May 2019

Health Information Seeking Behaviour of University Students in Nigeria

Cynthia Onwe
University of Ibadan, cynthiaobiako@yahoo.com

foluke okocha
dada.foluke@lmu.edu.ng

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Onwe Cynthia & Okocha Foluke

Abstract

This study was conducted to examine the health information needs and seeking behavior of students in Nigeria It also focused on the following: health information sources used by the students, sources of health information, how these health information are used, extent to which their health information needs are satisfied, demographic factors that influence health information needs and seeking behaviour of the students and the main barriers students encounter in meeting their health information needs. The findings from the study showed that students have a variety of health information needs and their needs vary among gender. It also found that the specific major health information needed by students were information about exercise, nutrition/diet and preventive health while the least health information needed by the students are mental health and tobacco, alcohol and drug use.

Introduction

Information in the present age can be regarded as the bedrock of any society because the more informed a society is the more developed it will become. Information plays a vital role in all human activities and disciplines, especially for human sustenance, competitive advantage and advancement of the frontiers of knowledge. Hence, there is need to continuously provide and disseminate information for human and societal advancement. The present age is coined “information age” because mankind has witnessed a phenomenal growth in the number and

variety of information products, services, systems and sources (Tiamiyu, 2003).It was further opined that information is the raw material for human decision making. It can also be any difference perceived in your environment or within yourself Gray et al (2005) averred that information is needed to promote ideas and creativity. Tiamiyu (2003) in explaining the importance of information noted that "if you cannot keep up-to-date with information, you are out of the game". Game in this sense is referred to as the society. The users of information vary so much that the kinds of information they require also vary.

Health literacy plays a huge role in determining the life expectancy of any society. In 2018, the World Health Organization predicted life expectancy of Nigeria to stand at 55 years. In recent times Nigeria has recorded higher deaths with the younger generation which has constituted a source of concern to society. Several college students abuse alcohol, drugs and engage in risking sexual behaviors without giving any consideration to the consequences of their actions. Reports by the National Bureau of Statistics has shown an increase in drug abuse in Nigeria which is similar to reports by the European Union that Nigeria's drug use is estimated at 14.4 percent, which is more than twice of what obtains globally. Health literacy plays a paramount role to these challenges by giving consideration to the health information seeking behavior of college students (Shi & Luo, 2019; Nwezeh, 2008; Gray et al, 2005). Hence, this study seeks to understand the heath information seeking behavior of college students by giving consideration to the sources of information used.

Objectives of the study

This study is aimed towards achieving the following objectives which are:

- To identify the health information needs and seeking behaviour of students.

- To find out where the students search for health information.
- To examine the extent to which their health information needs are satisfied.
- To find out how these health information are used.
- To identify the demographic factors that influence health information needs and seeking behaviour of the students.
- To identify the main barriers students encounter in meeting their health information needs.

1.6 Research Questions

In order to achieve the set objectives of this study, attempts will be made to answer the following questions:

- What are the health information needs and seeking behaviour of students?
- Where do students source for health information?
- To what extent are health information needs satisfied?
- How are these health information used?
- What factors are responsible for observed variation in the health information seeking behaviour of students?
- What are the demographic factors influencing health information needs and seeking behaviour of the students?
- What sources do students perceive as effective for addressing a health concern?
- What barriers do students encounter in meeting their health information needs?

Literature Review

Research shows that Health literacy affects the overall health on a individual constituting increased costs in Healthcare (Ickes & Correl, 2010). Similarly research by the institute of medicine shows the role of health literacy as the strongest predictor of the overall health of an individual. Health Information seeking behavior is essential in promoting health literacy in college students. A study by Obasola & Agunbiade (2016) conducted a study on the health information seeking behavior on college students, results showed that students were more interested in nutrition, exercise, sexual health and mental information. A study in Ghana by Aslbey et al (2017) conducted a study on online health information seeking behavior of students, results showed that college students use the internet majorly for illness specific searches. Nwezeh (2008) also conducted a study on the health information behavior of first year students, results revealed mental health, reproductive health and emotional needs were the most critical information needs searched.

Health Information Sources

Studies by American life project in a study in 2004, show that age groups 18-29 had the highest number of American adults accessing health information on the internet (Fox, 2005). The implications of these findings show that younger adults were more concerned about online health information search, other sources ranged from magazines, physicians and parents. However, results show that students have continued to show preference for media sources rather than peers and parental sources (Lambert and Louislle, 2007; Ward, 2003). A study by Dutta- Bergman (2004) also showed that the internet was a major information source by individuals who sought health information. In similar studies by Health Strategic management in 2002, 68 % of youths use the internet to meet their health information needs. Adolescents have continued to show preference for the Internet though research shows that preferred sources of health information are

not usually the first point of call (Kreps et al, 2005). Similarly, a study by Nwagwu (2007) on reproductive health information seeking behavior showed that the major sources of health information used by girls in schools were parents (66.2%) and teachers (56.1%) while girls out of school sources information from friends (63.8%) and Internet (55.1%).Similar study by Percheski & Hargital (2011) who studied 1000 college students in the United States shows that students showed preference for friends and family while Internet, Medical professionals and traditional sources were utilized at 75%. However, a study conducted by Durban and Jameson (2011) showed that 55% of libraries surveyed do not promote health information in libraries.

In summary, findings show that health information needs and seeking behaviour of students have changed drastically following the emergence of new technologies and due to the adoption of these new technological changes and development in the global health sector which is not uniform all over the world as they are uncommon in many developing countries, Nigeria inclusive. In order to achieve good health, community health services strongly emphasize prevention, early intervention, rehabilitation and education. Students have different health information needs and information seeking behavior since individual needs vary from person to person as a result; they face barriers in meeting their health information needs. The environment as well has an influence on student behaviors and therefore impacts their health and some of these environmental factors include the media, friends, instructors, societal norms and expectations, language. This study attempts to add to body of knowledge on the health information needs and seeking behavior of students, where the students search for health information, demographic factors that influence health information needs and seeking behaviour of the students.

Methodology

Location and study population

The target populations for the study are students of Kaduna State University which is located in the North Central part of Nigeria in Kaduna State precisely. The total population of the students as of the time of the survey was three thousand nine hundred and forty five students which comprises of one thousand and twenty nine (1029) students in faculty of Arts, one thousand four hundred and forty-one (1441) students in faculty of Science, forty-five (45) students in faculty of medicine and one thousand four hundred and thirty (1430) students in faculty of social and management sciences. Determined sample size was 400 due to the limited time required for the

completion of the research which is 11% of the students' population. Random sampling was used to determine the number of students that would be used for the study.

Faculty	No of departments	No of students	No of students selected
Arts	7	1029	103
Science	7	1441	145
Medicine	5	45	6
Social & management sciences	6	1430	143
		3945	**397**

Table 3.1 Study population

Research Instrument

This study used a questionnaire as the main instrument for the data collection, as many similar studies conducted earlier have also used this method for data collection. Data for this study was collected by means of a structured questionnaire with close-ended and open-ended questions. The close ended questions were used to facilitate ease of response by the respondents while the open-ended questions was also included so as to allow the respondents express their views freely.

A questionnaire was used in order to facilitate anonymity and also to enable the respondents to bare their minds out on some sensitive questions which ordinarily they might not do through any

other means of data collection. This method also ensured consistency in context and delivery. The questionnaire of this study was divided into three sections labeled A, B and C.

Section A was designed to gather some personal information such as age, discipline, father's level of education, mother's level of education and gender of respondent.

Section B contained questions aimed at finding out the health information needs (some of the health information needs that will be considered include: For stress and emotional, general health, tobacco, alcohol and drug use, nutrition, exercise and fitness, preventive health).

Section C consists of questions on channels or means through which the students find most information on their health, health information seeking behaviour and factor that determine their choice of health information sources access, constraints or difficulties encountered in seeking for information to suit their health needs.

Result

4.2.0 Demographic Characteristics of the Respondents

Out of the 400 questionnaires distributed, 389 were returned. However, not all the returned questionnaires could be used for data analysis. Seven questionnaires were discarded because some key questions were incomplete or unanswered. The final number of the questionnaires used for data analysis was 382, representing a response rate of 75.5%.

The participants of the study were requested to respond to questions about their gender, age, department, father's level of education, and mother's level of education. This section summarizes the respondents' demographic information.

4.2.1 Respondents' Gender

Table 4.2 shows gender of the respondents.

Table 4.1: Respondents' Gender

	Frequency	Percent
Male	220	57.6
Female	162	42.4
Total	382	100.0

The table above clearly shows that majority of the respondents were male (57.6%) and it represents the largest group. The other 42.4% respondents were female.

4.2.2 Respondents' Age

The distribution of respondents according to their age group is shown in Table 4.3. It can be noticed that the respondents between the age group of 18-25 years was the largest group (77.5%), consisting of more than half of the sample. Those between the age group of 25-35 years comprised of 16.2% while the least respondents are those within the age group of 46yrs and above (0.3%). Thus, most students of the university are young students.

Table 4.2: Respondents' Age Group

	Age Groups	Frequency	Percent
Valid	Under 18yrs	18	4.7
	18-25yrs	296	77.5
	26-35yrs	62	16.2
	36-45yrs	5	1.3
	46yrs and above	1	.3
	Total	382	100.0

Fig 4.1 Age group of respondents

4.2.3 Respondents' Department

Table 4.3 below shows distribution of respondents department in the university.

Table 4.3: Respondents' Department

Departments	Frequency	Percent
Christian Religious Studies	14	3.7
English And Drama	12	3.1
French	4	1.0
History	14	3.7
Islamic studies	6	1.6

Nigerian Languages & Linguistics	5	1.3
Human Anatomy	6	1.6
Human Physiology	5	1.3
Medical Pharmacology	2	.5
Medicine	9	2.4
Public Health	4	1.0
Biochemistry	21	5.5
Biological Sciences	21	5.5
Chemistry	65	17.0
Geography	20	5.2
Mathematical Sciences	42	11.0
Microbiology	28	7.3
Physics	21	5.5
Accounting	14	3.7
Business Administration	12	3.1
Economics	29	7.6
Mass Communication	8	2.1
Political Science	10	2.6
Sociology	10	2.6
Total	382	100.0

From Table 4.3 above, it can be seen that the highest percentage 17.0% (from chemistry department) and 11.0% (mathematical sciences department) of students were from the faculty of Science, followed by 7.6% (economics department) from the faculty of Social & Mgt. Science, 3.7% from accounting and history department respectively.

4.2.4 Respondents' Father's and Mother's Level of Education

Table 4.4

Variable	Parameter	Frequency	%
Father's level of education	No schooling	70	18.3
	Completed primary school	76	19.9
	Completed secondary school	93	24.3
	Technical education/NCE/OND	84	22.0
	First degree/HND	38	9.9
	Postgraduate	21	5.5
Mother's level of education	No schooling	58	15.2
	Completed primary school	62	16.2
	Completed secondary school	76	19.9

	Technical education/NCE/OND	85	22.3
	First degree/HND	38	9.9
	Postgraduate	63	16.5

Table 4.4 shows that secondary level was the highest reported educational level of the fathers (24.3%), followed by technical education/NCE/OND (22.0%) while 18.3% had no form of education. Compared to the mother's level of education, a lesser percentage (15.2%) had no form of education; technical education/NCE/OND was the highest reported educational level of the mothers (22.3%).

4.3 Health Information Needs

In the questionnaire, question 6 was designed to investigate the respondents' health information needs. The findings are summarized in Table 4.5 below

4.3.1 Health Information Needed

Table 4.5: Health Information Needed

Health Information Needs	Needed		Not needed	
	Freq	%	Freq	%
Sexual and reproductive health	309	80.9	73	19.1
Oral/dental health	286	74.9	96	25.1
Preventive health	335	87.7	47	12.3
Nutrition/Diet	333	87.2	49	12.8
Exercise	337	88.2	45	11.8
Stress and emotional well-being	300	78.5	82	21.5

Mental health	207	54.2	175	45.8
Tobacco, alcohol and drug use	162	42.4	220	57.6
General	307	80.4	75	19.6

The table above revealed that the most needed area of health information need of the respondents was health information concerning exercise (88.2%). Also needed are health information on preventive health (87.7%), nutrition/diet (87.2%) and also information on sexual and reproductive health (80.9%). The least needed health information by the respondents is information on tobacco, alcohol and drug use (57.6%) and information on mental health (54.2%)

4.3.2 Extent to Which Their Needs Are Satisfied

Table 4.6: Extent of Satisfaction

Health Information Needs	Little extent (0)		Large extent (1)		Not at all (2)		Some extent (3)	
	Freq	%	Freq	%	Freq	%	Freq	%
Sexual/Reproductive health	125	32.70%	85	22.30%	73	19.10%	99	25.90%
Oral/dental health	124	32.50%	106	27.70%	96	25.10%	56	14.70%
Preventive health	91	23.80%	190	49.70%	47	12.30%	54	14.10%
Nutrition/Diet	98	25.70%	187	49.00%	49	12.80%	48	12.60%
Exercise	126	33.00%	164	42.90%	45	11.80%	47	12.30%
Stress and emotional well-being	136	35.60%	119	31.20%	82	21.50%	45	11.80%
Mental health	78	20.40%	68	17.80%	175	45.80%	61	16.00%

Tobacco, alcohol and drug use	50	13.10%	59	15.40%	220	57.60%	53	13.90%
General health	90	23.60%	160	41.90%	75	19.60%	57	14.90%

The result presented in Table 4.5 shows that health information on preventive health (49.70%), nutrition/diet (49.00%), exercise (42.90%) are sought in large extent and the least sought health information needs are stress and emotional well-being (35.60%), exercise (33.00%) and sexual/reproductive health (32.70%). Also 57.60% of the respondents do not search for health information on tobacco, alcohol and drug use and 45.80% do not search for information on mental health.

4.3.3 Seeking Health Information

Table 4.7 shows that (24.9%) sought for health-related information on nutrition/diet daily or every other day followed by preventive health (22.5%), (31.4%) seek for oral/dental health information about once a year and (26.4%) seek for health-related information on stress and emotional well-being, (11.8%) seek for health-related information on exercise only when needed.

Table 4.7: Level of Seeking for Health Information

Health Information Needs	**NOT AT ALL**		**ABOUT ONCE A YEAR**		**EVERY 2 TO 3 WEEKS**		**DAILY OR EVERY OTHER DAY**		**ABOUT ONCE A WEEK**		**ONLY WHEN NEEDED**	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
Sexual and reproductive health	101	26.4	86	22.5	87	22.8	59	15.4	25	6.5	24	6.3
Oral/dental health	84	22.0	120	31.4	83	21.7	31	8.1	32	8.4	32	8.4
Preventive health	43	11.3	68	17.8	71	18.6	86	22.5	64	16.8	50	13.1
Nutrition/Diet	43	11.3	66	17.3	82	21.5	95	24.9	42	11.0	54	14.1
Exercise	40	10.5	75	19.6	84	22.0	88	23.0	50	13.1	45	11.8
Stress and emotional well-being	89	23.3	101	26.4	94	24.6	50	13.1	24	6.3	24	6.3
Mental health	187	49.0	67	17.5	43	11.3	44	11.5	20	5.2	21	5.5

Tobacco, alcohol and drug use	205	53.7	54	14.1	32	8.4	44	11.5	24	6.3	23	6.0
General	85	22.3	76	19.9	91	23.8	83	21.7	24	6.3	23	6.0

4.3.4 Relationship between Health Information Needs and Gender

Table 4.8 Relationship between Health Information Needs and Gender

	GENDER			
	Male		**Female**	
Health Information Needs	**Yes (%)**	**No (%)**	**Yes (%)**	**No (%)**
Sexual and reproductive health	191 (86.8%)	29 (13.2%)	118 (72.8%)	44(27.2%)
Oral/dental health	169 (76.8%)	51 (23.2%)	117 (72.2%)	45 (27.8%)
Preventive health	202 (91.8%)	18 (8.2%)	133 (82.1%)	29 (17.9%)
Nutrition/Diet	196 (89.1%)	24 (10.9%)	137 (84.6%)	25 (15.4%)
Exercise	197 (89.5%)	23 (10.5%)	140 (86.4%)	22 (13.6%)
Stress and emotional well-being	184 (83.6%)	36 (16.4%)	116 (71.6%)	46 (28.4%)
Mental health	132 (60.0%)	88 (40.0%)	75 (46.3%)	87 (53.7%)
Tobacco, alcohol and drug use	107 (48.6%)	113 (51.4%)	55 (34.0%)	107 (66.0%)
General	189 (85.9%)	31 (14.1%)	118 (72.8%)	44(27.2%)

Table 4.8 above shows the relationship between respondents' health information needs and gender. The results indicate that of 91.8% male and 82.1% of the female respondents placed their health information needs on preventive health, however male respondents had a higher percentage than female respondents. On the other hand, as compare to the 34.0% female respondents a lesser percentage 48.6% of male respondents stressed their main health information need related to tobacco, alcohol and drug use. This may because of the male are more into drugs and alcohol compared to the females.

4.3.5 Relationship between Health Information Needs and Age Group

Table 4.9 Relationship between Health Information Needs and Age Group

Health Information Needs	Age Group									
	Under 18yrs		18-25yrs		26-35yrs		36-45yrs		46yrs and above	
	Needed (%)	Not Needed (%)	Needed (%)	Not Needed (%)	Needed (%)	Not Needed (%)	Needed (%)	Not Needed (%)	Needed (%)	Not Needed (%)
Sexual and reproductive health	12 (66.7%)	6 (33.3%)	234 (79.1%)	62 (20.9%)	57 (91.9%)	5 (8.1%)	5 (100%)	0 (0.0%)	1 (100%)	0 (0.0%)
Oral/dental health	16 (88.9%)	2 (11.1%)	212 (71.6%)	84 (28.4%)	52 (83.9%)	10 (16.1%)	5 (100%)	0 (0.0%)	1 (100%)	0 (0.0%)
Preventive health	18 (100%)	0 (0.0%)	254 (85.8%)	42 (14.2%)	60 (96.8%)	2 (3.2%)	2 (40%)	3 (60%)	1 (100%)	0 (0.0%)
Nutrition/Diet	14 (77.8%)	4 (22.2%)	260 (87.8%)	36 (12.2%)	54 (87.1%)	8 (12.9%)	4 (80%)	1 (20%)	1 (100%)	0 (0.0%)
Exercise	16 (88.9%)	2 (11.1%)	266 (89.9%)	30 (10.1%)	51 (82.3%)	11 (17.7%)	3 (60%)	2 (40%)	1 (100%)	0 (0.0%)
Stress and emotional well-being	13 (72.2%)	5 (27.8%)	229 (77.4%)	67 (22.6%)	53 (85.5%)	9 (14.5%)	4 (80%)	1 (20%)	1 (100%)	0 (0.0%)
Mental health	11 (61.1%)	7 (38.9%)	153 (51.7%)	143 (48.3%)	38 (61.3%)	24 (38.7%)	4 (80%)	1 (20%)	1 (100%)	0 (0.0%)

Tobacco, alcohol and drug use	14 (77.8%)	4 (22.2%)	117 (39.5%)	179 (60.5%)	29 (46.8%)	33 (53.2%)	1 (20%)	4 (80%)	1 (100%)	0 (0.0%)
General	16 (88.9%)	2 (11.1%)	239 (80.7%)	57 (19.3%)	50 (80.6%)	12 (19.4%)	1 (20%)	4 (80%)	1 (100%)	0 (0.0%)

The Table 4.9 above shows the relationship between respondents' health information needs and age groups. The results showed that a total number of 77.5% respondents belonging age group of 18-25years from Table 4.2 indicated two health needs exercise (89.9%) and nutrition/diet (87.8%) while respondents belonging age group between 26-35 years 16.2%, had their main health information needs related to preventive health (96.8%). Respondents belonging to age group 36-45years (1.3%) expressed their health information needs on sexual and reproductive health and oral/dental health. This indicates that health information needs varied among respondents age groups.

4.4 Health Information Sources

In the questionnaire, question numbers 9, 10, 11 were designed to investigate the respondents' main health information sources, which were being used for meeting their health information needs at the time of the study.

4.4.1 Important Sources of Health Information

Table 4.10: Important Sources of Health Information

Health Information Sources	Important		Not important	
	Freq	%	Freq	%

Internet	313	81.9	69	18.1
Television	332	86.9	50	13.1
Radio	345	90.3	37	9.7
Newspaper	306	80.1	76	19.9
Friends	337	88.2	45	11.8
Parents	351	91.9	31	8.1
Family doctor	349	91.4	33	8.6
Journals	248	64.9	134	35.1
General books	302	79.1	80	20.9
Hospitals/Clinics	306	80.1	76	19.9
Chemists/Pharmacies	337	88.2	45	11.8

The result presented in the Table 4.10 above indicates that the most important source of health information are parents (91.9%) compared to journals (35.1%) as the least important source of health information. Family doctor ranked 91.4% as the second most important source of health information. While only 32.7% of respondents in Table 4.11 reported that they consult the family doctor about once a week, in Table 4.10 about 91.4% of the respondents indicated that family doctor is an important source of health information. This suggests that although about 32.7%, which is still low, consulted family doctor for meeting their health information needs, only 14.9% of the respondents consult family doctor daily or every other day.

These results indicate that students first turn to their parents for health information before turning to family doctor, radio, friends etc.

4.4.2 Consulted Health Information Sources

Results from Table 4.11 showed that (45.0%) of the respondents consult the newspapers daily or every other day for health related information, about once a week (32.7%) consult family doctor

for health information while (16.2%) consult hospitals/clinics and chemists/pharmacies respectively for health-related information, (41.4%) do not consult journals for health-related information.

4.4.3 Relevant Sources of Health Information

The result presented in Table 4.12 indicates that family doctor (67.30%), parents (59.90%), internet (48.40%) and television (44.50%) and the extremely relevant sources of health information to the respondents, friends and chemists/pharmacies (32.70%) are also relevant sources of health information while journals was not relevant to (11.80%) of the respondents.

Table 4.12: Relevant Sources of Health Information

	Extremely relevant(0)		Relevant (1)		Slightly relevant (2)		Not relevant (3)	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
Internet	185	48.40%	70	18.30%	58	15.20%	69	18.10%
Television	170	44.50%	104	27.20%	58	15.20%	50	13.10%

Radio	139	36.40%	109	28.50%	97	25.40%	37	9.70%
Newspaper	117	30.60%	88	23.00%	101	26.40%	76	19.90%
Friends	113	29.60%	125	32.70%	99	25.90%	45	11.80%
Parents	229	59.90%	86	22.50%	36	9.40%	31	8.10%
Family doctor	257	67.30%	66	17.30%	26	6.80%	33	8.60%
Journals	45	11.80%	101	26.40%	102	26.70%	134	35.10%
General books	86	22.50%	104	27.20%	112	29.30%	80	19.90%
Hospitals/Clinics	117	30.60%	88	23.00%	101	26.40%	76	19.90%
Chemists/pharmacies	113	29.60%	125	32.70%	99	25.90%	45	11.80%

4.4.4 Relationship between Health Information Sources and Gender

Table 4.13 Relationship between Health Information Sources and Gender

	GENDER			
	Male		**Female**	
Health Information Sources	**Yes (%)**	**No (%)**	**Yes (%)**	**No (%)**
Internet	181 (82.3%)	39 (17.7%)	132 (81.5%)	30 (18.5%)
Television	194 (88.2%)	26 (11.8%)	138 (85.2%)	24 (14.8%)
Radio	200 (58.0%)	20 (9.1%)	145 (89.5%)	17 (10.5%)
Newspaper	183 (83.2%)	37 (16.8%)	123 (75.9%)	39 (24.1%)
Friends	192 (87.3%)	28 (12.7%)	145 (89.5%)	17 (10.5%)

Parents	202 (91.8%)	18 (8.2%)	149 (92.0%)	13 (8.0%)
Family Doctor	196 (89.1%)	24 (10.9%)	153 (94.4%)	9 (5.6%)
Journals	148 (67.3%)	72 (32.7%)	100 (61.7%)	62 (38.3%)
General Books	174 (79.1%)	46 (20.9%)	128 (79.0%)	34 (21.0%)
Hospitals/Clinics	183 (83.2%)	37 (16.8%)	123 (75.9%)	39 (24.1%)
Chemists/Pharmacies	192 (87.3%)	28 (12.7%)	145 (89.5%)	17 (10.5%)

Table 4.13 displays the relationship between the respondents' choice of health information sources and their gender. It is clearly shows, both genders in this study, exhibit nearly similar behavior with respect to the seeking information source. The most used health information source for majority of male 91.8% and female 92% respondents was their parents. The second large group of male 89.1% and female 94.4% respondents also chose family doctor. It was noticed, while the third largest group of the male respondents 88.2% relied on television for getting their health information needs, the fourth largest proportion of female respondents 89.5% relied on chemists/pharmacies or radio or friends. However, this suggests that there were not many differences in respondents' health information sources against their gender.

4.4.5 Relationship between Health Information Sources and Gender

Table 4.14 Relationship between Health Information Sources and Gender

Health Information Sources	Age Group									
	Under 18yrs		18-25yrs		26-35yrs		36-45yrs		46yrs and above	
	Relevant (%)	Not Relevant (%)	Relevant (%)	Not Relevant (%)	Relevant (%)	Not Relevant (%)	Relevant (%)	Not Relevant (%)	Relevant (%)	Not Relevant (%)

Internet	16 (88.9%)	2 (11.1%)	243 (82.1%)	53 (17.9%)	50 (80.6%)	12 (19.4%)	4 (80.0%)	1 (0.0%)	0 (0.0%)	1 (100%)
Television	14 (77.8%)	4 (22.2%)	253 (85.5%)	43 (14.5%)	60 (96.8%)	2 (3.2%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Radio	12 (66.7%)	6 (33.3%)	268 (90.5%)	28 (9.5%)	60 (96.8%)	2 (3.2%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Newspaper	14 (77.8%)	4 (22.2%)	229 (77.4%)	67 (22.6%)	58 (93.5%)	4 (6.5%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Friends	18 (100%)	0 (0.0%)	256 (86.5%)	40 (13.5%)	58 (93.5%)	4 (6.5%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Parents	16 (88.9%)	2 (11.1%)	269 (90.9%)	27 (9.1%)	62 (100%)	0 (0.0%)	4 (80.0%)	1 (20.0%)	0 (0.0%)	1 (100%)
Family doctor	18 (100%)	0 (0.0%)	267 (90.2%)	29 (9.8%)	59 (95.2%)	3 (4.8%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Journals	9 (50.0%)	9 (50.0%)	189 (63.9%)	107 (36.1%)	47 (75.8%)	15 (24.2%)	3 (60.0%)	2 (40.0%)	0 (0.0%)	1 (100%)
General books	14 (77.8%)	4 (22.2%)	226 (76.4%)	70 (23.6%)	57 (91.9%)	5 (8.1%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Hospitals/Clinics	14 (77.8%)	4 (22.2%)	229 (77.4%)	67 (22.6%)	58 (93.5%)	4 (6.5%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)
Chemists/Pharmacies	18 (100%)	0 (0.0%)	256 (86.5%)	40 (13.5%)	58 (93.5%)	4 (6.5%)	5 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)

Table 4.14 describes the relationship between the respondents' choice of health information source and their age group. The result clearly shows that a large majority of respondents 77.5% belong to age group between 18-25 years and their major health information source are their parents (90.9) and 16.2% of respondents belong to the age group between 26 - 35 years met their health information needs through their parents. 4.7% are below 18 years and source for health information through family doctors, friends and chemists/pharmacies. Thus, the data indicates that health information sources varied amongst respondents' age groups.

4.4.4 Importance of Health Information Sources

Results from Table 4.15 showed that (36.4%) of the respondents found a source of health information valuable and very important if the source has worked for people they know, (33.0%) preferred a source that is always current on health issues, (30.1%) preferred a source that is affordable and also (29.8%) preferred a source that is not too far away. (43.7%) felt having a source I can interact with is not important, (41.9%) felt that having a source that my peers use/recommend is not important and also (30.9%) felt that having a source that does not require complex technology skills is not important.

4.5 Uses of Health Information

4.5.1 Uses of Health Information

Table 4.16 revealed that (71.7%) used the health information they got for my self-education, (62.8%) of the respondents used the health information they got to look after themselves or someone else, (57.6%) used the health information they got to discuss with a healthcare provider (doctor, nurse, pharmacist, etc), (55.2%) used the health information they got to inform another person, usually a family member and (53.9%) used the health information they got to discuss with a doctor or for self-diagnosis / self-treatment.

Table 4.16: Uses of Health Information

Health related information uses	YES		NO	
	Freq	%	Freq	%
Look after myself or someone else	240	62.8	142	37.2
To Understand more after a visit to the hospital or health center	214	56.0	168	44.0
To decide whether to seek professional healthcare	191	50.0	191	50.0
To discuss with someone else about their health	218	57.1	164	42.9
To decide what kind of treatment is needed for myself or others	198	51.8	184	48.2
For self-diagnosis / self-treatment	206	53.9	176	46.1
To decide whether to use a health product or medication	209	54.7	173	45.3
To discuss with a healthcare provider (doctor, nurse, pharmacist, etc)	220	57.6	162	42.4
To inform another person, usually a family member	211	55.2	171	44.8
To discuss with a doctor	206	53.9	176	46.1
For my self-education	274	71.7	108	28.3

4.6 Problems Encountered By Students in Accessing Health Information

In the questionnaire, question number 16 and 17 were designed to investigate whether respondents encountered problems in accessing health information needs and if yes what the problems are.

Fig 4.2 shows that out of 382 respondents, a considerable number 73.6% indicated facing problems in meeting their health information needs. Only 26.4% of the respondents reported that they had never faced problems in accessing their health information needs. This finding is accordance with previous studies conducted by USAID (2009) who identified some barriers to poor health seeking behaviour.

4.6.1 Main Problems Encountered

Table 4.17 describes the nature of the problems that respondents faced in meeting their health information needs

Table 4.17: Problems faced in seeking health information

Problems faced in seeking health information	YES		NO	
	Freq	%	Freq	%
Non-availability of relevant information	276	72.3	106	27.7
Doctors or healthcare workers are not always around	274	71.7	108	28.3
Relevant information are usually lengthy	271	70.9	111	29.1
Lack of awareness of where to find information	273	71.5	109	28.5
Lack of knowledge that health information needed exists	255	66.8	127	33.2
Some materials are written in languages I don't understand	246	64.4	136	35.6
Lack of easy access to sources	286	74.9	96	25.1
Lack of time	278	72.8	104	27.2
Distance from the source	256	67.0	126	33.0

According to the analysis, "lack of easy access to sources" was perceived as the main problem by the majority (74.9%) on the respondents. The "lack of time" was perceived by 72.8% of the respondents as the second highest ranked. "Non-availability of relevant information" scored 72.3% while (71.7%) indicated that "doctors or healthcare workers are not always around", lack of awareness of where to find information scored (71.5%).

4.6.2 Relationship between Problems Encountered and Gender

Table 4.18 Relationship between Problems Encountered and Gender

	GENDER			
	Male		Female	
Problems Encountered	**Yes (%)**	**No (%)**	**Yes (%)**	**No (%)**
Non-availability of relevant information	160 (72.7%)	60 (27.3%)	116 (71.6%)	46 (28.4%)
Doctors or healthcare workers are not always around	162 (73.6%)	58 (26.4%)	112 (69.1%)	50 (30.9%)
Relevant information are usually lengthy	157 (71.4%)	63 (28.6%)	114 (70.4%)	48 (29.6%)
Lack of awareness of where to find information	166 (75.5%)	54 (24.5%)	107 (66.0%)	55 (34.0%)
Lack of knowledge that health information needed exists	152 (69.1%)	68 (30.9%)	103 (63.6%)	59 (36.4%)
Some materials are written in languages I don't understand	140 (63.6%)	80 (36.4%)	106 (65.4%)	56 (34.6%)
Lack of easy access to sources	156 (70.9%)	64 (29.1%)	130 (80.2%)	32 (19.8%)
Lack of time	167 (75.9%)	53 (24.1%)	111 (68.5%)	51 (31.5%)
Distance from the source	143 (65.0%)	77 (35.0%)	113 (69.8%)	49 (30.2%)

The above Table 4.18 showed about 75.9% of male respondents said they faced the problem of lack of time, 75.5% faced the problem of lack of awareness of where to find information to meet their health needs, as compared to 68.5% and 66% of the female that faced same problems. The least problem the male (63.6%) had was that materials were written in languages they don't

understand while the least problem female respondents had was lack of knowledge that health information needed exists.

4.6.3 Suggestions to Improving Access to Health Information

Question number 18 asked respondents to provide their suggestions for improving students' access to their health information needs better. The respondents' suggestions are as shown in Table 4.19

Table 4.19 Suggestions to Improving Access

SUGGESTIONS	YES		NO	
	Freq	**%**	**Freq**	**%**
Establishment of information centers	266	69.6	116	30.4
Free access to obtaining information	91	23.8	291	76.2
Doctors or healthcare workers should be friendlier	112	29.3	270	70.7
Organizing health seminar for student	73	19.1	309	80.9
Ensuring that students are computer literate	212	55.5	170	44.5

Results from Table 4.19 showed that (69.6%) suggested the establishment of information centers. Another (55.5%) suggested ensuring that students are computer literate. It is worth noting that most of the students are not computer literate and thus will find it difficult in retrieving health information from an electronic source. Some other suggestions which were made by the respondents include:

1. There should be some kind of health program for the youths.
2. Health information should be in the neighbourhood.

3. Making writing materials available in school library.
4. Punctuality of government hospital doctors.
5. There should be health counselors for students.

4.7 Test of Hypothesis

	Age	Gender	Father's Level Of Education	Mother's Level Of Education

Decision Rule

The pre-set level of significance for this study is 0.05. Null hypothesis is denoted as H0 would assume that no association or relationship exists between the two variables under consideration while alternative hypothesis denoted as H1 would assume that significant association exists between the two variables under consideration. If the p-value (the significance of the test) exceeds the pre-set level of significance (0.05), then the null hypothesis will be rejected but if the p-value is lesser than or equal to 0.05 null hypothesis will be rejected and the alternate will be accepted.

4.7.1 Hypothesis 1: Relationship between the Demographic Variables and the Health Information Needs of the Students

	Value	df	Sig	Value	df	Sig	Value	df	Sig	Value	df	Sig
Sexual and reproductive health	9.312[a]	4	.054	11.794[b]	1	.001	3.386[a]	5	.641	8.695[a]	5	.122
Oral/dental health	8.224[a]	4	.084	1.047[b]	1	.306	5.765[a]	5	.330	7.417[a]	5	.191
Preventive health	18.918[a]	4	.001	8.168[b]	1	.004	8.450[a]	5	.133	9.240[a]	5	.100
Nutrition/diet	1.915[a]	4	.751	1.707[b]	1	.191	2.291[a]	5	.808	13.235[a]	5	.021
Exercise	6.864[a]	4	.143	.877[b]	1	.349	8.326[a]	5	.139	4.345[a]	5	.501
Stress and emotional well-being	2.721[a]	4	.605	8.011[b]	1	.005	2.555[a]	5	.768	3.584[a]	5	.611
Mental health	4.539[a]	4	.338	7.058[b]	1	.008	4.448[a]	5	.487	8.671[a]	5	.123
Tobacco, alcohol and drug use	13.096[a]	4	.011	8.239[b]	1	.004	10.143[a]	5	.071	5.978[a]	5	.308
General health	12.650[a]	4	.013	8.239[b]	1	.004	2.229[a]	5	.817	12.334[a]	5	.030

H0: There is no significant association between demographic variables and the health information needs of the students

H1: There is no significant association between demographic variables and the health information needs of the students

Table 4.20: Chi-square Analysis of Demographic Variables and Health Information Needs

	Gender	Age	Father's Level Of Education	Mother's Level Of Education

Focusing on the column for "Gender", Table 4.20 shows that the p-value for the tests between gender of the respondents and their health information needs were greater than 0.05 for these health information needs oral/dental health (0.306), nutrition/diet (0.191), exercise (0.349), mental health (0.008) thus the null hypothesis will be rejected which states that there is no significant association between gender and oral/dental health, nutrition/diet, exercise and mental health. Thus, the alternate hypothesis will be accepted which states that there is a significant association between gender and sexual and reproductive health (0.001), preventive health (0.004), stress and emotional well-being (0.005), tobacco, alcohol and drug use (0.004) and general health (0.004).

Age: the null hypothesis will be rejected which states that there is no significant association between sexual and reproductive health (0.054), oral health (0.084), nutrition/diet (0.751), exercise (0.143), stress and emotional well-being (0.605) and mental health (0.338) while the alternate hypothesis will be accepted which states that there is significant association between preventive health (0.001), tobacco, alcohol and drug use (0.011) and general health (0.013).

Father's Level of Education: the null hypothesis will be rejected which states that there is no significant association between father's level of education and the health information needs. The null hypothesis (H0) will also be rejected which states that there is no significant association between mother's level of education and health information needs while the alternate hypothesis (H1) will be accepted which states that there is a significant association between mother's level

	Value	df	Sig	Value	df	Sig	Value	df	Sig	Value	df	Sig
Internet	.039[b]	1	.843	5.212[a]	4	.266	3.803[a]	5	.578	7.826[a]	5	.166
Television	.736[b]	1	.391	14.553[a]	4	.006	4.636[a]	5	.462	16.885[a]	5	.005
Radio	.210[b]	1	.647	24.342[a]	4	.000	2.223[a]	5	.817	7.218[a]	5	.205
Newspaper	3.082[b]	1	.079	13.755[a]	4	.008	3.732[a]	5	.589	5.649[a]	5	.342
Friends	.448[b]	1	.503	13.110[a]	4	.011	13.225[a]	5	.021	13.070[a]	5	.023
Parents	.003[b]	1	.956	18.364[a]	4	.001	5.167[a]	5	.396	12.306[a]	5	.031
Family doctor	3.388[b]	1	.066	14.388[a]	4	.006	8.157[a]	5	.148	3.546[a]	5	.616
Journals	1.259[a]	1	.262	7.038[a]	4	.134	3.250[a]	5	.662	3.933[a]	5	.559
General books	.000[b]	1	.985	12.637[a]	4	.013	15.493[a]	5	.008	8.777[a]	5	.118
Hospitals/clinics	3.082[b]	1	.079	13.755[a]	4	.008	3.732[a]	5	.589	5.649[a]	5	.342
Chemists/pharmacies	.448[b]	1	.503	13.110[a]	4	.011	13.225[a]	5	.021	13.070[a]	5	.023

of education and nutrition/diet (0.021) and general health (0.030).

4.7.2 Hypothesis 2: Relationship between the demographic variables and the health information sources of the students

H0: There is no significant association between demographic variables and the health information sources of the students

H1: There is significant association between demographic variables and the health information sources of the students

Table 4.21: Chi-square Analysis of Demographic Variables and Health Information Source

Table 4.21 shows that the p-value for the tests between gender of the respondents and their health information sources were greater than 0.05 for these thus the null hypothesis will be rejected which states that there is no significant association between gender and health information sources. The alternate hypothesis will be accepted which states that there is a significant association between gender and health information sources.

Age: the null hypothesis will be rejected which states that there is no significant association between age and internet (0.266), journals (0.134) while the alternate hypothesis will be accepted which states that there is significant association between age and television (0.006), radio (0.000), newspaper (0.008), friends (0.011), parents (0.001), family doctor (0.006), general books (0.013), hospitals/clinics (0.008) and chemists/pharmacies (0.011).

Father's Level of Education: the null hypothesis will be rejected which states that there is no significant association between father's level of education and the health information sources and accept the alternate hypothesis which states that there is no significant association between father's level of education and friends (0.021), general books (0.008) and chemists/pharmacies (0.021). The null hypothesis (H0) will also be rejected which states that there is no significant association between mother's level of education and health information sources while the alternate hypothesis (H1) will be accepted which states that there is a significant association between mother's level of education and parents (0.031), friends (0.023) and television (0.005).

4.8 Discussion of findings

The discussion of the research findings was based on the stated research question, which were drawn from the research objectives:

Research Question 1: What are the health information needs and seeking behaviour of students?

Based on the results obtained from the students, this study determined nine main categories of health information needs. From the results obtained, the most frequently (88.2%) cited health information need by respondents was exercise. A lower number 54.2% of the respondents expressed their health information needs related to mental health followed by 42.4% who sought for health information on tobacco, alcohol and drug use. More than 78.5% needed health information on stress and emotional well-being while 74.9% of the respondents needed health information on oral/dental health and about 80.9% of the respondents stressed their health information needs with regards to sexual and reproductive health. Hence, the result is in the line with a study conducted by (Hanauer, et al., 2004; Gray, et. al, 2005) who explored the health information seeking practices of college students noted that nutrition and exercise are two primary topics of interest and it is also in accordance with Houston and Allison (2002) who observed that searching about nutrition did not vary by health status.

The analysis also shows that 31.4% of the respondents seek for oral/dental health information once in a year, 24.9% seek for health information on nutrition/diet daily or every other day while 53.7% do not seek for information on tobacco, alcohol and drug-use.

Research Question 2: Where do students source for health information?

The results of this study identified the main health information sources to meet students' health information needs. Among various health information resources, parents (91.9%) and family doctor (91.4%) topped on the list of health information sources which students' used. Radio (90.3%), chemists/pharmacies and friends (88.2%) television (86.9%) were also major sources of

health information used by the respondents. Journals were the main source for only (64.9%) of respondents.

Wicks (2004) discovered that seniors rely on interpersonal sources (physicians and pharmacists, other professionals, family members and friends) together with internally-produced print materials for their health information needs regarding participation in community clubs and organizations.

However, only (81.9%) of students in this study indicated that they use the internet as their main health information source. According to Ray and Day (1998), electronic health information resources offer many advantages to the information seekers, which include faster access to the information, and straightforwardness when users use a combination of keywords to search for information. Further, more than one file can be searched at one time, which enables researchers to find more updated health information. Urquhart *et al.* (2005) indicated that the need for training is one of the negative features of electronic health information sources. The reason for low usage of the electronic health information sources in the current study might be due to lack of their knowledge. Ray and Day (1998) also suggested that lack of skills seem to be the main reason for underutilizing of electronic health information sources by students.

The findings from this study disagrees with that of Williamson (2003) who noted that health information sources frequently used by older people in descending order are family members, newspapers, friends, television and radio. Here the frequently used health information sources are parents, family doctor, friends, radio and television.

.**Research Question 3: How is this health information used?**

The analysis shows that main uses of health information obtained include “for self education” (71.7%), “look after myself or someone else” (62.8%), “to discuss with a healthcare provider (doctor, nurse, pharmacist, etc)” (57.6%) while the least use is “to decide whether to seek professional health care (50%).

Furthermore, it was found out in the study that majority of the respondents choose the various sources if the source contains the information to meet my current health concern, the source presents information in my primary language or in a language they can easily understand, a source that is always current on health issues, source that has worked for people I know and source that is affordable. According to Cutilli (2008) he noted that utilizing health information depends on an individual's health orientation. Harris, Wathen, & Fear (2006) in their study on ‘Searching for health information in rural Canada, where do residents look for health information and what do they do when they find it’, observed that the respondents rely on the information they have located on their own to make decisions and even, in some cases, to diagnose and treat themselves.

Research Question 4: What are the demographic factors influencing health information needs and seeking behaviour of the students?

The study showed that more males than females are in Kaduna State University and majority of respondents are in chemistry or industrial chemistry department. It was also found out from the study that gender (male) had a significant association with health information needs such as preventive health, sexual and reproductive health, exercise compared to the female gender that

needed more information on exercise, nutrition/diet. The respondents between the ages of 18-25 years needed more health information on exercise and nutrition/diet while those between the ages of 25-36 years sought more information on preventive health than tobacco, alcohol and drug use.

Therefore, this study carried out is also in compliance with the study done by Feng and Yang, (2007). In their study, they noted that demographic factors have frequently been associated with various types of health behavior, including information seeking. Davies et al., (2002) in their study also observed that demographic differences also influenced awareness and use of information sources because although college men are more likely to engage in more risky and violent behavior (e.g. drug and alcohol use, multiple sex partners, and sexual assault) than women, they are less likely to solicit information promoting healthy behaviors.

Research Question 5: What barriers do students encounter in meeting their health information needs?

This survey revealed that the majority of students (73.6%) encountered various problems in accessing their health information needs. Respondents indicated that “lack of easy access to sources”, “lack of time”, “non-availability of relevant information” and “doctors or healthcare workers are not always around” were the main problems encountered in accessing their health information needs. Few students perceived “some materials are written in languages I don’t understand” to be the main problem.

However the study also revealed that 75.0% of the respondents between the age group of 18-25years encountered problems in the aspect of doctors or healthcare workers are not always

around and those under 18 years lacked knowledge that health information needed exists, while those between the age group of 26-35years lack the awareness of where to find information which was more significant to males. Majority of the female respondents had problem with getting access to the sources.

This is in line with Ojo (2000) observation that availability, reliability and accessibility are factors that influence how people source for health information. Also, Nicholas (2000) cited by Safahieh (2007) noted that gathering and using information to respond to a problem in meeting health information needs depend on different factors such as: availability of resources, need to take new ideas or improve an existing knowledge, accessibility, their level of information awareness/ training and time availability. Not knowing where to look for information has been identified as a barrier for college students' seeking testing and counseling information (Barth et al., 2002; Davies et al., 2000).

Summary of the Study

This study was conducted to examine the health information needs and seeking behavior of students in Nigeria It also focused on the following: health information sources used by the students, sources of health information, how these health information are used, extent to which their health information needs are satisfied, demographic factors that influence health information needs and seeking behaviour of the students and the main barriers students encounter in meeting their health information needs. The findings from the study showed that students have a variety of health information needs and their needs vary among gender. It also found that the specific major health information needed by students were information about exercise, nutrition/diet and preventive health while the least health information needed by the

students are mental health and tobacco, alcohol and drug use. Most of the health information they got were used for their self-education, to look after themselves or someone else, discuss with a healthcare provider (doctor, nurse, pharmacist, etc) and also to discuss with someone else about their health

The most widely used sources of health information for students are friends, parents and family doctor as compared to journals and general books which were the least sources consulted for health information. They also got health information from television, radio and the internet.

The problems encountered in accessing health information from the various sources were lack of easy access to sources, lack of time, non-availability of relevant information and doctors or healthcare workers are not always around

Conclusion

People pursue information to address illness uncertainty and to make decisions pertinent to their health. Information seeking allows individuals to maintain control over the health and promote personal well-being. Students are aware of a multitude of sources to seek information from when confronted with personal health issues. However, the availability and relevance of the source and the accessibility and accuracy of the information can influence the effectiveness of these sources in assisting students.

The findings from this study showed that the main health information needs of students are exercise, nutrition/diet, sexual and reproductive health and preventive health while tobacco, alcohol and drug use, mental health and oral/dental health were the least needed. It was also revealed that the age of the respondent has a significant association with preventive health. Also,

a significant association exists between the gender of the respondent and sexual/reproductive health need and for preventive health and general health but no association exists between age of the respondents and their nutrition/diet, stress and emotional well-being, gender and oral/dental and exercise.

Furthermore, it could be concluded that parents and family doctor are the main health information sources for obtaining health information but majority of the respondents did not consult journals and general books. The study also revealed that majority of these students preferred sources that are always current on health issues, sources that have worked for people they know, a source that is affordable and a source that is not too far away.

Generally speaking, these findings have implications for health campaigns and prevention programs aimed at student populations. It seems that students are highly aware of various sources of health information (e.g. parents, family doctor, educational sources) thus for health campaigns promoting such important issues as HIV education and prevention, responsible alcohol usage, and proper nutrition, it is essential that these messages are perceived as credible and relevant to students' lives, but they must also be sent through appropriate sources. Health practitioners who take the time to promote sources that students utilize and perceive as effective will be able to assist in the promotion of healthier behaviors across all universities.

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