Knowledge of Gastroenteritis in Owerri West Local Government Area, Imo State, Nigeria

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Abstract

The study examined the knowledge of gastroenteritis in Owerri West Local Government Area of Imo State, Nigeria. The descriptive survey research design was adopted and the population of the study consisted of 99, 265 individuals from the 15 communities in Owerri West Local Government Area. The sample size was calculated using the Taro Yamane's formula and total of 385 respondents were surveyed using questionnaires validated with a Cronbach Alpha coefficient reliability of 0.76. Data collected were analysed using descriptive statistics of percentages and inferential statistics of Chi-square. $P<0.05$ was considered significant. The findings of the study showed that age, level of education, marital status and parity did not significantly ($p>0.05$) influence the knowledge of gastroenteritis.

Keywords: Knowledge, Gastroenteritis, Demography, Owerri West.

Introduction

Gastroenteritis can be described as a diseases condition or illness caused by infection and inflammation of the digestive system [1]. It is a very common condition caused by bacterial

or viral tummy bug resulting in diarrhoea and vomiting. It affects people of all ages but is particularly common in young children where viruses, bacteria, and protozoa are implicated [1]. Gastroenteritis is a common and very contagious infection of the gut (the stomach and intestines) which causes inflammation of the lining of the digestive system and a mild illness that involves vomiting, diarrhoea, stomach pains and nausea [2].

Gastroenteritis occurs when the stomach and intestines are irritated and inflamed, which then cause belly pain, cramping, nausea, vomiting and diarrhoea [2]. The main cause of gastroenteritis is typically inflammation triggered by the immune system response to a viral or bacterial infection, and most often, diseases triggered by chemicals, fungi or parasites and irritation from environments can lead to gastroenteritis [3, 4]. Gastroenteritis can be referred to as gastro, stomach bug, stomach virus, stomach flu, gastric flu, gastrointestinitis, or flu bug.

Despite the various national and international initiatives targeted at preventing the spread of gastroenteritis, a significant population of the developing countries still die each year as a result of the complications arising from the disease and inflammation of the digestive system which lead to serious dehydration and loss of minerals [5-7]. There are targeted intervention programs organized by government to promote health education through print and electronic media, as well as seminars. These efforts go a long way towards ensuring prompt medical attention in line with modern medical practices. Despite these preventive approaches, gastroenteritis remains predominant within the population; hence, the need to determine the level of knowledge of the disease to update medical statistics and promote disease surveillance.

Methodology

Research Design

The study adopted the cross-sectional descriptive survey research design.

Description of study area

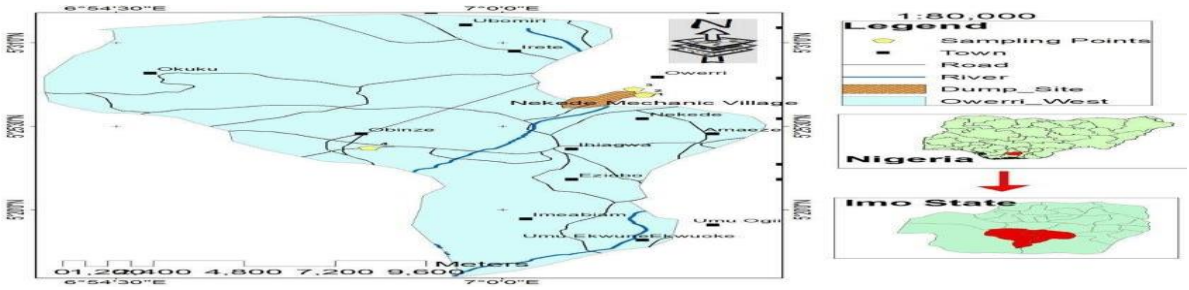

Fig. 3.1: Map of the Study of Area

The study was carried out in Owerri West Local Government Area of Imo State, Nigeria. It is bounded in the west by Oguta Local Government Area, Owerri Municipal Council in the west, and Owerri North Local Government Area in the East. The present land area of Owerri West Local Government Area is about 295 square Kilometres According to the 2006 population census, it has an estimated population of about 99,265 people (49, 968 males and 47, 479 females). It is made up of 15 communities whose major language is Igbo.

Population of the Study

The population of the study is comprised of the 99, 265 people within the 15 communities in the area.

Sample and Sampling Technique

The sample size of 385 was determined using the Taro Yamanes's formula.

Instrument for Data Collection

Questionnaires were used for data collection. The questionnaires were divided into sections A, and B. Section A contained 6 close-ended questions aimed at eliciting the

demographic information of the respondent, while Section B contained 10 yes or no questions on the knowledge of gastroenteritis.

Validity and Reliability of the Instrument

The instrument was validated by a panel of experts, while the reliability of the instrument was tested using the Cronbach Alpha method. The Cronbach Alpha coefficient of 0.76 was recorded and considered adequate for the study.

Ethical considerations

Institutional ethical approval was obtained from the Department of Public Health, Imo State University Owerri, Nigeria. Letters of approval were obtained from the traditional rulers of the communities within the study area. The study complied with extant ethical standards in research.

Procedure for Data Collection

The administration and retrieval of the instrument were performed using the face-to-face method. .

Data Analysis

Descriptive statistics of percentages and inferential statistics of Chi-square were used in data analysis.

Results

Table 1: Percentage Responses on the knowledge of Gastroenteritis based on Age (n=378)

S/N	ITEMS	15-23 *f*(%)	24-32 *f*(%)	33-41 *f*(%)	42-Above *f*(%)	$\chi 2 cal$	$\chi 2 crit$	df	Remark
7	Do you have the knowledge of gastroenteritis before?	11(2.9)	11(2.9)	8(2.1)	10(2.6)	0.033	7.82	3	NS
8	Have you or any member of your family diagnosed of any case of gastroenteritis before?	10(2.6)	10(2.6)	9(2.4)	10(2.6)	0.3	7.82	3	NS
9	Is there any decrease in the reported cases of gastroenteritis in the past years?	11(2.9)	10(2.6)	10(2.6)	8(2.1)	0.833	7.82	3	NS
10	Is gastroenteritis one of the most reported case in the hospital?	11(2.9)	7(1.9)	10(2.6)	10(2.6)	0.833	7.82	3	NS
11	Is gastroenteritis infection higher in children due to their low immunity?	10(2.6)	10(2.6)	9(2.4)	9(2.4)	0.3	7.82	3	NS
12	Is gastroenteritis vulnerable to adults due to their possible wearned in their systems later in life?	8(2.1)	9(2.4)	10(2.6)	11(2.9)	0.833	7.82	3	NS
13	Is gastroenteritis disease considered a	9(2.4)	10(2.6)	10(2.6)	9(2.4)	0.833	7.82	3	NS

	contagious diseases?								
14	Is early detection of gastroenteritis diseases helpful?	11(2.9)	9(2.4)	8(2.1)	9(2.4)	0.033	7.82	3	NS
15	Do you wash hand with soap and water after using the toilet?	9(2.4)	10(2.6)	8(2.1)	9(2.4)	0.033	7.82	3	NS
16	Do you wash your hand with soap and water after using the toilet?	8(2.1)	10(2.6)	8(2.1)	9(2.4)	0.033	7.82	3	NS
	Total	**98(25.9)**	**96(25.4)**	**90(23.8)**	**94(24.9)**	**4.064**	**32.9**	**27**	**NS**

Table 1 shows that the respondents who were within 15-23 years are more knowledgeable (25.9%) of the disease than respondents in other age groups, followed by the 24-32 years age category (25.4%), 42 years and above (24.9%), while the least was the 33-41 years age group (23.8%). X^2 analysis showed that age did not affect the knowledge of gastroenteritis significantly ($p>0.05$)

Table 2: Percentage Responses on the knowledge of Gastroenteritis Diseases based on Marital Status (n=378).

S/N	ITEMS	Single *f*(%)	Married *f*(%)	Divorce *f*(%)	Widowed *f*(%)	$\chi 2 cal$	$\chi 2 crit$	df	Remark
7	Do you have the knowledge of gastroenteritis before?	10(2.6)	12(3.2)	9(2.4)	9(2.4)	0.3	7.82	3	NS
8	Have you or any member of your family diagnosed of	10(2.6)	10(2.6)	10(2.6)	9(2.4)	0.833	7.82	3	NS

	any case of gastroenteritis before?								
9	Is there any decrease in the reported cases of gastroenteritis in the past years?	10(2.6)	11(2.9)	(2.4)	9(2.4)	0.3	7.82	3	NS
10	Is gastroenteritis one of the most reported case in the hospital?	9(2.4)	11(2.9)	10(2.6)	8(2.1)	0.833	7.82	3	NS
11	Is gastroenteritis infection higher in children due to their low immunity?	10(2.6)	10(2.6)	9(2.4)	9(2.4)	0.3	7.82	3	NS
12	Is gastroenteritis vulnerable to adults due to their possible wearned in their systems later in life?	9(2.4)	10(2.6)	10(2.6)	9(2.4)	0.833	7.82	3	NS
13	Is gastroenteritis disease considered a contagious diseases?	10(2.6)	11(2.9)	9(2.4)	8(2.1)	0.3	7.82	3	NS
14	Is early detection of gastroenteritis diseases helpful?	10(2.6)	10(2.6)	9(2.4)	8(2.1)	0.3	7.82	3	NS
15	Do you wash hand with soap and water after using the toilet?	9(2.4)	10(2.6)	9(2.4)	8(2.1)	0.3	7.82	3	NS
16	Do you wash your hand with soap and water after using the toilet?	9(2.4)	11(2.9)	8(2.1)	7(1.9)	0.033	7.82	3	NS
	Total	**96(25.4)**	**106(28)**	**92(24.3)**	**84(22.3)**	**4.332**	**32.9**	**27**	**NS**

Table 2 shows that the respondents who were married (28%) had the highest level of the knowledge of gastroenteritis, followed by the singles (25.4%) and the divorced (24.3%). The widowed had the least knowledge of the disease (22.3%). X^2 statistics showed that marital status did not significantly co-relate with knowledge of gastroenteritis ($p>.05$).

Table 3: Percentage Response on the knowledge of Gastroenteritis based on Level of Education (n=378).

S/N	ITEMS	Non-F f (%)	Pri f (%)	Sec f (%)	Tertiary f(%)	$\chi 2 cal$	$\chi 2 crit$	df	Remark
7	Do you have the knowledge of gastroenteritis before?	10(2.6)	10(2.6)	12(3.2)	8(2.1)	0.214	7.82	3	NS
8	Have you or any member of your family diagnosed of any case of gastroenteritis before?	9(2.4)	10(2.6)	12(3.2)	8(2.1)	0.214	7.82	3	NS
9	Is there any decrease in the reported cases of gastroenteritis in the past years?	8(2.1)	12(3.2)	13(3.4)	6(1.6)	0.595	7.82	3	NS
10	Is gastroenteritis one of the most reported case in the hospital?	8(2.1)	10(2.6)	11(2.9)	9(2.4)	0.024	7.82	3	NS

11	Is gastroenteritis infection higher in children due to their low immunity?	9(2.4)	10(2.6)	11(2.9)	8(2.1)	0.024	7.82	3	NS
12	Is gastroenteritis vulnerable to adults due to their possible wearned in their systems later in life?	9(2.4)	10(2.6)	11(2.9)	8(2.1)	0.024	7.82	3	NS
13	Is gastroenteritis disease considered a contagious diseases?	9(2.4)	10(2.6)	11(2.9)	8(2.1)	0.024	7.82	3	NS
14	Is early detection of gastroenteritis diseases helpful?	8(2.1)	11(2.9)	12(3.2)	6(1.6)	0.214	7.82	3	NS
15	Do you wash hand with soap and water after using the toilet?	9(2.4)	10(2.6)	11(2.9)	6(1.6)	0.024	7.82	3	NS
16	Do you wash your hand with soap and water after using the toilet?	7(1.9)	10(2.6)	12(3.2)	6(1.6)	0.214	7.82	3	NS
	Total	**86(22.8)**	**103(27.2)**	**116(30.7)**	**73(19.3)**	**1.571**	**32.9**	**27**	**NS**

The results shows that the respondents with secondary education had the highest level (30.7%) of knowledge of gastroenteritis, followed by primary education (27.2%) and non-

formal education (22.8%).. Respondents with tertiary education had the least level of knowledge (19.3%). X^2 statistics showed that level of education did not significantly affect the knowledge of gastroenteritis ($p>0.05$).

Table 4: Percentage Responses on the knowledge of gastroenteritis based on Parity (n=378).

S/N	ITEMS	1-2 *f*(%)	3-4 *f*(%)	5-6 *f*(%)	7-above *f*(%)	$\chi 2 cal$	$\chi 2 crit$	df	Remark
7	Do you have the knowledge of gastroenteritis before?	8(2.1)	11(2.9)	12(3.2)	9(2.4)	0.3	7.82	3	NS
8	Have you or any member of your family diagnosed of any case of gastroenteritis before?	8(2.1)	10(2.6)	13(3.4)	8(2.1)	0.033	7.82	3	NS
9	Is there any decrease in the reported cases of gastroenteritis in the past years?	9(2.4)	10(2.6)	11(2.9)	9(2.4)	0.3	7.82	3	NS
10	Is gastroenteritis one of the most reported case in the hospital?	8(2.1)	11(2.9)	12(3.2)	7(1.9)	0.033	7.82	3	NS
11	Is gastroenteritis infection higher in children due to their low immunity?	9(2.4)	10(2.6)	11(2.9)	8(2.1)	0.033	7.82	3	NS

12	Is gastroenteritis vulnerable to adults due to their possible wearned in their systems later in life?	9(2.4)	10(2.6)	11(2.9)	8(2.1)	0.033	7.82	3	NS
13	Is gastroenteritis disease considered a contagious diseases?	9(2.4)	10(2.6)	11(2.9)	8(2.1)	0.033	7.82	3	NS
14	Is early detection of gastroenteritis diseases helpful?	8(2.1)	10(2.6)	12(3.2)	7(1.9)	0.033	7.82	3	NS
15	Do you wash hand with soap and water after using the toilet?	9(2.4)	9(2.4)	10(2.6)	8(2.1)	0.033	7.82	3	NS
16	Do you wash your hand with soap and water after using the toilet?	8(2.1)	9(2.4)	11(2.9)	7(1.9)	0.033	7.82	3	NS
	Total	**85(22.5)**	**100(26.5)**	**114(30.2)**	**79(20.8)**	**0.864**	**32.9**	**27**	**NS**

Table 4 shows that the respondents who had 5-6 children had the highest level (30.2%) of knowledge of the disease, followed by those who had 2-3 children (26.6%), 1-2 children (22.5%) and 7-above children (20.8%). X^2 statistics showed that parity did not affect the knowledge of gastroenteritis significantly ($p>0.05$).

Discussion

The results provide valuable insights into the co-relativity of some demographic factors and the level of knowledge of gastroenteritis in Owerri West Local Government Area, Imo State, Nigeria. Although majority of the sample population (25.9%) aged 15-23 years were more knowledgeable than other age groups, age did not significantly affect the knowledge

of gastroenteritis (p>05). The findings of the present study also showed that the 33-41 years category had the least knowledge of the disease. While the result appears to contradict expected anecdotal evidences which link level of knowledge to exposure and experience, the findings of the present study suggest a departure from this norm and highlight the influence of residential status in shaping study outcomes. It goes further to suggest that the older age groups may have been populated by uninformed members of the population. However, the findings of the study did not agree with a previous study [2] which opined that age had a significant association with knowledge of gastroenteritis. This discrepancy may have resulted from methodical incongruences between the two studies.

Furthermore, the married respondents had the highest level of knowledge of gastroenteritis (28%), followed by the singles (25.4%), the divorced (24.3%), while the widowed (22.3%) had the least knowledge of the disease. However, the study showed that there was no significant association between marital status and level of knowledge of gastroenteritis (p>0.05). Although the study outcome contradicts the expectation that marital status ought to significantly influence the level of knowledge of the disease [3], the married respondents demonstrated more knowledge than other marital groups.

Additionally, level of education did not significantly (p>0.05) affect the knowledge of gastroenteritis. Respondents with secondary education were found to have more knowledge (30.7%) of the disease than those with primary education (27.2%), non-formal education (22.8%), and tertiary education (19.3%). The lack of significant influence of level of education on the knowledge of the disease may be reflective of the paucity of awareness of the disease or poor implementation of the health education curricular. This highlights the need for improved governmental advocacy to promote health education in our communities in order to address the gap in knowledge.

Parity did not play a significant ($p>0.05$) role in the level of knowledge of gastroenteritis. Respondents who had 5-6 children had the highest level of knowledge of the disease, followed by those who had 2-3 children (26.6%), 1-2 children (22.5%) and 7-above children (20.8%). This finding disagrees with a study [3] which suggested that the more the number of children a mother had, the more likely her level of knowledge of the disease as a result of the increased risk of childhood infection. The difference in study outcomes may be attributed to the divergent study settings and other methodological discrepancies.

Conclusion

The need to create more awareness about gastroenteritis cannot be over emphasized. Government and non-governmental agencies should advocate for the practice of hygiene and promote health education in schools and ante-natal clinics to address the knowledge deficit among the population.

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