it must also be acceptable in appearance, taste and odour World Health Organization (2006).

Cognitive Dissonance posits that attitudes predict behavior and that where attitude and behavior are not related cognitive dissonance results. Cognitive dissonance refer to an individual's motivation to reduce the discomfort (dissonance) caused by two inconsistent thoughts. The theory is based principally on observational learning. The theory explains how people acquire and maintain certain behavioral patterns.Blanton, Ombeki, Oluoch, Mwaki, Wannemehler, and Quick (2015) stated that behavior is affected by environmental influences, personal factors and attributes of the behavior itself. The central tenet of theory being the concept of self-efficacy. This is to say that one must believe in his ability to perform behavior, and he must see an incentive to doing so.

The attitudes of students towards filtered water boiled and covered before use is still lacking because the students are not knowledgeable about the effects of unclean water to their health. According to Gliek (2012) behavioral factors are important in determining the uptake and sustainable adoption of water sanitation technologies and practices. While water sanitation interventions are potentially highly efficient, their effectiveness in part depends on behavior change and context. The installation and functioning of water and its facilities need to be accompanied by the transfer of knowledge on how to use them, together with sustainable behavior change. Maintenance and periodic replacement of existing services/facilities, and

sanitation promotion are also necessary to achieve improvements (Blanton, Ombeki, Oluoch, Mwaki, Wannemehler, & Quick, 2015).

Sanitation is an extremely important issue hence it is important to reach all students and staff within the school premises. This should be done through using interactive sanitation communication methods and school dialogue. Educating students and incorporating practical aspect such as personal hygiene and sanitation in the school curriculum contribute to improving school health include the use of student sanitation and hygiene transformation. It has been observed by (WHO/UNICEF, 2010) that the purity of water for use within senior boarding secondary schools is not clean and portable for drinking, cooking, bathing and other use. Some of the problem senior boarding secondary school students are facing is water scarcity this could lead to water impurity.Since water is not available all the time, so any small quantity they have whether it is clean or not are used. The inadequacy of schools' water supply and sanitation coverage has been recognized as a major contributor to the health of the students. This study therefore assessed the attitudes toward water sanitation among senior boarding secondary school students

Research Questions

1. What are the attitudes of Senior Boarding Secondary School Students toward water sanitation in Kaduna State, Nigeria?

Hypotheses

Ho: attitudes of Senior Boarding Secondary School Students toward water sanitation in Kaduna State, Nigeria are not significantly positive.

Methodology

The research design used for this study was the ex-post facto survey research design. Thepopulation for the study comprised of Boarders in Senior Secondary School of Kaduna State,Nigeria. There are forty seven thousand, one hundred and twenty seven (47,127) boys andgirls in twenty-four (24) Public Senior Boarding Secondary Schools in Kaduna State,Nigeria. (Kaduna State Educational Board, 2016). For the purpose of this study, stratified sampling techniques, simple random samplingtechnique and purposive sampling technique were used. The first stage involved the use ofstratified random sampling technique where senior boarding secondary schools in KadunaState were stratified into twelve (12) Educational zone, namely zone one (Anchau), zone two(BirninGwari), zone three (Zaria), zone four (Giwa), zone five (Rigachikun), zone six(Kaduna), zone seven (Sabon Tasha), zone eight (Kachia), zone nine (Godogodo), zone ten(Lere), zone eleven (Kafanchan), and zone twelve (Zonkwa). The second stage involved the use of simple random sampling technique to draw one (1) senior boarding secondaryschool from each educational zone where each of the senior boarding schools from eacheducational zone was assigned numbers and written on pieces of paper folded andthoroughly mixed in a small container. The researcher picked one piece of paper; the namewas check and recorded as a sample. This implied that no element of the population isomitted deliberately except by chance, this process is applied to all educational zones andschools belonging to the stratum. The third stage involved the use of purposive samplingtechnique to select only senior boarding secondary schools in the twelve educational zone inKaduna State, Nigeria The sample size was determined in accordance with Krejecie andMorgan (1970) sample size margin table that if the population fall from 40,000 to 50,000then the required sample size for the study is

three hundred and eighty one (381) at 5%margin error and 95% confidential of interval.A close ended questionnaire was used to collect data for this study. This instrumentwas based on a modified 4 point Likert-Scale which required the respondents to tick theresponses on each statement that appealed to them. In order to ensure the validation of theinstrument, the questionnaire was vetted by three (3) experts in the Department of Human Kinetics and Health Education, Ahmadu Bello University Zaria, for comment, observation, correctionand suggestions. After incorporating all the suggestions made by the experts, thequestionnaire was finally prepared for gathering of information for the study. The instrumentof this study was administered during the class in the selected senior boarding secondaryschools. The researcher and three research assistants gained access to the senior boardingsecondary schools after the submission of the letter of introduction given to the researcher by the Department of Human Kinetics and Health Education, Faculty of Education Ahmadu BelloUniversity, Zaria. Students were briefed on the purpose of the visit. Descriptive statistics ofmean and standard deviation were used to answer the research question and one sample t-testwas used to test the research question and one sample t-testwas used to test the formulated hypotheses at 0.05 alpha level of significance was used toanalyze the data collected.

Results

Research Question One: What are the attitudes of senior boarding secondary school students toward water sanitation in Kaduna State, Nigeria?

Table 1: Mean scores of the attitude of senior boarding secondary school students towards water sanitation

Item	Mean	Std. Dev.	Decision
I feel like covering my water before use.	2.2331	0.42866	Disagree
I feel like maintaining water storage to prevent wastage	2.8148	0.96591	Agree
I feel that solid waste collected daily and disposed of safely to avoid water contamination.	2.7216	1.09967	Agree
We cut the vegetation around us to regularly to prevent water contamination.	1.6944	0.94459	Disagree
I like to stop open defecation around the school premises to prevent water contamination.	2.9537	0.45645	Agree
Waste water is maintained correctly to avoid contamination of drinking water.	1.1433	1.17335	Disagree
I feel that laundry facilities are to be maintained properly.	2.8981	0.8346	Agree
I like to maintain a clean drinking water point.	1.1370	1.07769	Disagree
I feel like maintaining a clean my environment.	1.2593	0.83382	Disagree
I use to participate actively in sanitizing water	2.0389	1.02034	Disagree
Aggregate Mean	**2.089**		

Table 1 shows the mean score of the responses on the attitude items.Covering of water before use has a mean of 2.2331 < 2.5, maintaining water storage to prevent wastage has a mean of 2.8148 >2.5, solid waste collected daily and disposed of safely to avoid water contamination has a mean of 2.7216 > 2.5, vegetation around to regularly prevent water contamination has a mean of 1.6944 < 2.5, Waste water are maintained correctly to avoid contamination of drinking water has a mean of 1.1433 < 2.5, maintaining a clean my environment has a mean of 1.2593 < 2.5, participation actively in sanitizing water has a mean of 2.0389 < 2.5. The aggregate mean score of the items is 2.089 which was found to be less than the benchmark score of 2.5. This implies that attitude of senior boarding secondary school students towards water sanitation in Kaduna State were not good.

Hypothesis One: Attitudes of Senior Boarding Secondary School Students toward water sanitation in Kaduna State, Nigeria is not significant positive or negative.

Table 2: One sample t-test Analysisonattitude towards water sanitation among senior boarding secondary school students

	Mean	Std. Deviation	t-value	Df	P-value
Actual mean	2.089	0.884	1.091	380	0.60
Constant mean	2.5	0.00			

t (379) = 1.972, P > 0.05

From the above result of analysis presented, it shows that the probability value 0.60 is greater than 0.05 level of significance. The t-value value is 1.091 and the t-critical is 1.972 at degree of freedom 380 using two tailed significant level. The null hypothesis which states that "senior boarding secondary school students in Kaduna State do not have significant knowledge of water sanitation" is therefore retained.

Discussion

The result of the study stated that senior boarding secondary school students in Kaduna State do not have significant attitude on water sanitation. One sample t test was used to test the hypothesis. The result of the test reveals that t value is 1.091 at 0.60 level of significance with 380 as the degree of freedom. The null hypothesis was therefore rejected that senior boarding secondary school students in Kaduna State have significant attitude on water sanitation. This finding is consistent with to Gliek, (2013) behavioral factors are important in determining the uptake and sustainable adoption of water sanitation technologies and practices. While water sanitation interventions are potentially highly efficient, their effectiveness in part depends on behavior change and context. The installation and functioning of water and facilities need to be accompanied by the transfer of knowledge on how to use them, together with sustainable behavior change.

Conclusion

Based on the findings of this study, it can be concluded that senior boarding secondary school students in Kaduna State do not have a good attitude towards water sanitation.

Recommendations

Findings of the study were used to proffer the following recommendations:

1. The school authorities should monitor the attitude of senior boarding secondary school students toward water sanitation whenever they are using water at any point for any activities.
2. Teachers as a matter of fact should improve the attitude towards water sanitation by always reminding the students about the importance of sanitizing water.

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INFLUENCE OF SOCIO-DEMOGRAPHIC FACTORS ON ACCEPTANCE AND UTILIZATION OF MODERN FAMILY PLANNING METHODS AMONG NURSING MOTHERS IN MINNA METROPOLIS, NIGER STATE

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Abstract

This study investigated influence of socio-demographic factors on acceptance and utilization of modern family planning methods among nursing mothers in Minna metropolis, Niger state. The purpose of this study were to evaluate the influence of religion on acceptance and utilization of modern family planning among nursing mothers and examine the influence of socio-economic status on acceptance and utilization of modern family planning among nursing mothers. A descriptive research of survey type was adopted for the study. Population for the study comprised of all nursing mothers in Minna metropolis. Multistage sampling technique consisting of systematic, purposive and simple random sampling techniques was used to select 306 respondents. Researchers structured questionnaire was used after validated by three experts from the Department of Health Promotion and Environmental Health Education, University of Ilorin. A reliability coefficient of .68r was obtained through test re-test method using Pearson Product Moment Correction. Data was collected by the researchers with the help of Eight (8) trained research assistants. The four (4) postulated null hypotheses were tested using the inferential statistics of chi-square at 0.05 alpha levels. All the hypotheses were rejected. The findings of this study showed that: religion significantly influence the acceptance of modern family planning because calculated X^2 value was 273.5 > critical value 21.026; socio-economic status significantly influence the acceptance of modern family planning because calculated X^2 value was 332.4 > critical value 21.026; religion significantly influence the utilization of modern family planning because calculated X^2 value was 293.93 >critical value 21.026; socio-economic status significantly influence the utilization of modern family planning because calculated X^2 value was 273.5 > critical value 21.026. Based on the findings of this study, it was concluded that religion, and socio-economic status of nursing mothers significantly influenced their acceptance and utilization of modern family planning methods in Minna metropolis. Therefore, it was recommended that family planning providers should health educate the religious bodies to see the advantages in acceptance and utilization of modern family planning methods especially among nursing mothers, and also, government should subsidize all modern family planning commodities to encourage acceptance and utilization especially among nursing mothers.

Keywords: Acceptance, Nursing mothers, **Maternal, Birth control**, **Utilization**

Introduction

World Health Organization, (2002) defined family planning as the way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitudes and responsible decisions by individuals and couples in order to promote health and welfare of the family, group and thus contribute effectively to the social development of the country. Oyerinde and Onifade, (2000) described family planning as educational, comprehensive medical or social activities which enable individual, including minors, to determine freely the number and spacing of their children and to select the means by which this may be achieved. Family planning is seen as the responsible choice for couples who are not ready to have children in the present but may want to

in the future (Shatha, 2013). WHO (2013) described family planning as allowing people to attain their desired number of children and determine the spacing of pregnancies. It is achieved through use of spacing of pregnancies and contraceptive methods. Emmanuel, Daniel and Jessica, (2013) described family planning as a decision making process by couples.

All methods of birth control are based on either preventing a man's sperm from reaching and entering a woman's egg (fertilization) or preventing the fertilized egg from implanting in woman's uterus and start growing (Melissa & William, 2013). In other hand, Planned Parenthood Federation of America, (2012) asserted that the most appropriate method of birth control depend on your health, age, frequency of sexual activity, number of sexual partners, desire to have children in the future and family history of certain disease. According to Shehu and Kinta (2011), and the World Health Organization (2013) modern family planning methods are grouped into the following, namely: barrier methods (condoms, diaphragm, cervical cap, contraceptive sponge and spermicide), hormonal methods (oral contraceptive pill, contraceptive injection, contraceptive patch, implantable contraceptive, contraceptive vaginal ring and emergency contraceptive) and sterilization methods (Permanent Methods) which involve surgical intervention that mechanically blocks the fallopian tube to prevent the sperm and egg from uniting in female (Tubal ligation) and cutting or blocking the tubes that transport sperm from the testicles to the penis in male (vasectomy).

John, Robert and Eliya (2010) added that fertility is not likely to decline at a fast sustained pace unless a large and growing number of couples are ready, willing and able to use modern contraceptives. According to Joseph (2013), the socio-demographic factors determines modern contraceptive use and these he said are: age of the woman; number of living children; marital status; level of education; place of residence; religious affiliation; socio-economic status among others. United Nations Family Planning Agency (2006), reported that about 20% of African women use modern contraceptive, and in some regions of the continent the rate of usage is under 5%. Usage varies according to wealth, education, ethnicity, religion, and rural-urban location. Furthermore, the barriers to family planning service use are seen as extending beyond factors operating at the individual and household levels, to include characteristics of the social, religious and cultural environment and the health service infrastructure method (WHO, 2012).

Nevertheless, to achieve full acceptance and utilization of modern contraceptives, this inversely depends on favorable socio-demographic factors such as religion, and family financial status among others. According to Agatha (2010), and Olaitan (2011), religious believers or observers might choose to avoid certain methods of family planning, such as birth control pill, in an effort to live their lives according to the teachings of their religion.Shehu and Kinta (2011) argued that issues of family planning challenge the fundamental beliefs about children, family and God'swill but agree that the reality of our lives today demand that we reassess culture tenets about children and family size with the content of today's need and pressures. Family planning choice depends on the religion of the couple. It may be Islam or Christianity that calls for raising and bearing of more children in the society. Some religions, such as Catholicism, have restriction on contraception based on the belief that it is "God's will to bring children" into the world.

According to Rasheed (2010), religion has traditionally been seen as a barrier to fertility decline and the adoption of family planning. Religious beliefs and tradition norms put a high premium on the fertility for generation succession and connection to the ancestors. Amirriha and Robert (2008) stated that literal interpretation of the bible resulted in disapproval of contraception among conservative Protestants, such as evangelical and fundamentalist that modern contraception would violate GOD's commands. Amirrtha further highlighted that sexual

relation are valued and encouraged within marriage only. Such relations are addressed in two separate commandments from GOD. That modern family planning may encourage couples to sexual and spiritual intimacy without marriage.

More so, Farzaneh (2004) observed that those jurists opposing the practice of modern family planning based their argument on two stands or grounds. First, they believe that withdrawal or any practice that prevent pregnancy is infanticide, which is repeatedly condemned and prohibited in the Qur`an. Second, the opponents of family planning, whether jurists or non – jurists believe that the larger the number of Muslims and the higher their population growth rate, the greater their power. These advocates claim that a large population is ordained by the religion and that failure to achieve itdeviates from the right path.The rational for family planning propagated over the years focused primarily on reducing family size to deviate demographic and economic issues facing the country which many saw as an infringement by the state to their freedom of decision making. Thus individuals fail to appreciate the direct benefit of family planning on their lives. Information on the health benefit of family planning which could have influence the instance of religious leaders was unfortunately not available to them (Ali &Gul, 2013).

Amirrtha et al. (2008) recommended that health care providers in cultural diverse nations must understand the possible influence of culture and religion on the couple's willingness to use contraception and they should be familiar with a range of contraceptive options in order to address such situation in the most appropriate way. Amirrtha et al, (2008) then recommend that health care providers must be cautious that they do not attribute stereotypical religious, social and cultural characteristics to women seeking advice about contraception.

According to Olaitan (2011) some contraceptive methods of family planning are expensive, and some couples cannot afford to use or purchase them due to their financial situations in the society. For instance, people in rural areas cannot afford to use the expensive contraceptive methods of family planning such as minor surgery (like vasectomy), Intra-uterine devices (IUD) (which are small, flexible, plastic frame inserted in the vagina of women) and female sterilization method carry a fairly significant amount of one's time and it is expensive as compared to other options, such as condom or the calendar cycle methods which are less expensive; hence, couples engage in them.Women of higher socio-economic status end to adopt modern contraceptives and so rely less on abstinence than women of lower status, (Bandura, 2001).In most societies, the poorest women are least likely to use contraception. These women are also the least likely to be able to pay for family planning services. Thus, public funds are most wisely spent on providing family planning to the poorest population groups. All too often, however, the subsidies that governments provide for family planning are "captured" by the wealthiest people, because wealthier couples typically want smaller families and seek out and use available services (Namazzi, 2013).

Large family size in itself portends serious challenges to family welfare and economic survival. In order to improve welfare of people and enhance rate of development, the United Nations developed the Millennium Development Goals. The goals include reducing child mortality rates and improving maternal health. If this goal will be achieved, fertility desire of couples will be one of the considerations. This in turn will definitely affect the fertility level and the welfare of the family.Effective and healthy fertility behaviour among couples will reduce infant, child, maternal morbidity and mortality as well as mortality as a result of the spread of HIV/AIDS and high-risk pregnancy. The healthy fertility behaviour among couples will also enhance the health of mother, children and general welfare of the family. It will reduce cost

expended on antenatal care, postnatal care and the stress on medical facilities. On the part of the family, it will reduce the dependency burden and increase the average income available to the family, (NPC and ICF Macro, 2014).

Statement of the Problem

The world population is increasing at an alarming rate and this is disturbing looking at the demand for survival. According to Population Reference Bureau (2015) world population is estimated at 7.3 billion and expected projection of 9.8 billion by 2050. More so, the burden of this goes to the less developed countries accounting for 6,082,235,000 and more developed countries had fewer burdens with 1,254,199,000.

Fertility and future projected population growth are much higher in sub- Sahara Africa, than in any other regions of the world(John et al., 2010). Nigeria, in particular recorded high fertility rate (TFR) of 5.7 which means that an average Nigerian woman will bear approximately six (6) children throughout her reproductive years (Nura, 2011 & WHO, 2013). Nura (2011) emphasized further that the 1991 and 2006 population census by Nigeria Population Commission, was 88,992,201 and 140 million respectively with annual growth rate of 3.1 percent, which means that Nigeria's population will double itself in the next 22years. However, evidence of this already emerges as the Commission in 2013 revealed that Nigeria'spopulation hits one hundred and seventy million (170 million) (www.information.ng.com).

Osakue, (2010)reported that many people, especially in the rural settings, have not taken to the adoption of modern family planning methods such as the use of contraceptives (condoms, birth control pills, avoiding sex during the woman's known fertile periods, injectable, intra-uterine devices (IUDs), Norplant and sterilization, among others) to check family size and space child bearing as purveyed on certain radio and television programmes. This may not be unconnected with some archaic laws, cultural practices and religious doctrines that compel a majority of people, especially the rustics to keep sealed lips about issues relating to child bearing, number of children and other family matters.

More so, the researchers over the years have observed that both educated and non-educated individuals in Minna metropolis, irrespective of their religious background and socio-economic status have continued to bear children in large numbers, consequently these have resulted into street begging, theft, menace of Almajiris, herdsmen-farmers crisis, Terrorism, poor feeding, overpopulation resulting to poor housing and flooding within the metropolis. In view of the above researchers wishes to investigate the influence of socio-demographic factors on acceptance and utilization of modern family planning among nursing Mothers in Minna metropolis.

Research Hypotheses

The following research hypotheses were formulated to guide the study.

1. Religionwill not significantly influence the acceptance of modern family planning methods among nursing mothers in Minna metropolis.
2. Socio-economic statuswill not significantly influence the acceptance of modern family planning methods among nursing mothers in Minna metropolis.
3. Religionwill not significantly influence the utilization of modern family planning methods among nursing mothers in Minna metropolis.
4. Socio-economic statuswill not significantly influence the utilization of modern family planning methods among nursing mothers in Minna metropolis.

Methodology

The research design that was adopted for this study is descriptive research of survey type. The population for the study comprised of all nursing mothers in Minna metropolis with an estimated population of 3,086 (Clinic Monitor Evaluation Unit, 2015). Multistage sampling technique was used to select three hundred and six (306) respondents. A researcher structured questionnaire consisting of sections A and B was used to gather information for the research work on the identified variables which was validated and tested for the reliability. A reliability correlations co-efficient of .86r was obtained. This shows that the instrument is reliable for the study. The questionnaire was administered by the researcher and with the help of ten (10) research assistants who were trained on the procedure to collect data. The questionnaire were collected back immediately for data analysis. The data were analyzed using descriptive statistics of frequency counts and percentage for the demographic data. While the inferential statistics of Chi-squarewas used for accepting or rejecting the stated hypotheses at 0.05 alpha level; using Statistical Package for Social Science (SPSS) version 20.0.

Test of Hypotheses

Ho_1: Religion does not significantly influence the acceptance of modern family planning methods among nursing mothers in Minna metropolis.

Table 1: Chi-square x^2Analysis of Religion Influence on the acceptance of modern family planning methods

Items	SD	D	A	SA	Row Total	χ^2 cal.	df	Critical Val.	Remark
1. The kind of religious preaching I receive makes it difficult for me to accept modern family planning	23 (13.4%)	191 (33.3%)	77 (12.8%)	15 (8.2%)	306 (20.0%)				
2. It is religiously allowed to accept modern family planning	14 (8.1%)	102 (17.8%)	148 (24.6%)	42 (23.1%)	306 (20.0%)				Ho Rejected
3. My denomination never allowed us to accept modern family planning	56 (32.6%)	152 (26.5%)	73 (12.1%)	25 (13.7%)	306 (20.0%)	273.5	12	21.026	
4. Some religious teaching accept modern family planning as means of child spacing	14 (8.1%)	73 (12.7%)	155 (25.7%)	64 (35.2%)	306 (20.0%)				
5. Religious teaching has nothing to do with acceptance of modern family planning	65 (37.8%)	56 (9.8%)	149 (24.8%)	36 (19.8%)	306 (20.0%)				
Column Total	172 (100%)	574 (100%)	602 (100%)	182 (100%)	1530 (100%)				

@ 0.05 alpha level of significance

The result of the analysis shows that religion have significant influence on the acceptance of modern family planning methods among nursing mother in Minna metropolis, because the calculated x^2 value of 273.5 is greater than the table x^2 value of 21.026 with degree of freedom 12 at 0.05 alpha level. Hence, the null hypothesis was rejected. This implies that religion

significantly influence the acceptance of modern family planning methods among nursing mothers in Minna metropolis.

Ho_2: Socio-economic status will not significantly influence the acceptance of modern family planning methods among nursing mothers in Minna metropolis.

Table 2: Chi-square x^2 Analysis of Influence of Socio-Economic Status on the acceptance of modern family planning methods

Items	SD	D	A	SA	Row Total	χ^2cal.	df	Critical Value	Remark
6. I accept modern family planning because it is not costly	37 (17.7%)	84 (14.9%)	137 (29.4%)	48 (16.6%)	306 (20.0%)				
7.Some modern family planning methods are affordable but I don't like them because of it problems	27 (12.9%)	39 (6.9%)	125 (26.8%)	115 (39.7%)	306 (20.0%)	332.4	12	21.026	H_o Rejected
8.I believed in modern family planning because everyone can afford it	35 (16.7%)	93 (16.5%)	111 (23.8%)	67 (23.1%)	306 (20.0%)				
9.I do not accept modern family planning because it's for the rich people	39 (18.7%)	198 (35.0%)	40 (8.6%)	29 (10.0%)	306 (20.0%)				
10. I do not accept modern family planning because even with your money you must see health workers for explanation	71 (34.0%)	151 (26.7%)	53 (11.4%)	31 (10.7%)	306 (20.0%)				
Column Total	209 (100%)	565 (100%)	466 (100%)	290 (100%)	1530 (100%)				

@ 0.05 alpha level of significance

The result of the analysis shows that socio-economic status have significant influence on the acceptance of modern family planning methods among nursing mother in Minna metropolis, because the calculated x^2 value of 332.4 is greater than the table x^2 value of 21.026 with degree of freedom 12 at 0.05 alpha level. Hence, the null hypothesis was rejected. This implies that socio-economic status significantly influence the acceptance of modern family planning methods among nursing mothers in Minna metropolis.

Ho_3: Religion will not significantly influence the utilization of modern family planning methods among nursing mothers in Minna metropolis.

Table 3: Chi-square x^2Analysis of Religion influence on the Utilization of modern family planning methods

	SD	D	A	SA	Row Total	χ^2cal.	df	Critical Value	Remark
11. Religion is seen a barrier to modern family planning practice	45 (24.2%)	104 (26.0%)	133 (16.6%)	24 (16.6%)	306 (20.0%)				
12. My religion accepts the use of modern family planning	1 (0.5%)	50 (12.5%)	237 (29.7%)	18 (12.4%)	306 (20.0%)				
13. Religious leader teaches women to adequately space their child birth	6 (3.2%)	134 (33.5%)	118 (14.8%)	48 (33.1%)	306 (20.0%)	293.93	12	21.026	Ho Rejected
14. My Religion allows us to practice some type of modern family planning but not all	50 (26.9%)	86 (21.5%)	138 (17.3%)	32 (22.1%)	306 (20.0%)				
15. Some religious denominations accept the use of modern family planning	84 (45.2%)	26 (6.5%)	173 (21.7%)	23 (15.9%)	306 (20.0%)				
Column Total	186 (100.0%)	400 (100.0%)	799 (100.0%)	145 (100.0%)	1530 (100.0%)				

@ 0.05 alpha level of significance

The result of the analysis shows that religion have significant influence on the utilization of modern family planning methods among nursing mother in Minna metropolis, because the calculated x^2 value of 293.93 is greater than the table x^2 value of 21.026 with degree of freedom 12 at 0.05 alpha level. Hence, the null hypothesis was rejected. This implies that religion significantly influence the utilization of modern family planning methods among nursing mothers in Minna metropolis.

Ho_4: Socio-economic status will not significantly influence the utilization of modern family planning methods among nursing mothers in Minna metropolis.

Table 4: Chi-square x^2Analysis of Socio-economic status influence on the Utilization of modern family planning methods

Items	SD	D	A	SA	Row Total	χ^2cal.	Df	Critical Value	Remark
16. Some modern family planning is too cheap	1 (1.0%)	68 (15.6%)	186 (30.3%)	51 (13.4%)	306 (20.0%)				
17. Some methods of modern family planning are cheap but we do not like using them	1 (1.0%)	83 (19.1%)	176 (28.7%)	46 (12.1%)	306 (20.0%)				Ho Rejected
18. Most husbands support their wives to pay for modern family planning	14 (13.9%)	133 (30.6%)	139 (22.6%)	20 (5.3%)	306 (20.0%)	554.09	12	21.026	
19. Families that are wealthy do not like using modern family planning like the less wealthy people	71 (70.3%)	115 (26.4%)	17 (2.8%)	103 (27.1%)	306 (20.0%)				
20. The money paid for modern family planning cannot be compared to the benefit	14 (13.9%)	36 (8.3%)	96 (15.6%)	160 (42.1%)	306 (20.0%)				
Column Total	101 (100%)	435 (100%)	614 (100%)	380 (100%)	1530 (100%)				

@ 0.05 alpha level of significance

The result of the analysis shows that socio-economic status have significant influence on the utilization of modern family planning methods among nursing mother in Minna metropolis, because the calculated x^2 value of 554.09 is greater than the table x^2 value of 21.026 with degree of freedom 12 at 0.05 alpha level. Hence, the null hypothesis was rejected. This implies that socio-economic status significantly influence the utilization of modern family planning methods among nursing mothers in Minna metropolis.

Discussion of Findings

Hypothesis 1 revealed that religion significantly influences the acceptance of modern family planning methods among nursing mothers in Minna metropolis. This finding is in line with Agatha (2010), and Olaitan (2011), that religious believers or observers might choose to

avoid certain methods of family planning, such as birth control pill, in an effort to live their lives according to the teachings of their religion.Shehu and Kinta (2011) argued that issues of family planning challenge the fundamental beliefs about children, family and God's ill, but agree that the reality of our lives today demand that we reassess culture tenets about children and family size with the content of today's need and pressures. Family planning choice depends on the religion of the couple. It may be Islam or Christianity that calls for raising and bearing of more children in the society. Some religions, such as Catholicism, have restriction on contraception based on the belief that it is "God's will to bring children" into the world.

Hypothesis 2 shows that socio-economic status significantly influences the acceptance of modern family planning methods among nursing mothers in Minna metropolis. This finding is in agreement with Bandura(2001) that women of higher socio-economic status end to adopt modern contraceptives and so rely less on abstinence than women of lower status globally, and particularly in the United States. In most societies, the poorest women are least likely to use contraception. These women are also the least likely to be able to pay for family planning services. Thus, public funds are most wisely spent on providing family planning to the poorest population groups. All too often, however, the subsidies that governments provide for family planning are "captured" by the wealthiest people, because wealthier couples typically want smaller families and seek out and use available services (Namazzi, 2013).

Hypothesis 3 revealed that religion significantly influences the utilization of modern family planning methods among nursing mother in Minna metropolis. This finding is in accordance with Carol (2000)who recommended that religious leaders must be convinced of the appropriateness of contraceptive use and they may be more resistant to it than the general public. Religious leaders should be invited to participate in seminars and workshops with the goal of increasing their family planning knowledge, of improving their attitudes about contraceptive use and of motivating them to advocate publicly for modern family planning to help make it socially acceptable.

Hypothesis 4 shows that socio-economic status significantly influences the utilization of modern family planning methods among nursing mothers in Minna metropolis. This finding is in line with Manson (2010) that government should target resources to the poor and near-poor groups who do not use commercial sources for contraceptive supplies, while encouraging the private sector to serve the demand of better-off people.

Conclusions

Based on the findings of this study it was concluded that;

1. Religionof nursing mothers significantly influences the acceptance of modern family planning methods among nursing mother in Minna metropolis.
2. Socio-economic statusof nursing mothers significantly influences the acceptance of modern family planning methods among nursing mother in Minna metropolis.
3. Religionof nursing mothers significantly influences the utilization of modern family planning methods among nursing mother in Minna metropolis.
4. Socio-economic status of nursing mothers significantly influences the utilization of modern family planning methods among nursing mother in Minna metropolis.

Recommendations

Based on the conclusions the following recommendations were made:

1. Family planning providers should health educate the religious bodies to see the advantages in acceptance of modern family planning most especially among nursing mothers.
2. Government should subsidized modern family planning commodities to encourage acceptance among nursing mothers most especially those of low socio-economic status.
3. Religious bodies should be encouraged to participate in campaigns for their followers on the advantages of utilizing modern family planning most importantly among nursing mothers.
4. Government should make available on continues basis the subsidized modern family planning commodities to encourage utilization among the willing beneficiaries most particularly the nursing mothers.

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INFLUENCE OF INCREASED WORKLOAD AND JOB LOSS ON BURNOUT AMONG ELITE ATHLETES IN OYO STATE, NIGERIA

Adegbesan, O.A., Olowoleni, V.B., Abu, S., & Ayodele, K.B

Abstract

Burnout is a construct characterized by enduring experience of emotional and physical exhaustion, reduced sense of accomplishment and cynicism.The study sought to find out the influence of increased workload and job loss on burnout among elite athletes in Oyo state. Job loss and increased workload can make athletes burnout and leave sports with shattered hopes and dreams. Descriptive survey research design was used; stratified sampling technique was used to select 178 respondents from 32 sports. The study found the athletes to be experiencing a high level of burnout (mean= 69.589), it is also found duration of participation not to be significant in predicting burnout (r=0.096). There was significant positive relationship between burnout and the independent variable (r =.257**, r =.277). In finding the relative contribution of the independent variables; increased workload (β=.096, p>.05), job loss (β= .093, p>.05) were found not to be significant as opposed to previous research. It is concluded that elite athletes in Oyo state experience high level of burnout, working environment and locality may have accounted for retaining the null hypotheses as opposed to other findings. It is therefore recommended for coaches, trainers and managers to try lighter and less rigid training sessions to help combat stress and burnout.

Keywords: burnout, elite athletes, increased workload, job loss.

Introduction

The council of Europe in 2012, described sports as all forms of competitive or organized participation, aimed to use, improve, maintain physical ability and skills while providing entertainment to participants and in some cases spectators. Sports are institutionalized competitive activities that involve rigorous physical exertion or the use of relatively complex physical skills by participants, motivated by personal enjoyment and external rewards (Coakley, 2001).

Athletic burnout is a construct characterized by 3 core symptoms. The first is emotional exhaustion; a reduction of emotional and physical resources beyond that associated with regular sports participation. The second is reduced sense of accomplishment; it is oneself perception in terms of goals and achievement in sports. The final symptom is depersonalization; it involves the devaluation of one's achievement in sports (Raedeke&Smith, 2001).

Burnout has been associated with negative workplace behaviors such as premature retirement (resignation), alcohol abuse, low morale and frequent job changes (Bakker & Demerouti, 2007). Since burnout is an athlete's negative perception of stress, it can be said that the state of burnout interacts with mental health including; attention, perception and judgment. It is a psychological syndrome that develops in response to chronic work related stressors (Maslach, Schaufeti&Leiter 2001).

Life stresses are changes that occur suddenly in someone's life. Life events have been classified according to how stressful they are. Stress is most times thought to have depredating effect on an individual but when stress is positive, it is known as "eustress" while negative stress is known as

"distress" (Hargrove, Nelson & Cooper, 2013). For the purpose of this study, increased work load and job loss were the life stress events treated.

Increased workload could be of two opposite cases in work practices that seem to affect health; over-employment and under-employment (Winefield, Gillespie, Stough, Dua&Hapuarachchi, 2002). Over employment means that many full time workers are experiencing increased work responsibility, at a faster pace as well as demand for high organizational performance. The stress of overwork can lead to psychological problems, including burnout, physiological illness, organizational problems, workplace accidents and violence (Quick, Quick, Nelson & Hurrel, 1997). Workload can also be seen as the degree to which employees, in the course of their job, have to deal with high work demands, which force them to make use of reserve capacities. Kendler, Karkowski Prescott (1999), suggested that workers are required to perform multiple tasks, acquire skills and manage to meet the competitive demands of work, leading to ambiguity in work, stress and burnout. For this study, quantitative workload was studied, that is having too much to do, in little time, at a high pace, with few resources.

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Job loss is a life stress event that means a person losing paid employment involuntarily. Job loss without immediate employment leads to a state of unemployment. It is a major stressor that affects many aspect of life that causes a decline in the individual's activities (Stephens, 2003). The emotional trauma and distress of job loss leads to stress symptoms that overtime results in burnout even after the individual gets another job. Job loss creates equilibrium between perceived, existing and desired states of mental toughness and this causes individuals to engage in various coping strategies.

Greenglass, (2001), opined that burnout is likely to be heightened in intense and demanding jobs. Burnout is seen as an important strain in workplaces associated with negative psychological and physical health of employees and reduced level of performance. Similarly, increased level of responsibility or workload can lead to burnout overtime (Aiken &Clarke, 2002).

Professional sportsmen (elite athletes) are often required to spend considerable time in intense involvement with people (coaches, team mates, management, significant others and spectators), training and the sporting environment (facilities and equipment). The athlete's problem is psychological, social and physical and is therefore changed with feelings of anger, embarrassment, fear and despair. Frustration and increasing problems are not always easily obtained, thus adding work under such circumstances; the chronic stress can be emotionally draining and poses the risk of burnout.

Sport is filled with stressful events for example, a poordecision from the referee, an opponent's performance, crowd's remark, lack of reward and loss of position (teamspot) among others. The

failure to effectively cope with stress may results in inefficient attention focusing, lowered concentration, poor performance and reduced satisfaction (Anshel, 2010).
Stress can be associated with psychological disorders such as general anxiety disorder and depression (Pinquart& Sorensen, 2003). Negative states such as feelings of anxiety and depression could influence the pathogenesis of physical diseases that has affects on the body that could result in increased risk of disease in the end. Weiner, (2010) opined that, although psychological stress is always connected with disease, most healthy individuals can still remain disease free after confronting chronic stressful events.
An individual's personality characteristics and childhood experiences with major stressors and trauma may also indicate their response to stressors (Schneiderman, Ironson &Siegel, 2005).Stress and lack of coping resources available and used by an individual can often lead to the development of psychological issues such as depression and burnout (Scholtz,Zoccola, Jansen& Schulz, 2011)

Purpose
The aim of the research was to investigate the influence of job loss and increased workload on predicting burnout among elite athletes in Oyo state. It also sought to determine the extent to which elite athletes in Oyo state experiences burnout.

Research Questions
1. Do elite athletes in Oyo state experience burnout?
2. Is there a relationship between increased workload, job loss and burnout?

Hypotheses
1. Increased workload will not significantly influence the level of burnout in elite athletes in Oyo state.
2. Job loss will not significantly influence the level of burnout in elite athletes in Oyo state.

Methods
Descriptive survey research was adopted for the study. It is considered appropriate as it helps to explain and interpret current issues and existing conditions within a population. It is also agreed by researchers that it checks the distribution and interrelationship of variables within a population. The population comprised of all athletes under Oyo state sports council. Using stratified sampling technique, 178 respondents were drawn from male and female athletes from the 32 sports grouped into three (individual/combative, dual/small team, ball games).Maslach burnout inventory, a 22- item questionnaire that covers the 3-subscales of burnout with a 6-response format was adopted for the research work. The second instrument was self – developed with validity and reliability carried out to check the effects of increased workload and job loss on the athletes. Descriptive statistics of percentages mean and standard deviation was used to analyze demographic data, while inferential statistic of correlation matrix was used to test hypotheses.

Results

1.1 Distribution of Respondent by Age

Age	F	%
≤ 25 years	59	33.1
26-30 years	85	47.8
31-35 years	34	19.1
Total	178	100

1.2 Distribution of the Respondents by Gender.

Gender	F	%
Male	131	73.6
Female	47	26.4
Total	178	100

1.3 Distribution of the Respondent by Sport Type

Sport	F	%
Individual/combative	55	30.9
Dual/small team	46	25.8
Ball games	77	43.3
Total	178	100

1.4Distribution of the Respondent by Duration of Participation

Duration	F	%
≤ 5 years	53	29.8
6-10 years	109	61.2
11-15 years	6	3.4
16+ years	10	5.6
Total	178	100

1.5 Relationship between Burnout and Duration of Participation

Variable	M	SD	N	R	P	Remark
Burnout of elite athletes	69.5899	9.8941	178	.096	.203	Ns
Duration of participation	7.4185	2.6405				

1.6Correlation Matrix Table showing the Relationship between Burnout, Increased Workload and Job Loss.

	Burnout	Job loss	Increased workload	M	S.D
Burnout	1				
Job loss	.257**	1		20.2416	3.9277
Increased workload	.227**	.555**	1	33.0562	5.0352

** sig. at 0.01 level, *sig. at 0.05 level

1.7 Relative Effect of Increased Workload and Job Loss to the Level of Burnout in Elite Athletes in Oyo state

Model	Unstandardized coefficient		Standardized coefficient	T	Sig.
	B	Std. Error	Beta contribution		
(constant)	46.380	5.621		8.251	.000
Job loss	.234	.248	.093	.944	.347
Increased workload	.188	.172	.096	1.092	.275

Discussion

This study demonstrated that, elite athletes in Oyo state experienced a high level of burnout.Findings from the study showed that 178 elite athletes were respondents, there were more males in the study and most of them were married, there were no widowed or divorced respondents.

The first research question sought to check if elite athletes in Oyo state experienced burnout was answered from the findings shown in table 1.5 the findings reported showed that elite athletes in Oyo State experienced burnout when rating the level of burnout they experienced, this was seen from their high mean score. Adoptions are results from the research of Fares and Marwan, (2012), on the relationship between burnout and mental health, it is deduced that high score means on the burnout questionnaire denotes high levels of burnout and low mental health. Also Maslach and Jackson (1981) in the measurement of experienced burnout found out a relationship between how often experiences are felt and the intensity of how they are felt. The results from this findings show that elite athletes in Oyo state experienced a high level of burnout, they are in a state of experiencing low mental health, unless checked, this will affect them from attaining peak performance.

The second research question was answered using correlation matrix of job loss and increased workload variables against the burnout variable, the result showed there was positive significant relationship between burnout and job loss and burnout and increased workload, the findings which are in line with literature which state that the more stressful life events experienced by a person, the more likely is the development of depression and burnout (Kendler et al 1999).As the stressful life events a person experienced increases, the increase in the chances of getting burned out.

The second hypothesis was retained since results from this study found increased workload not to be a significant factor influencing the level of burnout in elite athletes in Oyo state. The finding opposes previous findings of Maslach et al (2001) that opined burnout as a psychological syndrome that develops in response to chronic work related stressors. Also, Swider and Zimmerman (2010) asserted that personality could increase the level of burnout under adverse working conditions. This study therefore shows that the working environment and locality of the previous findings may have accounted for the influence of workload on burnout as it is not the case in elite athletes of Oyo state.

The first hypothesis of this study can be found not to be significant in predicting burnout among the elite athletes of Oyo state. The finding disagrees with the findings of Stephens (2003), who opined that, job loss was a major social stressor that affects many aspects of life. It is further seen from this study that elite athletes in Oyo state even if they lose their jobs does not result in burnout, it could also be said that Oyo state elite athletes possess enough coping skills to counter the life stress of job loss.

Conclusion

Burnout is caused by stressors that individuals do not possessenough coping skills to handle. It does not just occur, it is a gradual process that occurs overtime when it is not addressed. Based on the findings from this study, it is concluded that job loss and increased workload were not significant predictors of burnout.Support, reduced training workload, and relaxation techniques would help manage and prevent burnout.

Recommendations

Every sporting team has a goal to attain success;there is need therefore, to work towards this goal by every member of the team. Burnout affects athletes, trainers, coaches. Since burnout is job specific and related and related to sports, there should be interventions to follow to help manage and check burnout. It is therefore recommended that;

- Coaches and trainers should try lighter and less rigid training sessions to help combat the stress from excessive workload.
- Cognitive-behavioral therapy should be introduced to help check the effect of increased workload and job loss.

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WASTE MANAGERS' PERCEIVED STRATEGIES TO CURTAIL INDISCRIMINATE DISPOSAL OF WASTE AMONG TRADERS IN KWARA STATE

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Abstract

Waste management is a very important aspect of human life that needs adequate monitoring. Failure to make adequate provisions for waste management could lead to the outbreak of diseases, affect the aesthetics of the environment and cause more damage to the environment. This study seeks to address strategies to curtail indiscriminate disposal of waste from the perception of waste managers. The population of the study consists of all the waste managers (2,000) in Kwara State. Systematic sampling technique was adopted in selecting 10% (200) of all the waste managers which represented the sample size for the study. A researcher designed instrument which was validated and tested for reliability was used to gather information from the selected waste managers in Kwara State. The instruments were sorted, coded and analyzed using descriptive statistics of frequency counts and simple percentages. The results revealed that waste managers agreed that strategies to curtail indiscriminate disposal among others include health education of the general public [192(96%)]; provision of waste disposal nylons [194(97%)], procurement of more waste collection equipment [197(98.5%)] and employment of more social workers [191(95.5%)]. The study concluded that strategies to curtail indiscriminate disposal includes health education, provision of waste packaging nylons among others. It was therefore recommended that market traders should be health educated on the health implications of the adoption of poor waste disposal methods, waste packaging nylons should be made available at very affordable price among others.

Keywords: Waste Managers, Perceived, Strategies, Curtail, Indiscriminate disposal

Introduction

Waste (or wastes) is unwanted or unusable materials. Waste can also be defined as any substance which is discarded after primary use, or is worthless, defective and of no use. In the submission of Awosusi (2010), waste is regarded as that which is not or cannot be used, or no longer useful.

The amount of wastes (solid or liquid) generated in urban areas in the developing world are increasing with rapid population increases without adequate resources to go round to maintain the situation. However, for centuries, human beings have been supporting their growing numbers by inventing new technologies most especially in the developed world, which explore the productivity of their natural surroundings. Even though, nature appeared to have few limitations to some areas, but bestow other areas almost without limitation. It is worthy to note that growth and development of any city depends on the type of people that constitute the population concentration. The urge for better improved conditions of life, economic growth, employment opportunities, better living condition and other necessity of life are believed to be available in cities. As a result of this, many people rush to urban centers from rural areas, and consequently add to already overpopulated city inhabitants. As the pace of urbanization grows, the pressure increases at the rate by which wastes are generated, constituting greater problems. In Kwara State, there are limited infrastructural facilities to fulfill the expectations that led new comers to drifts to urban centers from rural areas (Ahmed, 2008). Living in the crowded environments, most new comers (to towns) vis-à-vis earlier residents of these towns remain ruralize in behaviour they now acquired, and, amidst insufficient arrangements for sanitization of

the new environment from filths which are dumped indiscriminately in streets and frontage of residential buildings.

Ahmed (2008) reported that in Ilorin, the capital of Kwara state, the problem of wastes is appalling because the more these wastes are evacuated the more they are generated on a daily basis. Huge amount of refuse are found dumped on unauthorized places, gutters and roads are filled up with sand and sediments which at times obstruct both free movement of pedestrians and vehicles alike. Thus, the issue of solid waste in Ilorin is quite distressing. Adetitun and Oyeyiola (2011) opined that while cities are generating an ever increasing volume of garbage, the effectiveness of their solid waste collection and disposal system is diminishing. In the urban centres throughout Nigeria, less than half of the solid waste produced is collected. It is either indiscriminately thrown away at various dumping sites on the periphery of urban centres, or at a number of so called temporary sites-typically empty lots scattered throughout the cities. These open dump sites often have serious environmental impacts that extend beyond their boundaries, polluting nearby water sources and serving as breeding grounds for disease bearing rodents and insects.

Coping with the rapid increase in solid waste generation within urban areas is a challenge to municipal authorities especially in developing countries. The low coverage challenge is attributable to increasing solid waste generation, high management costs, and lack of linkages between stakeholders and stage-wise understanding of the factors that affect solid waste management. Improper solid waste management leads to substantial health, environmental, social, and economic impacts. Also, according to Ayanshola, Aremu, Jacob, Bilewu and Salami(2015), solid waste causes extensive environmental effects in terms of emission of greenhouse gases,carcinogens, climate change, soil and water pollution. Social effects include blockage of drains, deterioration of the built environment, nuisance, unsightliness, and loss of tourist income. In terms of unquantifiable costs, improperly managed solid wastes usually results in down-stream costs higher than what it would have initially cost to manage the waste properly (Ayanshola, Aremu, Jacob, Bilewu & Salami, 2015).

Waste management in most part of Nigeria is horrific. Oyekan and Sulyman (2015) affirmed that 14% of Nigerian households have access to satisfactory refuse disposal system, and in both urban and rural areas of the country, refuse is buried, burnt or disposed haphazardly into rivers, streams, canals, forests and open spaces. As a result, solid waste are found everywhere especially in the country's populated urban centres. Zhu, Zurbrügg, Chris and Mani (2008) stated that public awareness and behaviour about waste can affect the whole solid waste management system (SWMS). Joseph, Ndukwe and Nwuzor (2016) reiterated that a lot of factors could be identified as being responsible for waste management challenges in Nigerian cities and prominent among those factors are lack of man power that can competently handle waste management strategy or equipment, lack of standard waste management equipment and the provision of which will help ameliorate the situation on ground. Imam, Mohammed, Wilson and Cheeseman (2008) and Oyeniyi (2011) reported that more vehicles are needed to cope with the rising amount of waste generated daily. The provision of more waste evacuation vehicles will ease the burden on the available vehicles on ground that are expected to ply a vast amount of routes for the collection of waste and enhance the timely collection of waste from different generation points. Although different authors are of the opinion that more vehicles are needed to cope with the daily increase of the amount of waste generated, Hammed, Sridhar and Wahab (2016) is of the opinion that more and more waste collection vehicles are being imported by the government, drivers and maintenance staff are trained abroad, and yet no solution is found to the

management of waste in Oyo State. Suleiman (2013) suggested that in order to curtail the menace of indiscriminate disposal of waste, the Government should provide adequate waste disposal facilities such as refuse collection centres; environmental laws concerning waste management and control should be strong and strictly imposed in order to protect the environment against indiscriminate disposal of waste; waste management agencies should be well funded to enable them carry out their mandate and their capacity should be increased to boost the number of personnel, machineries and facilities for their activities; and there should be the introduction of waste recycling whereby some material such as paper, glass, plastics and many more can be recycled into new products which will reduce the amount of waste materials that need disposal.

Statement of the Problem

Proper wastemanagement is an important pivot for the healthful functioning of any environment, the absence of which can affect both the environment and the biotic elements within the environment. The researcher observed that waste management in Kwara State is faced with lot of challenges which is marginalizing the efforts of waste managers. Waste can be observed lying around the environment especially in gutters, on road verges, at some designated and non-designated waste collection points. In some cases, waste are scattered at designated collection points as a result of poor packaging of waste before disposal. It is in lieu of the foregoing that the researcher has deemed it fit to write on Waste Managers' perceived strategies to curtail indiscriminate disposal of waste.

Research Question

In view of the issues and concerns surrounding this study, this research question was raised to guide the study:

1. What are the waste managers' perceived strategies to curtail indiscriminate disposal of waste among traders in Kwara State?

Methodology

Descriptive survey research method was adopted for this study. According to Koul (2009) a descriptive research design provides a means through which opinions, attitudes, suggestions for improvement of educational practices and instructions can be obtained. The design is suitable because one can generalize with its findings and it is not expensive. The population of the study comprised of all waste managers (social workers) in Kwara State. According to the Kwara State Environmental Protection Agency (KWEPA), waste managers in Kwara State are referred to as social workers and according to their record, there are two thousand (2, 000) social workers in Kwara State (KWEPA, 2016). Systematic sampling technique was used in selecting ten percent (10%) representing 200 waste managers out of the entire population. The instrument that was used for the study was a researcher designed questionnaire which is meant to obtain the views of waste managers on the variables of the study. The items in the questionnaire were scored based on the direction of the questions. Responses (Agree) with a percentage of sixty percent (60%) and above were considered to be a factor contributing towards indiscriminate disposal of waste. The research instrument was validated by lecturers in the Department of Health, Safety and Environmental Education, University of Benin and Department of Health Promotion and Environmental Health Education, University of Ilorin. Their suggestions and corrections were incorporated in the final draft of the research instrument. To determine the reliability of the instrument, test re-test method of

reliability was adopted. Twenty copies of the questionnaires were administered to twenty waste managers in Kwara State using a systematic sampling technique in the selection of the respondents. The questionnaire was administered to thesame set of respondents after an interval of two weeks. The two sets of questionnaire were analyzed using Pearson Product Moment Correlation Coefficient (PPMC) which yielded a correlation coefficient of 0.71 which was considered high enough to carry out the study. The instrument was administered by the researchers to the respondents after permission was obtained from the appropriate authorities at KWEPA. The data collected was sorted, coded and analyzed using descriptive statistics of frequency counts, percentages and bar charts.

Results

Research question 1: What are the Waste Managers' perceived strategies to curtail indiscriminate disposal of waste among traders in Kwara State?

Table 1: Waste Managers' perceived strategies to curtail indiscriminate disposal of waste among traders in Kwara State.

S/N	Items	Agree	Disagree
1.	Traders should be health educated on the health implication of poor waste disposal	192 (96.0%)	8 (4.0%)
2.	Traders should be discouraged from the adoption of drainage dumping as a disposal method	191 (95.5%)	9 (4.5%)
3.	Waste packaging nylons should be made readily available at a subsidized rate for users.	194 (97.0%)	6 (3.0%)
4.	More waste management equipment should be provided by relevant agencies	197 (98.5%)	3 (1.5%)
5.	More workers should be employed to ease the burden of waste collection	191 (95.5%)	9 (4.5%)

Table 1 shows that 192 (96.0%) respondents agreed that traders should be health educated on the health implication of poor waste disposal while 8 (4.0%) of the respondents disagreed with the statement. 191 (95.5%) of the respondents agreed that traders should be discouraged from the adoption of drainage dumping as a disposal method, while 9 (4.5%) of the respondents did not agree with the statement. A total of 194 or (97.0%) of the respondents agreed that waste packaging nylons should be made readily available at a subsidized rate for users, while 6 (3.0%) of the respondents did not agree with the statement. 197 (98.5%) of the respondents agreed that more waste management equipment should be provided in order to manage waste effectively, while 3 (1.5%) of the respondents disagreed with the statement. Finally, a total of 191 (95.5%) respondents agreed that more workers should be employed to ease the burden of waste collection, while 9 (4.5%) of the respondents disagreed with this statement.

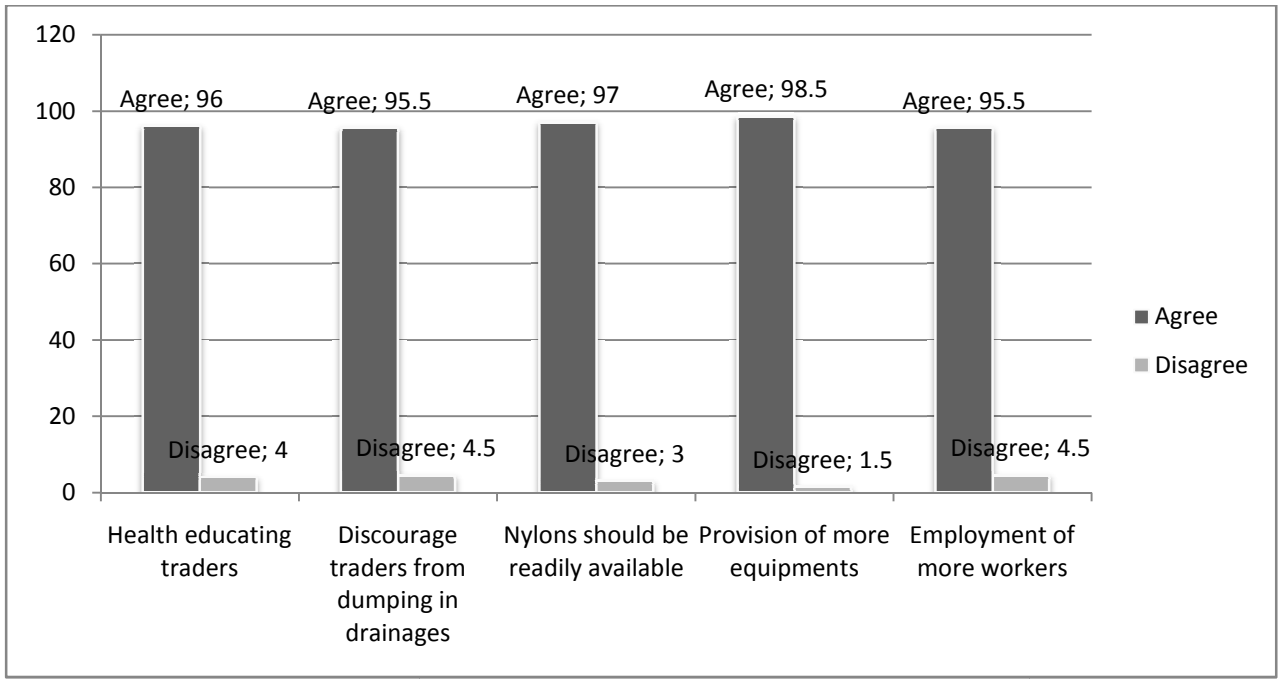


Fig. 1: Bar chart showing responses of respondents on perceived strategies to curtail indiscriminate disposal of waste in Kwara State

Figure 1 shows that health educating market traders (96%); discouraging traders from dumping in drainages; provision of disposal nylons (97%); provision of more equipment (98.5%); and employment of more workers (95.5%) are strategies that can be adopted to curtail indiscriminate disposal of waste in Kwara State.

Discussion of Findings

This study examined waste managers' perceived strategies to curtail indiscriminate disposal of waste among traders in Kwara State.

Research question:what are the waste managers' perceived strategies to curtail indiscriminate disposal of waste among traders in Kwara State? One hundred and ninety two 192 (96.0%) respondents agreed that traders should be health educated on the health implication of poor waste disposal, while eight 8 (4.0%) of the respondents disagreed with the statement. This finding is in line with the finding of Zhu, Zurbrügg, Chris and Mani (2008) which stated that public awareness and behaviour about waste can affect the whole solid waste management system (SWMS). Therefore, to correct this anomaly, market traders should be health educated on the importance of adopting the proper forms of waste disposal and the effect of poor waste disposal on health and environment.

One hundred and ninety one 191 (95.5%) of the respondents agreed that traders should be discouraged from the adoption of drainage dumping as a disposal method while nine 9 (4.5%) of the respondents did not agree with the statement. To discourage traders from adopting poor forms of waste disposal, relevant agencies can develop advocacy programmes and educate the public on dangers surrounding improper disposal of waste.

A total of one hundred and ninety four 194 (97.0%) of the respondents agreed that waste packaging nylons should be made readily available at a subsidized rate for users but 6 (3.0%) of

the respondents did not agree with the statement. One hundred and ninety seven 197 (98.5%) of the respondents agreed that more waste management equipment should be provided in order to manage waste effectively but three 3 (1.5%) of the respondents disagreed with the assertion. These findings are in line with the finding of Joseph, Ndukwe and Nwuzor (2016) which stated that a lot of factors could be identified as being responsible for waste management challenges in Nigerian cities and prominent among those factors are lack of man power that can competently handle waste management strategy or equipment, lack of standard waste management equipment and the provision of which will help ameliorate the situation on ground. The findings are also in line with that of Imam, Mohammed, Wilson and Cheeseman (2008) and Oyeniyi (2011) which stated that more vehicles are needed to cope with the rising amount of waste generated daily. The provision of more waste evacuation vehicles will ease the burden on the available vehicles on ground that are expected to ply a vast amount of routes for the collection of waste and enhance the timely collection of waste from different generation points. Although different authors are of the opinion that more vehicles are needed to cope with the daily increase of the amount of waste generated, Hammed, Sridhar and Wahab (2016) negated this opinion by making the submission that more and more waste collection vehicles are being imported by the government, drivers and maintenance staff are trained abroad, and yet no solution is found to the management of waste in Oyo State. In the case of this study, it is believed that the availability of more waste collection vehicles will improve the timely collection of waste from various waste collection points and reduce the rate at which waste are being disposed off indiscriminately.

Finally, a total of one hundred and ninety one 191 (95.5%) respondents agreed that more workers should be employed to ease the burden of waste collection but nine 9 (4.5%) of the respondents disagreed with this statement. This finding is in line with that of Suleiman (2013) who suggested that in order to curtail the menace of indiscriminate disposal of waste, the waste management agencies should be well funded to enable them carry out their mandate and their capacity should be increased to boost the number of personnel, machineries and facilities for their activities; the Government should provide adequate waste disposal facilities such as refuse collection centres; environmental laws concerning waste management and control should be strong and strictly imposed in order to protect the environment against indiscriminate disposal of waste; and there should be the introduction of waste recycling whereby some material such as paper, glass, plastics and many more can be recycled into new products which will reduce the amount of waste materials that need disposal.

Conclusion

The study concluded that health education; provision of waste packaging nylons; provision of more waste management equipment; and employment of more workers are strategies that can be put in place to checkmate indiscriminate disposal of waste.

Recommendations

Based on the findings and conclusion of the study, it was recommended that market traders should be health educated on the health implication of poor waste disposal techniques; waste packaging nylons should be made readily available and affordable for everyone; more waste management equipment should be procured to help waste managers cover a larger area in a little time; and more social workers should be employed to ease the tension on those presently on ground.

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HEALTH IMPLICATION OF TERRORISM AMONG CIVIL SERVANTS IN MAIDUGURI METROPOLITAN COUNCIL BORNO STATE,NIGERIA

Hussaini Garba, Ibrahim Mbista Mohammed, & Paul Garba

Abstract

Globally, the position of peace to man is beyond expression. Terrorism refers to the calculated use of unlawful violence of threat to include fear, intended to coerce or to intimidate government. The objective of the study is to assess the health implication of terrorism among civil servants in Maiduguri Metropolitan council Borno State, Nigeria. The survey research design was used for this study. Convenience sampling was used to select one hundred and fifty (150) civil servants from the total population of seven thousand two hundred and thirty (7,230) working in Borno state secretariat and residing in Maiduguri Metropolitan during the heat of terrorist activities. The instrument used for data collection was a self-developed questionnaire titled Health Implication of Terrorism Questionnaire (HITQ) which was validated by Professional in Health Education Department University of Maiduguri. The questionnaire is divided into four (4) sections A-D which consisted of questions on the variable under study namely emotional, physical, social and psychological health implication of terrorism on civil servants. The reliability instrument of the study was obtained using test-retest split-half which shows 0.76 Cronbach alpha at 0.05 level of significance. To collect data for the study, the research instrument was randomly distributed among the civil servant available to serve as sample to the researcher at the time of data collection. the data collected for the study was analyzed using inferential statistics of mean, standard deviation and rank for research question one to four (1-4). The decisions rule was that any mean equals to or above 2.50 was regarded as agreement while any mean below 2.50 was taken as disagreement. The study revealed that due to the activities of terrorist, significant terrorism activities exist in Maiduguri, which include extortion, killing, destruction of property, abduction, and threat to life and property which had led to significant health consequences on the civil servants in Maiduguri Metropolis. It was recommended therefore that; psycho-social support training should be given to civil servants in Maiduguri Metropolitan.

Keywords: Terrorism, Health, Implication

Introduction

Globally, the position of peace to man is beyond expression. However, the increasing awareness of the recognition of the human right, freedom of religious worship, injustice and other social vices have motivated people towards terrorism. Neil (2002) defined terrorism as an act committed by non-state or sub national entities against a state. Terrorism according to United State of AmericaArmy Manual (2001**)** isthe calculated use of unlawful violence or threat to inducefear, intended to coerce or to intimidate government or societies in the pursuit of goals that are generally, politically, religious or ideologically motivated which usually results into emotional, social, physical, mental and psychological problems.

The terrorist attacks on the Unite State of America intensely affected many individuals and institutions well beyond those directly harmed. These responses reflect intense thought and

emotions. The attack and prospect of sustained conflict with a diffuse unfamiliar enemy created anger fear and sadness (Lermer, Gonzales, Small &Elschhoff, 2013).

Similarly, Israelhad experienced repeated deadly attacks that have caused much civilian causality, disrupted daily life and the economy and created an atmosphere of fear and insecurity. Matseketsaand Mapolisae, (2013) stated that terrorism is a menace and is like an aching tooth which needs to be rooted out but has no immediate remedy. The magnitude of destruction, loss of life, injuries and disabilities have all made human kind fail to find comfort in their governments as citizens are left vulnerable to indiscriminate attacks by the terrorists. The effects of terrorism range from short, medium and even long term. While death, injuries and capital destruction are the most visible effects of terrorist attacks, fear, violence, uncertainty are indirect effects of terror and are harmful to the individual and the economy in the long term.

According to Daniel, Ogbeje & Nmire (2015), the unprecedented state of terrorism by Boko Haram sect in Nigeria has ruin the tranquility of the nation and high rate of insecurity pervading Northern region in particular is general alarming and is a cause for serious concern to well-meaning Nigerians. This situation in Nigeria, according to Zumve, Ingyoroko, &Akuva (2013) has turn Nigeria into a theater of genocide, bloodshed and insecurity over the past ten years due to the terrorism activities of terrorist groups (Boko Haram, Herdsmen and Niger-Delta militants) these terrorist groups have unlashed havoc on the Nigeria populace, though these groups are numerous the most noticeable is the radical and deadly group Boko-Haram sect in North-Eastern part of Nigeria.

The Boko-Haram an indigenous Islamic Salafist group was founded by Mohammed Yusuf in 2002 in the city of Maiduguri. He established a religious complex that includes a mosque and a school where many families from across Nigeria and neighboring countries enrolled their children, with the aim of educating and establishment of a sharia government in Borno State, and Nigeria as a whole and with a view to extend the struggle to other West African nations. This is due to the fact that according to Walker (2002) politics in Nigeria and Borno State inclusive has been seized by a group of corrupt, false Muslims. The group went to wage a war against the political system, and the Federal Republic of Nigeria. To create a “pure” Islamic state ruled by sharia law. The need for the establishment of Sharia Law has resulted in terrorism and wanton destruction of government properties, bombing of churches, mosque and other public places, assassination of individual people, burning of public places such as schools, offices, markets, hospitals and hotels such a Maiduguri international hotel and state hotel, in Bama, Manguno and Gwoza (Patrick &Felix, 2013).

Due to these activities in Maiduguri metropolitan there exist significant terrorism activities among the people which include killing, abduction, rape, injuries, threat, and extortion of money. This has resulted into Isolation, fear, lateness, poor personal hygiene, poor feeding starvation and sleeplessness among the civil servants (Okpaga, Chijoide & Innocent, 2012). Civil servants are the engine room of any society whom various government programmes and jobs are executed, a failure in the services of this government agency results in failure of the government and the state at large, which might have result in emotional, physical, social and psychological health consequences on the part of the civil servant which might make them vulnerable to attack. Personal experience by the researchers have revealed that civil servants in Maiduguri are suffering from emotional, physical, social, and psychologicaltremor associated with terrorism stress ending up into agonizing state of health and even death.

The emotional consequences of terrorism can be adverse. Terrorism is a disruptive event which involves hostile activities that can bring about emotional effect such as fear, hopelessness and stress. Viewing extreme violence and terrorism either directly by watching the act or indirectly by watching them in a media affect individuals' mental and emotional state. These emotional problems might not surface immediately instead they can remain intent until they eventually surface. According to Chaiguerova&Saldatova (2013) terrorism can induce emotional problem such as fear, stress, anger, hopelessness and desire for revenge and disgust.

The physical consequences of terrorism-related acts and violations can include broken bones, soft tissue injuries, disability, long-term, chronic pain and sensory disturbance. Victims may experience visceral symptoms, including cardiovascular and respiratory difficulties, intestinal and urological problems and genital complaints (IRCT, 2009) they may also suffer somatic symptoms, including headaches and back pain (Hoge, 2007). Where abuses have included rape or other forms of sexual violence, survivors may also experience gynecological, rectal and internal hemorrhaging (Tompkins, 1995). Medical consequences can include the contraction of sexually transmitted disease including HIV and other chronic infections, cervical cancer fistula, pregnancy, miscarriage, throat agitation and reproduction problems, together with somatic symptoms such as chronic pelvic pain and hormone dysfunction (Ingeborg, 2005 &Clifford, 2008).

The social effects or impact of terrorism is very dangerous and far reaching, influencing many different aspect of a society (Mohamed 2007). Apart from the fact that terrorism has a major impact on the emotion it has an impact on the several social aspect of human life, which might course lawlessness, thereby leading to a breakdown of the society. Incidences of murders, torture, humiliation, kidnapping, arson and extortion creates an environment of doubt, apprehension and panic (Richardson &Gardon, 2008). The certainly of life gradually reduces especially killings of civilians, children as well as women, due to this trend of events according to Mohamed (2014) many government services are no longer available in terrorist affected areas such as Borno State of Nigeria due to terrorist activities of Bako-Haram. This is evident in complain about suffering from neglect, abuse, rejection, humiliation, abandonment, intolerances, harassment and discrimination in the affirmation of terrorism attacks.

Researchers have found that terrorism has many negative consequences for its victims. In addition to the injuries that are the immediate consequence of violence, there are other physical, psychological health risks (Giles-Sims, 1998; Holtzworth-Munroe, Smutzler& Sandin, 1997) which include Physical injuries, Hunger/ starvation, Physical Brutality and Mutilation of body part. Terrorism is a disruptive man-made disaster event challenging humanhealth and well-being. It is a hostile activity which brings about much casualty, even death. Itnotonlycausesphysicalcasualtiesbut alsobringsabout psychological morbidity and can leadto longterm mentaldisorders (Sameera, Karnik&Amar, 2014).Psychological effect of terrorism on individuals is a very traumatic experience always sudden and unexpected. Terrorist attacks and mass violence are psychosocially the most distinguish types of distracts because of their intentional nature (Khan, Sahinnah, Hussaini, Igbal&Riswan 2012). Psychological trauma is one of the smallest and serious traumatic effects of terrorism. The trauma can cause alive-long damage or even death. America Psychiatric Association (2000) state that traumatic events are these that involve actual or threaten death or serious injury and responses involves fear,

helplessness, horror, anxiety, depression, sadness, guilt, anger, hopelessness, isolation, trauma, memory difficulties, night mares' confusion and sleeping disorder.

Statement of Problem

Ideally, it is responsibly of the government to provide needs and service to its citizen. The provision and the execution of these needs and service to the populace lies with the civil servants, The civil service work force is the engine room of any government where jobs are services are executed, a failure in the services of this work force might results in the failure of the government and the state at large, if failed this might result in discontentment among its citizen, this failure usually results into creation of forces to fight the government, which might result into protest and eventually leads to terrorism and this act might have an emotional, physical, social and psychological consequences on the health of the civil servants. Due to this, there exist in Maiduguri metropolitan significant terrorist activities among the people which resulted in killing, abduction, rape, injuries, threat, and extortion of money. It is against this background that these researchers were motivated into investigating theemotional, physical, social and psychological consequences of terrorism on the health of civil servants in Maiduguri metropolitan.

Research Questions

The study therefore attempted to answer the following research questions

1. Whatis the emotional health problems associated with terrorism among civil servants in Maiduguri?
2 What is the physical health problems associated with terrorism among civil servants in Maiduguri?
3 What is the social health problems associated with terrorism among civil servants in Maiduguri?
4 What are the psychological consequences associated with terrorism among civil servants in Maiduguri?

Methodology

The survey research design was used for this study. The total population of the civil servant working at the state secretariat and residing in Maiduguri Metropolitan is 7,230. Aconvenience samplingwas used to select one hundred and fifty (150) civil servants serving and still residing in Maiduguri metropolitan at the time of the heat of terrorism going on in Maiduguri metropolitan. According Creswell (2012) convenience sampling is a sampling technique that allows the researcher selects participants because they are willing and available to be studied at the time of the study. In this case, the researcher cannot say with confidence that the individuals are representative of the population. However, the sample can provide useful information for answering questions and hypotheses. The instrument used for data collection in this was a self-developed questionnaire titled Health Implication of Terrorism Questionnaire (HITQ) divided into four (4) sections A-D and consists of questions on the variable under study namely emotional, physical, social and psychological health implication of terrorism on civil servants in Maiduguri metropolitan.The questions have a 4-point scale response options answering of Strongly Agreed (SA), Agreed (A) Disagreed (D) and strongly disagreed (SD).The reliability instrument of the study was obtained using test-retest split-half which shows 0.76 Cronbach alphaat 0.05 level of significance.The data collected for the study was analyzed using inferential

statistics of mean, standard deviation and rank. The decision rule was that any mean equals to or above 2.50 was regarded as agreement while any mean below 2.50 was taken as disagreement.

Result

Research Question 1: what is the emotional health problems associated with terrorism in Maiduguri Metropolitan?

Table 1: Respondents' views on the emotional health problems associated with the terrorism in Maiduguri metropolitan. N=150

Items	Mean	SD	Rank
Fear	3.09	0.82	2
Tension	3.02	0.89	1
Anxiety	3.16	0.53	4
Depression	3.13	0.69	3
Grand Mean	**3.10**	**0.74**	

Table 1 shows that the majority of the respondents agreed that emotional health problems associated with terrorism practice in Maiduguri metropolitan include fear (π=3.09), tension (π=3.02), anxiety (π=3.16), and depression (π=3.13). Grand mean of 3.10 also revealed that the respondent generally agreed completely with the fact that emotional problem health problem as being associated with terrorism in Maiduguri metropolitan. The ranking also revealed that tension is the highest emotional health problems associated with terrorism in Maiduguri metropolitan, while fear is the second highest emotional health problems associated with terrorism in Maiduguri metropolitan, furthermore, depression rank third as emotional health problems associated with terrorism in Maiduguri metropolitan and lastly anxiety is the fourth ranked emotional health problems associated with terrorism in Maiduguri metropolitan.

Research Question 2: what is the physical health problems associated with terrorism in Maiduguri Metropolitan?

Table 2: Respondents' views on the physical health problems associated with the terrorism in Maiduguri metropolitan.

Items	**Mean**	**SD**	**Rank**
Physical injuries	3.09	0.81	4
Hunger/starvation	2.97	0.88	3
Physical brutality	2.96	0.91	1
Mutilation of body part	2.72	0.90	2
Grand Mean	**2.93**	**0.87**	

The result on table 2 revealed that physical injuries has a mean score of 3.09, while hunger and starvation has a mean score of 2.97, physical brutality had a mean score of 2.96, while mutilation of body parts have a mean score of 2.72and a grand mean score of 2.93.The respondents acknowledged that physical health problem associated with terrorism in Maiduguri

metropolitan exist. The ranking shows that physical brutality is the highest physical health problems associated with terrorism in Maiduguri Metropolitan, while mutilation of body part is ranked second, in addition, hunger/starvation are the third physical health problems associated with terrorism in Maiduguri Metropolitan and lastly physical injuries.

Research Question 3: What are the social health problems associated with terrorism in Maiduguri Metropolitan?

Table 3: Respondents' views on the social health problems associated with the terrorism in Maiduguri metropolitan. (N=150)

Item	Mean	SD	Rank
Neglect	2.70	0.94	1
Abuse	2.81	0.87	3
Rejection	2.41	0.93	2
Humiliation	3.16	0.82	4
Abandonment	2.81	0.87	3
Grand Mean	**2.79**	**0.90**	

The result on table 3 revealed the feeling of neglect has a mean score of 2.70, while abuse from the members of terrorist group has a mean score of 2.81. In addition, rejection as a terrorist act has a mean score of 2.41 humiliation has a mean score of 3.16 and abandonment has a mean score of 2.81and a grand mean score of 2.79 indicating the existence of social health problem. The ranking shows that neglect is the main social health problems associated with terrorism in Maiduguri Metropolitan which is the highest, while rejection is the second highest social health problems, while physical abuse and abandonment of home, family members rank the third social health problems and lastly humiliation from the terrorist is also a social health problems associated with terrorism in Maiduguri Metropolitan.

Research Question 4: What are the psychological problems associated with terrorism in Maiduguri Metropolitan?

Table 4: Respondents' views on the psychological health problems associated with the terrorism in Maiduguri metropolitan. (N=150)

Item	Mean	SD	Rank
Hopelessness	3.02	0.76	6
Depression	3.07	0.85	3
Isolation	3.05	0.81	4
Trauma	3.25	0.76	5
Memory difficulties	2.44	0.50	8
Night Mares	3.06	0.89	1
Cognitive confusions	3.01	0.74	7
Sleeping disorder	3.04	0.86	2
Grand Mean	**2.99**	**0.80**	

Table 4 shows that respondents affirmed that psychological problems associated with terrorism exist in Maiduguri metropolitan among its civil servants.These problem include hopelessness with a mean score of 3.02, depression has a mean score of 3.07, while training experience has a mean score of 3.25, in addition memory difficulties has a mean score of 2.44 indication that memory difficulties is less experienced furthermore, cognitive confusion has a mean score of 3.01 sleeping disorder has a mean score of 3.04 and a grand score of 2.99. Indicating the existence of psychological problems among civil savant associated with terrorism. The result also indicate a ranking of psychological problems associated with terrorism in Maiduguri, Night Mares is the highest psychological problems sleeping disorder is the second psychological problems depression is the third ranked psychological, while the fourth is isolation, the fifth is trauma as psychological problems associated with terrorism in Maiduguri Metropolitan, the sixth is hopelessness, while the seventh iscognitive confusions and the last is memory difficulties as psychological problems associated with terrorism in Maiduguri Metropolitan

Discussions

This study determined thehealth implication of terrorism among civil servants in Maiduguri Metropolitan Council Borno State,Nigeria. The result of the study revealed that emotional effects of terrorism faced by the civil servants include fear, tension, anxiety and depression. The main emotional problem experience by the civil servants is tension and fear of the uncertainty. These emotional factors affect the emotional health of the civil servants negatively.This finding reveals that it can lead to withdrawal, isolation and depression that can eventually lead to death.This finding is in line with the finding of Chaiguerova and Soldotoava (2003) which stated that terrorism can induce emotional problem which can lead to adverse health implication on the life of the civil servant.

The study also revealed that physical health consequences also exists due to terrorism which include physical injuries, hunger, physical abuse such as beating amputation of body part, rape and starvation. The major physical health consequences experienced is physical brutality of its victim. This finding is in line with the findings of Clifford (2008) and Ingebor (2005) who observed and states that medical consequences result from terrorism such as physical abuse of its victims can lead to unreproductivenessespecially among women of child bearing age and teenagers particular those infected with sexually transmitted diseases such as HIV/AIDS and Herpes as a result of rape and mutilation of body part which can lead to permanent disability.

The study also revealed the existences of social problems associated with the terrorism activities which include neglect, abuse, rejection, humiliation and abandonment among the civil servants by the family members and co-workers, these social consequences have far reaching effects on the healthy existence of the civil servants and the society at large. The main social problem experience is neglect by the government and rejection either by family members as a result of fear due to uncertainty of who is a terrorist. This is in line with the finding of Mohammed (2014) who reported that civil servants usually have a feeling of insecurity, neglects and insensitivity about their problems by the government in the Metropolis. Due to these feelings, neglects and insensitivity of the government towards the civil servants and the family pressures from relatives to relocate to other places usually ends up in becoming disorganized, unproductive and even death might occur.

This study further revealed that civil servants experienced psychological problems. These psychological problems include hopelessness, depression, Isolation, trauma, night mare, sleep

disorder, and cognitive disorder which usually result into health disorders. Night mare is the highest negative effects on the psychological status of the civil servants which can lead to psychological disorder resulting in committing suicide or murder by the individual, due to the fear of the unknown. This is in line with the findings of America Psychiatric Association (2000) who state that traumatic events are these that involve actual or threaten death or serious injury and responses involves fear, helplessness, horror, anxiety, depression, sadness, guilt, anger, hopelessness, isolation, trauma, memory difficulties, night mares, confusionand sleeping disorder.

Conclusion

In conclusion, this study reveals the following health implications of terrorism among civil servants in Maiduguri metropolitan council Borno State Nigeria:

i. The study revealed that exist health consequences on the civil servants due to terrorism.
ii. The study revealed that the adverse effect of or terrorism include depression, poor productivity and death.
iii. The study revealed that fact that emotionalproblem isthe major health consequences associated withterrorismamong the civil servants in Maiduguri metropolitan.
iv. The study revealed there exist physical health problems associated with terrorism among civil servants in Maiduguri
v. The study revealed furthermore, that social health problems associated with terrorism exits among civil servants in Maiduguri?
vi. The study revealed consequently that psychological problems associated with terrorism exist among civil servants in Maiduguri?

Recommendations

It was recommended that the terrorism victims should be given

i. Psycho-social support should be provided to the civil servants in Maiduguri Metropolitan in Borno State, Nigeria.
ii. Civil servant servants should develop coping strategies against this kind of situation against future occurrences.

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SPORT RESOURCES MAINTENANCE AS CORRELATE TO SPORT PARTICIPATION AMONG UNDERGRADUATE STUDENTS IN UNIVERSITY OF ILORIN, KWARA STATE

By

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Abstract

Sports are individual or group activities pursued for exercise or pleasure, which often involve the testing of physical capabilities and take the form of a competitive game that require special facilities and equipment. This study, therefore, examined sports resources management as correlate of sports participation among undergraduates in University of Ilorin Ilorin, Kwara State. The sports resources management investigated are; maintenance of facilities, management of equipment and management of sports environmentas regard participation of undergraduate students. Descriptive research design of survey method was used for the study. The population of the study was undergraduate in University of Ilorin, Ilorin, Kwara State. Simple random sampling technique was used to select one hundred and fifty respondents (150) from the total population. The instrument used for data collection was validated. The null hypotheses were tested using person product-moment correlation (PPMC) at 0.05 alpha level. The findings from the study revealed that; Maintenance of facilities, maintenance of equipment and management of sports environment has significant influence on sports participation among undergraduates in the University of Ilorin. It was recommended that attention should be given to the available sports facilities and proper maintenance of equipment by the school management in order to promote effective participation in sport.

Keywords: Facilities, Equipment, Sports Environment and Maintenance.

Introduction

Globally, sports is seen as an instrument of ethical values that brings about unity, understanding and peace among people of all cultures during sports participation in certain environments which is solely the result of social intervention and social heritage. Ajisafe (2009) opined that relative peace in the world today is predicted to be as a result of mutual understanding and respect engendered by sport in various countries. He went further to say that sport is highly important in national development through leisure and recreation as it enhances a high degree of productivity and healthy living.

Sports includes all form of competitive physical activities or games which, through casual or organized participation, aim to use, maintain or improve physical ability and skill while providing enjoyment to participant and entertainment for spectators. (The European sport charter, 2012). The European sport charter, 2012 further opined that sport is generally recognized as a system of activities which are based in physical athleticism or physical dexterity, with the largest major competitions such as the Olympic games admitting only sports meeting this definition, and other organizations such as the council of Europe using definition precluding activities without a physical element from classification as sport.

Sports has also being defined as an individual or group activity pursued for exercise or pleasure, often involving the testing of physical capabilities and taking the form of a competitive

game such as football, tennis, basketball, etc. (Annan, 2012). In practical terms, sports, has been defined by its association with physical exertion and performance measure, (Annan, 2012). Many governments invest in sport with the aim of attaining the positive economic, social and cultural benefits of individuals and their communities. Well managed sport resources can provide children and adult with opportunity to participate in physical activities that has immediate and long term benefits. Higher fitness level, better health and enjoyable social interactions are few of the benefits of participating in sporting activities.

Morakinyo (2002) observed that sports as a social phenomenon has grown from its humble beginning of being an entertainment and recreation pastime to become a visible and prominent business phenomenon that could no longer be ignored in the social, political and economic environment of any nation. Many great nations and societies of the world have realized that participation in sports is the key to a healthy development of their citizens, and have used it to develop their young ones, attaining a success that science, religions and politics have failed to achieve. Sporting activities have as well permeated the Nigerian society just as many other societies worldwide and also all aspects of societal life such as politics and religion. Awosika (2003) described sports as a symbol that has become a unifying factor in Nigeria and views it as an essential ingredient for nation building, which cuts across all barriers-ethnic, religious or social, and has served as a medium for the development of youths.

Sports plays prominent role in the life of a nation either economically or politically. Successful organization and administration of a sports programme in any institution, is an indication of a nation's human potentials and effective management of such potentials. Nigeria with a population of about 140 million, there is no doubt that there are gifted men and women in the area of sports much more than some other countries of the world. The discovery of gifted girl-child and development of female sports in Nigeria have not reached its peak and this is as a result of challenges confronting the nation which ranges from socio-economic, psychological, to gender related problems (Morakinyo, 2001).

Ogbemudia (2011) emphasized that if Nigeria must attain the desire in performance and attain top ratings in Olympic Games, then the planning and management of facilities and funds must not only be broad based but also be backed up with adequate provision and maintenance of equipment. In addition to individual characteristics, environmental factors are assumed to explain disparities in physical activities participation (Macintyre, 2009). These models posit that the neighbourhood or community environment exhibits several features such as recreational facilities, aesthetic design and public spaces that hinder or promote physical activities.

Ojeme (2010) stated that it is difficult to separate the standard of sports in a country from the standard of facilities and equipment available. She also suggested that it is responsibility of the local government council to manage the grass root sport which covers primary and secondary schools. According to Talabi (2007), the attainment of a world class status in sports is a reflection of the presence of top standard facilities and equipment. Most developing countries like Nigeria wishes to arrive at a level of the developed countries sport-wise overnight, but while developed countries are putting so much into building excellent facilities and providing standard equipment as well as creating conducive environment for their athletes (Diejomaoh, 2011).

In the past decades research works exploring the influence of the environment on physical activity has emerged. (Ogedengbe&Akinyode, 2015). Environmental factors includes building environment, proximity of parks, sport facilities, foot path as well as the perception of safety (Ogedengbe&Akinyode, 2015). Therefore, this study focuses and looks into how sports

resources management correlates with sports participation among undergraduates in university of Ilorin.

Statement of the Problem

The researcher observed that the condition of sports facilities could influence sports participation among undergraduates. It was also observed that many sports facilities and equipment in the institution were not in good condition as this could discouraged the interest in sports participation. Availability of sports resources such as facilities and equipment in good conditions according to Adesoye (2012) will motivate the interest of an individual to partake in sporting activities and promote sports development in tertiary institutions.

The condition of sport facilities could influence sport participation among the participants and the potential participants. Availability of sport resources such as facilities and equipment in good conditions according to Adesoye (2012) would motivate the interest of an individual to participate in sporting activities and promote sport development. The researcher observed that many sport facilities and equipment in the institution are not in good condition. This could discourage the interest in sport participation among the undergraduates. Hence, the imperative need for this study to check the contribution of sport resources maintenance on sport participation among undergraduate students in University of Ilorin.

Research Questions

The following questions were raise to guide the study:

1. Will maintenance of equipment hinder sports performance of undergraduates in the University of Ilorin?
2. Will proper management of facilities determine the sport participation of undergraduates in the University of Ilorin?
3. Will the managements of sporting environment determine the sports participation of undergraduates in the University of Ilorin?

Research Hypotheses

The following hypotheses were formulated for the study.

1. Maintenance of facilities will not significantly influence the participation of undergraduates in sport.
2. Management of equipment will not significantly affect the sports participation of undergraduates in the University of Ilorin.
3. Management of sport environment will not significantly influence sports participation among undergraduates in the University of Ilorin.

Methodology

The design that was adopted for this study was descriptive research design of the survey type. This research design is considered appropriate for this study because it will allow the researcher to collect personal and general information for the purpose of explaining sport resources management as correlate to sport participation among undergraduate students in the University of Ilorin. The population of this study comprised of 150 selected undergraduates students from each fifteen (15) faculties in the University of Ilorin, Kwara state.

Purposive and proportionate sampling techniques were used to select undergraduate students from the University of Ilorin of Kwara state. A simple random technique was used to select 10

undergraduate students each from fifteen (15) faculties of the University of Ilorin. The percentage of the respondents used as sample was determined with sample proportionate to the size of undergraduate students in the University of Ilorin.

The Instrument used for collecting information was a researcher's developed Questionnaire consisting of structured items, to elicit information. Both content and construct validity of this instrument were ascertained from Department of Human Kinetics Education, Faculty of Education, University of Ilorin.Test-retest method of reliability was adopted study. Consents of the respondents were soughed before the questionnaires were administered to the respondents with the help of research assistants and prompt retrieval of the completed questionnaire was ensured. The data collected for this study were analyze using descriptive statistics of frequency counts and percentage, and Person Product-Moment Correlation (PPMC) at 0.05 alpha level.

Hypotheses Testing

Hypothesis 1: Maintenance of facilities will not significantly influence the participation of undergraduates in sport.

Table 1: Correlation between maintenance of facilities sport participation

Variables	N	Mean	SD	df	Cal r-value	p-value
Maintenance of facilities and equipment	150	22.92	3.71	148	0.521	0.000
Sport participation	150	11.55	1.14			

P<0.05 Alpha Level

Table 1 shows relationship between maintenance of facilities and sport participation. The result shows r-value (0.521) that is, a strong positive relationship between maintenance of facilities and equipment and sport participation, thus, it indicates there is significant relationship ($p=0.000 > 0.05$ for a two-tailed test). Therefore, it can be inferred that the null hypothesis which states that, maintenance of facilities significantly will not influence the participation of undergraduates in sports is rejected. This implies that maintenance of facilities influences the participation of undergraduates in sport.

Hypothesis 3: Maintenance of equipment will not significantly influence the participation of undergraduates in sport

Table 5: Correlation between maintenance of equipment and sport participation

Variables	N	Mean	SD	df	Cal r-value	p-value
Equipment	150	42.00	1.02	148	0.754	0.000
Sport participation	150	15.11	1.14			

Significant P<0.05 Alpha Level

Table 2 shows relationship between equipment and sport participation. The result shows r-value (0.754) that is, a strong positive relationship between sport personnel and sport participation, thus, it indicates there is significant relationship (p=0.000 > 0.05 for a two-tailed test). Therefore, it can be inferred that the null hypothesis which states that, equipment will not significantly affect the sports participation of undergraduates in the University of Ilorin is rejected. This implies that equipment affects the sports participation of undergraduates in the University of Ilorin.

Hypothesis 3: Management of sport environment will not significantly influence sports participation among undergraduates in the University of Ilorin

Table 3: Correlation between management of sport environment and sport participation

Variables	N	Mean	SD	N	Cal r-value	p-value
Management of sport environment	150	32.13	3.42	148	0.610	0.000
Sport participation	150	11.55	1.14			

P<0.05 Alpha Level

Table 3 shows relationship between management of sport environment and sport participation. The result shows r-value (0.610) that is, a strong positive relationship between management of sport environment and sport participation, thus, it indicates there is significant relationship (p=0.000 > 0.05 for a two-tailed test). Therefore, it can be inferred that the null hypothesis which states that, management of sport environment will not significantly influence sports participation among undergraduates in the University of Ilorin is rejected. This implies that management of sport environment influence sports participation among undergraduates in the University of Ilorin.

Discussion

This finding revealed that maintenance of facilities influences the participation of undergraduates in sports. This is in line with Nwegbu (2008) who stated that apparatus is one of the most important ingredients in modern physical education. The availability and standard of sporting facilities influence public participation and the quality of sports. There, in order to facilitate and encourage extensive participation, high standards and safety, and improved performance, attention must be paid to the available sports facilities.

Oyeniyi (2003) pointed out that availability of facilities help in sustaining the attention of students, make them busy, stimulate them to learn more and make learning permanent and achievement. Abubakar (1992) agreed that facilities are related, if the facilities are available, adequate and well maintained, there is every possibility of students participating in sports programme in schools. He further, stated that facilities are fundamental factors and present a sensitive area in physical activities.

Hypothesis two showed that sport equipment affects the sports participation of undergraduates in the University of Ilorin. Neil (2014) pointed out that role of teachers with this clientele is composed of two main elements. The first is related to transmitting knowledge and

professional skills while the second, on the other hand, is related to conveying passion and values. Transmitting knowledge includes health-related content (such as nutrition and stress management) but also classroom management and evaluating learning progress. Thus, we understand that ensuring a sense of security for students improves their integration in sport and physical activity.

These findings revealed that management of sport environment influence sports participation among undergraduates in the University of Ilorin. Salvy, Roemmich, Romero and Epstein (2009) opined that school environment is a very influential social determinant of physical activity and constant interaction with peers can greatly affect participation in physical education and physical activity. Peers and friends may promote physical activity and increase motivation to participate. The review of studies on administrative style of school principal also shows that attitude of some school administrators towards sports activities is not encouraging; some see sports as a waste of time, a quick means to injury and disability (Anyanwu&Asogun, 2006).

Conclusion

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

1. Maintenance of facilities and equipment will significantly influence the participation of undergraduates in sport.
2. Management Maintenance of equipment will significantly affect the sports participation of undergraduates in the University of Ilorin.
3. Sports environment will significantly influence the participation of undergraduates in sport.

Recommendations

Based on the conclusion of this study; the following recommendations were made:

1. Attention should be paid to the available sports facilities by the school organization in order to promote effective participation in sport.
2. Attention should be paid to the available equipment by the school organization in order to promote effective participation in sport.
3. Adequate attention should be paid to sports environment to keep it neat ans safe for sporting activities.

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THE IMPORTANCE OF PARENTS TEACHERS ASSOCIATION AS TOOLS FOR STRENGTHENING PRIMARY EDUCATION IN NIGERIA

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Abstract

Despite the government effort of ensuring community direct involvement in the development of schools in their locality and parents' involvement in their students discipline through parents' teachers association (PTA) presence remains obscure in many primary schools. The purpose of this paper is to address the problems facing PTA such as poor supervision, financial problems and lack of cooperation between parents and teachers. The paper, therefore, suggested ways in which the numerous problems faced by the parents teachers association can be averted through the following; that the host community should be involved in the PTA and they can serve as a tool to strengthened the educational system in order to provide the society with quality education, these include involving parents in organizing programmes in the school, proper funding, good communication strategy, involving the PTA in school administration participating in decision making and using direct labour in carrying out projects in the school instead of awarding it as a contract to outsiders. Primary schools will be productive if urgent attention is given to the human resources, financial resources and physical facilities in the educational system. In conclusion the roles of PTA is evident in the roles it has been performing in the schools; by enhancing cordial relationship between the school and the community; maintaining and instilling discipline in the students in the school and creating awareness on the importance of parents to attend meetings and teachers will have the opportunity to relate issues concerning their children's attendance and retention of their wards in the school.

Keywords: Parents Teacher Association, Primary School.

Introduction

Education has been described as a process of enculturation through the unconscious and informal training which children receive from parents in the family to a more organized and formal school situation (Uwazurike, 1991). In the home, children are taught skills to enable them to play full parts as members of the society. Such training is usually directed to the immediate needs and problems of the child through it make him emotionally stable.

However, the education of a child is a direct result of his/her home training and the formal education which he receives at school. The parents have the primary functions of shaping the child's interest, values and personality before entering the formal school system. The child is the pivot of any educational system in any country of the world. The child again belongs to the home and the school at the same time. While the school prepares the child by teaching him appropriate skills, techniques and values for effective living in the society, the home provides moral and material support for the school to succeed in its activities. It is important to know that a number of groups have one relationship or the other to the such as the Board of Governors, the Government Officials, Examination Bodies, the Communities etc. but more of these groups can be equated to the parents teacher association because the parents have tremendous influence on the child's development more than the others.

Abdullahi (1996) acknowledged that in the 1960's after the independence that the number of schools were few in Nigeria; and the federal government of Nigeria were able to fund the educational system, there was little or no input from the society because there were few PTA in

some schools but lately when the number of schools increased and government are not able to meet up the demand of the educational system in our society it became necessary that PTA was used to render assistance and solve the problems arising from our schools.

Parents teacher association is an association that tends to bring teachers and parents together in a forum to discuss the problems of the school, the child and ways to improve on the child's learning (Ajayi; 1996), PTA is a linkage between the parents and teachers in order to discuss issues arising from the school and the child. PTA as a body serves as a forum were parents and teachers interacts, about the problems of the child; issues arising from the school and the host community; also ways to solve problems and new ideas on how to run the school activities in order to bring about quality education. Obegbulam (2013) enumerated some aim of the parents teachers association in Nigeria to include, to cater for the welfare of the students, provide avenue for parents, guardian and teachers to make critical decisions on how to move the school forward for better quality delivery , to help maintain, discipline by making representations to the authority in the interest and the welfare of the school, help in the provision of funds for the building of schools and the procurement of equipment and others infrastructures in the school; and to show interest, on how quality education can be achieved by plural standard and moral stability of a child. In line with that Izuagba (2013) acknowledge some objectives of the PTA as follows; encouraging high academic performance, discipline, morality, service and integrity in the school, fostering mutual understanding and harmonious relationship among parents, guardians, teachers and the children. The PTA stands as "Watchdog" to condemn school misconduct such as extortion of money from students, examination malpractice, cultism, create the sense of security, worth, parental care and passion through participation in issues affecting the children in the school, the PTA dialogue with the government for adequate school. Finding, recruitment of qualified teacher and other attractions for the school to their and the PTA can promote the activities of the school through the production of the newsletter to keep the school. Community informed of current events and issues accomplished by the school.

If things are put in place the roles of PTA in schools will enhance quality performance in education and moral behaviour of a child. The primary education is still faced with numerous crises in Nigerian educational system

THE CONTRIBUTIONS OF PTA IN EDUCATIONAL SYSTEM

The parents' teacher association performed and is still performing a lot of functions in the administration of educational institution in the country. The East Central States Education Edict (1970) stipulates the roles of the PTA as follows:

1. To give financial and plural support to the school.
2. To show such intimate interest and concern for the affairs of the school and give advice to the board of governors or school committee for purposes of promoting high plural and academic standards.
3. To provide an effective link between the home and the school.
4. To assist the board of governors or the school committee in ensuring cordiality between the school and the community Nwankwo (1983) acknowledge that the functions of school administration including planning and policy making, provision and maintenance of school facilities, funding and maintenance of school – community relationships. Owuamamam (1991) asserted that individuals in the community/ society make financial contributions/

pledges to help build the school and renovate the school through the PTA; by levying themselves and personal donations for the support of the schools in the communities. In the same vein, Abdullahi (1996) recognized the role of PTA in enhancing good communication and good rapport between the teachers and parents, lobby government to support in the schools, and curtail crises that often arise in the schools.

Oniyangi (2008) also acknowledge that PTA assists in improving the security of the schools in their communities; helps in maintaining discipline and help in bringing harmony in the school and the host community. Adewumi in Oniyangi (2008) also submitted that PTA helps in sensitization and mobilization of parents on enrolment attendance and retention of their children or wards in schools. Besides, the PTA is to complement government's effort in the provision and maintenance of infrastructures in the schools these suggests that the PTA has been participating and contributing immensely on matters affecting education in Nigerians. It is worthy that all the primary schools; in Nigeria form PTA in schools. Despite the roles, PTA plays in primary education it is still besieged by numerous problems militating against the objectives and aims for establishing PTA in carrying out their duties in order to enhance better community development.

NUMEROUS PROBLEMS MILITATING AGAINST PTA IN PRIMARY SCHOOLS,

The achievement of the PTA as a voluntary organization has been generally encouraging yet in some communities its impact has not been felt. This is due to some are rural and illiterate communities. Some of the problems impeding the functioning of the PTA can be said to include the following:

1. Poor relationship between teachers and parents: We are aware of the fact that despite the aim of the parents teachers association to work in fruitful harmony to bring about desirable behavioral changes in our children there have been unpleasant cases of stared relationship between parents and teachers, some teacher is scared of telling or involving the parents in their children's attitude and behavior to avoid been embarrassed or criticized. Fehman, Keeth and Reinens (1987) observed that parents play vital roles in the students educational and moral formation of their wards and in taking general decisions of their children's well-being and their character formation but on the other hand head teachers and teachers are not free in allowing parents to join hands in achieving this goal this tends to limit the extent to which the school can perform.
2. Financial problems: Finance is one of the major problems ravaging the educational system in Nigerian; from the primary to the tertiary institutions. Agbenta (1984) acknowledged that for any educational institution to succeed there must be sufficient and constant funding. In line with that (Adepoju, 2002), asserted that money is essential in the educational system in order to provide the human, material and physical resources. However, Ajayi (1999) noted that the major problem ravaging school system in poor funding and also the inadequacy of schools to get financial assistance from PTA and host community due to poverty in the community. As a result of poverty of some parent in our society some parents barely live from hand to mouth so as to satisfy as much as possible the educational needs and aspiration of their children, due to their poverty level when the need arises for such payment the parents cannot afford to do

that and this in return affects the development programmes of the association which can be delayed or put on hold. It is assumed that money raised through sourcing and launching will help to improve on government's effort in the providing funds for primary education.

3. Lack of supervision in schools: schools are not properly supervised due to the shortage of supervisors to visit schools as at when due, (Abiodunoyebanji, 2004). Ayodele (2002), classified supervisors in different stages as head teachers (mistress and masters) and head of departments; (internal supervisors), external supervisors the ones that come from the local government education board in which the PTA is of a part. The primary responsibility of the supervisors is to see that schools are run in accordance with the laid down regulations. The Negligence of this area of responsibility seems to hinder effective teaching-learning activities in primary schools in Nigeria.
4. Poor academics output: In recent time there has been poor performance in external education in primary education in Nigeria (Ajayi and Ekundayo, 2010).some of the problems listed are poor parental guidance, insufficient materials for examination, parents aiding examination malpractice by using someone to write examination for their children, parent not monitoring the activities of their children.
5. Poor educational facilities: The poor state of physical facilities and low or inadequate instructional material seems to hinder the effective performance of the schools (Adedeyi, 1998). For effective and running of the school in order to achieve the set goals can hardly be without sufficient facilities, such as equipped laboratory, adequate instrument aids/materials to aid teaching and learning. There is inadequate of facilities in most primary school in Nigeria this goes a long way to depict there is a shortage of funding or poor funding. The above are some of the problems of the primary school system in which the PTA has been found wanting, and this appears to be a reason why many Nigeria are running to private primary schools the falling in educational standards in public schools.

PLAN DESIGNED TO ACHIEVE THE SUCCESS OF PARENTS' TEACHERS ASSOCIATION (PTA) EFFECTIVELY; THERE ARE MANY THINGS THAT SHOULD BE DONE TO ENHANCE/STRENGTHENING THE ROLE OF PTA PARENT BETTER SERVICE DELIVERY:

Involving parents in organizing school programmes in the school Maurice (2002), that when parents are fully involved in their children's education, the children learn higher grades, they are well behaved and stay in school till they finish their classes. When both parents and teachers (PTA) work together, communicate and build a family and school partnership, everyone reaps the benefits. According to Fraenkel and Wallen (2000) allowing the participation of parents in school activities through PTA is one way of revealing the parents' educational aspirators of their children. It gives children an opportunity to understand what their parents would want them to achieve. PTA thought parental involvement has the potential of improving the academic self-efficiency of students since it plays a significant role in ensuring that there is appropriate motivation among the students.

Involving the PTA in school administration there are many things that should be done to enhance parental involvement in their children's schools at the primary school level, but the success of

any program will depend on the support and willingness of the head teachers to incorporate parents in his/her school activities. Some schools heads have an open communication system with parents in whom parents are encouraged to give their ideas, opinions and suggestions on school matters (Ekundayo and Alonge, 2012). The head teachers are the key contributors to helping parents and other educators understand each other and work together to achieve their school's objectives. There is need to include PTA to have a board of directors that will help communicate their needs to the relevant authority when the need arises.

Participating in decision making is a retinal process that seeks to maximize the chances of achieving the desired outcome. If government involve PTA and the school government involve PTA and the school also involve them in their decision concerning the school, it will yield a positive result. PTA should be involved in the decision concerning finance, discipline and welfare of their children and wards instead imposing it on them. Instance participating in decision making of compels teachers to help out in implementing these decisions, for it is generally believed that people are more prepared to work for a decision they have fallen apart in those alien to them. The participation of both parents and teachers in decision making fends to give them the feeling of belonging which can produce the enthusiasm required to such responsibility.

By using direct labour services in execution of projects: it will be beneficial for the school to involve the members of the PTA board to who have the knowledge of the job this will help to reduce cost and also help in prompt service delivery, (such as bricklayers, carpenters, plumbers, electricians, among others) the members should be encouraged to take up such contracts in the building of school when the need arises, it helps to foster good relationship between the school and the PTA and if the members of the PTA are given such opportunity the make sacrifice in contributing towards the project (Ekundayo & Alonge, 2012).

Conclusion and Recommendations

Primary schools will be productive if urgent attention is given to the human resources, financial resources and physical facilities in the educational system. In conclusion the roles of PTA is evident in the roles it has been performing in the schools; by enhancing cordial relationship between the school and the community; maintaining and instilling discipline in the students in the school and creating awareness on the importance of parents to attend meetings and teachers will have the opportunity to relate issues concerning their children's attendance and retention of their wards in the school.

Furthermore, this paper concluded that there are still some problems faced by PTA in school administration which include financial problems, poor supervision, poor educational facilities, poor academic output, the poor relationship between teachers and parents which brings the gap between teachers and parents because there is poor communication, parents abetting and aiding examination malpractice which indirectly affects the performance of students. Based on this paper recommendation were made on how the PTA can be used as a tool to strengthen the educational system in order to provide the society with quality education, these include involving parents in organizing programmes in the school, involving the PTA in school administration participating in decision making and using direct labour in carrying out projects in the school instead of awarding it as a contract to outsiders.

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PERCEIVED INFLUENCE OF ICT ON TEACHING AND LEARNING OF PHYSICAL EDUCATION IN PRIVATE SECONDARY SCHOOLS IN ILORIN SOUTH LOCAL GOVERNMENT

Surajudeen Tosho Bakinde

Abstract

Information and communication technology is an electronic device used for accessing, processing, gathering, manipulating, presenting and communicating information. This study examined perceived influence of Information and communication technology on teaching and learning of physical education in private secondary schools in Ilorin South. The variables investigated are: - classroom management, classroom size, time allotted, students' concentration and teachers' presentation. Descriptive research of survey method was adopted. The population consists of (114) teachers in private secondary schools in Ilorin South Local Government Area, Randomization technique of fish bowl was used to select twenty (20) private secondary schools. Simple random sampling technique was used to select three (3) physical education teachers from each school making a total of sixty (60) respondents. The research instrument was Questionnaire, validated by three (3) experts in the field of Human Kinetics Education, University of Ilorin. Test re-test method was used for the reliability. Data collection was conducted by the researcher and two trained research assistants. Frequency and percentage were used for the data anaysis, the findings revealed that all the variables were significant determinants of teaching physical educationin private secondary schools in Ilorin South Local Government. The study recommends that Information communication technology should be used in the teaching and learning of Physical Education in private schools in Ilorin south local government for effective use of time allotted.

Keywords: Teaching, Learning, Physical Education, ICT

Introduction

Physical Education is a subject taught in school, it aims at developing physical fitness and the ability to perform and enjoy day to day physical activities with ease. It has been argued that, within teacher education programmmes, Information communication technology must be integrated with curriculum, pedagogy and field experience to model what the teacher might use in their practice (Lockyer & Patterson, 2007). Information and communication technology has different meanings to educators and researchers. Hence, there are various views and definitions of Information communication technology. Yusuf (2007) viewed Information technology as an electronic technology used for accessing, processing, gathering, manipulating, presenting and communicating information. It has been emphasized that when ICTs are employed in education, they can accelerate, enrich and deepen basic skills in reading, writing, and sciences. Information communication technology also motivates and encourage students to learn, help them to become more independent and responsible for their learning. Nwakundo, Oguejiofor and Nwankwo (2006) viewed Information and communication technology as a tool that comprises electronic devices which are utilized for the information and communication needs of institutions, organizations, students and individuals. Such electronic devices include computers (software and hardware), networking, telephone, video, multimedia and internet.

Therefore, ICT could be described as the use of computer as well as other electronic telecommunication appliances to input, store, and retrieve information from different sources, create and transfer messages in form of ideas and also input knowledge to recipients. In line with this definition, it is obvious that if Physical Education teachers and their students in Nigerian secondary schools are to meet the demands of a global world, complete internet and intranet services should be put in place in secondary schools. Therefore, ICT is important as a teaching tool that could improve the quality of teaching and learning process and support teachers' work within and outside the classroom. The application of Information communication technology in the teaching and learning of Physical Education in secondary schools coupled with effective acquisition of the necessary skills will enable the students to contribute to the growth, improvement and development of the nation socially and economically.

Adoption of ICT provides for teaching and learning of Physical Education, enhances the concentration of students in the sense that it facilitates new knowledge and also exposes them to how technology devices work. In develop nations Information and communication technology has made valuable contributions to educational advancement. Students in Western countries are advance with the use of technological gadgets because of its efficiency and time saving. Students even tend to learn faster and better with ICT, the reason for this is that it has been incorporated in the curriculum right from the elementary stages. In Nigeria, mostly of our public schools are over populated compare to private schools. Most private schools have adopted technology in teaching learning process to facilitate students' concentration (Daramola, 2011). Many students do not concentrate while being taught, but the propagation and the usage of Information communication technology in schools can help to direction the attention of the students since technology brings learning closer to them. Students will want to have knowledge or possess knowledge through ICT because it makes knowledge to be real to them. It is necessary for all schools to procure ICT devices for teaching of Physical Education due to its scope, and being practical in nature. Through the use of ICT they can learn new skills by watching the procedure step by step through the projector and demonstrating it afterwards (Daramola, 2011; Sansanwal (2009)).

Teachers' presentation on a particular topic in Physical Education is necessary for teaching and learning process based on the objectives to be achieved. The presentation pattern of the teacher will determine the level at which the students will comprehend what is being taught irrespective of the class size or time allotted to the subject. The use of ICT by teachers in their presentation of lesson to the students has been effective and efficient compared to when ICT is not used. ICT has made the teachers' work lesser and the objectives achieved in a short duration while the students also understand at a faster rate. ICT devices use in presenting Physical Education lessons include but not limited to projector, video conferencing have aided teachers to present the subject or practical skills to the learners within the time frame allotted to the lesson (Yousef & Dahamini, (2008); Tearle & Golder, (2008); Villalba Gonzalez-Rivera (2016)).

Statement of the Problem

The use of ICT in the world today is advancing especially in the field of Education. It is observed by the researcher that in this part of the world, there are some challenges in using ICT for the teaching Physical Education. These problems include but not limited to lack of technical know-how, and inadequate funds to purchase these gadgets among others. These problems have hindered effective teaching of Physical Education in secondary schools. The problem has also affected the development nationwide in the field of Physical Education nationwide. This has

prompted the researcher to embark on this study, focusing on perceived influence of Information and communication technology on teaching and learning of Physical Education in private secondary schools in Ilorin South Local Government Area.

Objectives of the study

The general aim of this research was to investigate how:

1) Information communication technology influence students' concentration during teaching and learning of Physical Education in selected secondary schools in Ilorin metropolis.
2) Information communication technology influence teachers' presentation during teaching and learning of Physical Education in selected secondary schools in Ilorin metropolis.

Research Questions

1. Will Information communication technology influence students' concentration during teaching and learning of Physical Education in selected secondary schools in Ilorin South local Government Area?
2. Will Information communication technology influence teachers' presentation during teaching and learning of Physical Education in selected secondary schools in Ilorin metropolis?

Methodology

The descriptive research design of survey type was used for this study. The researcher described, analyzed and interpret the information as obtained. The population comprised of 114 teachers in private secondary schools in Ilorin South local government (Ministry of Education, 2017). Randomization technique of fish bowl was used to select twenty (20) private secondary schools from forty two secondary schools in Ilorin South Local Government. Simple random sampling technique was used to select three (3) Physical Education teachers in each school making a total some of sixty teachers which formed the sample for this study.

The research instrument used was researcher developed structured questionnaire. The questionnaire has sections A and section B. Section A dealt with the personal data and general information about the respondent while section B consists of item eliciting information relevant to the title, using a close ended Likert-scale of alternative as follows: SA- Strongly Agree, A- Agree, D- Disagree, and SD- Strongly Disagree. To measure the face and content validity of the questionnaire three lecturers from the Department of Human Kinetics Education, Faculty of Education, University of Ilorin validated the instrument. Test re-test method was used to determine the reliability of the instrument which was found at 0.76r. The data was analyzed using descriptive statistic of frequency and percentages.

Research Question

1: WillInformation communication technology influence students' concentration during teaching and learning of Physical Education in selected secondary schools in Ilorin South Local Government Area?

Table 1: Descriptive analysis on ICT and students' concentration during teaching and learning of Physical Education

S/N	ITEMS	SA	A	SD	D	ROWTOTAL
1	Using ICT for teaching Physical Education could improve the students' concentration during learning process	45 (75.0)	14 (23.3)	1 (1.7)	0 (0.0)	60
2	The rate of assimilation will improve with the aid of ICT during teaching and learning process	44 (73.3)	16 (26.7)	0 (0.0)	0 (0.0)	60
3	The use of ICT during teaching will arouse the students' interest	30 (50.0)	30 (50.0)	0 (0.0)	0 (0.0)	60
4	The use of ICT devices will add no value to teaching and learning of Physical Education	33 (55.0)	27 (45.0)	0 (0.0)	0 (0.0)	60
	Column Total	**152** (63.33%)	**87** (36.25%)	**1** (0.42%)	**0** (0.0%)	**240** (100%)

Table one revealed that 63.33% of the respondents strongly agreed that ICT has significant influence on students' concentration during teaching and learning of Physical Education in selected secondary schools in Ilorin South, 36.25% agreed, 0.0% disagreed while 0.42% strongly disagreed. Therefore, the findings indicates that Information communication technology has influence on students' concentration during teaching and learning of Physical Education in selected secondary schools in Ilorin South Local Government Area.

2: WillInformation communication technology influence teachers' presentation during teaching and learning of Physical Education in selected secondary schools in Ilorin South Local Government Area?

Table 2: Descriptive statistic on ICT and teachers' presentation during teaching and learning of Physical Education.

S/N	ITEMS	SA	A	SD	D	ROW TOTAL
1	Availability of ICT tools could help to improve teachers' presentation during Physical Education lesson	22 (36.7)	17 (28.3)	14 (23.3)	7 (11.7)	60
2	Adoption of ICT into teaching and learning process could help the teacher in introducing abstract concept during teaching process.	24 (40.0)	33 (55.0)	3 (5.0)	0 (0.0)	60
3	Teachers knowledge on the use of ICT could have positive impact on teaching method adopted by the teacher	32 (53.3)	28 (46.7)	0 (0.0)	0 (0.0)	60
4	The usage of instruction materials that are technologically inclined help the teaching in passing instructions in the classroom	40 (66.7)	18 (30.0)	2 (3.3)	0 (0.0)	60
	Column Total	**118** (49.17%)	**96** (40.0%)	**19** (7.92%)	**7** (2.91%)	**240** (100%)

Table two revealed that 49.17% of the respondents strongly agreed that Information communication technology has significant influence on teachers' presentation during teaching and learning of Physical Education in selected secondary schools in Ilorin South Local Government Area, 40.0% agreed, 2.91% disagreed while 7.92% strongly disagreed. The findings also indicates that Information communication technology has influence on teachers' presentation during teaching and learning of Physical Education in selected secondary schools in Ilorin South Local Government Area.

Discussion of Findings

Based on the finding, it was revealed that ICT has influence on student's concentration during teaching. This connotes that Information communication technology has influence on students' concentration during teaching and learning of Physical Education. This is in line with the submissions of Daramola, (2011); Juniu (2011), Bisgin (2014); Legrain, Grillet & Gernigon & Lafreniere (2015), affirmed that the instructional materials if Information communication technology orientated will attract the attention of the students and they will have a clear understanding of the instruction the teacher is about to pass to them in any circumstances. The learners might not have seen the ICT devices before so they will want to know more about it for them to use it also.

The findings also revealed that ICT that Information communication technology has influence on students' concentration during teaching and learning of Physical Education. Almekhlafi & Almeqdadi (2010); Hutchison & Reinking (2011); Kretschmann (2015), they submitted that teaching and learning will be extremely faster and easier for both teachers and students compared to the old method of presenting lessons. The teacher can prepare the lesson in slides using Microsoft PowerPoint and pass the instruction to the students through a projector with ease.

Conclusion

Based on the findings of this study these conclusions were drawn;

1. Information and communication technology has influence on students' concentration during teaching and learning of Physical Education.
2. Information and communication technology has influence on teachers' presentation during teaching and learning of Physical Education.

Recommendations

The following recommendations were made based on the findings of this study;

1. Information communication technology should be used in Physical Education lesson to attract the students' attention and improve their concentration in order to achieve the learning objective.
2. Physical Education Teachers should be encouraged to use Information and communication technology in lesson presentation for efficient and effective delivery of instructions during teaching and learning Physical Education.

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MUSCULAR ENDURANCE VARIABILITY OF HEALTH RELATED FITNESS WITH SEX AMONG FEDERAL UNITY SECONDARY SCHOOL STUDENTS IN FEDERAL CAPITAL TERRITORY (FCT) ABUJA

BY

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Abstract

The purpose of this study was to investigate the muscular endurance variability of health related fitness with sex among Federal Unity Secondary School students in Federal Capital Territory Abuja. To achieve this purpose, two hundred and forty (240) male and female students' were randomly selected from the six (6) Federal Unity Secondary Schools in Federal Capital Territory, Abuja. Sit-up test was used to determine muscular strength and endurance, t-test statistical analysis was used to compare the difference between students' health related fitness variables. The results of the analysis showed significant difference in the muscular endurance between male and female students. It was concluded that Male and female students perform differently in any health related fitness, it was therefore recommended that Static and dynamic activities should be introduced for the development of various muscle groups.

Keywords: Muscular Endurance, Health, Fitness

Introduction

Physical fitness is generally accepted as one of the major objectives of any school or college physical education program. Many authorities could rank it us the primary objective. Today the concerns of all Nigerians are to maintain high level of 1ifness because of its significant role and contribution to health and meaningful life of the individual.

Endurance is the ability of a number of groups of muscles to sustain repeated contractions or continue applying force against a fixed object. Push ups are often used to test endurance of arm and shoulder muscles (Exercise physiology educational resources, 2004). Muscular endurance therefore is the ability of the muscle groups to supply sub-maximal force repeatedly or sustain muscular contraction over a period of time without undue fatigue. The side bridge sit up and push up events are indicators of muscular endurance. Tukur (1995) defined muscular endurance as the ability to persist. He added that it is the ability to repeat submaximal contractions or submaximal holding time.

Heyward (1998) defined muscular endurance as the ability of a muscle or muscle group to exert or maintain sub-maximal force levels for extended period of time. He added that it is the repetition of sub-maximal holding time. This is the capacity to sustain repeated muscle action1 such as when performing sit ups, or sustain period of time, as in flexed arm hang.

Statement of the Problem

The introduction of automation has greatly affected our vigorous active life that enables us to perform numerous activities without being fatigued. According to Heyward (AAHPERD) (1980) published a Separate health related physical fitness test manual to distinguish between Performance testing (e.g. fifty-yard dash) and fitness testing (e.g skinfold thickness). This health

related test battery is consistent with the direction of lifetime fitness programs being Concerned with obesity. cardiorespiratory fitness and low back function. Heath related fitness and performance related fitness arc separate qualities of fitness.

These components directly relate to the enhancement of good health status of the individual. The components help in protecting against developing degenerative diseases like coronary heart infection, obesity, hypertension, low back pain and musculo-skeletal disorders. Health related fitness improves a person's functional and structural appearance and soundness.

Purpose of the study

To find out the differences between male and female students of these schools their muscular endurance.

Research question

What are the differences between boys and girls in their muscular endurance?

Hypothesis

There is no significance difference between male and female students of these schools in their muscular endurance.

Methodology:

Ex-post facto, research design was used. A total of two hundred and forty (240) subjects were systematically drawn from the entire population in the six (6) Federal Unity Secondary Schools of the Federal Capital Territory, Abuja. One hundred and twenty (120) of the subjects were female and one hundred and twenty (120) were male students.

Modified Sit up Test

Modified sit-up test: - The Bent knee sit up was used to determine the local muscular endurance of the abdominal muscles. This test was used purposely to evaluate abdominal muscular strength and endurance. AAHPFRD U980) reported that evidence from studies of muscle activity during exertion of a sit-up have shown that abdominal muscles are utilized during execution of the test. They stated that the reliability of sit up test has been generally satisfactory; the test-retest reliability coefficient has ranged from 0.68 to 0.94.

According to Tukur (1995); and Umar (2000), a study at Northeast Louisiana University used the sit-up test with a reliability of 0.94. This suggests that the sit-up test is an indicator of high improvement in the fitness level of the local muscular strength and endurance. Malina (2001) also reported a reliability of 0.94.

Description of the test: In conducting this test, the subjects were instructed to lie on supine position, with arms folded across the chest, while the fingers grasped the opposite shoulder. The knees are flexed to form angle 12-18 to the buttocks and the feet are placed flat on the floor. The subject's feet are held firmly on the floor by the research assistant to keep him/her in touch with the floor and then count the number of the sit ups. During the execution of the sit-up test, the subject curls to sitting position with the arms constantly in contact with the chest. The chin remains tucked onto the chest. The sit up is completed when the arms touch the thighs. To complete the sit up, the subject returns to the down position until the mid back makes contact with the floor. The exercise is repeated as many times as possible until the performer cannot sit up or perform the exercise any longer. The total number of repetitions in one minute is recorded as the score.

Results:

Information regarding the demographic characteristics of the respondents is shown in table 1.

Table 1: Demographic Characteristics of the Respondents

Group	Variable	Gender	Number	Mean	SD
1	HT(m)	M	20	1.537	0.0791
		F	20	1.5425	0.0562
	WT (kg)	M	20	38.25	5.8298
		F	20	40.4	6.4105
2	HT(m)	M	20	1.5495	0.0587
		F	20	1.571	0.0774
		M	20	38.35	5.8063
	WT (kg)	F	20	43.9	9.2787
3	HT(m)	M	20	1.622	0.0928
		F	20	1.6025	0.0458
	WT (kg)	M	20	45.25	7.1442
		F	20	48.1	7.9390
4	HT (m)	M	20	1.631	0.0843
		F	20	1.622	0.0539
	WT (kg)	M	20	45.15	6.6275
		F	20	49.05	8.1142
5	HT(m)	M	20	1.7035	0.0576
		F	20	1.655	0.0496
	WT (kg)	M	20	53.2	4.3722
		F	20	54.15	6.5154
6	HT(m) 1	M	20	1.725	0.0591
		F	20	1.6645	0.0548
	WT (kg)	M	20	56.9	7.7385
		F	20	51.55	6.0652

Table 1 showed the mean and standard deviation and standard error of mean for the demographic characteristic information of the students. The information is shown separately for male and female students of the Federal Units Secondary Schools of Federal Capital Territory (F.C.T.) Abuja.

Information regarding the mean scores of male and female respondents in Percent body fat, 12 minute run test, modified sit up test and Modified sit and reach test is shown in table 2.

Table 2:Mean Performance of the Students in Federal Unity Secondary Schools in modified sit-up test.

VARIABLES

Group	**1**		**2**		**3**		**4**		**5**		**6**	
Gender	**Male Female**		**Male Female**		**Male Female**		**Male Female**		**Male Female**		**Male Female**	
		Mean		**Mean**		**Mean**		**Mean**		**Mean**		**Mean**
Modified Sit-up Test	M	23.4	M	2 1.9	M	26.15	M	25.25	M	25.1	M	29.9
	F	16.3	F	14.55	F	15.85	F	14.5	F	13.1	F	18.55
		SD		**SD**		**SD**		**SD**		**SD**		**SD**
	M	4.9567	M	9.4418	M	9.2581	M	10.249	M	5.098	M	5.83
	F	4.3054	F	5.3555	F	4.8371	F	6.0567	F	5.3499	F	4.628

The table 2 shows the mean performance of male and female students in muscular strength and endurance.

Modified Sit-up Test

Table2 shows that the male students in group 1 had a mean score of'23.4, while the female students had a mean score of 16.3. This result indicated that male students had more muscular strength and endurance than their female counterparts. In group 2 the male students had the mean score of 24.9 while the female students had the mean score of 14.55. In group 3, the male students had the mean score of 26.15, while their female counterparts had the mean score of 15.85. The female students showed some level of increase in their muscular strength and endurance. The male students in group 4 had the mean score of 25.25, while their female counterparts had the mean score of 14.5. This result showed decline in the level of muscular force exertion and contraction for both, male and female students. The male students in group 5 had the mean score of 25.1 while the female students had the mean score of 13.1. This result still indicated decrease in the muscular endurance of both male and female students, though male students still maintained higher muscular endurance than their female counterparts.

In group 6 the male students had the mean score of 29.9 in sit-up test per minute, while the female students had the mean score of 18.55. This result showed that there was increase in muscular strength of the female students. However, the male students still maintained higher level of muscular endurance than their female counterparts.

Table 3: t-test comparing the student performance in Modified sit-up Test

GROUP	1		2		3		4		5		6	
GENDER	MALE FEMALE		MALE FEMALE		MALE FEMALE		MALE FEMALE		MALE FEMALE		MALE FEMALE	
		SEM		SEM		SEM		SEM		SEM	1 SEM	
		SEM		SEM		SEM		SEM		SEM		SEM
Modified Sit-up test	M F	1.3083 0.9627	M F	2.1112 1.1975	M F	2.0702 1.0816	M F	2.2917 1.3543	M F	1.1399 1.1963	M F	1.3036 1.0349
		DF		DE		DF		DF		DF		DF
		38		38		38		38		38		38
		t-value		t-value		t-value		t-value		t-value		t-value
		*4.84		*4.26		*4.41		*4.04 ~l		*7.26		*6.82

Df (38) = 2 .042.<0.05. * Significant

Table 3 showed significant difference in the test of muscular endurance between male and female students in the Federal Unity Secondary Schools. The result shows that the t-calculated is greater than the t-critical. The male students showed greater performance in muscular strength and endurance than their female counterparts.

The result also indicated a decrease in the muscular strength and endurance of both sexes of certain level of development. However, the result still shows higher level of muscular strength and endurance in males than their female counterparts.

Table 4: ANOVA Showing the Difference in the Performance of the Students on these Variables modified sit up test.

Variables		Sum of squares	df	Mean Square	F	Sig
Modified set-up test	Between groups	6375.704	1	6375.704		
	Within groups	Total 10754.292	238	45.186	**141.099	.000
		17129.996	239			

f (1.238) = 3. 84. P<0.05 ** significance

Table 4 shows the comparison of the performance of students in modified sit up test. The F ratio of 141.099 indicated a significant difference that existed in the muscular strength and endurance between the two groups (P<0.05.** significant).

Discussion

Muscular Endurance

Gender differences in strength are most likely due to fat-free mass level which has been reported to account for 97% of the gender strength difference. The result of muscular strength and endurance fitness of the students in table 4.7 shows a significant difference in the performance of male and female students. The result indicated that the male students performed better in muscular strength and endurance test than female students. Strength in men is considerably higher than in women because in mum the inherent capacity to increase muscular mass is much higher than in women. (Malina, 2001).

In this finding, it was noticed that boys continued to improve all through the period of their growth, while girls' improvement kept to fluctuate. It is noticed to be high at the earlier stages of development and it decreases at the mid way and it rises up at adolescent period. The explanation to the fluctuation in the girls' performance in modified sit ups could be due to their poor attitude toward physical activities, and an increase in adiposity due to fat deposition in their body during pubertal age.

Generally strength can only be gained through an improvement in exercise or diet. The increase in strength of girls is gradual and does not show any marked change in the levels of the strength gained at puberty. The differences in the levels of the strength between males and females could be as a result of the increase in fat deposition in girls at puberty and the sedentary lifestyle they tend to assume than the boys who remain in active lifestyle. Regardless of how' isometric and isotonic strength increase from certain period of growth, it remain unchanged until adulthood and then declines. Lower strength in children is explained by smaller muscle fibres.

Gender Difference

Gender has been revealed by research evidence to have influence on strength. When strength is compared in untrained males and females, it was observed that males exhibit greater absolute strength. Males have about 50% more strength than females in the upper body as compared to 30% more strength in the lower body. Research findings indicated that upper body strength difference between males and females is greater than lower body strength difference. Malina, (2001).

Women generally have less muscle mass than men. However, the development of muscle was seen among women as in men. Some women may be stronger and fatter than some men. However, the inherent capacity for muscle development is genetically determined by sex hormonal level. Testosterone in men is responsible for muscle bulkiness, though it is also present in women but in low amounts to have substantial effect on muscle size. Women are different from men in their physical endowment. They have less muscle mass than men. and they have lighter bone structure, and have more body fat than men (Uliyot. 1977).

The differences in the performance of muscular strength and endurance in males and females may be due to increased fat deposition in girls at puberty and they tend to assume a more sedentary lifestyle than boys who remain active. Motor ability generally increases for the first 18 years of life. Although in girls it tends to plateau around puberty at 16 years and boys peak at 18 and 25 years. (Wilmore & Costill, 1999, Malina, 2001)

Wilmore and Costill (1999) also observed that boys performed better in pull-ups. Flexed arm hang, sit ups than girls through the age 6-18 years, and boys exhibit sharp improvement than girls. They opined that “these differences may be as a result of increased fat deposition in girls at puberty and they tend to assume a more sedentary lifestyle than boys who remain active, likewise a superior performance of boys over girls in modified sit-up over the age of 6-17 years.

Wilmore and Costill (1999) opined that motor ability generally increased for the first 18 years of life. Early findings indicated that girls tend to pick up and plateau around puberty at 16 years and boys at 18 years. They observed that girls experience more gradual increased in strength and do not exhibit a marked change in their rate of strength gain with puberty. The sharp improvement in girls at adolescent stage shows that their motor ability picks up better at this stage. Gender generally has influence on strength. Males exhibit greater strength than females. Men are stronger than women in the upper body than in the lower body. The differences are most likely

due to fat- free mass levels that have been earlier reported to account for gender strength differences.

It was recommended that

1. Static and dynamic activities should be introduced for the development of various muscle groups.

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ASSESSMENT OF AWARENESS OF RETINOBLASTOMA AMONG MOTHERS OF UNDER-FIVE CHILDREN IN KADUNA STATE, NIGERIA

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Abstract

This study assessed awareness of retinoblastoma among mothers of under-five children in Kaduna State, Nigeria. The study employed descriptive survey research design. The population of the study comprised of all mothers of under-five children in Kaduna State which are 2,050,608. One specific purpose, research question and hypothesis were formulated to guide the study. A multi-stage sampling technique comprising of systematic, simple random, purposive and proportionate sampling technique were used in selecting the required number of respondents for the study as stated above. Four hundred (400) copies of the researcher-developed questionnaire were distributed using simple random sampling technique, of which 374 (93.5%) were retrieved and considered valid for the study. Data collected were analyzed using the Statistical Package for Social Science (SPSS) version 20. Frequency and simple percentages were used to describe the demographic characteristics of the respondents, while mean and standard deviations were used to answer the research question. Inferential statistics of one-sample t-test was used to test the formulated hypothesis at 0.05 alpha level of significance. The findings of the study revealed that awareness of retinoblastoma among mothers of under-five children in Kaduna state was significant (t=29.730, p= 0.001). In conclusion, the study showed that mothers of under-five children in Kaduna state are aware of retinoblastoma. It was therefore recommended that health care workers should at all time give health talks on retinoblastoma to mothers of under-five children during their contact (ante and post-natal days) so as to further enlighten and help them sustain their awareness of the disease.

Key words: Assessment, Awareness, Retinoblastoma, Eye, Under-five children

Introduction

The eye is one of the five major sense organs of the body, which makes vision possible. Problems associated with early development of the eye results into diverse eye problems including retinoblastoma. Retinoblastoma (eye cancer) is a cancer of the eye that starts in the retina, the very back part of the eye (Boyd, & Maturi, 2016). The eyes develop very early as babies grow in the womb. During the early stages of development, the eyes have cells called retinoblasts that divide into new cells and fill the retina. At a certain point, these cells stop dividing and develop into mature retinal cells. Rarely, something goes wrong with this process. Instead of maturing into special cells that detect light, some retinoblasts continue to divide and grow out of control, forming a cancer known as retinoblastoma. Retinoblastoma is the most common type of eye cancer in children of ages 0-5 years and represents 3% of all childhood malignancies. It is a cancer of the very young; two thirds of the cases are diagnosed before 2 years of age, and 95% before 5 years of age (American Academy of Ophthalmology, 2013).

The American Cancer Society, (2015) reported that, Retinoblastoma is a cancer of the very young and mostly found among under-five children. This cancer has another name that is "eye cancer". They also emphasized that, the disease can affect people of any age but commonly affects children aged less than 5 years. According to Broaddus, Topham and Singh (2009), the mean age-adjusted incidence of retinoblastoma in the United State of America was 11.8 per million children aged 0-4 years. They also confirmed that the incidence was similar to the rates reported in Europe. However, the incidence of retinoblastoma is not distributed equally around the world with 8000–9000 new cases recorded annually (AAO, 2013). It appears to be higher in Africa, India, and among children of Native American descent in the North American continent (Ward, DeSantis, Robbins, Kohler, & Jemal, 2014; Bunin, & Orjuela, 2015). Whether these geographical variations are due to ethnic or socioeconomic factors is not well known. However, the fact that even in industrialized countries an increased incidence of retinoblastoma is associated with poverty and low levels of maternal education (De Camargo, de Oliveira Ferreira, de Souza Reis, Ferman, de Oliveira Santos, & Pombo-de-Oliveira, 2011: Fajardo-Gutierrez, Juarez-Ocana, Gonzalez-Miranda, 2007) proves a point that awareness is requisite to early detection of the disease.

Awareness according to Merriam-Webstar Dictionary, (2017) is having or showing realization, perception or knowledge of something. Therefore, awareness can be said to be knowledge. Zagzebski, (2017) stated that knowledge is a highly valued state in which a person is in cognitive contact with reality. Awareness in the context of this study is the knowledge of retinoblastoma, which is the ability of the subjects to identify the disease in their children or ability to recognize signs and symptoms of retinoblastoma in its early stage and form. The ability to detect the disease while it is still in its earlier stage (intra-ocular) makes it possible for treatment and preservation of vision.

It is estimated that, in almost half of the 1.4 million children who are blind today (World Health Organization, 2017), the underlying cause could have been prevented, or the eye condition treated to preserve vision or restore sight (Gilbert, & Foster, 2001), thus emphasizing the critical role of early diagnosis and appropriate treatment in preventing childhood blindness, a role that should involve primary care physicians including paediatricians and parents. This is because childhood blindness poses educational, occupational and social challenges with affected children being at higher risk of behavioural, psychological, emotional difficulties, impaired self esteem and poorer social integration (Jan, 2005). Kruger, Reynders, Omar, Schoeman, Wedi, and Harvey, (2014), reported that, there is generally poor outcome in children with retinoblastoma, reflecting its late diagnosis. Overall survival was only 33 - 43%, compared with the 95% achievable in developed countries. Lack of effective screening and early diagnosis leads to this unacceptably high mortality rate, this can be significantly reduced through early detection of retinoblastoma that may be achieved by ensuring that the 'red reflex' is tested for on all newborns and toddlers.

Therefore since early detection of the disease is paramount to eye salvage and saving of the child's life, this study therefore, intends to assess the awareness towards observation of retinoblastoma disease among mothers of under-five children in Kaduna state.

Research Questions

1. Are mothers of under-five children in Kaduna state aware of retinoblastoma?

Hypotheses

Mothers of under-five children will not significantly be aware of retinoblastoma in Kaduna State.

Methods

For the purpose of this research, a descriptive survey research design was adopted for the study. The design was chosen because it describes the responses of the respondents and cannot be manipulated by the researcher. The population for this study comprised of all mothers of under-five children in Kaduna State, Nigeria. According to the National Bureau of Statistics (2016), the projected population of women of reproductive age in Kaduna State was 2,050,608. The target population for this study consisted of 477,040 mothers' of under-five children within the six (6) sampled Local Government Areas of Kaduna State, Nigeria.

The total sample used for this study wasfour hundred (400) mothers of under-five children from six (6) randomly selected local government areas in Kaduna State namely; Kaduna, Igabi, Makarfi, Sabon Gari, Kachia and Jama'a. In obtaining the sample size from the total population, the researcher employed the sample size procedure proposed by Yamane (1967). Yamane stressed that in a finite population, the correct sample size can be determined using the following formulae.

$$n = \frac{N}{(1 + Ne^2)}$$

Where;

n= correct sample size

N= population size

e=margin of error e=0.05

Therefore, for the purpose of this study, the sample size used was 400. A multi-stage sampling procedure was employed by the researcher for this study. First, the researcher stratified Kaduna State into the three (3), senatorial zones, namely; Kaduna North, Kaduna South, and Kaduna Central respectively. From each of the senatorial zones, two local government areas (LGA) were randomly selected using the dip-hand method, three containers were used, one container representing each senatorial zones of the state. The name of each LGAs from each senatorial zone were written on pieces of paper folded and dropped into the corresponding container, after which the researcher shook each container well before asking one of the research assistants to dip his hand and pick one folded piece of paper at a time and the name of the LGA picked were written down. This procedure continued until two LGAs were selected from each senatorial district.

After selection of the representative LGAs from the senatorial districts, the researcher now randomly selected one healthcare facility from each LGA using the dip hand method, where names of the healthcare facilities in the LGA was written on pieces of paper and dropped in a container. The researcher shook the container vigorously and asked one of the research assistants to dip his hand and pick a piece of paper at a time. The name of the health facility picked were then written down, this procedure continued until the total number of health facilities needed for the research was gotten. The six (6) health facilities selected were then used to get the respondents for the research.

To determine the proportion of respondents per LGA, proportionate sampling procedure was used by the researcher. The researcher divided the population of the women at each LGA by the total population from all the LGAs and multiplied it by the sample size (400).

Proportionate sampling procedure $= \frac{n}{N} \times 400$

Where;
n= is the population of women of reproductive age in an LGA
N= is the total population of women of reproductive age from all selected LGAs

To get the respondents for the research, a purposive sampling procedure was employed by the researcher. The researcher and his assistants purposively selected the mothers of under-five children present at the health facility to serve as respondent for **the**research.

Results

Research Question One

Are mothers of under-five children in Kaduna state aware of retinoblastoma?

Table 4.1: Mean score of responses on awareness of mothers of under-five children of retinoblastoma.

S/No	Items	Mean	Std. Deviation
1	A child with whitish pupil indicates that he/she has retinoblastoma	3.0642	.75826
2	Eyes that appear to be looking at different directions (Squint) can present retinoblastoma later in life.	2.9519	.74879
3	Retinoblastoma can occur in one or both eyes.	3.1818	.83431
4	Retinoblastoma can be inherited.	2.8342	.89641
5	Early detection of Retinoblastoma can save the vision and life of the child.	3.3369	.75310
6	Blurred vision is an indication of retinoblastoma.	3.0856	.81747
7	Retinoblastoma is a curable disease if it is detected in its early stage.	3.2620	.71806
8	Retinoblastoma can lead to permanent impairment in children.	3.1551	.82359
9	Food rich in vitamin A can prevent retinoblastoma.	3.2246	.77690
10	Immunization against measles can prevent retinoblastoma.	3.2246	.77690
11	Eye hygiene is a factor for improving the health of the eye.	3.2246	.76297
12	Eye medical check-up provides early detection of retinoblastoma.	3.2742	.75954
13	Traditional medicine can prevent retinoblastoma.	2.3476	.86767
Aggregate Mean Score		**3.0800**	

Table 4.1 above revealed the mean score of responses on awareness by the respondents of retinoblastoma in Kaduna state, Nigeria. The aggregate mean score of the items is 3.08. Thus, indicating a positive awareness of retinoblastoma among the respondents. This can be concluded that most of the mothers of under-five children have a significant level of awareness regarding retinoblastoma, except for the use of traditional medicines in preventing retinoblastoma which

has a mean score of 2.35. Hence, it can be deduced that the respondents do not believe in the effectiveness of traditional medicines in preventing or curing retinoblastoma.

Hypotheses Testing

Hypothesis
Mothers of under-five children will not significantly be aware of retinoblastoma in Kaduna State.

Table 4.2: One-sample t-test on awareness of mothers of under-five children of retinoblastoma

	Mean	Std. Deviation	t-value	df	P-value
Aggregate mean	3.0800	.37731	29.730	373	.001
Constant mean	2.5	0.00			

$t(373)=1.972$, $p<0.05$

Table 4.2 revealed that awareness of retinoblastoma among mothers of under-five children in Kaduna state was significant with t-value of 29.73 and df of 373 at p-value 0.001. Therefore, the null hypothesis which stated that mothers of under-five children will not significantly be aware of retinoblastoma in Kaduna State was rejected. This means that mothers of under-five children in Kaduna state are aware of retinoblastoma.

Discussion

Retinoblastoma (cancer of the eye) is a disease mostly found among children who are below five years of age. This study was conducted to assess the awareness, attitude, and practice of retinoblastoma among mothers of under-five children in Kaduna state, with the possibility to proffer solutions to this health problem. With regards to awareness of observation of retinoblastoma by mothers of under-five children, the finding revealed that mothers were aware of this disease (cancer) of the eye. This finding, therefore, supports a study conducted by Wanyama, Marco and Kariuki, (2016) which assessed knowledge, attitude, and practice of childhood eye diseases among paediatricians working in Kenya. The study revealed that out of the 125 paediatricians who participated in the study 69.6% have significant knowledge of childhood eye diseases. This study also agrees with a study conducted by Sathjamohanraj, et al (2011) which revealed that paediatricians in India are aware of retinopathy and agrees that it is treatable. The findings of this study are in contrast with a study conducted by Ayanniyi, Jamda, Badmos, Adelaiye, Mahmoud, Kyari, and Nwana, (2011) who reported that knowledge of ocular cancers is low among Nigerians from resource-limited settings. This study is also in contrast with Atipo-Tsiba, and Itoua, (2015), who reported that only 40% of midwives could define retinoblastoma and only 10% could associateleucocoria and strabismus as two early signs of this cancer. This study is also in contrast to a study conducted by Demirbang, et al, (2013) which revealed that knowledge of Turkish mothers about cancer is deficient. This study is also in contrast with a study done in Brazil by Michel, et al. (2003) who revealed that 14(10%) did not know that retinoblastoma is malignant, 28(20%) of respondents did not know the best age to start treatment of visual impairment, 88(63%) did not remember that retinoblastoma, retinopathy of prematurity and exudative retinal diseases are causes of Leucocoria.

Conclusion

Based on the findings of this study, it was concluded that, awareness of retinoblastoma among mothers of under-five children in Kaduna state was significantly positive. Most of the mothers showed a good knowledge of the disease, which further supports the finding that mothers of under-five children are aware of retinoblastoma in Kaduna State, Nigeria.

Recommendation

On the basis of the conclusion above, the following recommendations were made:

1. Health care workers should at all times give health talks on retinoblastoma to mothers of under-five children during their contact (ante and post-natal days) so as to further enlighten and help them sustain their awareness of the disease.
2. The State and Federal Ministry of Health should carry out a nation-wide campaign on awareness of retinoblastoma so as to create more awareness and help sustain the positive attitude towards observation of retinoblastoma among mothers of under-five children.

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