KNOWLEDGE AND PREVALENCE OF COMMUNICABLE DISEASES AMONG SECONDARY SCHOOL STUDENTS IN THE RURAL AREAS OF OYO CENTRAL SENATORIAL DISTRICT OF OYO STATE

SALAAM Abass Ayobami
Department of Physical and Health Education
Emmanuel Alayande College of Education, Oyo, Oyo State

Abstract

Human beings, particularly students tend to be indisposed from communicable diseases like tuberculosis and cholera at a point in time. This study examined knowledge as well as the prevalence of communicable diseases among secondary school students in the rural areas of Oyo central senatorial districts. The study adopted a descriptive survey research design. The population for the study comprised secondary school students in the rural areas of the Oyo central senatorial district. The sample comprised 240 respondents. A self-developed questionnaire titled Knowledge of Communicable Diseases (KCD) was used to collect information on knowledge and prevalence of communicable diseases. The reliability of the instrument was determined using test-retest reliability procedures which yielded r=(0.82). Findings from the study revealed that students in the study area knew and experienced some communicable diseases like diarrhea, typhoid, athlete foot, and catarrh. It was also found out that students significantly had knowledge about communicable diseases $X^2(18, n=240) = 266.150$, $p<0.05$. *It was recommended that government and other agencies should extend facilities as well as personnel that will cater for the prompt education of communicable diseases for further enlightenment.*

Keywords: Knowledge, prevalence and communicable diseases

Introduction

Communicable diseases are as old as man. They cause a great problem for human beings in every part of the world particularly school students who are prone to it due to their close interactions with one another as a result of nonchalant behaviours. Communicable diseases are silent killers. For one to have a happy living, it is important to be free from diseases to be healthy. School students suffer from various types of diseases specifically communicable diseases. A communicable infection occurs when a virus or other pathogens enter the body through the breathing of contaminated air, eating contaminated food, and through body contact with an infected person or people. The influence of social interactions on disease transmission has been recognized for the spreading of diseases, an example can be said to be airborne diseases (Shen, Ning, and Zhon, 2004).

A communicable disease is one of the major causes of illness in Nigeria (CDC, 2013). A major predictor of the burden of disease occurrence is inadequate access to safe water among others (Boshi-Pinto, Velebit, and Shibaya, 2008). Egwari, (2015) stressed that among leading communicable diseases are Hepatitis, HIV/AIDS, Influenza, malaria, polio, and tuberculosis. More so, in Nigeria, the prevalence rate of communicable is 18.8% which is peculiar and reported to be worse in sub-Saharan parts of the country (Asekun-Olorinmoye, Omobuwa, & Adebimpe, 2014). The commonest communicable diseases in Nigeria include cholera, typhoid among others which are linked with contaminations of drinking water and the likes (Adeyinka, Wasiu, and Akintayo, 2014).

Communicable diseases remain a health challenge in developing countries like NIGERIA despite efforts made at the global level to reduce their prevalence and

contribution to the loss of life (World Bank, 2013). Approximately, 2.4 million children continue to die each year from vaccine-preventable diseases; communicable diseases have a significant effect on human life if not well managed and place a heavy burden on education for children, infrastructures as well as the economy of the country at large. (Halpin, Morales and Martin-Moreno, 2010)

Hausmann-Muela, Ribera and Nyamongo (2013) believed that knowing about a particular disease among students may vary from one individual or community to another. It was further stressed that knowledge about diseases depends on the extent to which individual students have experienced such diseases or the exposure individual has to campaigns available against diseases.

Hill, (2005) believed that transmission of communicable disease may occur through one or more diverse paths or channels ranging from physical contact with infected individuals. These infecting agents may also be transmitted through liquids, contaminated food, body fluids, contaminated objects, airborne inhalation, or through vector-borne spread. Communicable diseases do not usually develop in the same way in susceptible hosts but produce more non-clinical cases that experience unclear, non-specific symptoms, and may not produce any symptoms at all; examples of such cases are Tuberculosis, Cholera, Polio, and the disease(s) which spread without being aware. But other diseases produce more clinical cases with easily detectable symptoms like malaria among others (WHO, 2008). High rates of communicable diseases in school children have led to more attention being paid worldwide (McKay, Williams, and Davidson, 2004).

The World Health Organization as stated by Rudan, Boschi-Pinto, Biloglav, Mulholland and Campbell, (2008) reported that communicable diseases constitute the most important cause for student mortality around the world particularly in developing worlds like Nigeria. Transmission of the disease may occur through several different mechanisms/ channels; Respiratory diseases and meningitis are commonly acquired by contact with aerosolized droplets, spread by sneezing, coughing, talking, kissing, or even singing. Gastrointestinal diseases are often acquired by ingesting contaminated food and water. Sexually transmitted diseases are acquired through contact with bodily fluids, generally as a result of sexual activity. Some infectious agents may be spread as a result of contact with a contaminated, inanimate object (known as a fomite), such as a coin passed from one person to another, while other diseases penetrate the skin directly (Kenneth and George, 2004).

The physical school environment has a strong influence on students' health for several reasons. So, the environment is one of the primary determinants of health. Therefore contaminated water supplies can result in diarrheal diseases; air pollution can worsen acute respiratory infections and trigger asthma attacks. Their exposure to any contaminants in the air, water, or food will, therefore, be higher than experienced by adults (Weiss and McMichael, 2004; Wilcox and Colwell; Parkes, Panel and Weinstein, 2003).

On one hand, having knowledge about communicable disease(s) go a long way in preventing the contraction of such disease thereby promoting a healthy lifestyle. In terms of the occurrence of diseases, AbdurRazzak, (2011) in a study found that the occurrence of the disease is less frequent in males than females. However, the prevalence of food and water-borne diseases is greater among patients. Furthermore, Oyo-Ita, Ikpeme, Etokidem, Offor, Okokon, and Etuk, (2005) in their study regarding the knowledge about diseases revealed that three hundred and ninety-nine (68.8%) of the participants knew that some communicable diseases were caused by viruses; others either did not know or thought it was caused by something else.

Statement of the Problem

Studies have confirmed the occurrence of communicable diseases among students (such as cholera, malaria. diarrhea, and tuberculosis) in Nigeria and especially in civilized communities. Students affected by any of these diseases do experience poor health, a high rate of absenteeism, non-school completion, and mortality. To prevent such communicable diseases among students, there is a need to have information about the rate of occurrences as well as knowledge of students about communicable diseases. Such information is available in developed communities but absent in the rural areas; hence, this study

Research question

1. What is the prevalence rate of communicable diseases among secondary school students in the rural areas of Oyo Central Senatorial District of Oyo State?

Hypothesis

1. Secondary school students do not significantly know about communicable diseases in the rural areas of Oyo Central Senatorial District of Oyo State.

Methodology

The study adopted a descriptive survey research design. The population for the study comprised senior secondary school students in the rural areas of Oyo Central Senatorial District. The sample for this study was 240 respondents. A multi-stage sampling technique was adopted for the study. One out of the three senatorial districts was selected using a random sampling technique. Two Local Government Areas (LGAs) were also selected from the senatorial district using a simple random sampling technique. Five schools were equally selected from each LGA using a simple random sampling technique. Lastly, 24 respondents (12 males and 12 females) were selected from each school. Respondents were selected using a stratified random sampling technique with gender as a stratum. A self-developed questionnaire titled Knowledge of Communicable Diseases (KCD) was used to collect information on the knowledge and occurrence of communicable diseases. The reliability of the instrument was determined using test-retest reliability procedures which yielded 0.82 and were considered reliable. The results from the data were analysed using percentile ranking and chi-square statistics for the hypothesis generated at 0.05 alpha level.

Results

Research question 1: What is the prevalence rate of communicable diseases among secondary school students in rural areas of Oyo Central Senatorial District?

Table1:

Frequency in the experience of some common communicable disease

S/N	Diseases	Very. often	Often	Sometimes	Rarely	Not at all	Total Experience (yes) %	Total Experience (No)/ %	Rankings
i	Malaria	16	23	112	47	42	151 (62.91%)	89 (37.09%)	1st
ii	Typhoid	03	19	35	44	139	57 (23.75%)	183 (76.25%)	6th
iii	Diarrhea	14	09	01	09	167	24 (10%)	216 (90%)	11th
iv	Chicken pox	14	13	31	18	149	58 (24.17%)	182 (75.83%)	5th
v	Pneumonia	18	45	54	12	111	117 (48.75%)	123 (51.25%)	2nd
vi	Athlete foot	08	16	23	21	172	47 (19.58%)	193 (80.42%)	8th
vii	Cholera	15	11	24	13	177	50 (20.83%)	190 (79.17%)	7th
viii	Catarrh	05	20	48	10	157	73 (30.42%)	167 (69.58%)	4th
ix	Tuberculosis	13	32	41	24	130	86 (35.83%)	154 (64.17%)	3rd
x	Measles	11	16	46	18	149	73 (30.42%)	167 (69.58%)	4th
xi	Small pox	14	13	31	18	164	58 (24.17%)	182 (75.83%)	5th
xii	Mumps	03	14	26	16	181	43 (17.92%)	197 (82.08%)	9th
xiii	Whooping cough	03	12	16	14	195	31 (12.92%)	209 (87.08%)	10th

Table 1 revealed the percentage distribution as well as rank order of respondents based on their experience of communicable diseases. The table showed that diseases like typhoid (23.75%), diarrhea (10%),Chickenpox (24.17%), Pneumonia (48.75%), athlete foot (19.58%), catarrh (30.42%), tuberculosis (35.83%), measles (30.42%), small pox (24.17%), mumps (17.92%) as well as whooping cough (12.92 %) are uncommonly experienced among the students while malaria is the only communicable disease experienced most by the respondents in the study area with (62.91%) respondents who attested to the fact that they experienced it sometimes in recent times. More so, it was

rated that malaria is the first among diseases experienced by the respondents, followed by pneumonia, catarrh, and measles respectively while typhoid, chicken pox, athlete foot, mumps as well as whooping cough are not peculiar to the students.

Research Hypothesis: Secondary school students do not significantly know about communicable diseases

Table 2: Chi square table on knowledge about communicable diseases

S/n	Items	SA	A	D	SD	DF	x^2	P.val	Decision
1	Communicable disease can spread from one person to another	112	93	10	25	18	266.150	0.000	Rejected
2	Communicable disease is deadly	67	86	54	33				
3	Communicable disease is curable	106	92	28	14				
4	Communicable diseases can be managed with drugs	82	113	24	21				
5	A communicable disease is the disease of the elderly	44	42	75	79				
6	Communicable diseases can be contracted through air, food, body contact, and water borne	107	92	11	30				
7	People infected with communicable diseases experience some symptoms	111	65	38	26				

From table 2, $x^2(18, n=240) = 266.150, p<0.05)$. Since the p. value is < 0.05, the hypothesis is rejected and concluded that students in the study area know about communicable diseases.

Discussion of findings

Finding from the study revealed that secondary school students in the study area at the time of this research had the experience of communicable diseases like malaria, pneumonia, catarrh as well as measles. Similarly, communicable diseases like whooping cough, mumps, small pox, cholera, athlete foot, diarrhea, and typhoid were not frequently experienced. This was in line with Adeyinka, Wasiu, and Akintayo, (2014) they opined that the commonest communicable diseases in Nigeria include cholera, typhoid and which are linked with contaminations of drinking water and the likes. Similarly, Egwari, (2015) stressed that among the leading communicable diseases are Influenza, malaria, polio, and tuberculosis.

In corroborating this also, Oyo-Ita, Ikpeme, Etokidem, Offor, Okokon, and Etuk, (2005) in their study regarding the knowledge about diseases which revealed from the entire sampled population that as many as three hundred and ninety-nine (68.8%) of the participants knew communicable some communicable diseases.

Conclusion

Based on the findings from this study, it was concluded that;

Students experienced some communicable diseases named athletes foot, malaria and that Students had significant knowledge about communicable diseases

Recommendations

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

Students from the study area desist from sharing things that can make the spread of diseases possible. Also, government should intensify intervention programme on diseases control in the rural areas of Oyo Central Senatorial District

References

AbdurRazzak, (2011). A questionnaire survey on infectious disease among hospital patients in Kushtia and Jhenaidah, Bangladesh. International Journal of Genetics and Molecular Biology Vol. 3(9), pp. 120-127

Adeyinka, S. Y., Wasiu, J. and Akintayo, C. O. (2014). Review on the prevalence of waterborne diseases in Nigeria. *Journal of Advancement in Medical and Life Sciences;* 1(2), 1-3.

Asekun-Olarinmoye, E., Omobuwa, O. & Adebimpe, W. O. (2014). Hand washing: Knowledge, Attitude and Practice and mothers of Under-Five children in Osogbo, Osun State, Nigeria. *Journal of Biology, Agriculture, and Healthcare,* Vol.4 No.16, 2014.

Boschi-Pinto, C., Velebit, L. & Shibaya, K. (2008). Estimating Child Mortality due to Diarrhea in Developing Countries. Bull World Health Organ 86:710-717.

Centres for Disease Control and Prevention (2013). Infectious Diseases-Adolescents and School Health. Available at http://www.cdc.gov/health (Accessed on 22 August 2013). Washington DC.

Egwari, l. O. (2015). Health Education in the Control and Prevention of Communicable and non-Communicable Diseases in Nigeria

Halpin, H. A., Morales, M. M. & Martin-Moreno, J. M. (2010). Chronic disease prevention and the new public health. Public Health Reviews; 32:120-154.

Hausmann-Muela, Ribera, J. M. & Nyamongo, I. (2003). Health seeking behaviour and health systems response. DCCP Working Paper No. 14, August. http://www.dcp2.org/file/29/ (accessed: 31.10.2013)

Hill, M. (2005). Encyclopedia of Science and Technology. "Infectious disease "The McGraw-Hill.

Kenneth, J. R. & George, C. R. (2004). Sherris Medical Microbiology Fourth Edition McGraw Hill.

Oyo-Ita, A. E., Ikpeme, B. M., Etokidem, A. J., Offor, J. B., Okokon, E. O. & Etuk, S. J. (2005). Knowledge of HIV/AIDS among secondary school adolescents. *Annals of African medicine. Vol. 4, No. 1; 2 – 6*

Rudan, I., Boschi-Pinto, C., Biloglav, Z., Mulholland, K., & Campbell, H. (2008). Epidemiology and etiology of childhood pneumonia. Bull World Health Organ; 86:408-16.

Shen, Z., Ning, F. & Zhon, W. (2004). Super Spreading SARS Events, Beijing. *Emerg Infect Dis;*10(2):256-260.

WHO (2008). Protection of individuals with high poverty contact in areas affected by avian influenza H5N1: Consolidation of pre-existing guidance. Available from URL: http://www.who.int/csr/disease/avian_influenza/guidelines/high_contact_protection/en/index.html (Accessed on 8 June 2013).

World Bank (2013). The Global Burden of Disease: Main Findings for Sub-Saharan Africa. Sept 9. http://vwww.worldbank.org/en/news/feature/2013/09/09/globalburden-of-disease-findings-for-sub-saharan-africa accessed 30October 2013).