WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Awareness of Chronic Diseases among Secondary School Students in Esan West Local Government Area of Edo State: Policy Guidance for Counsellor Educators

EHIGBOR, Beatrice. O. Ph.D

Department of Guidance and Counselling
Faculty of Education, Ambrose Alli University, Ekpoma-Edo State
Email: bettyehigbor@gmail.com

ABSTRACT

The study examined the awareness of chronic diseases among students in secondary schools in Esan West Local Government Area of Edo State. Specifically, the study sought to examine whether awareness of the prevalence, common causes, strategies for controlling chronic diseases as well as the level of awareness of chronic diseases by gender, age and school location among students in secondary schools in Esan West Local Government Area of Edo State differ by school location. The descriptive research design using the survey was adopted for the study. The population of the study covered all the 2,191 Senior Secondary School (SSS) students in all the 16 public secondary schools in Esan West Local Government Area Edo State. The simple random sampling technique was used to select eight (8) secondary schools in the study area. The instrument that was used for the collection of data was a questionnaire developed by the researchers and titled: Awareness of Chronic Disease Questionnaire (ACODIQ). Data collected were analysed using mean ($\bar{X}$) and standard deviation (S.D), t-test for two independent sample means, one-way analysis of variance (ANOVA) and Tukey HSD post hoc test. The entire hypotheses were tested at 0.05 level of significance. The result showed that students in secondary schools are aware of Measles, Tuberculosis (TB), HIV/AIDS as prevalent chronic diseases in Esan West Local Government Area of Edo State. The common causes of chronic diseases include unhealthy eating habit such as eating in unhygienic places, negligence towards pest control around the house environment, poor nutrition, lack of proper drainage system around the neighborhood and poor personal hygiene while immunization, ensuring proper waste disposal, the creation of proper drainage system, avoiding open defecation, and increasing public awareness on the risk factors and causative agents are common measures for controlling chronic diseases in Esan West Local Government Area of Edo State. It was pointed that counsellor educators should be recruited to create awareness of the various chronic diseases such as in Esan West Local Government Area of Edo State.

Keywords: Awareness of the Prevalence, Common Causes, Strategies, Chronic Disease

Introduction

The human body system requires so much care to maintain personal hygiene and health to stay fit and strong for the world of work. This is because the body system is naturally susceptible to various diseases. These diseases can be classified according to two major dimensions, namely: the time course and cause. According to the time course, they are further classified as acute (characterized by a rapid onset and a short duration), and chronic disease (characterized by prolonged duration). Based on the cause, diseases can be broadly categorized as infectious, (i.e. caused by living parasitic organisms such as viruses, bacteria, parasitic worms, insects, etc.), or as noninfectious (which are caused by something other than a living parasitic organism). However, most of the common diseases in Africa are environmental related diseases due to infection by living organisms (Ossai, 2023). These types of infectious diseases are generally described as chronic diseases.

Chukwu (2022) pointed that chronic diseases are illness that spread from person to person, or sometimes from animals to people. They encompass a cluster of illnesses which include: Hepatitis, HIV/AIDS, Influenza, Malaria, polio, and Tuberculosis among others. The spread of these illnesses often happens via airborne viruses or bacteria, but also through blood or other body fluid. The terms infectious and contagious are also used to describe chronic disease because they occur at all ages but are most serious in childhood and they are to a great extent preventable. In developed countries where they have been prevented, other health conditions such as accidents and degenerative diseases become the most common. Therefore, chronic diseases remain very important in developing countries because: many of them are very common; some of them are serious and cause death and disability; some of them cause widespread out breaks of disease or epidemics; most of them are preventable by fairly simple means; poor socio-economic status of the individuals makes them; vulnerable to a variety of diseases; low educational status and lack of access to modern health care service.

Chronic diseases are increasingly becoming the leading causes of morbidity and mortality worldwide. They are now seen to affect the poor of the poorest countries in the world. The impact is greatest on the poor countries of sub-Saharan Africa of which Nigeria occupy a significant position. This is because they are often unable to access the education and services required to prevent and treat chronic diseases. Thus, it is not exaggeration to describe the situation in developing countries as an impending disaster; a disaster for health, for society and most of all for national economies. This shift towards chronic diseases in developing countries dispelled the popular myth that chronic diseases afflict mostly the affluence (high income) population (Ossai, 2022). However, the developed countries are equally sharing in the scourge, but while the developing countries are facing a double burden, the developed and the high income countries are experiencing a shift in the health trend from non-chronic to chronic diseases such as cardiovascular disease, cancers, chronic respiratory diseases and diabetes mellitus.

Chronic chronic diseases are noted to cause billions of dollars in losses of national income, and they push million people below the poverty line. It is projected that in the next 10 years, China, India and Britain will lose 558, 237, and 33 billion dollars respectively due to heart disease, stroke and diabetes mellitus (WHO, 2010). In United States 750 billion dollars is spent annually on cardiovascular disease and diabetes mellitus and about 87% of all deaths in US are due to chronic diseases (WHO, 2011). Globally, malaria account for most death (about 17 million people annually) followed by HIVAIDS (7.6 million), tuberculosis (4.2 million) and polio (1.3 million). These cluster of diseases account for 80% of disease related deaths (Shukla, 2011; Ossai, 2017). In Africa, most countries have not conducted risk factor surveys to establish the national based line prevalence rates and accurately quantify the magnitude of the problem.

In Nigeria, the impact of chronic diseases is enormous and glaring. About 5 million Nigerian die of chronic diseases as at the year 2015 and malaria alone caused about 52% of the mortality as at 2015. Also, the economic cost of chronic diseases in Nigeria in 2005 was about 400 million dollars. By 2015, it rose to about 1 billion dollars. At present, about 8 million Nigerians suffer from HIV/AIDS and a little below 2 million children are at risk of having polio. These great losses are not just at an individual's levels, but also profoundly affect the family and a country's work force and for the million struggling with poverty, a vicious cycle ensues. Chukwu (2011) identified the link between chronic diseases, globalization, urbanization, demographics, life style transition, socio-cultural factors, poverty, poor maternal care, foetal and infant nutrition and found that these variables move in tandem. He submitted that the major way to reduce or ameliorate the worrisome proliferation of chronic diseases in Nigeria was to increase awareness of the disease.

Awareness simply refers to how informed an individual is about a phenomena. It describes the quality or depth of information or knowledge of an individual about a given subject. Ossai (2017) lamented that the level of awareness on chronic diseases among students poor in Nigeria. He noted that this may be due to high illiteracy rate, low income status and lack of access to modern health care service. Aside this, he added that awareness may be affected by personal factors such as gender and age and environmental factors such as location of the individual.

Gender is a personal factor or attribute that can be used to describe an individual. It is a sociological construct that refers to a wide range of biological, emotional mental, behavioural, and physical characteristics that can be attributed to "maleness" or "femaleness" of an individual. In the context of this this study, it is restricted to the biological or sex classification of students into male and female students. Adigun, Onihunwa, Irunokhai, Sada and Adesina (2015), described gender as the range of physical, biological, mental and behavioural characteristics pertaining to and differentiating between the feminine and masculine (female and male) population. According to them, the importance of examining awareness, knowledge and performance in relation to gender is based primarily on the socio-cultural differences between girls and boys that often make people attribute some vocations and professions such as engineering, construction works, arts and crafts, etc to men while catering, typing, nursing, secretarial duties are classified as a female domain. In regards to awareness on chronic diseases, women are known to be more emotionally attached and concerned about matters bordering on personal hygiene, health and related affairs. Hence, they are likely to show more enthusiasm and interest about getting adequate information that would increase their level of awareness about any health subject.

Age is another personal attribute that has been considered to be a factor in awareness. It refers to the length of time one has lived or existed. It is usually described in terms of number of years. It has often been regarded as the state of the mind, implying that age has nothing to do with years but abilities and competencies of individuals. However, the fact still remains that the capabilities, exposures and experiences of an older learner could be different from the younger ones. Hence, one may rightly say the awareness of students on chronic diseases may increase or decrease with respect to their ages.

School location is an environmental factor in social awareness discourse. It simply refers to a schools geographical positioning, siting or nearness to specific environmental features within a given environment. In regards to nearness to the suburb of a city and availability of social amenities in a locality, a school could be said to be either rural or urban. According to Ossai (2017) social amenities such as electricity, pipe-borne water, technical resources, safe and secure facilities; which as highly essential for a successful educational programmes, are usually scantily provided in rural areas. According to him, school attributes such as their location may affect students' awareness about various social matters. For instance, due to distant from the city suburb and poor provision of social amenities like good road network and electricity; students in rural areas may not be aware of certain happenings within their locality due to their inability to get quality information from the media or health service extension workers. In order to proliferation of chronic diseases in Nigeria; it is pertinent to determine awareness of chronic diseases among students in secondary schools in Edo State, Nigeria.

Studies on role of health education and awareness of chronic diseases have been investigated by scholars recently. Mgbemena, Ezea, Ebe, Udensi, Nwachukwu, Nzenwa & Nwannah (2022) investigated the prevalence of asymptomatic malaria among students of Federal University of Technology Owerri, was carried out between July and September 2015. Blood samples of 160 students who lived both in school hostels and off campus residents were examined using Giemsa stained thick and thin films. A total of 40 students (25%) were infected with *Plasmodium falciparium*, with an overall asymptomatic case of 11.25%. Students of age 16-22 years had the highest prevalence of 28.28%, with an asymptomatic case of 46.43%, age group 23-29 years had a prevalence of 19.67%, with an asymptomatic case of 41.67%. It was observed that male students had the higher prevalence of 26.15%,

with an asymptomatic case of 47.06%, while that of the females was 24.21%, with an asymptomatic case of 43.48%. On the relationship of malaria parasites and genotype, students with genotype 'AA' had an infection rate of 27.69%, with an asymptomatic case of 47.22% and students with genotype 'AS' had a prevalence of 13.33% with an asymptomatic case of 25%. The result shows that students with blood group O had highest prevalence of 60%, with an asymptomatic case of 61.1%. Blood group A has a prevalence of 27.5% with an asymptomatic case of 27.8%, and Blood group B has a prevalence of 12.5%, with an asymptomatic case of 11.1%, while blood group AB which was 5.62% of the study population had no case of prevalence.

Nwaokoro, Ede, Ibe, Emerole, Nwufo, Nwaokoro and Nwakamma (2014) investigated awareness, attitude, and risk perception of HIV/AIDS preventives among students in Owerri West Metropolis, Imo State, Nigeria. A cross sectional survey was conducted among 400 students using a validated, self-administered questionnaire as a research instrument. The questionnaire included assessment on level of awareness, attitude, perception, risky behaviour and HIV/AIDS preventive measures. A random sampling technique was used to select the respondents used as sample for the study. Data obtained were analyzed using descriptive and chi-square statistics. The results obtained indicated that students have good knowledge on HIV/AIDS, causes and mode of transmission, signs and symptoms, risky behaviors, perception and preventive measures. About 87.5% of the respondents are aware of HIV/AIDS and other related diseases while 12.5% were not aware.

Hogmark, Ohlsson and Essén (2014) investigated the knowledge, attitudes and perceptions towards chronic diseases and counselling among medical students in Maharashtra, India. A cross-sectional descriptive study using a self-administered questionnaire was conducted among 1996 medical students in their fifth year of study at 27 medical colleges in the state of Maharashtra, India. Descriptive and analytical statistics interpreted the survey instrument and significant results were presented with 95% CI. Findings showed that respondents expressed a desire to provide counseling services for patients contracted with chronic diseases. There were misconceptions about modern methods of controlling chronic diseases among male and female participants in the study.

The influence of age on students' awareness of chronic diseases has been investigated in studies. Mushoriwa (2014) assessed sexual practices among urban high school students in Swaziland. The sample comprised 300 high schools students drawn from six urban high schools in two urban areas of Swaziland (females=50%; mean age=16.8; SD=1.3). Fifty students (25 males; 25 females) were pooled from each of the six schools through stratified random sampling. The instruments used to source data from the respondents were a semi-structured questionnaire with open-ended and closed questions and follow-up interviews. Questionnaires that were used were pretested in piloted group of 60 students from other urban schools to see if the wording was appropriate and accessible. After minor adaptations and modifications, the questionnaire was adopted for use with the study sample. Follow-up interviews with a randomly selected sub-sample of the participants (n=80) were conducted not only to check on the trustworthiness and credibility of the data, but also to explore subtle, obscure and unexpected results. Thus, through the interviews, the writer was able to penetrate beyond initial responses and this allowed a deeper and more meaningful analysis of the results. Data were descriptively analysed and results were reported in percentages, with thematic interpretation as required to clarify the study's major findings. Level of awareness of chronic diseases was found to be influenced by age of the students in Swaziland.

Fentahun, Assefa, Alemseged and Ambaw (2012) examined parents' perception, students' and teachers' awareness of chronic diseases in Ethiopia. The study was conducted in Merawi town, Mecha woreda, West Gojjam zone, Amhara Region, Northwest Ethiopia from March 13-27, 2011. According to the 2002 Annual Woreda Report; the Woreda has an estimated total population of 307,703. In the 2010/2011 academic year, the total number of students who have been attending Secondary and Preparatory Schools were 5313**.** A cross-sectional quantitative and qualitative study was conducted on randomly selected 386 students, total census of 94 teachers and 10 parents in Merawi Town from March 13-27, 2011. Data were collected using self-administered structured questionnaire and in-depth interview guideline. Multiple linear regression analysis were performed using total score to determine the effect of the independent variables on the outcome variable and thematic analysis was used to analyze the qualitative data. School location was found a significant predictor of students' awareness towards chronic diseases in Ethiopia.

Chronic diseases are the number one world's killer, causing 60% of all deaths globally, and a staggering 35 million people die every year from these silence killers, of which 18 million are women. In 2016, this figure rose to 36.1million (i.e. about 63% of global deaths), and nearly 80% of those chronic diseases deaths-equivalent of 29 million people occurred in low and middle income countries with the projection of about 52 million deaths annually by 2030 (World Health Organisation, 2011). According to WHO (2016), chronic diseases will be responsible for three times as many disability adjusted life years and nearly 5 times as many deaths as chronic diseases, maternal, perinatal, and nutritional conditions combined. About one-fourth of the global chronic diseases related deaths take place before the age of 60 years. These clusters of diseases represent the biggest threat to global health care and economy, especially at it concerns women.

In attempt to provide remedies to this worrisome health challenges, several recent studies on awareness on chronic diseases among youths in Nigeria abound in literature with mixed results. Okpara, Utoo and Bako (2015) examined the prevalence and awareness of hypertension amongst staff and students of a tertiary institution in Nigeria and found that the prevalence and awareness on hypertension (a non-chronic disease) was high and low respectively. Ossai (2017) investigated knowledge and risk factors prevalence of non-chronic diseases among the adult population in Delta State and found that knowledge and risk factors prevalence of non-chronic diseases was at the low ebb.

All the aforementioned studies were carried out among undergraduates and adult population in selected states beyond Edo State environ. Also, the studies only focused on awareness, risk factors and strategies to remedy the situation but they did not attempt to investigate gender, age and school location differences on the students' awareness. Furthermore, it is no known to the researcher that any study on awareness of chronic diseases among students in secondary schools in Edo State. This knowledge gap is what this study intend to fill by investigating awareness of chronic diseases among students in secondary schools in Esan West Local Government Area of Edo State.

Research Hypotheses

The research hypotheses formulated for testing in this study are given below:

1) There is no significant difference between male and female students of secondary schools on their level of awareness of chronic diseases in Esan West Local Government Area of Edo State
2) There is no significant difference among young, average and old students of secondary schools on their level of awareness of chronic diseases in Esan West Local Government Area of Edo State
3) There is no significant difference between rural and urban students of secondary schools on their level of awareness of chronic diseases in Esan West Local Government Area of Edo State

Method

The descriptive research design using the survey was adopted in this study to examine the awareness of chronic diseases among students in secondary schools in Esan West Local Government Area of Edo State. This research design was employed because the variables of study was not be manipulated through laboratory exercise or experiment. However, data collected from a representative sample was sought and presented in their natural setting to draw inferences. The population of the study covered the 2,191 Senior Secondary School (SSS) students in all the 16 public secondary schools in Esan West Local Government Area Edo State. The simple random sampling technique was used to select eight (8) secondary schools in the study area. A further sample of thirty (30) Senior Secondary School (SSS) students per school was drawn as sample for the study. Hence, a total of two hundred and forty (240) senior secondary school students were used in the study.

The instrument that was used for the collection of data is a questionnaire developed by the researchers. The instrument was titled: Awareness of Chronic Disease Questionnaire (ACODIQ). The instrument was divided into Sections A, B and C. Section A contains information on the personal data of students like name of the school and sex of the students. Data on the name of their schools helped in the classification of the schools based on their location in the local government area. Section B contains item statements bordering on students' awareness of the prevalence, causes and strategies for controlling chronic diseases. Section B was further divided into three (3) parts of Part 1, 2, and 3. Items in Part 1 contained ten (10) items measuring awareness of the prevalence of various chronic diseases such as Measles, Tuberculosis, Typhoid fever among others. Items in Part 2 contained 9-items measuring awareness of the causes of chronic diseases such as immunization, poor nutrition and poor personal hygiene while Items in Part 3 contains 7-items measuring awareness of the strategies for controlling chronic diseases such as immunization, improved nutrition and avoidance of open defecation. All the items in each of the parts were rated on a three point scale of Fully Aware -3, Aware -2 and Not Aware – 1. Hence, a benchmark score of 2.00 or higher was used as the benchmark score for awareness on any item.

The test-retest reliability method was used to determine the reliability of the instrument. This procedure was carried out by administering copies of the instrument to 30 senior secondary school students outside the study sample, within the study area. After few weeks, the same instrument was re-administered to the same respondents. Their responses in the first and second test were correlated using the Pearson's Product Moment Correlation technique. The result of the coefficient produced an r-value of 0.74 for awareness of prevalence, 0.76 for awareness of causes and 0.78 for awareness of control strategies which showed that the instrument is reliable. The t-test for two independent sample means was used to test hypothesis 1 and 2 while hypothesis 3 was tested with the one-way analysis of variance (ANOVA). The entire hypotheses were tested at 0.05 level of significance. The research questions and hypothesis was analysed and tested with the aid of Statistical Package for Social Science (SPSS) (IBM Version 20).

Results

Hypothesis 1: There is no significant difference between male and female students of secondary schools on their level of awareness of chronic diseases in Esan West Local Government Area of Edo State

Table 1: t-test Analysis on level of awareness of chronic diseases in Esan West Local Government Area of Edo State with respect to gender

Variable	**Sex**	**N** = 532	$\bar{X}$	**S.D**	**t-cal.**	**p-value**	**Remark**
Measles	Male	108	2.82	.450	3.299*	.001	Reject null hypothesis
	Females	132	2.56	.723			
Tuberculosis (TB)	Male	108	2.56	.568	1.902	.058	Retain null hypothesis
	Females	132	2.39	.779			
Polio	Male	108	1.99	.755	-.376	.708	Retain null hypothesis
	Females	132	2.03	.856			

Meningitis	Male	108	2.21	.530	2.608*	.010	Reject null hypothesis
	Female	132	1.99	.736			
Malaria	Male	108	1.46	.647	-.084	.933	Retain null hypothesis
	Female	132	1.47	.598			
HIV/AIDS	Male	108	2.56	.674	2.069*	.040	Reject null hypothesis
	Female	132	2.35	.899			
Common cold	Male	108	2.43	.599	5.610*	.000	Reject null hypothesis
	Female	132	1.95	.702			
Typhoid fever	Male	108	1.84	.978	-.820	.413	Retain null hypothesis
	Female	132	1.95	.983			
Chickenpox	Male	108	1.83	.891	-.526	.599	Retain null hypothesis
	Female	132	1.89	.885			
Others	Male	108	2.66	.550	3.497*	.001	Reject null hypothesis
	Female	132	2.35	.771			

** t-calculated values are significant at 0.05 level of significant*

Result in Table 1 shows that the calculated t-values of 3.299 for Measles, 2.608 for Meningitis, 2.069 for HIV/AIDS and 5.610 for common cold were statistically significant ($p<0.05$) but the calculated t-value of 1.902 for Tuberculosis (TB), -.376 for Polio and -.084 for Malaria, are not statistically significant ($p>0.05$). Therefore, the null hypothesis is rejected. This means that there is a significant difference between male and female students of secondary schools on their level of awareness of chronic diseases (Measles, Meningitis, HIV/AIDS and Common cold).

Hypothesis 2: There is no significant difference among young, average and old students of secondary schools on their level of awareness of chronic diseases in Esan West Local Government Area of Edo State

Table 2: Summary result of Univariate Analysis of Variance (ANOVA) showing the difference according to ages of secondary school students on their level of awareness of chronic diseases

		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	8.756	2	4.378	12.129*	.000
Measles	Within Groups	85.540	237	.361		
	Total	94.296	239			
	Between Groups	3.889	2	1.945	4.118*	.017
Tuberculosis (TB)	Within Groups	111.907	237	.472		
	Total	115.796	239			
	Between Groups	5.758	2	2.879	4.513	.012*
Polio	Within Groups	151.204	237	.638		
	Total	156.962	239			
	Between Groups	.142	2	.071	.162	.850
Meningitis	Within Groups	103.841	237	.438		
	Total	103.983	239			
	Between Groups	2.968	2	1.484	3.962*	.020
Malaria	Within Groups	88.765	237	.375		
	Total	91.733	239			

	Between Groups	6.572	2	3.286	5.167*	.006
HIV/AIDS	Within Groups	150.723	237	.636		
	Total	157.296	239			
	Between Groups	3.376	2	1.688	3.532*	.031
Common cold	Within Groups	113.286	237	.478		
	Total	116.663	239			
	Between Groups	2.854	2	1.427	1.491	.227
Typhoid fever	Within Groups	226.746	237	.957		
	Total	229.600	239			
	Between Groups	2.515	2	1.258	1.609	.202
Chickenpox	Within Groups	185.218	237	.782		
	Total	187.733	239			
	Between Groups	5.236	2	2.618	5.603*	.004
Others	Within Groups	110.727	237	.467		
	Total	115.962	239			

** f-calculated values are significant at 0.05 level of significant*

Data in Table 2 showed that the F-value of 12.129 for measles, 4.118 for Tuberculosis (TB), 3.962 for Malaria, 5.167 for HIV/AIDs, 3.532 for common cold and 5.603 for others are statistically significant ($p<0.01$) while f-value 4.513 for Polio, .162 for Meningitis, 1.491 for Typhoid fever and 1.609 for Chicken Pox are not statistically significant. Hence, the null hypothesis was rejected while the alternate was accepted. This indicated that gender. This invariably explains that age differences exist in secondary school students' level of awareness of chronic diseases. Determining the age category that holds a significantly higher level of awareness mean score than the other age group is pertinent; therefore, a post-hoc test was conducted on the omnibus test of variance (ANOVA). The result of the analysis is presented in Table 3.

Table 3: Post-Hoc test Analysis on Tukey HSD Age differences and level of awareness of chronic diseases in Esan West Local Government Area of Edo State

Dependent Variable	**(I) Age**	**(J) Age**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
Measles	Below 16years	16-17years	-.389*	.091	.000
		18year & above	-.436*	.103	.000
	16-17years	Below 16years	.389*	.091	.000
		18year & above	-.047	.097	.880
	18year & above	Below 16years	.436*	.103	.000
		16-17years	.047	.097	.880
Tuberculosis (TB)	Below 16years	16-17years	-.269*	.104	.028
		18year & above	-.279*	.117	.048
	16-17years	Below 16years	.269*	.104	.028
		18year & above	-.010	.111	.995
	18year & above	Below 16years	.279*	.117	.048
		16-17years	.010	.111	.995
Polio	Below 16years	16-17years	-.212	.121	.189

		18year & above	-.408*	.136	.009
	16-17years	Below 16years	.212	.121	.189
		18year & above	-.196	.129	.283
	18year & above	Below 16years	.408*	.136	.009
		16-17years	.196	.129	.283
Meningitis	Below 16years	16-17years	-.024	.100	.968
		18year & above	-.064	.113	.838
	16-17years	Below 16years	.024	.100	.968
		18year & above	-.040	.107	.926
	18year & above	Below 16years	.064	.113	.838
		16-17years	.040	.107	.926
Malaria	Below 16years	16-17years	.257*	.093	.016
		18year & above	.188	.104	.172
	16-17years	Below 16years	-.257*	.093	.016
		18year & above	-.069	.099	.764
	18year & above	Below 16years	-.188	.104	.172
		16-17years	.069	.099	.764
HIV/AIDS	Below 16years	16-17years	-.327*	.121	.020
		18year & above	-.389*	.136	.013
	16-17years	Below 16years	.327*	.121	.020
		18year & above	-.062	.129	.880
	18year & above	Below 16years	.389*	.136	.013
		16-17years	.062	.129	.880
Common cold	Below 16years	16-17years	-.277*	.105	.023
		18year & above	-.177	.118	.291
	16-17years	Below 16years	.277*	.105	.023
		18year & above	.100	.112	.644
	18year & above	Below 16years	.177	.118	.291
		16-17years	-.100	.112	.644
Typhoid fever	Below 16years	16-17years	.228	.148	.275
		18year & above	.016	.167	.995
	16-17years	Below 16years	-.228	.148	.275
		18year & above	-.212	.158	.374
	18year & above	Below 16years	-.016	.167	.995
		16-17years	.212	.158	.374
Chickenpox	Below 16years	16-17years	.235	.134	.188
		18year & above	.084	.151	.844

	16-17years	Below 16years	-.235	.134	.188
		18year & above	-.151	.143	.542
	18year & above	Below 16years	-.084	.151	.844
		16-17years	.151	.143	.542
Others	Below 16years	16-17years	-.311*	.103	.008
		18year & above	-.324*	.117	.016
	16-17years	Below 16years	.311*	.103	.008
		18year & above	-.013	.110	.993
	18year & above	Below 16years	.324*	.117	.016
		16-17years	.013	.110	.993

**. The mean difference is significant at the 0.05 level.*

Table 3 indicated that the mean difference among young, average and old students below 16-17years (-.389*, .436*, .269*, .279*, .408*, ,257*, -.257*, -.327*, .327*) were all statistically significant ($p<0.05$) and those that were 18years and above (-.436*, -.279*, -.408* and -.389*) were all statistically significant ($p<0.05$). This means that the mean difference among young, average and old students below 16-17years differed significantly on their level of awareness of chronic diseases. Hence, this indicated that level of awareness of chronic diseases differs by age

Hypothesis 3: There is no significant difference between rural and urban students of secondary schools on their level of awareness of chronic diseases in Esan West Local Government Area of Edo State

Table 4: Mean and Standard score on significant difference between rural and urban students of secondary schools on their level of awareness of chronic diseases

Variable	**Sex**	**N** =532	$\bar{X}$	**S.D**	**t-cal.**	**p-value**	**Remark**
Measles	Rural	108	2.82	.450	3.299*	.001	Reject null hypothesis
	Urban	132	2.56	.723			
Tuberculosis (TB)	Rural	108	2.56	.568	1.902	.058	Retain null hypothesis
	Urban	132	2.39	.779			
Polio	Rural	108	1.99	.755	-.376	.708	Retain null hypothesis
	Urban	132	2.03	.856			
Meningitis	Rural	108	2.21	.530	2.608*	.010	Reject null hypothesis
	Urban	132	1.99	.736			
Malaria	Rural	108	1.46	.647	-.084	.933	Retain null hypothesis
	Urban	132	1.47	.598			
HIV/AIDS	Rural	108	2.56	.674	2.069*	.040	Reject null hypothesis
	Urban	132	2.35	.899			
Common cold	Rural	108	2.43	.599	5.610*	.000	Reject null hypothesis
	Urban	132	1.95	.702			
Typhoid fever	Rural	108	1.84	.978	-.820	.413	Retain null hypothesis
	Urban	132	1.95	.983			
Chickenpox	Rural	108	1.83	.891	-.526	.599	Retain null hypothesis
	Urban	132	1.89	.885			

Others	Rural	108	2.66	.550	3.497*	.001	Reject null hypothesis
	Urban	132	2.35	.771			

** t-calculated values are significant at 0.05 level of significant*

Result in Table 4 shows that the calculated t-values of 3.299 for Measles, 2.608 for Meningitis, 2.069 for HIV/AIDS and 5.610 for common cold were statistically significant ($p<0.05$) but the calculated t-value of 1.902 for Tuberculosis (TB), -.376 for Polio and -.084 for Malaria, are not statistically significant ($p>0.05$). Therefore, the null hypothesis is rejected. This means that there is a significant difference between male and female in their level of awareness of chronic diseases (Measles, Meningitis, HIV/AIDS and Common cold) in Esan West Local Government Area of Edo State This further implies that there is significant differences between students in their level of awareness of chronic diseases differs by school location.

Discussion

The result showed that there are significant differences between students in their level of awareness of chronic diseases by gender. The result is in line with that of Mgbemena, Ezea, Ebe, Udensi, Nwachukwu, Nzenwa and Nwannah (2022) who found that students with blood group O had highest prevalence of 60%, with an asymptomatic case of 61.1%. Blood group A has a prevalence of 27.5% with an asymptomatic case of 27.8%, and Blood group B has a prevalence of 12.5%, with an asymptomatic case of 11.1%, while blood group AB which was 5.62% of the study population had no case of prevalence. The result corroborates with that of Nwaokoro, Ede, Ibe, Emerole, Nwufo, Nwaokoro and Nwakamma (2014) who found indicated that students have good knowledge on HIV/AIDS, causes and mode of transmission, signs and symptoms, risky behaviors, perception and preventive measures. About 87.5% of the respondents are aware of HIV/AIDS and other related diseases while 12.5% were not aware.

The result agrees with that of Udigwe, Adogu, Nwabueze, Adinma, Ubajaka, and Onwasigwe (2014) that the spread of chronic diseases was found to be really high among young and old adolescents. The result disagrees with that of Adeomi, Adeoye, Adewole, Israel and Temitayo-Oboh (2014) that age of adolescents was not a predictor of their awareness of the spread of chronic diseases. The result supports that of Morhason-Bello, Oladokun, Enakpene, Fabamwo, Obisesan, and Ojengbede (2008) that older ones had higher level of awareness of chronic diseases than their younger ones.

The result is in line with that of Imaledo, Opirite, Peter-Kio and Asuquo (2012) that awareness of chronic diseases among undergraduates in University of Port-Harcourt, Rivers State, Nigeria did not differ significantly by age of respondents. The result corroborates that of Odu and Akanle (2008) that the adult respondents (aged 21years and above) had more awareness of HIV/AIDS than the younger ones. The result agrees with that of Olasode (2007) that 85% of the older respondents were more aware of sexually transmitted and other chronic diseases that are transmitted by blood fluid while only 26% of the younger ones were aware of chronic diseases.

The result showed that there are significant differences between students in their level of awareness of chronic diseases by school location. The result agrees with that of Desta and Regassa (2011) that awareness of chronic diseases was predicted by school location. The result is in line with that of Bordhan (2014) that awareness and attitude of teachers, parents and adolescents towards sex, personal and environmental hygiene does not differ by school location of adolescents.

The result corroborates that of Fentahun, Assefa, Alemseged and Ambaw (2012) that school location was found a significant predictor of students' awareness towards chronic diseases in Ethiopia. The result supports that of Ojo (2011) that there was significant main effect of school location on awareness and attitude towards HIV/AIDS and other chronic diseases among the fresh undergraduate students

Policy Guidance for Health Educators

Based on findings, it is concluded that students in secondary schools are aware of Measles, Tuberculosis (TB), HIV/AIDS as prevalent chronic diseases in Esan West Local Government Area of Edo State. The common causes of chronic diseases include unhealthy eating habit such as eating in unhygienic places, negligence towards pest control around the house environment, poor nutrition, lack of proper drainage system around the neighborhood and poor personal hygiene while immunization, ensuring proper waste disposal, the creation of proper drainage system, avoiding open defecation, and increasing public awareness on the risk factors and causative agents are common measures for controlling chronic diseases in Esan West Local Government Area of Edo State.

Based on findings from this study; the following policy guidance are recommended for the study. First, counsellor educators should be recruited to create awareness of the various chronic diseases such as in Esan West Local Government Area of Edo State. In addition, school counsellor should deploy orientation and information services in secondary schools to ensure students are well informed about the causes of chronic diseases in schools.

Furthermore, the state government through the Ministry of Education should endeavour to bring to the awareness of secondary school students; cost-effective strategies for controlling chronic diseases. These cost-effective strategies include deploying school counsellors to teach and encourage environmental sanitization, healthy eating and personal hygiene which students can simply undertake without little or no financial involvement.

REFERENCES

Bordhan, S. (2014). A Study of the Attitude of Teachers, Parents and Adolescents towards Sex Education. *International Journal of Education and Psychological Research (IJEPR)*, 3(3): 29-34.

Desta, B & Regassa, N. (2011). On Emergency Contraception among Female Students of Haramaya University, Ethiopia: Surveying the Level of Knowledge and Attitude. *Educational Research*, 2 (4) 1106 – 1117.

Federal Republic of Nigeria (2004). *National Policy on Education (4th Ed.)* Lagos: *NERDC Press*

Federal Republic of Nigeria (2013). *National Policy on Education (6th Ed.)* Abuja: *NERDC Press*

Fentahun, N. Assefa, T. Alemseged, F. & Ambaw, F. (2012). Parents' perception, students' and teachers' attitude towards school sex education. Ethiopian Journal of Health Science, 22(2): 99-106.

Imaledo, J. A. Opirite, B. Peter-Kio & Asuquo, E. O (2012). Pattern of risky sexual behavior and associated factors among undergraduate students of the University of Port Harcourt, Rivers State, Nigeria. *Pan-African Medical Journal*, 9 (97), 1-9.

Mushoriwa, T. (2014). An assessment of sexual practices among urban high school students in Swaziland. *Mediterranean Journal of Social Sciences (MCSER)*, 5(8), 402-405.

Nwaokoro J. C, Ede A. O., Ibe S.N.O., Emerole, C. O., Nwufo, R. C. Nwaokoro A. A. & Nwakamma G.I. (2014). Assessment of the Level of Knowledge, Attitude and Risk Perception of HIV/AIDS among Students in Owerri West Metropolis, South-Eastern, Nigeria. *American Journal of Science and Technology*, 1(4): 127-139.

Ojo, F. Y. (2011). An Assessment of HIV/AIDS Knowledge and Risk Behaviour of Fresh Undergraduates of a Tertiary Institution in Ekiti-State, Nigeria. *European Journal of Humanities and Social Sciences*, 9(1):379-387.