

Assessment of the availability of School Health Facilities and Personnel in Public Secondary Schools in Cross River State, Nigeria

Dan, Felicia Agbor-Obun^a, Ukpata, Christiana Ofie^b, Edet, ItamBen^c & Lale, Penel^d

^{a, b, c, d}Lecturers, Department of Human Kinetics and Health Education, University of Calabar,
Calabar, Nigeria

Email:

drfeliciaadan@gmail.com^a, xydelight@gmail.com^b, kindtammy7@gmail.com^c, peniellale@gmail.com^d

Abstract: This study assessed the availability of health facilities and personnel in public secondary schools in Cross River, Nigeria. Two research questions were used to assess the availability of health facilities and equipment and availability of health personnel in public secondary schools in Cross River State, Nigeria. Ex-post facto research design was adopted and a sample of 160 public secondary schools were used for the study. A checklist titled Assessment of School Health Services Checklist (ASHSC) was used for data collection. Data collected were analyzed using percentages. The results of the analysis revealed that: Fifty nine, 59 (37 per cent) of health facilities and equipment were available, 54 (31 per cent) of the schools have health facilities/equipment accessible and 41 (23 per cent) of the schools have their health facilities adequate in number. Also Sixty seven 67 (42 per cent) of the secondary schools under study have available health personnel, 50 (31 per cent) of the schools have their health personnel accessible while 32 (20 per cent) of the schools have adequate health personnel. The study suggested as policy implication that the government should make sure that sick bay and other vital health facilities such as thermometer, and drugs are provided in all secondary schools in the State. There is need for the Cross River State government to ensure that laboratory technicians and other health personnel are made available to all secondary schools in the State.

Keywords: Assessment, Facilities, Healthcare, Personnel, Public, School, Secondary

1. Introduction

The school is one of the most vital agents that influences the life of a person. Nearly all children attend school at some point of time during their lives. It approximated that they spent about 6 to 7 hours of their time every day in school. WHO (2010), in its document submitted that no meaningful education could be achieved by children when they are in poor health. Poor health in children may lead to lower education attainment. Because of the vital role health played on the educational attainment of children, the World Health Organization in the last decade has come up with a framework to assist schools in addressing health challenges faced by schools. While a large number of studies have been carried out on availability of school healthcare facilities and equipment in various countries, few such studies are available in Nigeria and none in Cross River State of

Nigeria. No published reports presenting on the availability of school health facilities and school health personnel in Cross River State of Nigeria has been identified.

In Nigeria public schools do not longer recognize the impact of health on learning. As such hardly are school health facilities and equipment made available in secondary schools. At times when made available there are no personnel to make use of these facilities. **NPE (2006)** stated that, for school health services to succeed health facilities and personnel are required. The availability and the non-availability of school health facilities and personnel in schools is one of the factors that parents take into consideration in securing admission for their children. Parents need the assurance of safety of their children either at injuries or fallen suddenly ill while at school. In most secondary schools in Nigeria school health system is very poor, as such most secondary schools in Nigeria lack basic school health facilities and equipment such as sick bay, beds, essential drugs and first aid box. The sad situation is that school health personnel are hardly made available even in secondary schools where there are health facilities and equipment. As such in most the secondary school in Nigeria students have never had pre-entry medical screening, routine health screening, health counseling, health records, health personnel and adequate first aid in public secondary schools. Many students seem to be at risk of special health need. This had resulted to inability diagnosis and to proffer urgent intervention when such diseases condition manifest in the school. The common diseases, such as asthma, epilepsy, tuberculosis, sickle cells and so on are common health challenges in frequently observed among students in many schools. Consequently, if health services were made available in schools, such health challenges will have been properly taken care of. This study therefore, wishes to assess the availability of school healthcare facilities and personnel in public secondary schools in Cross River State. This research is therefore geared to assess school health services in public secondary schools in Cross River State, Nigeria. However, the following objectives were set for the study: To investigate the availability of health facilities and equipment in public secondary schools in Cross River State Nigeria, and to investigate the availability of health personnel in public secondary public secondary schools in Cross River State Nigeria

1.1 Literature review

1.1.1 Assessment of availability of school health facilities and equipment in schools

Health facilities are very essential in schools; it is a student or child right (**FGN, 2006**). **Dubos (2009)** stated that lack of facilities for health services in schools for emergencies and injuries will lead to poor performance in academics. In line with the above therefore, it is obvious that for the success of any school health programme generally, adequate and qualitative health facilities must be made available. The importance of health facilities in schools cannot be over stressed. School Health has gained wide recognition in many countries of the world, therefore provision and adequate facilities is a necessity and not a luxury. Health facilities are some of the factors that determine the ability of a school to be seen as organized and provide a satisfactory condition for health and academic performance. **Marsha and Hattie (2007)** highlighted results of some and concluded that health facilities and equipment influenced students' academic performance. Also, they added that with good provision, adequate and functional school health facilities will enhance effective performance of students. **Gallin and Hanlon (2009)**, argued that health facilities in schools generally

Assessment of the availability of School Health Facilities and Personnel in Public Secondary Schools in Cross River State, Nigeria

have a prominent place in any educational system since the turn of the century; therefore much attention should be devoted to the provision of health facilities for schools.

Provisions for facilities are panacea to effective administration of school health services. Lack of provision of facilities in schools has hampered the intellectual and healthy growth of the students. Some of our schools in Nigeria in general, Cross River in particular cannot boast of a room designated as school clinic, neither do the students know what a first aid box is nor what a sickbay is all about. The government does not help in provision of health facilities to schools, the situation is worse as most students leave their homes without a dime in their pockets and most times are confronted with health needs. **Deman(2006)** also stated that for all persons living in Nigeria to have access to health care facilities. Health needs of the students and adolescence should be placed with reasonable emphasis.

No school health programme could be complete without school health clinic (**Warren, 2005**). American school health Association as submitted by **Warren(2007)** advised that school health clinic should be staffed by qualified professional including physicians, nurses, dentists, health educators and pharmacists. These health professionals should have experience and expertise in the areas of school health and school age children. **Flint (2005)** opined that the purpose of having the school health clinic is to appraise, protect, and promote students health. This service will ensure access and referral to health care services. Centers for Disease Control and Prevention (**CDCPN, 2006**), and Division of Adolescent and School Health [**DASH(2006)**] agreed that school health services should also focus on prevention and controlling of communicable diseases as well as emergency care for illness or injury. **American School Health Association (2007)** further highlighted the responsibilities of school health clinics to include cooperating with other school staff in promoting a sanitary and safe school environment for students. The health clinic staff has an important responsibility in the use of the facilities for patient's education and students counseling to promote, maintain individual and Community health. School environment influences the success of the curriculum on student's cognitive development. Schools should provide an environment free from biological or chemical agents that are detrimental to health. School administrators should provide and promote a positive and health environment where students feel safe and happy.

1. I.2 Assessment of availability of school health personnel in schools

UNICEF(2006) submitted that the health care providers include a wide range of service providers consisting usually of physicians, nurses, pharmacists, community health workers, laboratory scientists and technicians, counselors as well as management and support staff. The number of qualified staff at each health facility level can vary from contest to contest. **Stonner and Desmond(2009)** also, affirmed that a qualified health worker refers to formally trained clinical provider. Health workers should have the proper training and skills capable of assisting them function effectively in their level of responsibilities. Health agencies and administrators have obligations to train staff to ensure that their knowledge is up to date before they are engaged to carry out responsibilities.

UNICEF (2009) posited that trained health personnel is the bedrock of schools health services. **Avina(2011)** asserted that to achieve wide coverage of school health programme the components must be integrated into existing school health programmes. In a study in Brazil, the main problem

encountered was non availability of trained personnel/professionals in schools to provide good quality health services. They also, lack trained professionals in the management of asthma and epilepsies in school children. The findings of that study include lack of human resources and health policies. There were also, inadequate graduate and professionals in schools to deal with the students' health challenges in schools. **World Health Organization (WHO, 2006)** in its report stated that the number of school children in the sub-Saharan Africa has continued to grow at different rates. This is as a result of numerous health challenges faced by the implementation of school health services. Students' health appraisal status and trained personnel were among the challenges identified. Experts' round table report showed that lack of personnel, low level health and lack of financial resources were obstacles that inhibit effective school health services (School Health Service Programme Experts' Round Table Report (**SHSPE, 2011**)). In Nigeria, a study by **Buba, (2005)** showed that majority of the secondary schools in Jalingo Metropolis lack school nurses and there is low level of school health services. **Ojugo (2005)** reported that medical inspection conducted by medical doctors (49 per cent) was for school children while (45 per cent) was for teachers and nurses. Studies by **Dawson, 1997; Frankham, 1998 & Gold, 1999** revealed that the significance of health services in schools. They concluded that health services in schools if effective, would help in reducing the health risk behaviours, teenage pregnancies and smoking rate among young people. However, its overall effectiveness is dependent on many factors such as qualified health workers, functional and available health infrastructure and equipment.

2. Materials and Methods

2.1 Research design

The research design adopted for this study is the ex-post facto. **Kerlinger (1986)**, asserts that ex-post facto study is a systematic empirical inquiry in which the researcher does not have direct control of the independent variables because their manifestation have already occurred, or because they are inherently not manipulatable. Inferences about relations among variables are made without direct intervention from concomitant variables of independent and dependent variables. At the time of the study variables such as health appraisal and school health counseling services, Thus the researcher have no control over their existence or not.

2.2 Population of the study

The population of the study consisted all public secondary schools in Cross River State, Nigeria. Information from Cross River State Secondary School Education Board revealed that there are total of 236 public secondary schools in the State (**CRSSEBR, 2013**). Stratified random and proportionate sampling procedures were adopted to select a sample of 160 schools that were used for the study

2.3 Instrumentation

The instrument that was used for data collection was a structured checklist entitled Assessment of School Health Services Check List (ASHSCL). The check list was constructed by the researcher with the help of information from the literature review. To assess the level of health service in public secondary schools in Cross River State, responses on the two research questions were answered using frequency count percentages, and bar graphs.

Assessment of the availability of School Health Facilities and Personnel in Public Secondary Schools in Cross River State, Nigeria

3. Results and Discussion

3.1 Answer to research question

3.1.1. Research Question 1: To what extent are school health facilities and equipment made available in public secondary schools in Cross River State, Nigeria? The result is presented in Table 1 and Figure 1.

Table 1: Frequency and percentage availability, accessibility and adequacy of health facilities in Public Secondary Schools in Cross River State.

	Availability				Accessibility				Adequacy			
	AV	%	Av.	%	Ac.	%	N. Ac.	%	Ad.	%	N.Ad	%
Sick bay	85	53	75	47	63	39	97	61	48	30	112	70
Sick bed	85	53	75	47	63	39	97	61	56	35	104	65
Water	145	91	15	9	145	91	15	9	65	41	95	59
Hand washing basin	73	46	87	54	62	39	98	61	43	27	117	73
Urinary	160	100	0	0	143	89	17	11	118	74	42	26
Toilet	160	100	0	0	143	89	17	11	118	74	42	26
Refrigerator for standard health services	10	6	150	94	8	5	152	95	3	2	157	98
A medical supply cabinet with a lock	20	13	140	88	14	9	146	91	8	5	152	95
A scale	103	64	57	36	78	49	82	51	63	39	97	61
First aid kits	137	86	23	14	108	68	52	33	85	53	75	47
an audiometer	25	16	135	84	18	11	142	89	12	8	148	93
a vision tester	68	43	92	58	57	36	103	64	43	27	117	73
A audiometer		0	160	100		0	160	100		0	160	100
A blood pressure gauge and cuff	73	46	87	54	48	30	112	70	39	24	121	76
An otoscope	6	4	154	96	4	3	156	98	4	3	156	98
Scolimeter	4	3	156	98	4	3	156	98	4	3	156	98
Glucose meter	26	16	134	84	18	11	142	89	18	11	142	89
Tympanometer	8	5	152	95	8	5	152	95	8	5	152	95
Inhaler	48	30	112	70	40	25	120	75	38	24	122	76
Thermometer	160	100				0	160	100		0	160	100
Medical laboratory	16	10	144	90	8	5	152	95	8	5	152	95

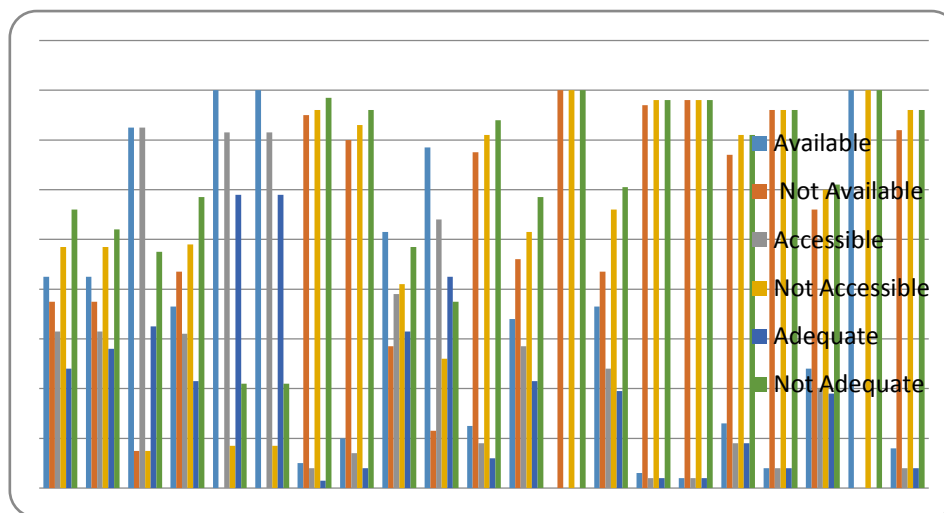


Figure 1: Availability of school health facilities in public secondary schools in Cross River State, Nigeria

The result in Table 1 revealed that thermometer was 100 per cent available accessible and adequate in secondary schools under study. Toilet and urinary were 100 per cent available in all secondary schools under study but only 74 per cent of the schools have adequate toilet and urinary. Ninety five percent 95 per cent of the schools have available water but only 59 per cent have adequate water. This result also showed that 53 per cent of the schools have sick bay and beds available but only 30 per cent of the schools have adequate sick bay and beds. Otoscope and Scolimeter were hardly available in most schools with only 4 and 3 per cent of schools respectively had them available.

4.1.2 Research Question 2: To what extent are school health personnel available in Public Secondary Schools in Cross River State? The result is presented in Tables 2 and 3

TABLE 2: Frequency and percentage availability, accessibility and adequacy of health personnel in Public Secondary Schools in Cross River State.

Items	Availability				Accessibility				Adequacy			
	AV	%	N.	%	Ac.	%	N.	%	Ad.	%	N.Ad	%
Health												
Counsellor	103	64%	57	36%	67	42%	93	58%	48	30%	112	70%
school Nurse	56	35%	104	65%	47	29%	113	71%	30	19%	130	81%
Health												
Educator	98	61%	62	39%	83	52%	77	48%	52	33%	108	68%
Laboratory technician	12	8%	148	93%	4	3%	156	98%	1	1%	159	99%

Assessment of the availability of School Health Facilities and Personnel in Public Secondary Schools in Cross River State, Nigeria

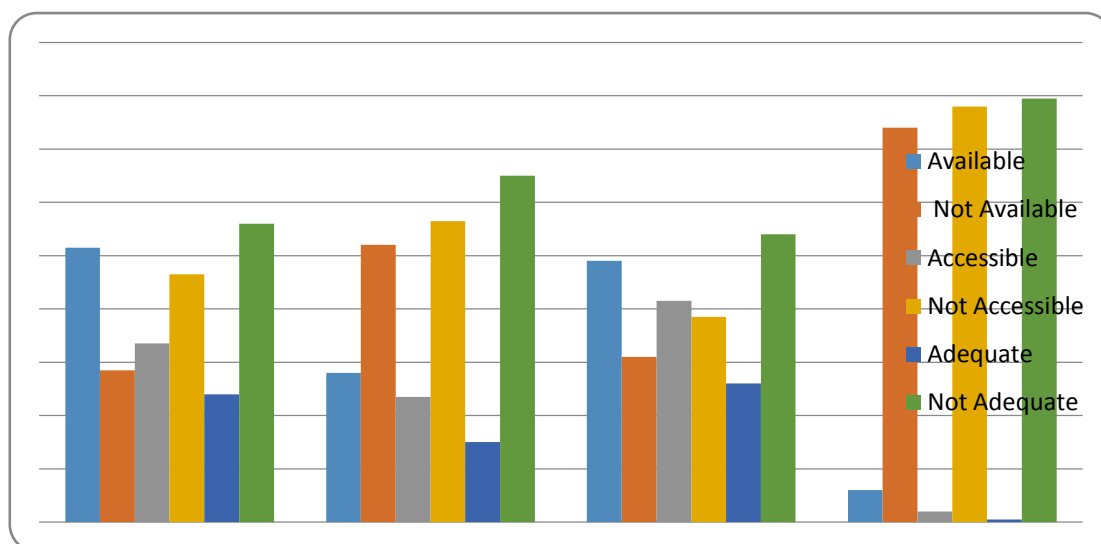


Figure 2: Availability of health personnel

The result in Table 2 and Figure 2 revealed that 103 (64 per cent) of the schools have available Health Counsellors, while 57 (36 per cent) do not. Also 67 (42 per cent) of the schools have the health counselors accessible to the students while 93 (58 per cent) were not accessible. Equally, 48 (30 per cent) of the schools have adequate number of health counsellors while 112 (70 per cent) of the schools do not have adequate health counselors. The result also revealed that 56 (35 per cent) have school nurse available, while 104 (65 per cent) do not. Also, 47(29 per cent) of schools have accessible school nurses while 113(71 per cent) of the schools their schools nurses were not accessible. Equally, 30 (19 per cent) of the schools have adequate schools nurses while 130 (81 per cent) of the school do not have adequate number of nurses. Distribution of the schools according to health educators revealed that, 98(61per cent) of the school have health educators while 62 (39 per cent) do not. Also, 83 (52 per cent) of the schools have accessible their school educators while 77 (48 per cent) do not. Equally, 52 (33 per cent) of the school have adequate health educators while 108 (68 per cent) do not. Lastly, 12(8 per cent) of the schools have available laboratory technician while 148 (93 per cent) do not. Also, 4 (3 per cent) have accessible laboratory technicians while 156 (98 per cent) do not. Equally, 1(1 per cent) of the schools have available laboratory technician while 159 (99 per cent) do not. The highest health personnel that were available in secondary schools were health counselor with 64 per cent and health educators with 61 per cent. While availability of laboratory technicians was the lowest health personnel available in secondary schools in the state

TABLE 3: Frequency of visitation health specialist

	One time a year		Two times a year		Three time a year		Four times a year	
		%		%		%		%
Visiting Medical doctor	80	50	28	17.5	8	5	44	27.5
Visiting Dieticians	153	95.63	4	2.5	3	1.85	0	0
Visiting Dentist	160	100	0	0	0	0	0	0
Visiting	160	100	0	0	0	0	0	0

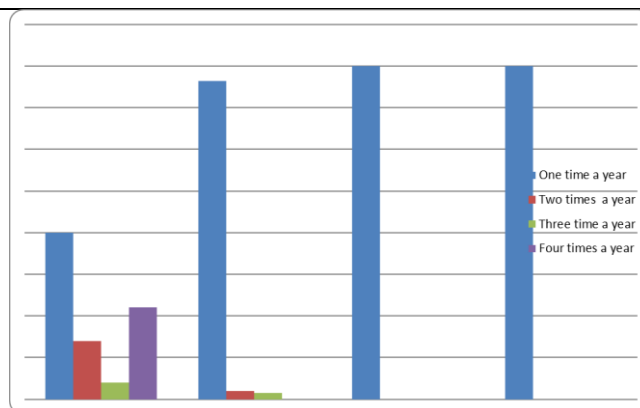


Figure3: Frequency of visitation health specialist

The result in Table 3 and demonstrated in figure 3 above, revealed that 80 (50 per cent) of the schools said medical doctor visit them one time a year, 44 (27.5 per cent) have two times visitation from a medical doctor, 28 (17.5 per cent) have three times a year visitation from a medical doctor while 8(5 per cent) of the schools have four times visitation from a medical doctor. Also, 153 (95.62 per cent) of the schools have visiting dietitians once a year, 4 (2.5 per cent) have visiting dietitians two times a year while 3(1.88 per cent) have visiting dietitians three times a years. Also 160 (100 per cent) of the schools have dentist and ophthalmology visiting their school one time a year

3.2 Discussion of findings

3.2.1 Health Facilities and Equipment in Public Secondary Schools

The finding of this study indicated 59 (37 per cent) of health facilities/equipment were available, 54 (31 per cent) of the schools have health facilities/equipment accessible and 41 (23 per cent) of the schools have their health facilities adequate in number. The health facilities highly made available in schools include toilet, urinary, scale, thermometer, and first aid kits. This finding is in contradiction with the finding obtained by **Dubos (2009)** who found out that the health facilities were made available in most secondary schools he visited. The author also noted that lack of facilities for health services in schools for emergencies and injuries will lead to poor performance in academics. In line with the above therefore, it is obvious that for the success of any school health programme generally, adequate and qualitative health facilities must be made available. The importance of health facilities in schools cannot be over stressed. Health has gained wide recognition in many countries of the world, therefore provision and adequate facilities are necessity and not a luxury. The finding of this study is supported by the finding obtained by **Marsha & Hattie (2007)** who found out that health facilities and equipment were significantly made available in most of the schools in his study area. Also, they added that with good provision, adequate and functional school health facilities will enhance effective performance of students. As such this health facilities should be provided equally for both urban and rural schools

3.2.2 Health Personnel in Public Secondary Schools

The finding of this study revealed that 67 (42 per cent) of the secondary schools under study have available health personnel, 50 (31 per cent) of the schools have their health personnel accessible

Assessment of the availability of School Health Facilities and Personnel in Public Secondary Schools in Cross River State, Nigeria

while 32(20 per cent) of the schools have adequate health personnel. Specifically, health personnel that were more available include health counselors and health educators. This finding is in agreement with the finding obtained by **Stonner& Desmond (2009)** who noted in their study that qualified health personnel were found in secondary schools in the area under study. According to them schools should have health workers that are properly trained and skillful so as to assist them in carrying out their function effectively? This finding contradicts the finding obtained by **Buba (2005)** who found that the number of schools with health personnel were significantly lower than expected. He noted majority of the secondary schools in Jalingo Metropolis as well as rural areas in Taraba State lacked school nurses and there is low level of school health services.

4. Conclusion and recommendations

4.1 Conclusions

This study assessed school health services in public secondary schools in Cross River State. Five research questions were formulated to guide and direct the study. Literature on the major variables was reviewed. Ex-post facto research design was adopted for the study. A total of 160 public secondary schools were used for the study. A checklist was the instrument for data collection. Data collected were analyzed using percentages. The results of the analysis revealed that:

1. Fifty nine, 59 (37 per cent) of health facilities and equipment were available, 54 (31 per cent) of the schools have health facilities/equipment accessible and 41 (23 per cent) of the schools have their health facilities adequate in number.
2. Sixty seven 67 (42 per cent) of the secondary schools under study have available health personnel, 50 (31 per cent) of the schools have their health personnel accessible while 32 (20 per cent) of the schools have adequate health personnel.

4.2 Recommendations

1. The government should make sure that sick bay and other vital health facilities such as thermometer, and drugs are provided in all secondary in the State.
2. There is need for the Cross River State government to ensure that laboratory technicians and other health personnel are made available to all secondary schools in the State.
3. The government should establish a standard school clinic and sickbay in secondary schools while non-governmental organizations should intensify awareness and other enlightenment programmes to educate the public on the need for school health services.
4. Health programme should be designed to train more health workers to help improve counseling skills, relevant to improve quality of services in schools.

5. Conflict of interest

The authors declared no conflict of interest.

6. Acknowledgements

The authors greatly and sincerely acknowledged and thanked all the persons, too numerous to mention, who have directly or indirectly contributed toward the successful completion of this research work and the compilation of its manuscript.

7. References

1. World Health Organization Release [WHO] (2010), <http://www.who.org> (retrieved August 2, 2010)
2. National Policy on Education Gazette by Federal Government of Nigeria [NPE] (2006).
3. Federal Government of Nigeria [FGN] (2006). *Health appraisal* Mountain View: Mayfield Publishing Co.
4. Dubos, R. (2009). "*Mirage of Health*". New York: Harper, 20-29.
5. Marsha, N. H., & Hattie, E.M. (2007). "*Management of facilities in industrial world: An international analysis*". New York: Freelance Press, 27-30.
6. Gallin C., & Hanlon, B. (2009). "*Foundation and principles of health*." St. Louis: Mosby Company, 32-35.
7. Deman, S. (2006). "*The health promoting school-policy, research and practice*." London: Roudedge Falmer, 3-8.
8. Warren, C. W. (2005) "*Handbook on school health in Africa*". Kampala, Uganda American school health Association, 12-16
9. Warren, C. W. (2007). "*Handbook on school health in Africa*". Kampala, Uganda American school health Association, 20-21
10. Flint, K. H. (2005). "*Health education for schools*". Ikeja: Joja Educational Research and publishers limited, 20-25.
11. Policy Paper by Centers for Disease Control and Prevention in Nigeria [CDCPN] (2006).
12. Division of Adolescent and School Health [DASH] Paper on Health Training workshop in Nigeria, 2006, 6-7.
13. UNICEF, Child survival and development in Africa. Millennium development goals (MDG) status and trend. Retrieved July, 20th 2011 from www.unicef.org, 2006.
14. Stonner, B., & Desmond, J. (2009). "Worksite health promotion programs with environmental change: a systematic review", *American Journal Preview Medicine*, 29 (1), 61-70.
15. UNICEF, "Global school health academic report: Integrated early child development". New York: McGraw Hills, 2009, 4-19.
16. Avina, A., "Preventing negative health practices". [http://www.avina.org\(PHNP\)](http://www.avina.org(PHNP)) (retrieved June 8, 2011).
17. World Health Organization Release on Health Provision, 2006.
18. School Health Service Programme Experts' Round Table Report in Nigeria, 2011, <http://www.shspert.org.ng> (downloaded Sept. 12, 2011) 10-16.
19. Buba, A., (2005). Challenges of modern health facilities in Nigeria: The way forward in the 21st Century, Health Talk Programme Report, Nigeria, 4-6.
20. Ojugo, A. I. (2005). "Status of health appraisal services for schools in Edo State, Nigeria". *International Electronic Journal*, 8 (1), 146-152.
21. Dawson, H. (1997). "Education reform and the goals of modern school health programs". *Educational Standard Review*, 2 (3), 4-11.
22. Frankham, T. (1998). "Health risk behaviours, teenage pregnancies and smoking rate among young people", *Health Reviews*, 2 (1), 21-28.
23. Gold, H. (1999). "Functional and available health infrastructure and equipment" *Critical Health Reviews*, 3 (2), 18-19.
24. Kerlinger, J. (1986). "Social Sciences Research Guides". Nigeria: Vintage Publishers, 2nd ed., 40-41.
25. Cross River State Secondary Education Board Report on Health Facilities in Public school, 2013, 23-27.