Int J Clin Exp Physiol. 2024;11(3):107-116.
https://www.ijcep.org

Original Article

Awareness, Prevalence and Perception of Chronic Diseases (Obesity, Typhoid Fever, Sepsis (Gastroenteritis), among Rural Dwellers in Nomeh-Unateze Community in Nkanu-East L.G.A, Enugu State

Nweke Luke Maduka[1], Ani Okafor Celestine[2,*], Izugha Dennis Ugochuwku[1], Ude Maureen Ifunanya[1], Mbajunwa Chukwuemeka Elvis[1], Eze Kosisochuwku Erica[1], Onah Emmanuel Sunday[3], Etim Nyong Bassey[4]

[1]Department of Human Physiology, Faculty of Basic Medical Sciences, College of Medicine, University of Nigeria, Enugu Campus, NIGERIA.
[2]Department of Human Physiology, Faculty of Basic Medical Sciences, College of Medicine, State University of Medical and Applied Sciences, Igbo-Eno, Nsukka, Enugu State, NIGERIA.
[3]Department of Opthalmology, David Umahi Federal Teaching Hospital, Uburu, Ebonyi, NIGERIA.
[4]Department of Public Health, Faculty of Health Sciences, Taraba State University, Jalingo, Taraba, NIGERIA.

ABSTRACT

Background and Aim: This study investigated the prevalence, perception and awareness of chronic diseases (obesity, typhoid fever and sepsis (gastroenteritis)-among rural dwellers in Nomeh-Unateze Community in Nkanu-East Local Government Area (LGA), Enugu State, Nigeria. Chronic diseases are a significant public health challenge, particularly in rural areas where access to healthcare and information is often limited. **Methods:** This study design is employed, utilizing both qualitative and quantitative data collection methods. Data were gathered through structured questionnaires, in-depth interviews and focus group discussions. The findings revealed a slightly high prevalence of obesity and notable cases of typhoid fever and sepsis within the community. Perception analysis shows varying degrees of understanding and misconceptions about these diseases, influenced by cultural beliefs and limited health education. **Results:** Awareness levels are generally low, highlighting a critical gap in health knowledge and the need for targeted interventions. **Conclusion:** This study showed the importance of enhancing health education and improving access to healthcare services in rural areas. And implementing community-based health education programs, increasing healthcare infrastructure and fostering collaboration between Local Health Authorities and community leaders. The outcomes aim to inform policy development and health strategies to combat chronic diseases in rural Nigeria.

Keywords: Awareness, Chronic diseases, Healthcare, Nomeh, Perception, Prevalence.

***Correspondence:**
Ani Okafor Celestine
Department of Human Physiology, Faculty of Basic Medical Sciences, College of Medicine, State University of Medical and Applied Sciences, Igbo-Eno, Nsukka, Enugu State, NIGERIA.
Email: celestine.ani@esut.edu.ng

Received: 10-07-2024;
Revised: 27-08-2024;
Accepted: 16-09-2024.

INTRODUCTION

Chronic diseases represent significant public health challenge globally, with their prevalence increasing steadily over the past few decades. These diseases, often characterized by their long duration and generally slow progression, include conditions such as cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. In many developing countries, including Nigeria, the burden of chronic diseases is compounded by the ongoing challenges of infectious diseases, thereby straining the already limited healthcare resources.[1]

Obesity, often measured by Body Mass Index (BMI), is a critical public health issue due to its association with a range of adverse health outcomes, including heart disease, stroke, diabetes and certain cancers.[2] The prevalence of obesity has been rising worldwide, including in sub-Saharan Africa, where changes in lifestyle, urbanization and dietary habits contribute to this growing epidemic.[3] In Nigeria, obesity is becoming increasingly common, even in rural areas, where traditional lifestyles are rapidly changing.[4]

Typhoid fever, a severe systemic illness caused by *Salmonella typhi*, remains a significant health concern in many low- and middle-income countries. Despite advancements in public health, typhoid fever continues to pose a substantial burden, particularly in areas with inadequate sanitation and limited access to clean water.[5] In Nigeria, typhoid fever is endemic, with recurrent outbreaks reported in various regions, exacerbating the public health burden.[6]

DOI: 10.5530/ijcep.2024.11.3.20

Sepsis, often arising from severe infections such as gastroenteritis, is another critical health issue, especially in developing countries. Gastroenteritis, an inflammation of the stomach and intestines typically caused by infections, can lead to severe dehydration and systemic complications if not properly managed.[7] In rural Nigeria, the prevalence of sepsis remains high due to limited access to healthcare facilities, inadequate sanitation and lack of awareness about preventive measures.[8]

Understanding the prevalence, perception and awareness of these chronic diseases among rural dwellers is crucial for developing effective public health strategies. The Nomeh-Unateze community in Nkanu-East LGA, Enugu State, Nigeria, provides a relevant case study for examining these issues. This rural community faces numerous health challenges, typical of many similar regions in Nigeria, including limited healthcare infrastructure, poor sanitation and inadequate health education.[9]

MATERIALS AND METHODS

Study Design

A cross-sectional descriptive survey design was adopted for this study. This design is suitable for assessing the prevalence and awareness of chronic diseases within a specific population at a single point in time. It allows for the collection of quantitative data that can be statistically analyzed to draw inferences about the larger population.

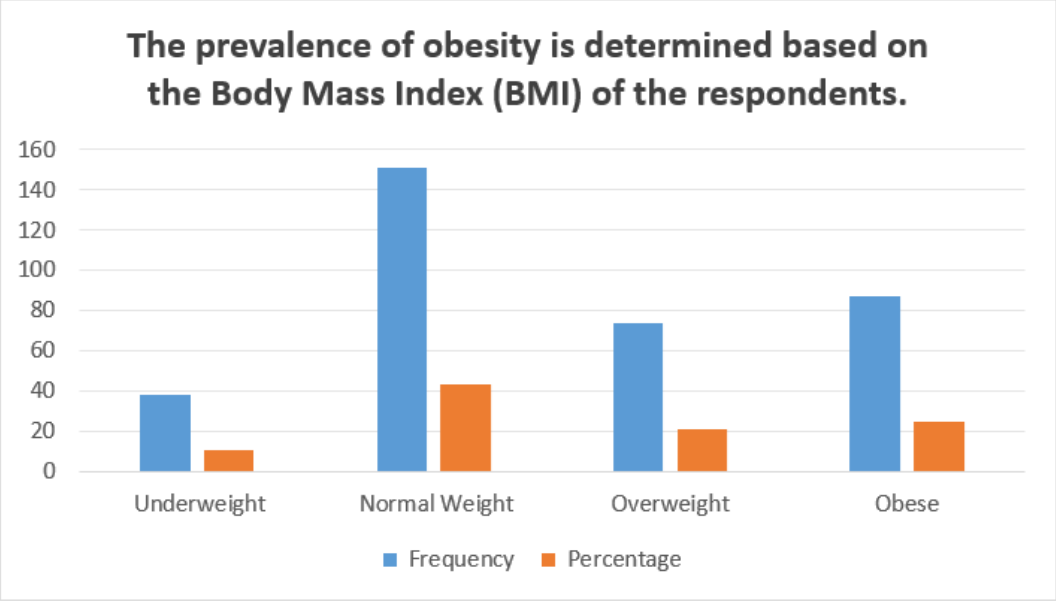

Figure 1: Prevalence Rate of Obesity.

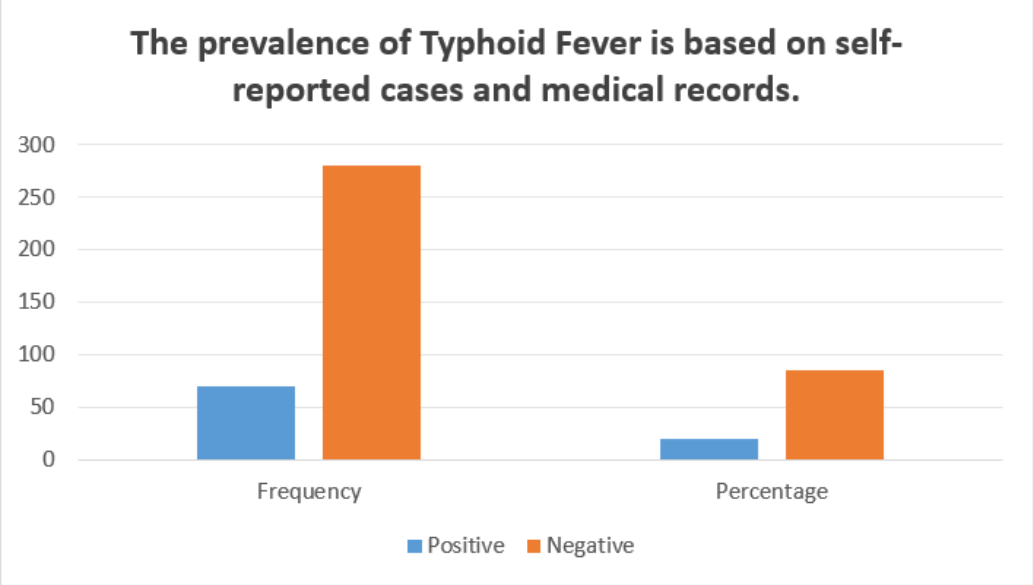

Figure 2: Prevalence Rate of Typhoid Fever.

Study Area

Enugu state is one of the 36 states that make up the Nigerian federation; it is located in the South East part of Nigeria and was created in 1991 from the old Anambra State with a co-ordinate of 6°27, 53. 8704 N and 7°32 56.2164 E, it has a total land area of 7,534 sqkm with a population of 722624 according to the 2006 Census. The state shares borders with Eboyni to the east, Anambra to the west, Benue and Kogi to the north and Abia and Imo to the south. The average temperature in the city is mild, (60°F) in its cooler months and its warmer months is about (80°F). The lowest rainfall is about 0.16 cubic centimeters which is normal in the month of February, while the highest is about 35.7 cubic centimeters in July. The major languages spoken are Igbo and English languages, economically; the state is predominately rural and agricultural, with a great number of the population engaged in farming. The study was conducted in Nomeh-Unateze Community, located in Nkanu-East Local Government Area (LGA) of Enugu State, Nigeria. This town has a population of about ten thousand individuals and is bordered on the north by Ugbawka, on the east by Mburubu, Oduma on the south and Nenwe on the west with the coordinate of 6.16388, 7.57725. This rural community is characterized by limited healthcare facilities, poor sanitation and a predominantly agrarian economy. The choice of this location was based on its representative quality of rural settings in Nigeria, where access to healthcare and public health interventions are often limited.

Table 1: Age Distribution.

Age Group (years)	Number of Respondents	Percentage of Total (%)
18-24	58	16.6
25-34	90	25.7
35-44	75	21.4
45-54	61	17.4
55-64	36	10.3
65-above	30	8.6
Total	350	100

Table 2: Gender Distribution.

Gender	Frequency	Percentage
Male	183	52.3
Female	167	47.7

Table 3: Educational Level Distribution.

Education Level	Frequency	Percentage
No Formal Education	34	9.7
Primary Education	106	30.3
Secondary Education	141	40.3
Tertiary Education	69	19.7

Study Population

The target population for this study comprised all adult residents of Nomeh-Unateze Community, aged 18 years and above. This age group was selected to ensure that participants could provide informed consent and relevant information about their health status and perceptions.[2]

Sample Size Determination

The sample size was determined using the Cochran formula for estimation and cross sectional research where the minimum sample size, $N=Z^2 (PQ)/D^2$.

Where, N=the required sample size,

Z=the Z-value (1.96 for a 95% confidence level),

P=the estimated prevalence of the disease (assumed to be 50% for maximum sample size),

Q=1-P, D=the margin of error (0.05).

Thus: $N=Z^2 P(1-P)/D^2$.

Prevalence of Obesity (BMI)=24.9%, Prevalence of Typhoid Fever=20%, Prevalence of Sepsis=15.7%.

The prevalence P that was used in the calculation was the average prevalence of chronic diseases, specifically obesity (BMI), typhoid fever and sepsis (gastroenteritis) of previous study.

N=318.3918.

Therefore, our study sample size was 318+10% of the sample size,

10% of 318=31.8.

N=318+31.8=349.8.

Prevalence Calculation for Study Sample Size (350).

Obesity (BMI): Prevalence count for Obesity=24.9/100×350=0.249×350=87.15 ≈ 87,

Typhoid Fever: Prevalence count for Typhoid Fever=20/100×350=0.20×350=70.

Sepsis (Gastroenteritis): Prevalence count for Sepsis=15.7/100×350=0.157×350=54.95 ≈ 55,

Total Prevalence Count for Study Sample Size: Total Prevalence Count=87+70+55=212.

Sampling Techniques

A simple random sampling method was used to select participants within each household, who meet the criteria to allow an equal chance to participate in the study.

Data Collection Methods

Data were collected using a structured questionnaire, which was developed based on validated instruments from previous studies on chronic diseases and tailored to the local context. The questionnaire was divided into 4 sections:

Demographic Information: Age, gender, education level, occupation and household size.

Prevalence of Chronic Diseases: Self-reported diagnosis of obesity, typhoid fever and sepsis, including duration and treatment.

Table 4: Occupation Distribution.

Occupation	Frequency	Percentage
Farming	177	50.6
Trading	69	19.7
Civil Service	52	14.9
Others	53	15.1

Table 5: Religion Distribution.

Religion	Frequency	Percentage
Christianity	315	90
Traditionalist	10	2.9
Others	25	7.1

Table 6: Marital Status Distribution.

Marital Status	Frequency	Percentage
Single	104	29.7
Married	212	60.6
Widowed	34	9.7

Perception and Awareness: Knowledge of causes, symptoms, prevention and treatment of the three chronic diseases.

Health-seeking Behavior: Utilization of healthcare services and traditional medicine.

Data Collection Procedure

Data collection was carried out by a team which consists of the project students and a few trained field workers who were fluent in the local language and familiar with the community. Prior to data collection, the questionnaire was pretested in a neighboring community to ensure its reliability and validity. The team conducted face-to-face interviews with participants, explaining the purpose of the study and obtaining informed consent before administering the questionnaire.

Statistical Analysis of Data

The collected data were entered into a computer database and analyzed using Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics, such as frequencies, percentages, means and standard deviations, were used to summarize the data. Inferential statistics, including chi-square tests and logistic regression, were used to examine associations between variables and identify predictors of disease prevalence, perception and awareness.

RESULTS

Demographic Characteristics of Respondents

A total number of 350 questionnaires were administered to the participants and there was 100% response rate. The age distribution of respondents is categorized into five groups: 18-24, 25-34, 35-44, 45-54, 55-64 and above 65 years. (Table 1: contains age distribution of respondents). 58 of respondents between the age of 18-24 estimating 16.6% of the total respondents, 90

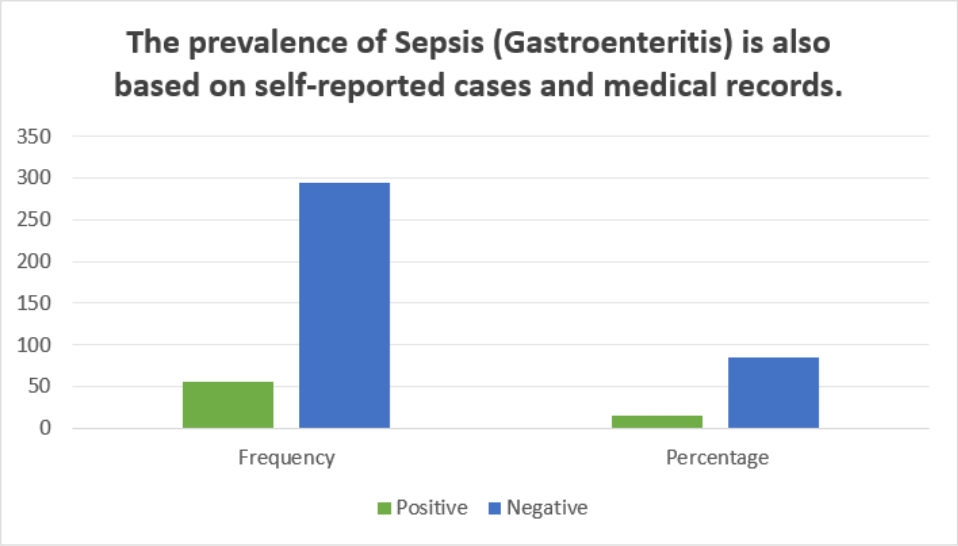

Figure 3: Prevalence Rate of Sepsis.

of respondents between the age of 25-34 estimating 25.7% of the total respondents representing the highest respondents, 75 of respondents between the age of 35-44 estimating 21.4% of the total respondents, 61 of respondents between the age of 45-54 estimating 17.4% of the total respondents, 36 of respondents between the age of 55-64 estimating 10.3% of the total respondents, 30 of respondents between the age of 65-70 estimating 8.6% of the total respondents representing the lowest respondents.

Gender Distribution

The gender distribution shows a nearly equal representation of males and females, allowing for gender-based analysis. (Table 2: contains gender distribution of respondents). 183 of male respondents under gender distribution estimating 52.3% of the total respondents while 167 of female respondents under gender distribution estimating 47.7% of the total respondents, this shows

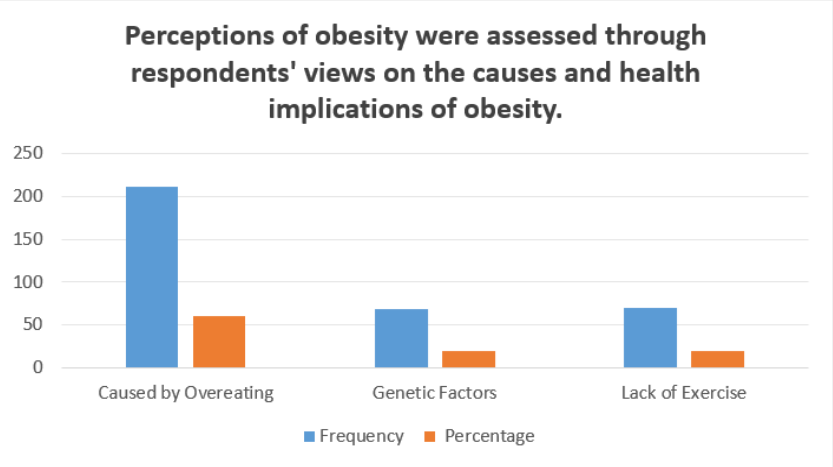

Figure 4: Perception Rate of Obesity.

Table 7: Prevalence Rate of Obesity in relation to age group.

Age Group (years)	Number of Obese Respondents	Percentage of Age Group (%)
18-24	7	12.1
25-34	23	25.6
35-44	21	28
45-54	16	26.2
55-64	12	33.3
65-above	8	26.7
Total	87	24.9

Table 8: Prevalence Rate of Typhoid in relation to Age group.

Age Group (years)	Number of Respondents with Typhoid Fever	Percentage of Age Group (%)
18-24	14	24.1
25-34	19	21.1
35-44	15	20
45-54	9	14.6
55-64	7	19.4
65-above	6	20
Total	70	20

Table 9: Prevalence Rate of Sepsis in relation to Age group.

Age Group (years)	Number of Respondents with Sepsis	Percentage of Age Group (%)
18-24	7	12.1
25-34	9	10
35-44	8	10.7
45-54	12	19.7
55-64	10	27.8
65-above	9	30
Total	55	15.7

Table 10: Perception Rate of Obesity in relation to Age group.

Age Group (years)	Number of Respondents Aware of Obesity Risks	Percentage of Age Group (%)
18-24	20	34.5
25-34	35	38.9
35-44	25	33.3
45-54	20	32.8
55-64	10	27.8
65-above	10	33.3
Total	120	34.3

that the male respondents present is a bit high when compared to the female participants.

Education and Occupation Distribution

The educational level of respondents ranges from no formal education to tertiary education. (Table 3: represents the education levels of respondents). Estimate of about 40.3% of the respondents obtained Secondary education level, which represents the highest; about 9.7% did not attain any formal education, representing the lowest. The respondents' occupations reflect the community's predominantly agrarian nature and other sectors included. (Table 4: represents the occupation of respondents). Estimate of about 50.6% of the respondents engage in farming and agriculture.

Religion and Marital Status Distribution

Religion distribution of respondents consists of majorly Christians. (Table 5: represents the religion distribution of respondents). Estimate of about 90% of the respondents are Christians, which represent the highest, about combined estimate of 10% representing other categories of other religions. The respondents' marital status distribution shows that there's a majority of married couples and other sectors included. (Table 6: represents the marital status distribution of respondents). Estimate of about 60.6% of the respondents are married.

Table 11: Perception Rate of Typhoid Fever in relation to Age group.

Age Group (years)	Number of Respondents Aware of Typhoid Risks	Percentage of Age Group (%)
18-24	47	81
25-34	75	83.3
35-44	60	80
45-54	47	77
55-64	28	77.8
65-above	23	86.7
Total	280	80

Table 12: Perception Rate of Sepsis in relation to Age group.

Age Group (years)	Number of Respondents Aware of Sepsis Risks	Percentage of Age Group (%)
18-24	10	17.2
25-34	20	22.2
35-44	20	26.7
45-54	10	16.4
55-64	5	13.9
65-above	5	16.7
Total	70	20

Prevalence of Chronic Diseases

Determined the prevalence rates of obesity, typhoid fever and sepsis among the residents of Nomeh-Unateze community. The prevalence in the community was assessed through self-reported health status and medical tests taken during the outreach activity.

Obesity is a growing concern in the community, with a prevalence rate of approximately 24.9%. Obesity was more prevalent among females and individuals with lower educational levels, highlighting the need for targeted interventions. (Table 7 contains the prevalence rate of obesity in relation to age group of respondents). The table shows that 87 respondents are classified obese representing 24.9% and occurs majorly on the age distribution between ages 25-54. Figure 1 shows the representation of the prevalence rate of obesity based on body mass index of the respondents.

Typhoid fever remains a significant public health issue in Nomeh-Unateze, with a reported prevalence of 20%. The data indicated higher rates of typhoid fever among younger adults, particularly those with limited access to healthcare. (Table 8 contains the prevalence rate of Typhoid fever in relation to age group of respondents). The table shows that 70 respondents representing 20% of the total respondents, contacted typhoid fever and occurs majorly on the age distribution between ages 25-44. Figure 2 shows the representation of the prevalence rate of typhoid fever based on self-reported cases and medical records of the respondents.

Sepsis, often resulting from untreated gastroenteritis, was reported by 15.7% of the respondents. This is a lower prevalence rate when compared to obesity and typhoid fever, may be due to misdiagnosis. The risk of sepsis was higher among the elderly and those with already existing health condition. (Table 9 contains the prevalence rate of Sepsis in relation to age group of respondents). The table shows that 55 respondents representing 15.7% of the total respondents, contacted sepsis and occurs majorly on the age distribution between ages 45-64. Figure 3 shows the representation of the prevalence rate of sepsis based on self-reported cases and medical records of the respondents.

Table 13: Level of Awareness of Obesity in relation to Age Group.

Age Group (years)	Number of Respondents Aware of Obesity	Percentage of Age Group (%)
18-24	10	17.2
25-34	25	27.8
35-44	20	26.7
45-54	15	24.6
55-64	8	22.2
65-above	7	23.3
Total	85	24.3

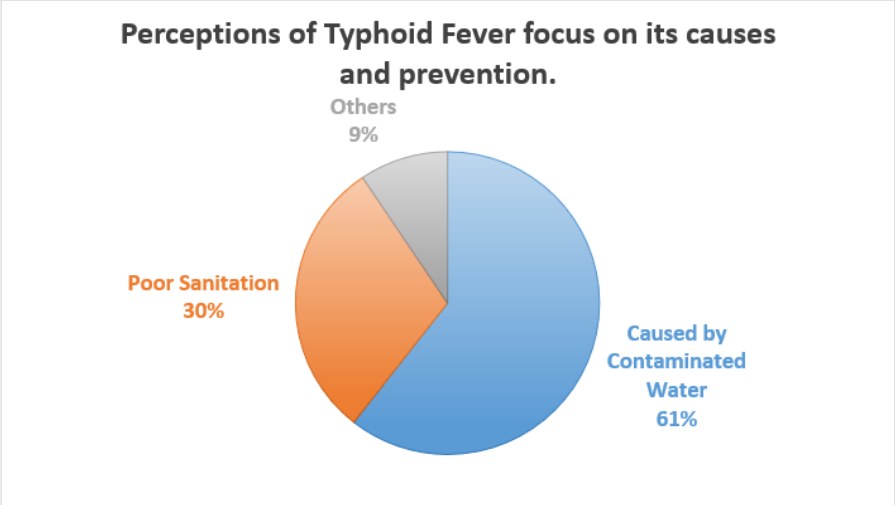

Figure 5: Perception Rate of Typhoid Fever.

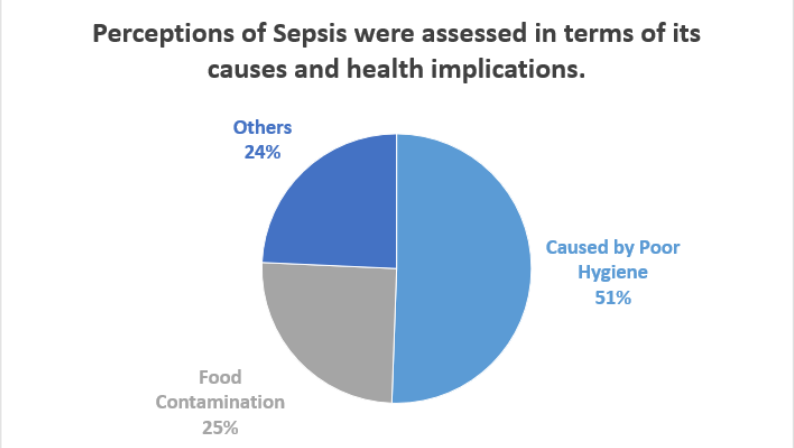

Figure 6: Perception Rate of Sepsis in Nomeh-Unateze Community.

Table 14: Level of Awareness of Typhoid Fever.

Age Group (years)	Number of Respondents Aware of Typhoid Fever	Percentage of Age Group (%)
18-24	41	70.7
25-34	65	72.2
35-44	56	74.7
45-54	41	67.2
55-64	26	72.2
65-above	16	53.3
Total	245	70

Table 15: Level of Awareness of Sepsis.

Age Group (years)	Number of Respondents Aware of Sepsis	Percentage of Age Group (%)
18-24	10	17.2
25-34	15	16.7
35-44	20	26.7
45-54	15	24.6
55-64	10	27.8
65-above	10	33.3
Total	80	22.9

Perception of Chronic Diseases

Assessed the perception of the community towards these chronic diseases, including their understanding of the causes, symptoms and implications. Perceptions of chronic diseases varied widely among respondents and were influenced by cultural beliefs, education and personal experiences.

Obesity was often perceived as a sign of wealth and well-being, rather than a health risk. This cultural perception hinders efforts to promote healthy weight management. Education campaigns focusing on the health risks associated with obesity are needed to change these perceptions. Perceptions of obesity were assessed through respondents' views on the causes and health implications of obesity. (Table 10 summarizes the findings). Figure 4 shows the perception rate of obesity assessed through respondents' views on the causes and health implications of obesity. Most respondents (60.6%) perceive obesity as primarily caused by overeating, while 19.4% attribute it to genetic factors and 20% attributes to lack of exercise.

Typhoid fever was widely recognized as a serious illness, with many attributing its occurrence to poor water quality and hygiene practices. However, there was a gap in understanding the importance of vaccination and preventive measures. Community health education should emphasize the benefits of vaccination and proper sanitation.[2] (Table 11 summarizes the findings among age groups). Figure 5 shows the perception rate of typhoid fever assessed through respondents' views on the causes and prevention. The majority (61%) believe Typhoid Fever is caused by contaminated water, while 30% attribute it to poor sanitation.

Perception of sepsis was low, with many respondents unaware of its symptoms and potential severity. This lack of awareness contributes to delayed treatment and poorer health outcomes. Educational initiatives should aim to improve recognition of sepsis symptoms and the importance of timely medical intervention. (Table 12 summarizes the findings among age groups). Figure 6 shows the perception rate of sepsis assessed through respondents' view in terms of causes and health implication. More than of the respondents (51%) believe Sepsis is caused by poor hygiene, with 25% attributing it to food contamination.

Awareness of Chronic Diseases

Evaluated the level of awareness regarding prevention and management strategies for obesity, typhoid fever and sepsis and compared the mean result of the carriers with the normal subjects.

Awareness of obesity and the health risks associated with obesity was limited, particularly among individuals with lower education levels. Many respondents were unaware of the link between obesity and chronic conditions such as diabetes and hypertension.[10] Public health campaigns should address these knowledge gaps and promote healthy lifestyle choices.[3] (Table 13: Level of Awareness of Obesity in relation to Age Group). Figure 7 awareness of obesity (BMI) and health risks, was measured by respondents knowledge on BMI (Body Mass Index) categories and risks. Awareness of BMI, with 31.4% of respondents aware of BMI categories and associated health risks, while 68.6% are not fully aware of BMI categories and associated health risks.

Typhoid fever awareness was relatively high, with most respondents able to identify common symptoms and transmission routes. However, there was limited knowledge about the importance of vaccination and consistent use of clean water and sanitation practices. Enhancing awareness through community-based health education programs is essential. (Table 14 summarizes the findings among age groups). Figure 8 shows that typhoid fever focuses on knowledge of its symptoms, transmission and prevention. A significant majority (71.4%) are aware of Typhoid Fever, indicating a relatively high level of public health awareness.

Awareness of Sepsis was notably low. Few respondents could accurately describe its symptoms or understand its potential complications. This lack of awareness is a significant barrier to early diagnosis and treatment. Efforts to raise awareness should focus on improving community knowledge about the signs and severity of sepsis. (Table 15: Level of Awareness of Sepsis among respondents) the table shows that there is low awareness of sepsis which records about 22.9% representing 80 respondents among age groups. Figure 9 shows the awareness data of sepsis which focuses on knowledge of its symptoms, transmission and prevention.

Factors Influencing Perception and Awareness

Identified the factors influencing the perception and awareness of these chronic diseases in the community.

Education Level

Education emerged as a significant determinant of health perception and awareness. Individuals with higher education levels were more likely to recognize the risks associated with chronic diseases and engage in preventive measures.

Socioeconomic Status

Socioeconomic status also played a crucial role, with wealthier individuals having better access to health information and services. Those with lower incomes were more likely to rely on traditional beliefs and practices, which may not always align with modern medical advice.

Access to Healthcare

Access to healthcare facilities and services was a major factor influencing both perception and awareness. Communities with better healthcare access had higher levels of awareness and more accurate perceptions of chronic diseases. Improving healthcare infrastructure in rural areas is essential for addressing these disparities.

DISCUSSION

The demographic characteristics of the respondents provide a contextual background for understanding the prevalence, perception and awareness of chronic diseases in Nomeh-Unateze Community. The high prevalence of obesity (24.9%) is concerning, given its association with various health risks such as cardiovascular diseases and diabetes. The findings align with global trends where obesity rates are rising due to changes in diet and lifestyle.[11] Typhoid Fever's prevalence (20%) underscores the urgent need for improved water and sanitation practices. This aligns with previous studies that have identified contaminated water as a major source of Typhoid Fever in rural communities. Sepsis (Gastroenteritis) prevalence (15.7%) highlights issues related to hygiene and food safety. The lower awareness levels for Sepsis compared to Typhoid Fever suggest that public health interventions should focus more on educating the community about Sepsis and its prevention.[11]

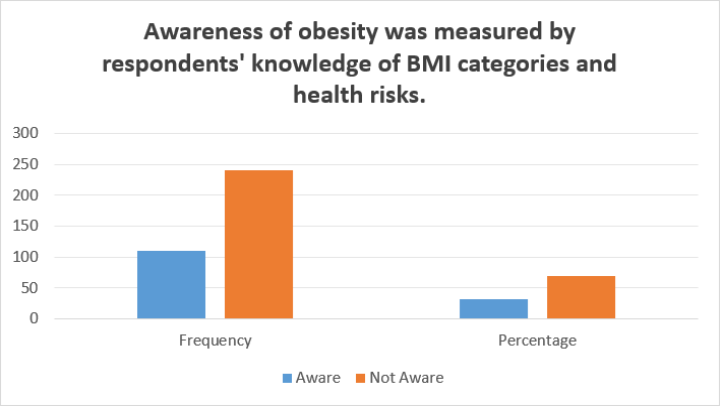

Figure 7: Awareness Data of Obesity (BMI) and Health risks.

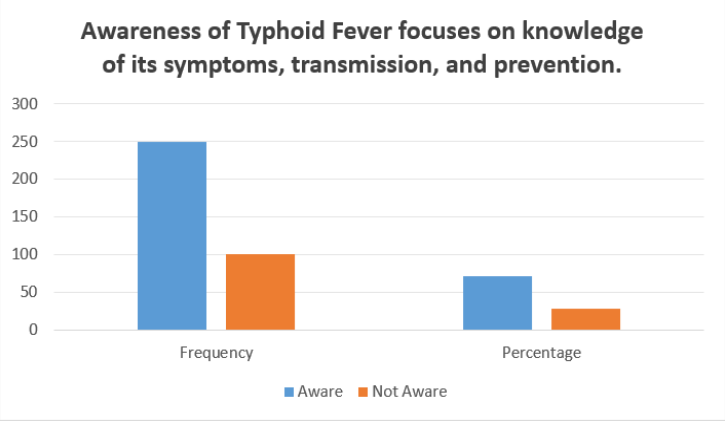

Figure 8: Awareness Data of Typhoid Fever focuses on Knowledge of its symptoms, transmission and prevention.

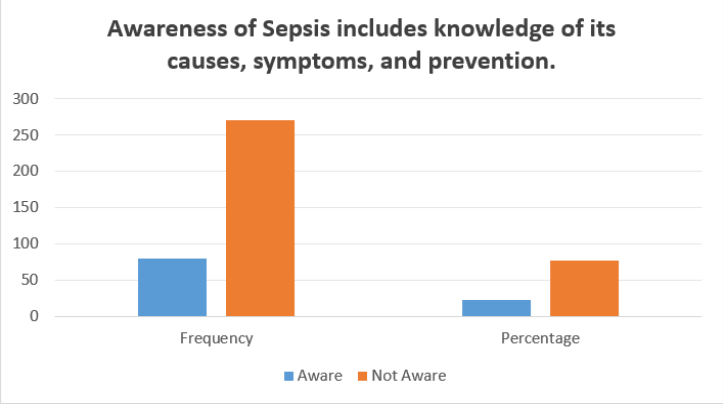

Figure 9: Awareness Data of Sepsis focuses on Knowledge of its symptoms, transmission and prevention.

Perceptions of the chronic diseases reveal that respondents are generally aware of the causes but may benefit from more detailed information on prevention and management. For example, while many associate obesity with overeating, fewer recognize the role of physical inactivity and genetics.

Awareness levels of the chronic diseases vary, with Typhoid Fever being the most recognized condition. This could be attributed to more frequent health campaigns and educational efforts targeting waterborne diseases in the area.

The study concludes that chronic diseases, particularly obesity, typhoid fever and sepsis, present significant health challenges in Nomeh-Unateze Community. The high prevalence of these conditions, coupled with varying levels of awareness and perception, calls for targeted public health interventions. Obesity is emerging as a major concern due to lifestyle changes and lack of physical activity. Typhoid fever remains a critical issue, exacerbated by inadequate water and sanitation infrastructure. Sepsis, while less prevalent, poses a serious health risk that requires immediate attention through improved hygiene practices and healthcare access.

CONCLUSION

The data suggests a clear need for integrated health education programs that address both the prevention and management of these chronic diseases. Such programs should be tailored to the specific needs and contexts of rural populations, ensuring that all community members, regardless of age or education level, have access to accurate health information.

ACKNOWLEDGEMENT

We thank God for his grace, providence and sustenance throughout the course of this project.

Our sincere appreciation goes to our amiable project supervisor, Dr. Ani Okafor Celestine and his team for taking out time to ensure that this project met all the required standards. I am indeed grateful to the lecturers of the Department of Human Physiology, University of Nigeria especially Mr. M. L. Nweke who is the current Head of Department. To parents/sponsors and families for their encouragement and support and finally to our respondents for their patience and cooperation while answering our questionnaire. Finally, we thank all our friends who have in one way or another contributed to the success of this research work.

May the good Lord keep us all.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ABBREVIATIONS

BMI: Body Mass Index; **LGA:** Local Government Area.

REFERENCES

1. World Health Organization. Global status report on non communicable diseases 2010. Geneva: World Health Organization; 2010.
2. World Health Organization. Obesity and overweight. [cited Jun 10 2024] Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight.
3. Ng M, Fleming T, Robinson M, Thomson B, Graetz N, Margono C, *et al.* Global, regional and national prevalence of overweight and obesity in children and adults during 1980-2013: A systematic analysis for the Global Burden of Disease Study 2013. Lancet. 2014;384(9945):766-81. doi: 10.1016/S0140-6736(14)60460-8, PMID 24880830.
4. Akarolo-Anthony SN, Willett WC, Spiegelman D, Adebamowo CA. Obesity epidemic has emerged among Nigerians. BMC Public Health. 2014;14(1):455. doi: 10.1186/1471-2458-14-455, PMID 24886022.
5. Crump JA, Mintz ED. Global trends in typhoid and paratyphoid fever. Clin Infect Dis. 2010;50(2):241-6. doi: 10.1086/649541, PMID 20014951.
6. Mogasale V, Maskery B, Ochiai RL, Lee JS, Mogasale VV, Ramani E, *et al.* Burden of typhoid fever in low-income and middle-income countries: A systematic, literature-based update with risk-factor adjustment. Lancet Glob Health. 2014;2(10):e570-80. doi: 10.1016/S2214-109X(14)70301-8, PMID 25304633.
7. Schmidt H, Roberts DE, Cohen IG, Gostin LO, Emanuel EJ. The ethics of not hiring smokers. N Engl J Med. 2011;364(15):1369-71.
8. Ogbonnaya LU, Oko OO, Agbo J. Pattern of medical admissions in a tertiary hospital in Abakaliki, South-Eastern Nigeria. J Biol Agric Healthc. 2011;1(3):28-35.
9. Eze GO, Ugochukwu CN. Health care system in Nigeria: an overview. Int J Dev Manag Rev. 2016;11(1):28-37.
10. World Health Organization. Noncommunicable diseases. [cited Jun 16 2024] Available from: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases.
11. World Health Organization. Typhoid. [cited May 28 2024] Available from: https://www.who.int/health-topics/typhoid.

Cite this article: Maduka NL, Celestine AO, Ugochuwku ID, Ifunanya UM, Elvis MC, Erica EK, *et al*. Awareness, Prevalence and Perception of Chronic Diseases (Obesity, Typhoid Fever, Sepsis (Gastroenteritis), among Rural Dwellers in Nomeh-Unateze Community in Nkanu-East L.G.A, Enugu State. Int J Clin Exp Physiol. 2024;11(3):107-16.