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Health Information Literacy Among Students in Senior Secondary Schools in Ogun Central Senatorial District, Nigeria

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Abstract

Adolescence is a period of life when young people explore their freedom to make decisions by themselves. Incidentally such decisions, if not properly guided could either make or mar a person for life. Adolescents have been found to engage in risky sexual behaviours. These behaviours have led to consequences such as sexually transmitted infections, HIV and AIDS, unintended pregnancies, abortions and in some cases death. Studies have shown that being health information literate can aid positive behavioural change. The study therefore, examined the level of health information literacy on sexual issues, and how it aids positive behaviour among adolescents in senior secondary schools in Ogun Central Senatorial district, Nigeria. Survey Research design was used in the study. A sample size of 400 respondents were randomly selected from a population of 127, 021 senior Secondary School Students in Ogun Central Senatorial District. Multistage sampling technique was used to select the participants for the study. Findings revealed that health information literacy among the respondents had a mean of M=2.91 on a 4 points scale. Health information literacy has a critical role to play in the general wellbeing of individuals. Being health information literate is very critical in enhancing positive behaviour and decision making about sexual issues, adolescents who are able to recognize their health information needs, identify likely information sources, evaluate information sources about sexual issues, will be able to apply information to making good decision about sexual issues. Therefore, health information literacy about sexual issues was high among adolescents in Senior Secondary Schools in Ogun Central Senatorial District, Nigeria.

Keywords: *Adolescents, Health Information literacy, Senior Secondary Schools, Sexual issue*

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Background to study

Information is power. Everybody needs information regardless of their status in the society. Information brings new prospects, progress and aids positive behavioural changes in the lives of people who obtain and use it properly. Information has been defined from many angles and has diverse meaning depending on the format and channel used to transfer it. Information may be described as correct and well-timed facts, which are specific and organized in such a way that it becomes meaningful and usable in particular situations. According to Attafuah (2015) the value information has depended on different situation, acquiring and using the right kind of information can lead to increase in a person's understanding of a situation, thereby making information valuable for aiding positive behaviour and informed decisions.

Literature suggests that health information literacy may ensure that adolescents recognize or identify their sexual information needs, know which sources to consult, find and use acquired information in making choices and resolving challenges and making behavioural changes. According to the World Health Organization (2015), the ability to get the right kinds of information on sexual issues is crucial to the reduction of risky sexual behaviour among adolescents. Two terms are usually described in the consideration of health information literacy: information literacy and health literacy. Information literacy is a person's ability to know when information is needed, identify, find, appraise, and successfully use acquired information for problem solving (American Library Association, 2018). Besides information literacy, the capacity to obtain and apply information on health issues, determines the health status of individuals. Thus, health literacy is the extent to which people are able to get, process, comprehend and utilize health information and services in a health care setting for decision making. This encompasses all facets of the way a patient or caregiver might apply health information and health services. Whereas, health information literacy highlights particular abilities that are indispensable to the successful use of health information in everyday life not specifically in a healthcare environment (Mayer, 2017).

Therefore, in this study, information literacy is the umbrella term under which health information literacy is subsumed. People who are able to identify their need for health information, detect potential sources of information, access such information and are able to use it for problem solving and decision making are considered information literate (American Library Association, 2018). Hence, health information literacy sometimes called health literacy, is described as an adolescent's ability to recognize a health information need, identify likely information sources and evaluate the quality of information obtained and how it can be used to make decisions about sexual issues. This means that health information literate adolescents are able to recognize a health information need, determine likely health information sources such as parents, friends, teachers, books, health professionals, library resources and the internet, and use the information on sexual issues to meet their needs.

Four key indicators were used to measure health information literacy: Recognition of information needs, which takes place when a person realizes there is a problem, a gap, a challenge, or a lack that needs to be filled. Identification of likely information sources that an individual will consult. Evaluation of the quality of information retrieved to ascertain that the

information will be usable. Then use of such information in decision making about sexual issues.

The population of interest are Senior Secondary school students in Ogun Central senatorial district, Ogun State Nigeria. Senior Secondary school students are adolescents who are extremely energetic by nature. They are characterized by sexual development with associated bodily and emotional changes, having the tendency to go to the extremes in their responses, which make them prone to risky sexual behaviours. Therefore adolescents in senior secondary schools may need to have high levels of health information literacy about sexual issues in order to be able to prevent or reduce risky sexual behaviours among them.

Literature Review

Literature has shown that health information literacy promotes positive health behaviours. Astudy was conducted by Hirvonen (2015) on the everyday health information literacy and behaviour among Young men in Oulu, Finland: Juvenes Print, Tampere, University of Oulu. The study revealed that health information literacy encouraged positive health behaviours. Kilfoyle, Vitko, O'conor, and Bailey (2016) also aimed at finding out the association between health literacy and women's knowledge of reproductive health, behaviours and outcomes. Health literacy was found to be related to reproductive health knowledge and to certain health behaviours.

Sun, Yang, Fisher, Shi, Wang, Zeng, Ji, Chang and Du (2014) in China, studied the relationship among health literacy, health behaviour and health status in relation to respiratory infectious diseases. The instrument measured the calculating ability, reading ability, oral communication and internet-based information-seeking abilities of the respondents. The survey design was used. The study was conducted among 3, 222 respondents inthree cities in china. Findings revealed that educational attainment and more health knowledge were related positively and directly with greater health literacy skills, health knowledge had a positive and direct relationship with health behaviour, which in turn had a positive relationship with health status.

Ye, Yang, Gao, Chen and Xu (2014) in Guangdon China conducted a study to find out the status and determinants of health literacy among the respondents. A total of 3, 821 respondents were recruited for the study and questionnaire on health literacy was used to measure the constructs. Findings revealed that 14.4% of the respondents had adequate health literacy, prevalence of adequate knowledge, skills and behaviour respectively were 22.4%, 64.7% and 6.6%. Health knowledge and skills was positively associated with health behaviours.

Aaby, Friis, Christensen, Rowland, Maindal (2017) conducted a cross-sectional study in Central Denmark Region on a random sample of 3116 individual, who reported cardiovascular diseases. The health literacy questionnaire was employed to measure the constructs. Findings showed that an understanding health information, as well as engaging with healthcare providers was associated with an increase in both physical and mental health

status. Thus suggesting that aspects of health literacy were linked with health status and health behaviour in patients with cardiovascular diseases.

Chahardah-Cherik, Gheibizadah and Cheraghian (2018) in selected centres of diabetes control in Ahavas City to find out the relationship between health literacy and health promoting behaviour among patients with type II diabetes. A correlational study was conducted and a health literacy questionnaire was distributed to measure the constructs. The finding showed that that there was a significant relationship between health literacy and health promoting behaviours such as nutrition, and physical activity.

Shabi and Oyewusi (2018) conducted a study in Osun State Nigeria, to determine health literacy among adolescents in senior secondary schools. The descriptive cross-sectional survey of 1, 186 respondents was carried out. The findings showed that only 37.7% of the respondents had adequate skills in health literacy. Sixty three (63%) of the respondents used internet health information weekly to find out information on nutrition, body size and sexuality.Generally, from literature, health literacy was found to aid positive health behaviour.

Methodology

The study was carried out among Senior Secondary School Students in Ogun Central Senatorial District of Ogun State, in the South West geo-political zone of Nigeria. The Study was conducted during the last quarter of 2018. The research survey design was used and a sample size of 400 respondents were selected from a population of 127,021. The sample size was determined using the Taro Yamane formula. Multistage sampling technique was used to select the respondents at the local government area, school and class level. The 400 participants were selected from 12 public and private senior secondary schools within the district. A structured and validated questionnaire on a 4 point Likert scale was used to measure health information literacy of adolescents on sexual issues. The instrument had four sections which measured the recognition of information needs, Identification of likely information sources, evaluation of information and use of information on sexual issues. The collected data was analyzed using SPSS version 21.

Results

All the questionnaire were retrieved and analyzed. The age distribution of the participants was between 12 and 23, with a mean age of 15.7. Over a quarter of the respondents 29.0% (n=116) were 15 years old. Majority of the students live with their parents 357 (89.5%). The study also had more participants of the female gender, more than half of them were females 59.7% (n =237), while the males made up only 40.1% (n =163) of the participants. The religious affiliation of the respondents showed that more of the respondents practiced the Christian religion 67.3% (n=269), while 32.3% (n=129) are from the Islamic religion.

Table 1: Important Demographic Characteristics of Respondents

S/N	DEMOGRAPHIC STATEMENT	FREQUENCY	PERCENTAGE
1.	Class of respondents		
	SS 1	134	33.5
	SS 2	138	34.5
	SS 3	128	32.0
		400	100
2.	Gender of respondents		
	Male	163	40.8
	Female	237	59.2
		400	100
3.	Age of respondents		
	12	1	.3
	13	9	2.3
	14	49	12.3
	15	116	29.0
	16	105	26.3
	17	68	17.0
	18	44	11.0
	19	6	1.5
	20	1	.3
	23	1	.3
		400	100
4.	Habitation of respondents		
	my parents	357	89.3
	Guardian	33	8.3
	Alone	9	2.3
	Hostel	1	.3
		400	100
5.	Religion of responde nts		
	Christianity	269	67.3
	Islam	129	32.3
	African Traditional Religion	2	0.5
		400	100

Table 2: Level of health information literacy

S/N	STATEMENT	SA F (%)	A F (%)	D F (%)	S D F (%)	M	STD	AM
	Recognition of information need							
1.	I know that I need information about the dangers of having multiple sexual partners	123 (30.8)	159 (39.8)	53 (13.3)	65 (16.3)	2.85	1.03 4	
2.	I am aware that I need information on the risks involved in having sex in exchange for gifts	118 (29.5)	162 (40.5)	69 (17.3)	51 (12.8)	2.87	.981	2.94
3.	I realize that I need information on the age that I may start having sex	131 (32.8)	166 (41.5)	60 (15.0)	43 (10.8)	2.96	.953	
4.	I know I need information about the dangers of having unprotected sex	131 (32.8)	174 (43.5)	53 (13.3)	42 (10.5)	2.99	.939	
5.	I know that i need information on how to behave in a relationship	116 (29.0)	188 (47.0)	53 (13.3)	42 (10.5)	3.05	2.20 3	
	Identification of likely information sources on sexual issues							
6.	My intimate friend will not give me helpful information about sexual issues	78 (19.5)	196 (49.0)	93 (23.3)	33 (8.3)	2.80	.848	
7.	information from my parents will be very helpful in preventing bad sexual behaviour	181 (45.3)	162 (40.5)	31 (7.8)	26 (6.5)	3.25	.855	
8.	information from the internet will not give me the correct answers to questions on sexual issues all the time	87 (21.8)	175 (43.8)	86 (21.5)	52 (13.0)	2.74	.943	2.89
9.	information from my teachers will guide me in making good decisions about sexual issues	131 (32.8)	201 (50.3)	37 (9.3)	31 (7.8)	3.08	.852	
10.	Information from the media will not give me good guidance on sexual issue	60 (15.0)	142 (35.5)	131 (32.8)	65 (16.3)	2.49	.938	
11.	information from my school counsellor will give me the right guidance ab out sexual issues	110 (27.5)	209 (52.3)	41 (10.3)	40 (10.0)	2.97	.882	
	Evaluation of information sources on sexual issues							
12.	My classmate cannot be trusted to give me accurate information about sexual issues	92 (23.)	181 (45.3)	77 (19.3)	50 (12.5)	2.85	1.03 4	
13.	A health worker will give me reliable information about the use of protection	133 (33.3)	188 (47.0)	53 (13.3)	26 (6.5)	2.87	.981	2.92
14.	Romance storybooks cannot be trusted for information on sexual issues	90 (22.5)	152(3 8.0)	98 (24.5)	60 (15.0)	2.96	.953	
15.	I can rely on my teachers for correct information on sexual issues	105 (26.3)	185 (46.3)	66 (16.5)	44 (11.0)	2.99	.939	
16.	I cannot trust the internet completely for information on sexual issues	76 (19.0)	186 (46.5)	82 (20.5)	56 (14.0)	3.05	2.20 3	
17.	My parents will give me trustworthy information on sexual issues	181 (45.3)	150 (37.5)	32 (8.0)	37 (9.3)	2.80	.848	
	Use of information on sexual issues							
18.	I can easily use information that I find to make goo d decisions about sexual issues	115 (28.8)	165 (41.3)	76 (19.0)	44 (11.0)	3.25	.855	
19.	I can easily use sexual health information to prevent risky sexual behaviours in my intimate relationships	118 (29.5)	191 (47.8)	57 (14.3)	34 (8.5)	2.74	.943	2.89
20.	I can apply information to change risky sexual behaviour	99 (24.8)	202 (50.5)	60 (15.0)	39 (9.8)	3.08	.852	
21.	I can use sexual health information to make good choices	129 (32.3)	173 (43.3)	57 (14.3)	41 (10.3)	2.49	.938	
	Ave. Weighted MEAN	2.91						

Key: SA=Strongly Agree (4), A=Agree (3), D=disagree (2), SD=Strongly Disagree (1)F (%) Frequency and Percentages Decision rule:≤ 1.49 = Low, 1.50-2.49 =Moderate, 2.50-3.49 = High, 3.50-4.00 =Very high

Table 2 shows that the level of health information literacy of the adolescent respondents in Ogun Central Senatorial district. The average weighted mean for health information literacy was M =2.91. This shows a mean value closer to 3 points on a 4 point scale. This implies that close to three quarters of the respondents generally agreed with the items measuring health information literacy. This indicates that health information literacy was high among respondent.

Table 2 also shows details for recognition of information need, which is an indicator of health information literacy. Results for participants' ability to recognize their information needs shows a group mean score of M=2.94. This mean value is closer to 3 points on a 4 points scale and it is reflective of the means of the participants' responses to the items measuring the recognition of information needs. Thus revealing that close to three quarters of the participants agreed with the items measuring recognition of information needs. This is also supported by frequencies and percentages for the specific items, 159 (39.8%) respondents agreed and 123 (30.8%) of them strongly agreed that they recognized their need for information on the dangers of engaging with multiple sexual partners, 162 (40.5%) respondents agreed and 118 (29.5%) strongly agreed that they were aware that they needed information on the risks involved in having multiple sexual partners, 166 (41.5%) respondents agreed and 131 (32.8%) strongly agreed that they realized that they needed information on the age that they may start having sex, 174 (43.5%) respondents agreed and 131 (32.8%) strongly agreed that they knew they needed information about the dangers of having unprotected sex, 188 (47.0%) respondents agreed and 116 (29.0%) strongly agreed that they knew they needed information on how to behave in heterosexual relationships. These frequencies and percentages give further empirical evidence to support the mean that close to three quarters of the respondents agreed that they could recognize their information needs. Therefore, recognition of sexual information need was high among the respondents.

Table 2 shows results for respondents ability to identify information sources shows a group mean value of M=2.89. This is a mean value closer to 3 points on a 4 points scale and it is reflective of most of the means of all the responses to the items measuring this indicator. This implies that close to three quarters of the respondents agreed and strongly agreed with the items measuring their ability to identify likely information sources. This is also supported by frequencies and percentages under the scale agree, which is on a 3 points scale, and shows that 196 (49.0%) respondents agreed and 78 (19.5%) strongly agreed that their intimate friends will not give them helpful information about sexual issues, 175 (43.8%) respondents agreed and 181 (45.35) strongly agreed that information from the internet will not give them correct answers to questions on sexual issues all the time, 201 (50.3%) respondents agreed and 131 (32.8%) strongly agreed that information from teachers will guide them in making good decisions about sexual issues, 142 (35.5%) respondents agreed and 60 (15.0%) strongly agreed that information from the media will not give them good guidance on sexual issues, 209 (52.3%) agreed and 110 (27.5%) strongly agreed that information from the school counsellor will give them the right guidance about sexual issues, 150 (37.5%) agreed and 181(45.3%) strongly agreed that information from their parents will be very helpful in preventing bad sexual behaviour. Therefore, the respondents had a high level of health information literacy,

since close to three quarters of them agreed that they could identify information sources on sexual issues.

Table 2 also shows that findings on respondents' ability to evaluate information sources had a group mean value of M = 2.92. This mean value is closer to 3 points on a 4 point scale. This also implies that close to three quarters of the respondents agreed and strongly agreed with the items measuring their ability to evaluate information sources. Therefore, close to three quarters of the respondents were able distinguish between reliable and trustworthy information sources on sexual issues and those that were not reliable and trustworthy. The specific item frequencies and percentages also give empirical support that close to three quarters of the respondents agreed and strongly agreed that they could evaluate their information sources on sexual issues, 181 (45.3%) of the respondents agreed and 92 (23%) strongly agreed that their class mates could not be trusted to give them accurate information about sexual issues, 188 (47.0%) respondents agreed and 133(33.3%) of them strongly agreed that health workers will give them reliable information about the use of protection, 152 (38.0%) respondents agreed and 90(22.5%) strongly agreed that romance story books cannot be trusted for information on sexual issues, 185(46.3%) respondents agreed and 105(26.3%) strongly agreed that they can rely on teachers for correct information about sexual issues, 186 (46.5%) respondents agreed and 76 (19.0%) strongly agreed that they cannot trust the internet completely for information on sexual issues, and 150 (37.5%) respondents agreed and 181 (45.3%) strongly agreed that their parents will give them trustworthy information on sexual issues. Therefore, their ability to evaluate information sources on sexual issues was high.

Table 2 also displays the subsection on the use of information on sexual issues. The table showed that their ability to apply acquired information in decision making was also high at a score of M =2.89 which is closer to 3 points on a 4 points scale. Meaning that close to three quarters of the respondents were able to use information found in decision making, behaviour change and in prevention of risky sexual behaviour. Frequencies and percentages from specific items showed that 165 (41.3%) of the respondents agreed and 115 (28.8%) of them strongly agreed that they can easily use information that they find to make good decisions about sexual issues, 191 (47.8%) respondents agreed and 118 (29.5%) strongly agreed that they can easily use sexual health information to prevent risky sexual behaviours in their intimate relationships, 202 (50.5%) agreed and 99 (24.8%) strongly agreed that they can apply information to change risky sexual behaviours, 173 (43.3%) agreed and 129 (32.3%) strongly agreed they can use sexual health information to make good choices. Generally, the findings show that three quarters of the respondents agreed with the items measuring all indicators of health information literacy.

Discussion of results

The results showed that the level of health information literacy of the adolescents in Ogun central senatorial district was high with an average weighted mean of M = 2.91. All the categorized items measured under health information literacy had mean scores that were above 2.5 but lower than 3.5, this implies that all the scaled items appear within the range of high level of health information literacy. Specifically, the results indicate that the ability of

participants to recognize their information needs about sexual issues was high with a mean of M = 2.94. This reveals that adolescents recognized that they needed information about sexual issues, particularly information on risky sexual behaviours. This ability to recognize ones information need is critical because it is the starting point in the quest to begin an information search.

The recognition of an information need gives the adolescent a sense of direction, because he or she is able to recognize the existing gap in knowledge and how to go about filling that knowledge gap. This is affirmed by Doyle (1994) who stated that the ability to recognize an information need is the basis for intelligent decision making and that when individual recognize there is a gap that needs to be filled, they would be able to make the right search efforts to fill such gaps. Their ability to identify information sources about sexual issues was also high, with a mean M = 2.89. Doyle (1994) said that since there is a massive amount of information sources, it is important for individuals to learn how to identify sources that are most relevant to meeting their information needs. Therefore, the ability to identify relevant information sources is important because the adolescents will be able to differentiate and separate helpful information sources from unhelpful ones from the beginning of the search for information, hence saving time that would have been spent aimlessly with unhelpful sources of information. This implies that quite a number of the adolescents could identify the different information sources and could differentiate to some extent the sources that would give them helpful information about sexual issues and in particular, risky sexual behaviours. This is in support of the emphasis Anyamene and Anyamene (2009) made in their study, that information sources that adolescents are able to identify and consult have a critical impact on their sexual health and sexual behaviour outcomes.

The findings also revealed that adolescents' ability to evaluate information had a high group mean value of M = 2.92, this means that most of the respondents were able distinguish between reliable and trustworthy information sources on sexual issues and those that were not reliable and trustworthy. This implies that their ability to evaluate information This also leads to their ability to apply information acquired in decision making which was also high at a score of M = 2.89. Meaning that adolescent to a great extent were able to use information found in decision making, behaviour change and in prevention of risky sexual behaviour. The finding is in support of Chich-Wen & Szu-Chia, 2015) who stated that when users understand information, the information affects the user's knowledge structure and the user is then able to apply information in their area of need. A skill which is needed in everyday life (Story-Huffman, n. d.).

Generally, the findings show a high level of health information literacy. This corroborates the study of Champion *et. al,*(2013) carried out to find the link between risky sexual behaviour, sexually transmitted infections and health literacy among adolescent women between the ages of 14-18. Findings showed that adolescents with high levels of knowledge and information on the consequences of risky sexual behaviour were at lesser risk of engaging in risky sexual behaviour. Kilfoyle *et. al*. (2016) also affirms that health literacy was found to have a positive impact on behaviour. On the other hand when Jones and Bonny (2017) carried out a study in

Uganda on the link between sexual health literacy and female adolescent sexual health behaviour, the results revealed that the adolescents still engaged in risky sexual behaviour even though they had knowledge or were literate about the consequences.

Besides, the findings also validates Horton, (2008) who indicated that information literate people are able to find and use information in different aspects of their live to make decisions and achieve goals. The findings are in line with other findings which showed a connection between low literacy and adverse health consequences, meaning that if health information literacy level is high, the health status will be affected positively (Eriksson-Backa *e.t al*., 2012; Beauchamp *e.t. al.,* 2015; Hirvonen, 2015).

Conclusion

Adolescents are a vibrant young and adventurous group of people who delight in experimentation and risk taking. These adolescents need information in various aspects of their lives and particularly when dealing with sexual issues and heterosexual relationships. Information is power, and informed person is an empowered person. Health information literacy will ensure that adolescents are able to recognize their information needs about sexual issues, identify relevant information sources, evaluate the quality of information and apply information to meet their needs about sexual issues. This is because health information literacy has been found to aid positive behaviour change. Adolescents in Senior Secondary schools in Ogun Central Senatorial district had a high level of health information literacy about sexual issues. It is recommended that school-based programs in health information literacy should be organized to improve the Health information literacy skills among adolescents.

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