

# Health Problems Among Adolescent Boys and Girls in Secondary Schools in Obollo-Afor Education Zone of Enugu State, Nigeria

Cajetan I. Ilo Ignatius O. Nwimo Nwamaka A. Elom Eunice N. Afoke Scholarstica A. Orji Department of Human Kinetics and Health Education, Ebonyi State University, Abakaliki, Nigeria

The cross-sectional survey was utilized to determine the health problems among adolescent boys and girls in secondary schools in Obollo-Afor education zone of Enugu state. Employing the Statistical Package for Social Sciences (SPSS), 1463 self-completed copies of questionnaire (98.3% of those distributed) were used for data analysis, using percentages and chi-square (p < .05). Results showed that boys reported higher rates of skin rashes, accidents and sexually transmitted diseases than did girls. Significant differences were found in skin rashes, malaria, eye defects, respiratory track diseases, accidents, mouth odour, abdominal pain and sexually transmitted diseases. With regard to mental health problems, girls reported higher rates of most of symptoms than did boys. Significant differences (p < .05) were found in fear, forgetfulness, fatigue and stress. In social health problems, boys reported higher rates in most of the symptoms than girls. Significant differences were found in lack of finance, frequent punishment, hatred by others, smoking, rape, violence and secret cult activities. It is recommended that interventions that could help students avoid health-risk behaviour should be initiated.

**Keywords:** health problems, adolescent, boys and girls, secondary schools.

#### 1.0 Introduction

Adolescence is sometimes viewed as a transitional state, during which youths begin to separate from their parents but still lack clearly defined role in society. It is regarded as an emotionally intense and often stressful period (National Teachers Institute, 2002). However, it should be noted that adolescence is typically a time for experimenting with risky behaviours, despite good parenting practices and role modeling (Ezedum, 2001, 2002, 2003). In both developed and developing countries adolescents can face overwhelming problems, among them early pregnancy, substance abuse and violence, making them more vulnerable to life-threatening diseases and conditions. Adolescents comprise 20% of the total world population, 85% of whom live in developing countries (International Clinical Epidemiology Network, 2005). Majority of secondary school boys and girls in Nigeria are adolescents. They represent a significant segment (44.8%) of the country's population (United Nations Development Program, 2001). Reports suggest that adolescents, who also include those in Nigeria, face numerous challenges, which could be inimical to their health (Lee, Liao, Lee, Lu, & Chou, 1997; U.S. Department of Health and Human Services, 2003).

Health has been conceptualized in many ways. For example, it is viewed to mean optimal personal fitness for all fruitful and creative living (Cornacchia, 1991). It is also conceptualized to means a state of complete physical, mental and social well being and not merely the absence of disease or infirmity (World Health Organization, 1948). The above conceptualization implies that health operates in the three dimensions of human make-up namely: physical, mental and social. Consequent upon this therefore, issues on health problems could demand that the three aspects of human life be considered.

Physical dimension of health signifies the ability to perform tasks, and the basic process allows the individual to make intelligent decisions regarding his or her behaviour and the tasks him or her undertakes (Udoh, Fawole, Ajala, Okafor, & Nwana, 1987). Mental dimension of health is a state of well being in which the individual realizes his or her abilities, can work productively and fruitfully and is able to contribute to the development of his or her community (Okafor & Okafor, 1998). On the other hand, social dimension of health is the capacity of the individual to make social contacts and relationships with an ever widening circle of people and to derive pleasure and satisfaction from each of these people (Adeoye, 1981).

From the foregoing, it could be seen that the three dimensions of health are interrelated and must work in harmony for an individual to attain optimal health for effective living. Therefore, any disharmony in one or all the three dimensions of health could give rise to a myriad of health problems. Health problems are a departure from normal state of being, which are characterized by malfunctioning of the vital processes accompanied by marked symptoms and definite physical signs (Richard & Wagman, 2004). These health problems could be classified into physical, mental and social (Selkrik & Chinoweth, 2001) and have been observed among adolescent secondary school students elsewhere (Okoro & Ekoko, 2003).

Obollo-Afor education zone is located in one of the rural settings in Enugu State, Nigeria. It is considered a rural setting because it has no regional water and electricity supply. It is worth noting that one of the busiest highways leading to the northern parts of Nigeria transverses the education zone. Obollo-Afor, the headquarters, is likened to a gateway to many major cities in northern Nigeria. Its location affords most lorry drivers traveling to the northern parts of Nigeria the opportunity of stopping over, often times, to take advantage



of some gullible female secondary school students. Nigeria's federal ministry of health had at one time declared Obollo-Afor a volatile area, where cases of social vices including illicit drug use, alcoholism, among others; capable of exposing susceptible individuals to a myriad of physical, mental and social health problems, is high and these risk behaviours have been observed among adolescents. Risk behaviours such as alcohol, cigarette, and marijuana use threaten physical and mental health and may increase the likelihood of engaging in other antisocial behaviours. For example, besides the psychological detriments, cigarette use often precedes marijuana and alcohol use and is concurrent with other risk behaviours such as fighting (Davis, 1999; U.S. Department of Health and Human Services, 1991) and secret cult activities.

Studies over the years documented various aspects of health problems among adolescent students in both developed and developing countries (Aaro, Laberg, & Wold, 1993; Anglin, Naylor, & Kaplan, 1996; Balogun, 1980; Cole, Allen, & Green, 1980; Igbanugo & Onibokun, 1993; Melgosa, 2001; Pastore & Techoco, 2004). However, none of these studies was conducted among secondary school students in Obollo-Afor education zone of Enugu state. Secondly, none of these studies considered gender as an important variable in susceptibility of health problems among students. The present study therefore was designed to determine the health problems among adolescent boys and girls in secondary schools in Obollo-Afor education zone of Enugu State. Three hypotheses, which stated that there would be no significant difference (p < .05) in the: (1) physical health problems, (2) mental health problems and (3) social health problems between boys and girls were postulated for verification.

The study is considered important because the data provided might guide health educators in initiating interventions that might help students avoid health-risk behaviours capable of exposing them to health problems. When students avoid health-risk behaviours they might attain an appreciable level of good health. Good health is basic to productive and efficient schoolwork by students. Students also need good health to make the best use of their talents in school, whereas health problems would detract from their potentials.

### 2.0 Methods

# 2.1 Participants and setting

The cross-sectional survey was utilized to determine in health problems among 1488 (boys, n = 744; girls, n = 744) adolescent boys and girls ( $10^{th}$ - $12^{th}$  graders) in secondary schools, randomly selected from 12 coeducational secondary schools in Obollo-Afor education zone of Enugu state. Purposive elimination of all single-sexed secondary schools was made in order to control the influence of one-gender schools.

# 2.2 Instrument

The instrument (See Appendix) used in this study was a self-designed 32-item questionnaire called Adolescent Students' Health Problems Questionnaire (ASHPQ). The ASHPQ was subjected to face and content validity using five experts in health education and psychology. The ASHPQ covered three dimensions of health namely: physical health, mental health and social health. Two items in the questionnaire enquired about gender of participants as the independent variable, and age, while 30 items enquired about felt and perceived health problems of participants as dependent variables. Eleven items asked about physical health problems (PHPs); eight concerned mental health problems (MHPs), and eleven asked about social health problems (SHPs). Participants were asked to check, which among the health problems they have had or experienced as students.

Employing Kuder-Richardson (K-R 20), data collected from thirty (15 boys, 15 girls) adolescent secondary school students in one school at Nsukka Town, located in a different education zone, for this instrument yielded reliability coefficient of .91. The sub-scales of the instrument were further subjected to reliability computation. All sub-scales (PHPs r = .74, MHPs r = .85, SHPs r = .88) yielded high reliability coefficients. These reliability coefficients were deemed high enough considering criterion of .60 or higher for good instruments (Ogbazi & Okpala, 1994).

# 2.3 Data Collection

Permission was obtained from the principal of each secondary school included in the study. The researchers explained the procedure and method of completion of the questionnaire to the participants. Thereafter, 1488 copies of the questionnaire were administered on the participants in their respective classrooms. Participants were asked not to write their names on any part of the questionnaire. The teachers in charge of the grades included in the study assisted the researchers in the administration of the instrument. Participants were allowed 45 minutes to complete the questionnaire during a class session.

# 2.4 Data Analysis

Out of 1488 students, 1463 (49.0%, boys; 49.3%, girls) representing about 98.3% return rate, correctly completed and returned their own copies of the questionnaire. Their ages ranged from 14-17 years with a mean of 15.1 years (SD = 2.2). These copies of the questionnaire were used for data analysis. Employing the Statistical



Package for Social Sciences (SPSS) Version 21.0 for Windows (SPSS, Inc., 2014), percentages and chi-square ( $\chi^2$ ) statistic were used to analyse the data. Percentages were used to describe each aspect of the participants' health problems and chi-square statistic was used to determine whether or not significant difference (p < 0.05) existed in the health problems between boys and girls.

3.0 Results
Table 1. Percentages and Results of  $\chi^2$  Tests of Physical Health Problems among Adolescent Boys and Girls
in Secondary Schools (N = 1463)

in Secondary Schools (N = 1463)									
Responses									
Physical Health Problems	$\underline{\text{Boys (n = 729)}}$		Girls (n = 734)		<b>Total</b>		Cal $\chi^2$	<b>Decision</b>	
	f	%	f	%	f	%			
Skin rashes	519	71.2	437	59.5	956	65.3	21.398	<0.05	
Malaria	353	48.4	418	56.9	771	52.7	10.337	<0.05	
Eye defects	422	57.9	520	70.8	942	64.4	26.227	< 0.05	
Typhoid fever	445	61.0	456	62.1	901	61.6	0.141	NS	
Respiratory tract diseases	341	46.8	152	20.7	493	33.7	109.978	<0.05	
Ear defects	239	32.9	253	34.5	492	33.6	0.399	NS	
Accidents	506	69.4	115	15.7	621	42.4	430.387	<0.05	
Mouth odour	248	34.0	72	9.8	320	21.9	123.902	< 0.05	
Abdominal pain	205	28.1	357	48.6	562	38.4	64.143	<0.05	
Sexually transmitted diseases	436	59.8	239	32.6	675	46.1	108.267	< .05	
Gastrointestinal disorders	361	49.5	378	51.5	739	50.5	0.491	NS	

 $\chi^2$  critical = 3.841; df = 1 for all the  $\chi^2$  tests

As shown in Table 1, skin rashes, eye defects, typhoid fever, diseases of gastro-intestinal tract, sexually transmitted diseases and accidents were the physical health problems the participants experienced most. However, boys experienced skin rashes, accidents and sexually transmitted diseases more than girls. On the other hand, girls experienced malaria, eye defects, typhoid fever and gastrointestinal disorders more than boys.

Table 2. Percentages and Results of  $\chi^2$  Tests of Mental Health Problems among Adolescent Boys and Girls in Secondary Schools (N = 1463)

Mental Health Problems	Boys (n = 729)		Responses Girls (n = 734)		<u>Total</u>		<u>Cal</u> χ <sup>2</sup>	<b>Decision</b>
Problems	f	%	f	%	f	%		
Fear	285	39.1	135	18.4	420	28.7	75.545	< 0.05
Forgetfulness	327	44.9	401	54.6	728	49.8	13.629	< 0.05
Nervousness	155	21.3	184	25.1	339	23.2	2.758	NS
Fatigue	118	16.2	553	75.3	671	45.9	513.293	<0.05
Stress	434	59.5	378	51.5	812	55.5	9.246	< 0.05
Anxiety	489	67.1	519	70.7	1008	68.9	2.091	NS
Inability to sleep	504	69.1	511	69.6	1015	69.4	0.022	NS
Lack of concentration	428	58.7	465	63.4	893	61.0	3.131	NS

Data in Table 2 showed that mental health problems the participants experienced most included inability to sleep, anxiety, and lack of concentration, stress, forgetfulness and fatigue. It is evident from the data shown in the Table that girls experienced more mental health problems than boys.

Results in Table 3 showed that the participants reported lack of finance, insufficient accommodation, drug addiction, smoking, frequent punishment, violence, wrong choice of friends and rape as their most commonly experienced social health problems. Boys experienced more social health problems than girls.

In the test of hypotheses (Tables 1-3); chi-square test showed that there was a statistically (p < .05) significant difference between boys and girls in most physical, mental and social health problems. For example, a significant difference was found in eight out of eleven physical health problems studied, and while a significant difference was found in four out of eight mental health problems, a significant difference was found in seven out of eleven social health problems studied.



Table 3. Percentages and Results of  $\chi^2$  Tests of Social Health Problems among Adolescent Boys and Girls in Secondary Schools (N = 1463)

Responses								
<b>Social Health Problems</b>	Boys (	(n = 729) Girls $(n = 734)$		<u>To</u>	<u>otal</u>	<u>Cal</u> χ <sup>2</sup>	<b>Decision</b>	
	f	%	f	%	f	%		
Insufficient	429	58.8	418	56.9	847	57.9	0.459	NS
accommodation								
Lack of finance	572	78.5	492	67.0	1064	72.7	23.510	< .05
Quarrelsomeness	184	25.2	181	24.7	365	24.9	0.038	NS
Wrong choice of friends	331	45.4	345	47.0	676	46.2	0.309	NS
Frequent punishment	468	64.2	215	29.3	683	46.9	177.734	< .05
Hatred by others	114	15.6	204	27.8	318	21.7	31.116	NS
Drug addiction	419	57.5	398	54.2	817	55.8	1.441	NS
Smoking	548	75.2	142	19.3	690	47.2	445.263	< .05
Rape	123	16.9	485	66.1	608	41.6	359.716	< .05
Violence	475	65.2	210	28.6	685	46.8	194.826	< .05
Secret cult activities	389	53.4	113	15.4	502	34.3	232.357	< .05

### 4.0 Discussion

The present study examined the differences that existed between adolescent boys and girls in secondary schools in Obollo-Afor education zone of Enugu state with regard to their health problems, classified into physical, mental and social. Data in Tables 1-3 demonstrated that both boys and girls experienced enormous physical, mental and social health problems, albeit, in varying degrees. For example, more boys experienced skin rashes, respiratory track diseases (RTDs), sexually transmitted diseases (STDs) and accidents than did girls (Table 1). As shown in Table 1, the difference found in eight of the physical health problems was statistically significant (p < 0.05).

These were expected findings for obvious reasons and were consistent with the suggestions of previous studies. For instance, boys more often than not might not take care of their skin as much as girls might do; smoke cigarettes (Centers for Disease Control and Prevention, 1996; Pastore & Techoco, 2004; Vad der Bij, Stolte, Coutino, & Dukers, 2005), which might expose them to skin infections and RTDs, respectively (Shibata, Fukuda, & Hirohata, 1990); take various risks, which might lead to accidents (Perez & Pinzon-Perez, 2002), and get involved in sexual risk behaviours capable of exposing them to STDs including HIV/AIDS (Choi, Gibson, Han, & Guo, 2004; Giraut, Saidal, Song, de Ling Van Wijngaarden, Dallabetta, Stuer, Mills, Or, Grosjean, Glaziou, & Pisani, 2004; Kalichman & Simbayi, 2004; Yoshimura, 2000).

It was found that girls experienced more of the mental health problems studied than did boys and the difference found in four of the mental health problems studied was significant at p < .05 (Table 2). That girls experienced more mental health problems than did boys was a surprise. This is because naturally, boys were expected to suffer from mental health-related problems more than would do girls (Sutherland & Cooper, 1993) due to natural hassle tendencies of boys in the Nigerian context (Nwimo, 2004, 2005a, 2005b). The findings were inconsistent with the findings of previous studies (Nwimo, 2005a, Nwimo, 2005b). However, the characteristics of the subjects, who were non-students, used in the previous studies might have contributed to the inconsistency in findings of the present study. As a result, the disagreement in the findings of the present study with those of previous ones might not be seriously questioned. The implication of the findings is that girls might require some interventions to help them ward-off certain mental health-related problems. One of such interventions could be stress management, since most of the mental health problems students experience tend to be stress-related.

With regard to social health problems, it was found that boys experienced more of such problems than did girls and a significant difference (p < .05) was found in seven of the social health problems studied (Table 3). These findings were expected, though they were inconsistent with the findings of a previous study (Okoro & Ekoko, 2003), which rather found that girls experienced more social health-related problems than boys experienced. However, the findings were consistent with those of another study (Igbanugo & Onibokun, 1993), which rather found that more boys than girls they studied experienced more social health-related problems. Some of these social health-related problems are drug taking and cigarette smoking, among other social vices. However, the agreement could be explained from the point of view of the fact that the characteristics of the subjects used in the two studies seemed to be similar. One of such characteristics was that the participants in both studies were adolescents. By implication interventions that could assist students avoid social vices in school are needed.



# 5.0 Conclusion

Student life tends to be full of hassles and risk-taking behaviours. The tendency for experiencing myriad symptoms of health problems among students might of course, be high. Based on the findings of the study, it was concluded that adolescent boys and girls in secondary schools in Obollo-Afor education zone of Enugu state experienced all three dimensions of health problems investigated. However, it was specifically concluded that girls experienced more physical and mental health problems than did boys; but boys on the other hand, experienced more social health problems than did girls.

Interventions towards empowering students to shun avoidable health problems should be initiated in secondary schools. It has been observed that non-tobacco use among young people helps prevent long-term health problems and premature death, promote optimal health, and decreases school days missed because of respiratory illness (Centers for Disease Control and Prevention, 1997). Therefore, intervention for preventing tobacco use in secondary schools is strongly advocated. Large numbers of students are at risk for pregnancy and sexually transmitted infections, including HIV/AIDS (Fisher, Reddy, Muller, & Lombard, 2003); therefore intervention programs to prevent sexual risk behaviours are also advocated.

#### References

- Aaro, L.E., Laberg, J.C., & Wold, B. (1993). Health behaviours among adolescents: Towards a hypothesis of two dimensions. *Health Education Research*, 10(1), 83-93.
- Adeoye, B. (1981). *Universal primary education teacher education revision notes on health education*. Ado-Etiti: Omolayo Standard Press and Bookshop Co. (Nig.) Ltd.
- Anglin, T.M., Naylor, K.E., & Kaplan, D.W. (1996). Comprehensive school-based health care: High school students' use of medical, mental health and substance abuse services. *Pediatrics*, *97*(3), 318-330.
- Balogun, F.B. (1980). The health needs and problems of university students in Nigeria. *Nigerian School Health Journal*, *I*(3), 48-52.
- Centers for Disease Control and Prevention. (1996). Tobacco use and usual source of cigarettes among high school students in United States. *Morbidity and Mortality Weekly Reports*, 45, 413-416.
- Centers for Disease Control and Prevention. (1997). Guidelines for school health programs: Preventing tobacco use and addiction at a glance. Atlanta, Ga.: Centers for Disease Control and Prevention.
- Choi, K.H., Gibson, R., Han, L., & Guo, Y. (2004). High levels of unprotected sex with men and women among men who have sex with men: A potential bridge of HIV transmission in Beijing, China. *AIDS Education and Prevention*, 16(1), 19-30.
- Cole, J.B., Allen, F.C.L., & Green, J.S. (1980). Survey of health problems of overseas students. *Social Science and Medicine*, 14A(6), 627-631.
- Cornacchia, J.H. (1991). Health in elementary school. St. Louis: The C.V. Mosby Co.
- Davis, N.J. (1999). Youth crisis: Growing up in the high-risks society. Westport: Praeger.
- Ezedum, C.E. (2001). Patterns of condom use among secondary school students in Nsukka urban: Implications for reproductive and sexual health promotion in schools. *Journal of Health and Kinesiology, 2*(1), 108-117.
- Ezedum, C.E. (2002). The influence of school type on AIDS-related heterosexual behaviour patterns among adolescents: Implications for AIDS education. *PHYSCIMA*, *2*(3), 21-32.
- Ezedum, C.E. (2003). Condom embarrassment among in-school Nsukka urban adolescents: Implications for sexually transmitted infections. *Journal of Health and Sport Science*, 4(1), 17-24.
- Fisher, A.J., Reddy, P., Muller, M, & Lombard, C. (2003). Sexual behaviour of Cape Town high school students. *South African Medical Journal*, 93, 537-541.
- Giraut, P., Saidal, T., Song, N., de Lind Van Wijngaarden, J.W., Dallabetta, G., Stuer, F., Mills, S., Or, V., Grosjean, P., Glaziou, P., & Pisani, E. (2004). HIV, STIs and sexual behaviour among men who have sex with men in Phnom Penh, Cambodia. *AIDS Education and Prevention*, 16(1), 31-44.
- Igbanugo, V.C., & Onibokun, J.A. (1993). Incidence of drug use among senior secondary school children of medium and high socio-economic status. *Nigerian School Health Journal*, 8(1), 96-102.
- International Clinical Epidemiology Network. (2005). *Adolescent health*. Retrieved April 4, 2007, from http: www.inclen.org/research/ah.html
- Kalichman, S.C., & Simbayi, L.C. (2004). Sexual exposure to blood and increased risks for heterosexual HIV transmission in Cape Town, South Africa. *African Journal of Reproductive Health*, 8(2), 55-58.
- Lee, M.C., Liao, C.F., Lee, S.H., Lu, T.H., & Chou, M.C. (1997). Characteristics of adolescent patients and their health problems at an adolescent health clinic. *Kaohsiung Journal of Medical Sciences*, 13(9), 548-555.
- Melgosa, J. (2001). New lifestyle to adolescents and parents. Spain: Narpa Artes Graficas.
- National Teachers Institute. (2002). NCE/DLS course book on education, cycle 1, module 5. Kaduna: National Teachers Institute.
- Nwimo, I.O. (2004). Health status, anxiety and stress of secondary school teachers in Enugu state. PhD Thesis,



- University of Nigeria, Nsukka.
- Nwimo, I.O. (2005a). Level of anxiety among secondary school teachers in Enugu state. *Journal of Educational Foundations*, *I*(1), 18-29.
- Nwimo, I.O. (2005b). Level of stress among secondary school teachers in Enugu state. *Review of Education*, 16(2), 114-124.
- Ogbazi, J.N., & Okpala, J. (1994). Writing research report: Guide for researchers in education, the social sciences and humanities. Enugu: Press Time Ltd.
- Okafor, J.O., & Okafor, R.U. (1998). Emotional and mental health. Nsukka: Tabansi.
- Okoro, F.I., & Ekoko, R.O. (2003). An exploratory study of the health worries of adolescent girls in selected public girls' secondary schools in Benin City. *Nigerian School Health Journal*, 15(1&2), 212-229.
- Pastore, D.R., & Techoco, B. (2004). Adolescent school-based healthcare: A description of two sites in their 20<sup>th</sup> year of service. *Mount Sinai Journal of Medicine*, 7(3), 191-196.
- Perez, M.A., & Pinzon-Perez, H. (2002). Risk behaviours related to safety and violence among Columbian high school students. *Journal of International Council for Health, Physical Education Recreation, Sport, and Dance, XXXVIII*(1), 51-54.
- Richard, J., & Wagman, M.D. (2004). *The new complete medical and health encyclopedia* (Vol. 4). London: Ferguson Publishing Co.
- Selkrik, T.K., & Chinoweth, L.B. (2001). School health problems. New York, NY: Appleton Century-Croft Inc.
- Shibata, A., Fukuda, K., & Hirohata, T. (1990). Smoking habits among senior high school students and related factors. *Kurume Medical Journal*, *37*(3), 129-140.
- SPSS, Inc. (2014). *Advanced statistics* (Version 14.0) [Computer software]. Upper Saddle River, NJ: Prentice Hall.
- Sutherland, V.J., & Cooper, C.L. (1993). Identifying distress and illness among general practitioners: Predicators of psychological ill health and job satisfaction. *Social Science and Medicine*, *37*(5), 575-581.
- Udoh, C.O., Fawole, J.O., Ajala, J.A., Okafor, C., & Nwana, O.C. (1987). Fundamentals of health education. Ibadan: Heinemann Educational Books (Nig.) Ltd.
- United Nations Development Program. (2001). *Human development reports 2001*. New York, NY: Oxford University Press.
- U.S. Department of Health and Human Services. (1999). *Healthy people 2000: National health promotion and disease prevention objectives*. NIH Publication Number (PHS) 91-50212. Washington, DC: US Government Printing Office.
- U.S. Department of Health and Human Services. (2003). *Health status of adolescents*. Retrieved October 2, 2006, from http://mchb.hrsa.gov/chusa03/pages/status adolescents.htm.
- Van der Bij, A.K., Stolte, I.G., Coutino, R.A., & Dukers, N.H. (2005). Increase of sexually transmitted infections, but not HIV, among young heterosexual men in Amsterdam: Are STIs still reliable markers for HIV transmissions? *Sexually Transmitted Infections*, 81(1), 34-37.
- World Health Organization. (1948). *Constitution of World Health Organization*. Geneva: World Health Organization.
- Yoshimura, K. (2000). The psychological characteristics of tobacco dependence in a rural area of Japan. *Journal of Epidemiology*, 10(4), 271-279.

# Appendix Ouestionnaire

This questionnaire is concerned with obtaining relevant information on health problems among adolescent boys and girls in secondary schools in Obollo-Afor education zone of Enugu state. I assure you that the response you give will be used strictly for the purpose of this study, and that no part of it will be used against you or against your school. Do not write your name or that of your school on any part of the questionnaire. You are required to either place a tick  $(\sqrt{})$  or supply the answer where applicable.

# **Section A: Personal Data**

In numbers 1 and 2, you are required to place a tick  $(\sqrt{})$  in the box provided against the option that best expresses your opinion or supply the answer as it applies to you.

1. What is your gender?	
a. Male (boy)	[]
b. Female (girl)	[]
2. How old are you? Indicate in years	

# Section B: Health Problems of Adolescent Boys and Girls

In numbers 3-32, place a tick ( $\sqrt{\ }$ ) in the box provided against the health problems you have had or experienced



# since you became a student.

3.	Skin rashes	$[\ ]$	
4.	Malaria	[ ]	
5.	Eye defects	[ ]	
6.	Typhoid fever	[ ]	
7.	Respiratory tract diseases	[ ]	
8.	Ear defects	[ ]	
9.	Accidents	[ ]	
10.	Mouth odour	[ ]	
	Abdominal pain	[ ]	
12.	Sexually transmitted diseases	[ ]	
13.	Gastrointestinal disorders	[ ]	
	Fear	[ ]	
	Forgetfulness	[ ]	
16.	Nervousness	[ ]	
17.	Fatigue	[ ]	
18.	Stress	[ ]	
	Anxiety	[ ]	
	Inability to sleep	[ ]	
	Lack of concentration	[ ]	
22.	Insufficient accommodation	[ ]	
	Lack of finance	[ ]	
	Quarrelsomeness	[ ]	
	Wrong choice of friends	[ ]	
26.	Frequent punishment	[ ]	
27.	Hatred by others	[ ]	
28.	Drug addiction	[ ]	
	Smoking	[ ]	
30.	Rape	[ ]	
31.	Violence	[ ]	
32.	Secret cult activities	[ ]	