

CONSUMER HEALTH KNOWLEDGE AND SOURCES OF CONSUMER HEALTH INFORMATION OF SECONDARY SCHOOL STUDENTS IN AKWA IBOM STATE, NIGERIA

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Abstract

The present study on consumer health knowledge and sources of consumer health information was an attempt to find out the level of consumer health knowledge possessed by secondary school students in Akwa Ibom State, Nigeria. Well completed 792, self developed consumer health knowledge questionnaire (CHKISQ) returned by students of the 15 randomly selected secondary schools from three senatorial districts of the state were analyzed. Percentages were used to answer the two research questions while analysis of covariance (ANCOVA) were used to test the two hypotheses of no significant difference between levels of independent variables (gender, class and location). Results showed that students generally had average consumer health knowledge. School, mass media, medical reference books, government agencies and advertisement were the most frequently cited sources. The independent variables had significant impact on both knowledge and source.

Introduction

Whereas, Okafor (2001) defines consumer health as that area of the school health that is concerned with the safety of products and services. Asogwa (2004) sees it as an aspect of health, which deals with supervision and protection against potentially hazardous products and services. It is an educational programme designed to equip the prospective buyers with the knowledge and skills for critical evaluation of products and services to promote well being. The writer sees a consumer health as an educational programme that equips the potential consumers with skills, attitudes and practices towards products and services to promote health. Thus, consumer health education is an indispensable aspect of health education that has the potential to develop an individual physically, intellectually, educationally, morally, socially and economically.

However, several authors including (Ukpore, 1998; Okafor, 1997; and Emmanuel 1998) observed that youths generally as independent consumers, face high powered and improved advertising media, which may exaggerate and misrepresent the contents of the products, services and innovations from which to choose. Others have equally written about the close relationship between consumer health education including (Emmanuel, 1998; Shipley & Plousky, 1980; Bilkey, 1988; & Bruess & Richardson, 1992). The relationship has given rise to a growing concern for consumer health education in Nigeria, particularly as most people are consumer dependent on other people for the safe and sanitary processing of the product they use. In addition, there is the existence of fake drugs and other products with their hazards, greater spending powers, individuality in the buying of products and direct and indirect effect of unwise spending (Ukpore, 1998). Okafor & Ejike (1999) noted that an informed or skilled consumer is more likely to make wise purchase, assess health information and advertisement, and take a more informed decision on health and other health matters than the uninformed consumer.

C. U. Attah (Ph.D.), Obertueffer (1960) maintained that humans' ability to provide solution to multiple problems is a function of the knowledge acquired from various sources. Knowledge in this regard has to be sufficient because partial or inadequate knowledge as observed by Florio and Stafford (1969) provides a false sense of certainty such as taking uninformed decisions about consumer health, which beclouds one's alertness to risk. This unwarranted sense of certainty as implied by Okafor (1997) could be very dangerous to the student, most of who are in their youthful ages, a period known to be characterized by exuberance, excitement, experimentation, curiosity, peer-loyalty and even gullibility. These characteristics may lead to informal avenues of consumer health knowledge.

Other authorities have identified sources of consumer health information of students to include: parents and friends (Udoh, 1996), advertisement and commercials (Shipley & Plousky, 1980), labels and directions (Okafor & Ejike, 1999), testimonials, folklore and mass media expose (Emmanuel, 1998); practitioners and medical reference books (Okafor, 1996); reference libraries and consumer advisory groups (Byer & Shinberg, 1991); voluntary health agencies and government agencies (Bruess & Richardson, 1992); and professional health educators (Okafor, 2001). Whether students acquire consumer health knowledge and their sources of consumer health information was, in the main problem of the present study. The choice of the state was informed by its high public secondary school enrolment (Akwa Ibom State Secondary Education Board).

The major objective of the study was to investigate consumer health knowledge and sources of consumer health information among secondary school students in Akwa Ibom State, Nigeria. Specifically, the study sought to find out:

The levels of the students knowledge of rationale consumer health education (KORCHE), aims of consumer health education (KACHE) relationship between consumer decision and health education (KORCHE), knowledge of the responsibility of a skilled or informed consumer (KORSIC) and what have been the students' sources of consumer health information. Two major hypothesis of no significant difference between the levels of each of three independent variables, gender, class location and age as covariate with regard to consumer health knowledge and consumer health information guided the study. However, neither evaluation studies nor basic surveys to the best knowledge of the investigator exist in literature that cover Akwa Ibom State. The present study has set out to fill part of this gap.

Method

A random sample of 813 students were selected from fifteen secondary schools (8 urban and 7 rural, and 5 of each school type – mixed, boys' and girls') from 225 schools operating Junoir Secondary Two (JSS 11) and Senior Secondary Two (SSS 111) Classes as at the 2006/2007 academic session. The selection of schools was made from the randomly selected education zones (Uyo, Eket and Ikot Ekpene) in Akwa Ibom State. In each school, one form of JS 11 students and one form of SS 11 students were randomly selected. A total of 35 students using the balloting without replacement method were selected from each of the selected forms. All the participants ranged from age 12 – 23 years.

Instrument

The only research tool used to collect data was a self-constructed anonymous 3-part consumer health knowledge and information sources of questionnaire (CHKISQ) consisting of 5 statements or items. Part one included pertinent sociodemographic data. Part two testing knowledge has four sections yielding four independent subscales as follows:

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- a) Knowledge of rationale for consumer health education (KORCHE) with 10 statements.
- b) Knowledge of aims of consumer health education (KACHE) with 10 statements
- c) Knowledge of relationship between consumer decision and health education (KORCHE) with 10 statements; and
- d) Knowledge of the responsibility of a skilled or informed consumer (KORSIC) with 10 statements.

All the statements on consumer health knowledge were weighed on five point Likert-Scale of Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) and Undecided (UD). The statements have scores ranging from “5” for strongly agree to “1” for undecided. Part three is a brief checklist to determine where students have received their consumer health information by marking “none”, “a little” or “a lot” as the case may be. Fifty students (25 each from an urban school and a rural school) from the population whose schools were dropped in the main study were used for pre-testing the CHKISQ. Five carefully selected professionals; two in each of health education and psychology and one in sociology was used for validating the instrument. Internal consistency index of 1 was obtained for the instrument.

Data Collection and Analysis

Research assistants were used in administering the instruments to the respondents, they also explained to them the instruction on how to complete the CHKISQ given. The CHKISQ completed under examination condition was collected on the spot. Out of 813 copies distributed, seven hundred and ninety two copies were returned (97.4% return rate). The Statistical Package for the Social Sciences (SPSS Batch System) was used to compute and analyze the data. Percentage using modified Ashurs (1977) criteria for describing the level of knowledge were utilized for providing answers to the research questions. In this regard, a proportion of less than 20% was considered “very low level of knowledge; 21-39% “low”; 40-59% “average”; 60-80% “high” and above 80% “very high level of knowledge. The modification of Ashurs criteria is that the present study carved out two levels (0-20% as “very low” and 21-39% as “low”) out of Ashur’s proportion of less than 40% described as low level of knowledge. Hence, the present study has five levels as against Ashurs four levels.

The data on the actual amount of consumer health knowledge and information received from the different sources were analyzed in two ways. The first analysis of covariance (ANCOVA) one for each aspect of consumer health knowledge that looked at two levels of gender (male and female) by class (JSS 11 and SSS 11) by location (urban and rural) with age as a covariate. Secondly, the three response options to 12 sources of consumers health information were weighted 0-2: thus “None” = 0 “little” = 1 and “A lot = 2. Twelve 2x2x2 least squares analyses of covariance, were then computed one for each source which looked at the same two levels of each of the three independent variables because it was not a variable of primary interest.

Results

In presenting the major findings relevant to the present study, the answer to the research questions were provided first using percentages. This is followed by testing of the postulated hypotheses using least squares of analysis of covariance (ANCOVA)

Table 1
Student's Level of consumer Health Knowledge According to Gender, Class and Location = (N = 792).

Aspect of Consumer Health Knowledge	<u>Gender</u>			<u>Class</u>		<u>Location</u>	
	<u>Overall</u> (N=792) %	<u>Male</u> (N=294) %	<u>Female</u> (N=498) %	<u>JSS I</u> (N394) %	<u>SSS II</u> (N=398) %	<u>Urban</u> (N=428) %	<u>Rural</u> (N=364) %
KORCHE	87.20	81.10	91.00		86.10	87.60	86.40
KACHE	26.40	21.60	27.70	18.00	32.40	29.00	21.40
KORCH	28.10		27.20	26.20	21.20	32.20	28.60 23.20
KORSIC	49.60	48.60	50.20	46.20	52.00	52.00	45.20
Average	47.80	44.60	48.70	42.90	51.00	48.80	44.40

Table 1. Shows that overall, the students had average (47.80) consumer health knowledge. Percent for each aspect of consumer health knowledge showed that the student had very high and average knowledge of KORCHE (87.20%) and KORSIC (49.60%) respectively, but had low knowledge of KACHE (26.40%) and KORSCH (28.10%). Considering individual variables, females showed higher knowledge KORCH (91.00%), KACHE (27.20%), and KORSIC (50.20%) than males. It was only in KORCH (27.20%) that the males scored higher than the females. In each of the four aspects, the senior students showed higher knowledge than the junior students. The JSS 11 students' knowledge of KACHE (18.00%) was very low and outstanding as compared to the SS 11 students low KACHE (32.40%). The urban students showed high consumer knowledge in the three aspects KACHE (29.00%), KORCH (28.60%) and KORSIC (52.00%) than the rural students. Though the students KACHE (21.40%) was very low, they scored higher in KORCHE (87.69%) than their urban center parts.

Percentages of Students Sources of Consumer Health Information by Gender, Class and Location (N=792)

Sources of Consumer Health Information	<u>Gender</u>			<u>Class</u>		<u>Location</u>	
	<u>Overall</u> (N=792) %	<u>Male</u> (N=294) %	<u>Female</u> (N=498) %	<u>JSS I</u> (N=394) %	<u>SSS II</u> (N=398) %	<u>Urban</u> (N=428) %	<u>Rural</u> (N=364) %
Parents and Relatives (PR)	64.00	54.40	68.50	63.20	67.50	69.70	56.10
Friends (FD)	65.80	46.60	42.50	40.30	47.10	79.10	43.00
Advertisement and Commercials (AC)	66.80	62.40	61.00	62.20	67.30	83.10	40.00

Labels and Directions (LD)	45.20	42.70	37.50	46.50	58.50	66.20
Testimonials (TM)	36.50	57.10	55.40	63.80	66.00	70.20
Mass Media (print and Electronic media (MM)	74.60	69.70	61.70	57.60	67.20	81.50
Medical Reference Books (MB)	79.10	74.60	79.00	52.00	76.40	70.60
Voluntary Health Agencies (VA)	60.60	58.00	65.10	63.70	75.20	72.10
Government Agencies (GA)	81.60	79.10	77.30	62.50	70.30	84.10
Professional Health Educators and Practitioners (PP)	69.70	69.50	63.40	73.60	83.90	81.70
School (SH)	82.20	78.50	73.10	67.50	79.60	79.50
Church (C)	42.60	38.60	27.20	31.00	45.60	60.50
Any Other (AO)	40.50	39.70	41.60	35.20	47.00	43.10

Table 2 lists the percentage of students who received a little or a lot of information or none from the various sources. Schools (82.20%) were the most frequently cited source of consumer health information followed by government agencies (81.60%) and medical reference books (79.10%). Considering individual independent variables, government agencies (79.10%) were the most frequently cited by both males and females (77.30%) whereas females cited medical reference books (79.00%), the males cited both labels and directions (42.70%) and church (38.60%) only. Male students therefore, only received more information from three (medical reference books, government agencies and schools) out of the thirteen sources listed than the female students. In all other ten sources, the female students received more information than the male students.

When class was considered, students in JSS 11 and SS 11 most frequently cited professional health educators and practitioners (73.80%) and (83.90%) respectively, followed by schools (67.50%) and (79.60%) respectively. Thus JSS 11 students received more information from all the other twelve sources. With location, the urban students most frequently cited government agencies (84.10%) followed by school (79.50%) and friends while the rural students most frequently cited school (77.60%) followed by government agencies (58.00%) and parents and relatives (56.10%). It followed then that while rural students received more information than the urban students only from school (77.60%), government agencies (58.00%) and parents and relatives (56.10%), the urban students received more information than the rural students in all the other eleven sources.

Table 3

Analyses of Covariance (ANCOVA) of Specific Aspects of Consumer Health Knowledge by Gender, Class and Location with Age as a Covariate (N=792; df =18.746)

Source of	Cal. F				Cal.
F	Cal. F		Cal.F		
Variation	KORCHE	KACHE	KORCHE	KORSIC	
Covariate age	4.497*	3.243	1.335	0.278	3.84
Main effects					
Gender	55.579*	32.257*	0.638	3.515	3.84
Class	0.491	60.500*	26.553*	18.135*	3.84
Location	0.602	42.416*	10.766*	30.802*	3.84
Gender x class	4.685*	2.605*	18.212*	9.687*	3.84
Gender x location	0.003	1.188	4.964*	0.170	3.84
Location x class	1.105	13.731*	0.318	6.538	3.84
Gender x class x location	0.055	7.359*	9.716*	1.474*	3.84

* significant at $P < .05$

Table 3 reveals that gender made significant difference in KORCHE ($F = 55.579 > 3.84$) and KACHE ($F = 32.257 > 3.84$) and KORCH ($F = .638 < 3.84$) and KORSIC ($F = 3.518 < 3.84$). Each of class and location showed a significant main effect on three (KACHE, KORCH and KORSIC) out of the four aspects of consumer health knowledge. In a 2 – way interaction, gender and class were significant in KORCHE, KORCH and KORSIC; gender x location was only significant in KORCH while class x location were significant in KACHE and KORSIC. A three way interaction of these variables were significant in KACHE and KORCH. The hypothesis of no significant differences between the levels of each of the three independent variables: gender, class and location was rejected.

Table 4 shows a 2x2x2 analysis of covariance of consumer health information from thirteen sources. The higher amount of information obtained from PR, FD, TM, GA and VA by females than males was significant. All other differences in the amount of information from the other sources were not significant at .05 level. In the case of class, JS II students obtained higher but not significant amount of information than the SS II students only in FD ($F = 2.003 < 3.84$) out of the thirteen sources. In all the other twelve sources SSS II students obtain greater amount of information than the junior .As for location in which rural students obtain more information from FD, AC, MB, VA and PP than the urban students, it was only MB ($F= 4.562 > 3.84$) that the difference was significant. Seven of the other sources in which the urban students had higher information were significant at 0.5 level. Both the 2 and 3 – way interactions of these variables shows no significant effect except in the 2 – way interactions of class x location ($F = 5.306 > 3.84$)

Discussion

In general, the results showed that the students consumer health knowledge was average with the female students significantly scoring higher than the males; senior students significantly higher

than the junior student, and urban students higher than the rural one. The result further revealed the students obtained at least a little consumer health education from all the thirteen listed sources with school, government agencies, mass media, medical reference books and parents and relatives. The independent variables had significant main effects in some of these sources of consumer health information. The average level of consumer health knowledge of the students is not surprising. As indicated by the results, the school is a positive source since it provides enough experience on consumer health during health education classes. The problem with the average level of knowledge possessed by the students pose problems since it provides enough experience on consumer health during health education classes. The problem with the average level of knowledge possessed by the students pose a problem since it can weaken their ability to judiciously and correctly handle their consumer health problems. Okafor (1997) opines that it may confer unwarranted sense of certainty as they engage in buying and hiring of services. This contradicts Asogwa (2004) who did not find the school as potential source since according him it does not provide enough experience in consumer health. This may be caused by the subjects he used for the study who were NCE students.

Senior students, as expected scored higher than the junior students, a finding that suggests that formal and informal consumer health education is indeed taking place. These findings are consistent with those of Okafor & Ejike (1999). The agreement could also be attributed to the fact that their subjects and those of the present study were adolescents even though their cultural setting varied. As expected the urban students showed higher knowledge which may indicate that urban students had greater exposure to consumer health topics, both in school and urban-based media and other sources.

The finding that the school was the most frequently cited source was not surprising because students spend most of their time in school in a formal setting. The acceptance of the school is a welcome trend if only the school is made richer and the home helps to build up rich sources for the adolescents. The higher dependence of students on printed matters and media, medical reference books, government agencies was expected because they are expected to show some amount of independence from adults. The expected result that senior students had more information than the junior students was not also surprising, but it reflects a greater freedom on the part of the senior students to discuss consumer health topics more so when some of the senior students have been exposed to consumer health education in their education lessons.

Another unexpected but interesting finding is that the rural students had information from friends showing that rural people probably enjoyed more diversionary activities as compared to urban life. However, since the students cited other unknown sources, it may be necessary to specifically identify these other sources of consumer health information, example, and the church.

Conclusion and Recommendation

The most pressing educational programmes that demand attention today are those that are associated with the development of the personal, societal and national well-being and consciousness directed at improving personal health such as consumer health education: Okafor (2001) noted that any product or service that causes death, illness or disability must exert some impact on the well-being productivity and socio-economic conditions of the nation and its citizenry. After all Luria (1966) asserted that man is what he eats.

Based on the foregoing the following recommendations are made:

1. Consumer health education should be introduced into the curricular and subsumed into the health education topics.
2. Students should be made to know the manufacturing

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