



Knowledge, Attitude and Perception of Your Young Persons (15-49 Years) On Diabetes in Turaki 'B' Ward, Jalingo LGA, Taraba State, Nigeria.

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ABSTRACT

Diabetes is a global public health concern, and one of the most common non-communicable diseases affecting populations in both developed and developing countries. But despite the rising prevalence of this disease, there is a big gap in the understanding among young persons which contributes to late diagnosis and poor disease management, potentially leading to serious health complications. The aim of this study is to assess the knowledge, attitude and perception of young people (15-49 years) on diabetes among non-diabetic residents of Turaki 'B' ward of Jalingo LGA. A descriptive cross sectional study design was adopted using questionnaire to collect the data. A total of 382 respondents calculated using Cochran's formula for sample size were enrolled in the study. A non-probability purposive sampling was used in selecting respondents. SPSS was used for data analysis and Pearson Correlation was used to test the hypothesis. Result shows that, majority of the respondents were males (50.8%), FLSC holders (60.7%) and are students (57.6%) within the age range of 15-49. The average knowledge among respondents is 60.7%, the average attitude level is 50.4% and for perception 54.9%. The hypotheses tested indicated that there is a significant difference between Knowledge of diabetes and educational level, there is a significant difference between Attitude towards diabetes and gender, but there is no significant difference between Perception of diabetes and age. Properly educating oneself through reliable sources will help individuals in gaining knowledge and refuting misconceptions on diabetes coupled with living a healthy lifestyle and having regular measures to better improve attitudes towards dealing with diabetes.

Keywords; Knowledge, Attitude, Perception, Diabetes and Young Persons

INTRODUCTION

Non-communicable diseases (NCDs) are chronic lifelong illnesses and about 41 million people die globally as a result every year (Global Burden of Disease, 2019). Worldwide, diabetes kills about 3.4 million people annually, and this prevalence is increasing among all ages, mostly due to increases in overweight and obesity, unhealthy diet, and physical inactivity (WHO, 2015).

Diabetes, also known as DM, is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces (WHO, 2023). Diabetes mellitus is a chronic disease requiring lifelong continuing care. The majority of cases of diabetes can be broadly classified into 2 categories: type 1 diabetes and type 2 diabetes. Type 2 diabetes mellitus (type 2 DM) accounts for the vast majority (90%-95%) of persons living with diabetes (ADA, 2018). Diabetes mellitus is associated with acute and chronic (vascular) complications which reduce quality of life, result in disability and lead to premature mortality. Diabetes and its complications can result in considerable financial costs to people with diabetes and their families through direct medical costs, loss of work and wages with a significant toll on economic productivity (WHO, 2016).

While the etiology of diabetes is heterogeneous, most cases of diabetes can be classified into two broad etiopathogenetic categories (discussed later in further detail): type 1 diabetes, which is characterized primarily by deficiency of insulin secretion; or type 2 diabetes, which results from a combination of resistance to insulin action, as well as an inadequate compensatory insulin secretory response for the degree of insulin resistance. While type 1 diabetes remains the most common form of diabetes in young people in many populations, especially those of European background, type 2 diabetes has become an increasingly important public health concern globally among children in high risk ethnic populations as well as in those with severe obesity (Mayer-Davis *et al.*, 2018).

Nigeria is one of the countries in sub-Saharan Africa (SSA) that are currently groaning under a rising prevalence of diabetes mellitus (DM). A recent meta-analysis reported that approximately 5.8% (about 6 million) of adult Nigerians are living with DM (Uloko *et al.*, 2018). This figure has been likened to a tip of an iceberg as it is estimated that two-thirds of diabetes cases in Nigeria are yet undiagnosed (IDF, 2017). This scenario which applies

to most low- and middle-income countries of SSA has not only resulted to an increase in the burden of diabetes complications and deaths, but has also put a significant strain on the already weak health systems in this sub-region.

DM, as well as other NCDs, was once regarded as primarily a disease affecting middle-aged and/or older adults, but recent research has shown a recent demographic shift in the epidemiology of pre-diabetes as well as both type 1 and type 2 diabetes with an increased diagnosis among adolescents and young adults (Patterson *et al.*, 2019), (Andes *et al.*, 2020), (Nagarathna *et al.*, 2020). Thus, the overall population of people with diabetes has been predicted to get as high as 570 million by 2040 (Saeedi *et al.*, 2019). Pre-diabetes also known as impaired glucose tolerance or intermediate hyperglycemia is characterized by high plasma glucose levels above the normal range but below the diabetes cutoff (Magliano *et al.*, 2021). The International Diabetes Federation in 2021 reported a global prevalence of impaired glucose tolerance values of 10.6% (Magliano *et al.*, 2021). In Nigeria, similar findings have been reported where high diabetes risk was reported among adolescents in Port Harcourt (17%) (Jaja *et al.*, 2015), Ibadan (4%) (Arigbede *et al.*, 2017) and Osogbo (9%) (Akintayo-Usman *et al.*, 2021).

RESEARCH METHODOLOGY

Study Area

Jalingo is the capital of Taraba state, located in Northeastern Nigeria. Geographically, Jalingo is located between latitudes 8°47' to 9°01'N and longitudes 11°09' to 11°30'E. It is bounded to the North by Lau Local Government Area, to the East by Yororo Local Government Area, to the South and West by Ardo Kola Local Government Area. It has a total land area of about 195km². Jalingo has a population of 139,845 people according to the 2006 population census, with a projected growth rate of 3% per annum.

Research Design

The study was a descriptive, cross-sectional study to describe the Knowledge, Attitude and

Perception on diabetes among young persons (15-49 years) in Turaki 'B' ward, Jalingo LGA, Taraba State, Nigeria.

The population under this research includes the residents of Turaki 'B' Ward in Jalingo, Taraba State with a total population of 16,750 sourced from Turaki 'B' ward Clinic, Jalingo. The study will be carried out to assess the knowledge, attitude and perception of diabetes among young persons (15-49 years) in Turaki 'B' ward, Jalingo, Taraba State who share some similar characteristic; young persons (15-49 years) and are non-diabetic. Turaki B ward is a ward in Jalingo Local Government Area of Taraba State, Nigeria.

Sampling Technique and Sample Size

Non-probability purposive sampling technique was adopted for this research in selecting the respondents from the total population.

The sample size for this study was calculated using Cochran's formula for finite population (1977) which was also adopted by Azmi and Masjedi, (2023) and the sample size was arrived at 382.

Therefore, out of the total population of the residents of Turaki 'B' ward in Jalingo, Taraba State, the researcher calculated and purposively select 382 as the sample size for this study.

Data Collection Instrument and Validation

The data collection instrument used for this study was a questionnaire for 'Knowledge, Attitude and Perception of Diabetes among young persons (15-49 years) in Turaki B ward, Jalingo, Taraba State'. Primary method of data collection using researcher-administered questionnaires was applied.

The questionnaire contained series of questions personally administered to the participants by the researcher. The questionnaire was designed in four (4) sections; Section A is for the demographic data, Section B stating questions under Knowledge on diabetes, Section C stating questions under Attitude towards diabetes and Section D stating questions under Perception on diabetes.

The questionnaire for the research was constructed by the researcher and submitted to the project supervisor for vetting and corrections to validate the instrument.

Techniques of Data Analysis

The responses were analyzed using the frequency tables which provided answers to the research questions using Statistical Packages for Social Sciences (SPSS) v27. Pearson Correlation was used to test for the stated hypotheses between variables.

Ethical Consideration

The study was approved by the ethical Committee of the Faculty of Health Sciences, Taraba State University, Jalingo. Informed consent was obtained from all study participants to be enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was arranged beforehand.

RESULTS

Table 1: Demographic Characteristics of Respondents

Variables	Categories	Number of Respondents	Percentage (%)
Educational Level	No formal Education	46	12.0
	FSLC	232	60.7
	SSCE	59	15.4
	ND/HND/NCE	40	10.5
	BSc	5	1.3
	Total	382	100.0
Gender	Male	194	50.8
	Female	188	49.2
	Total	382	100.0
Age (in Years)	15-49	382	100.0
Occupation	Unemployed	61	16.0
	Student	220	57.6
	Civil Servants	35	9.2
	Trader	5	1.3
	Farmer	61	16.0
	Total	382	100.0

The demographic characteristics of respondents is presented in Table 1 below which indicates that, 194 (50.8%) respondents were males and 188 (49.2%) were females. Based on Educational Level, it shows that 46 (12.0%) respondents had no formal education, 232 (60.7%) of them had FSLC, 59 (15.4%) had SSCE, 40 (10.5%) had ND/HND/NCE and 5 (1.3%) had BSc. And the distribution of respondents based on Occupation were 61 (16.0%) of respondents were unemployed, 220 (57.6%) were students, 35 (9.2%) were civil servants, 5 (1.3%) were traders, while 61 respondents (16.0%) were farmers respectively.

Table 2: Knowledge of Diabetes

Questions	Responses	Frequency	Percentage(%)
Do you know diabetes is genetic/hereditary disease?	Yes	254	66.5%
	No	128	33.5%
Do you know the complications due to diabetes?	Yes	225	58.9%
	No	157	41.1%
Do You know Diabetes can lead to some terminal illness/sickness?	Yes	237	62.0%
	No	145	38.0%
Do you know age, lifestyle could be a predisposing risk of developing diabetes?	Yes	249	65.2%
	No	133	34.8%
Do you know diabetes is manageable?	Yes	219	57.3%
	No	163	42.7%
Do you know diabetes are of different types?	Yes	208	54.5%
	No	174	45.5%

Table 2 indicates the knowledge of respondents on diabetes with the percentage for questions answered. From table 42, it clearly shows that there is very good knowledge among young persons of Turaki 'B' ward Jalingo on Diabetes with majority (66.5%) of respondents knowing diabetes is a genetic/hereditary disease, 58.9% answering they know the complications due to diabetes, 62% knowing diabetes can lead to some terminal illness, 65.2% of respondents know that age, lifestyle could be a predisposing risk of developing diabetes, 57.3% knowing diabetes can be managed and 54.5% agreeing that diabetes are of different types which sums up an average knowledge percentage of 60.7%.

Table 3: Attitude Towards Diabetes

Questions		Count	Percentage (%)
Do you exercise regularly?	Yes	134	35.1%
	No	248	64.9%
Do you follow a controlled diet?	Yes	149	39.0%
	No	233	61.0%
Have you ever checked your blood sugar?	Yes	200	52.4%
	No	182	47.6%
Would you be in support of any policy or policies that will help in mitigating the prevalence of diabetes?	Yes	274	72.1%
	No	106	27.9%

Table 3 shows the items under 'Attitude towards diabetes among young persons (15-49 years) in Turaki 'B' ward Jalingo' which clearly indicated that the average Attitude of young persons (15-49 years) towards Diabetes in Turaki B ward Jalingo measuring on the low side (50.4%) with average 49.6% of respondents having good attitude as majority (64.9%) do not exercise regularly, 61% do not follow a controlled diet, only 52.4% have ever checked their blood sugar level, and up to 27.9% of respondents not wanting to be in support of policies to help in mitigating the prevalence of diabetes.

Table 4: Perception of Diabetes

Questions		Count	Percentage (%)
Do you think excessive sugar intake leads to diabetes?	Yes	173	45.3%
	No	209	54.7%
Do you think diabetes only affect the rich?	Yes	130	34.0%
	No	252	66.0%
Do you think having diabetes affect your daily life?	Yes	216	56.5%
	No	166	43.5%
Do you think only the aged are affected with diabetes?	Yes	178	46.6%
	No	204	53.4%
Do you believe everyone is likely to have diabetes in the future?	Yes	164	42.9%
	No	218	57.1%

Based on Table 4 indicating 'Perception of Diabetes', the percentages based on questions answered shows that there is an average moderate perception of diabetes among young persons (15-49 years) in Turaki B ward Jalingo with an average 45.1% having poor perception of diabetes and 54.9% having a good perception respectively. 45.3% of respondents believe diabetes is caused by excessive sugar intake, 34% believe diabetes only affect the rich and 56.5% believing diabetes affect one's daily life. While 53.4% of respondents do not think diabetes only affect the aged, 42.9% believe everyone is likely to have diabetes in the future.

Test of Hypotheses

Hypothesis One

This Hypothesis states that there is no significant difference between the level of knowledge of young persons on diabetes and their level of education. This hypothesis was tested using Pearson's Correlation and the result indicates that the relationship between the two variables is weakly negative (-0.248) and that there is significant difference between their level of knowledge and their level of education regarding diabetes ($p < 0.05$). Therefore, we reject the null hypothesis.

Hypothesis Two

The hypothesis states that there is no significant difference between the attitude of young persons and their gender towards diabetes, diabetic patients. This hypothesis was tested using Pearson's Correlation and the result indicates that the relationship between the two variables is weakly positive (0.138) and that there is significant difference between their attitude and their gender ($p < 0.05$). Therefore, we reject the null hypothesis.

Hypothesis Three

The hypothesis states that there is no significant difference between how young person's perceive their risk of developing diabetes and their age. This hypothesis was tested using Pearson's Correlation and the result indicates that the relationship between the two variables is weakly positive (0.059) and that there is no effect hence, no significant difference between their Perception of diabetes and their age ($p > 0.05$). Therefore, we accept the null hypothesis.

DISCUSSION

This study assessed the Knowledge, attitude and perception of young persons (15-49) on diabetes among non-diabetic residents in Turaki 'B' ward, Jalingo. The analysis based on Pearson correlation revealed that there is a significant difference between the level of knowledge of young persons (15-49 years) in Turaki 'B' ward Jalingo and their level of education regarding diabetes. This result is supported by the study of (Kharono *et al.* 2017), which reported 99.2% ($n = 375$) of participants had an awareness of DM. However, it is slightly higher than the results obtained in a similar study where 75% ($n = 126$) awareness was reported among adolescents in a public school in Lagos state, Nigeria (Omobuwa and Alebiosu 2017), there is a significant difference between Attitude of young persons (15-49 years) in Turaki 'B' ward Jalingo and their gender towards diabetes and diabetic patients. However, this study can be compared to a study in Uganda where 70.4% ($n = 266$), 51.3% ($n = 194$), and 46.2% ($n = 175$) agreed that healthy diets, reducing sweet foods, and regular exercise can help prevent DM respectively (Kharono *et al.*, 2017), and it's also supported by the finding of Kassahun and Mekonen where they reported a study carried out in Ethiopia that assessed the knowledge, attitude, and practices and associated risk factors among non-diabetics (Kassahun and Mekonen 2017). The study reported that subjects with higher knowledge scores had more positive attitudes toward DM than those with lower knowledge scores. It also established a positive correlation between the level of education, family history of diabetes, knowledge, and attitude toward DM (Kassahun and Mekonen 2017). The study also revealed that there is no significant difference between Perception of Diabetes and age which tallies with findings by Dorothy Nasilele in 2016 where no significant association was found between Perception of diabetes and age with respondents from the study having a good perception of an average 65.3%, greater than that of this study (54.9%). Another study by Ola *et al.* (2021) suggests that risky perception about DM exists among their population with age and ethnic group were associated with overall perception ($p < 0.05$) which disagrees with this study that suggests study participants have a good perception with no relation between age and perception of diabetes ($p > 0.05$).

Summary of Findings

This presents the results of a study on Knowledge, Attitude and Perception of young persons (15-49 years) on Diabetes conducted in Turaki 'B' ward, Jalingo LGA. A total of 382 questionnaires were administered and all were filled out which was analysed using Statistical Packages for Social Sciences (SPSS). The demographic characteristics of the respondents are detailed, highlighting a larger proportion of males and a majority being students. Additionally, educational levels of the respondents are outlined, with a significant number holding FSLC qualifications. The knowledge levels regarding diabetes was analyzed in relation to educational qualifications, revealing varying degrees of knowledge across different educational levels. Attitude towards diabetes was also examined based on gender and Perception of Diabetes based on age.

Conclusion

The study concludes that there is a significant difference in knowledge of Diabetes among young persons (15-49 years) in the study area based on their educational qualifications. This is supported by statistical analysis revealing a rejection of the null hypothesis. The study also finds a significant difference between Attitude towards Diabetes among young persons in the study area and their gender. Statistical analysis reveals rejection of the null hypothesis in this case, suggesting that gender does indeed play a significant role in Attitude showcased by individuals towards diabetes. However, the study reveals no significant difference between Perception of Diabetes and age which is supported by the acceptance of the null hypothesis by Statistical analysis. This indicates that age does not have any influence on young persons' perception of diabetes in Turaki 'B' ward, Jalingo LGA.

In conclusion, the findings of this study provide valuable insights into Knowledge, Attitude and Perception of Diabetes among young persons in Turaki 'B' ward and the factors influencing it (Educational level, Gender and Age). These results can inform targeted interventions aimed at improving Knowledge, Attitude and Perception of Diabetes for better prevention and management.

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