EFFECT OF HEALTH EDUCATION INTERVENTION ON KNOWLEDGE AND PRACTICE TOWARDS DIABETES MANAGEMENT STRATEGIES AMONG DIABETICS PATIENT ATTENDING CLINIC IN KOGI STATE

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ABSTRACT

The focus of this study was to assess effect of health education intervention on knowledge and practice towards diabetes management strategies among diabetic patients attending clinic in Kogi State. Quasi experimental research design was considered suitable for the study. The sample size was 60 participants 30 control group and 30 experimental group. To achieve the stated purpose, a researcher developed intervention manual and close-ended questionnaire were used for data collection. Two healthcare facilities were used for this study. Federal Medical Centre and Kogi State Specialist Hospital Lokoja. Convenient sampling techniques were used for this study with the help of two instructed research assistance. The data collected were analyzed using frequency and percentage for demographic variable of respondents and one sample t-test for testing the H_0 1 and 2 at 0.05 level or significant. The study revealed that diabetes patients attending clinics are not knowledgeable about their diabetic management strategies. Therefore, this study recommended that, enlighten campaign to community mobilization should be rolled out by health directorate in collaboration with other health unity to tackle this alarming disease.

Keywords: Diabetes, Health Education, Intervention, Knowledge, Practice, Management
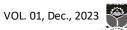
Introduction

Diabetes mellitus (DM) leads to alarming clinical, social, financial and public health issues with devastating long-term effects on the well-being, affecting quality of life including neuropathy, Nephropathy, Dementia and Retinopathy (Ampofo, & Boateng, 2020; Asmelash et al., 2019). The youth are the future of a country and are considered dynamic human capital that plays a vital role in nation-building. If students adopt sedentary lifestyle and are inclined to fast food and irregular eating habits then there's a lot of probability of suffering from being overweight, obesity and consequences type 2 diabetes mellitus (T2 DM) at a young age (Ahmed et al., 2018). The incident of T2DM has tremendously increased globally in the last 20-30 years. It is basically due to changes in people's lifestyle by introducing fast-food, carbonated energy drinks and reduce energy expenditure by manual hard work or regular exercises. American Diabetes Association (2018) stated that people with diabetics is expected to increase from 171 million in 2000 to 578 million in year 2030 globally. In July 2020 the number of people with diabetes is calculated to be almost 463 million worldwide. (Ampofo, & Boateng, 2020). The level of awareness and knowledge regarding the disease among the population help the community manage it properly both on the prevention and management front. It is very important to target the section of society who are or would be involved in care of diseased person this is because if we succeed in creating good awareness will bring positive practice towards

the difficulties and miseries of the patient in our future healthcare professionals then, we can expect positive trends both in planning and management can be achieved (Afaya et al., 2020).

According to Ahmed and colleagues in 2018, dealing with chronic disease like DM, various aspect need proper attention like health knowledge, regular exercise taking aggregate diet and avoiding junk food and above all creating a healthy atmosphere in society so that each individual realize one's responsibility to keep himself and his family member in optimal health state he prevalence of DM is common in Nigeria so there is need to explore over young adult awareness of DM (Asmelash et al., 2019).

Effective health education consequently improves knowledge attitude and practice leading to better glycemic control and widely accepted as an integral part of a comprehensive diabetes care for patients and their families in primary care settings. Lack of knowledge about diabetes management strategies is another problem observed by the researcher.

Therefore, this prospective study is aimed at investigating effect of health education intervention on knowledge and practice towards diabetes management strategies among diabetic patient attending clinic in Kogi State. Despite patients with knowledge about diabetes management, they do not practice those strategies.

Materials and Methods

This study was conducted at Federal Medical Center Lokoja. Quasi- experimental research design was considered suitable for the study, because is a research design in which same assessment measures are given to participate both before and after they have received a treatment or being exposed to a condition that reversed whether treatment attributed to the changes. Ethical approval was obtained from the research ethics committee (REC), the measured sample size was 378 with absolutely at all (5%) and confidence level of (95%). 60 diabetes patients attending clinic were invited to participate in this study. 60 participants returned completed Questionnaire with a response rate of 95%. The participants were selected by convenience sampling techniques. All participants' written consent was obtained before the commencement of the study and where informed about the purpose of the study. Both intervention manual and Questionnaire were written in English language with three sections. Section A-demographic variable, section B items on knowledge, section C items on practice towards diabetes management strategies. All participants attending clinic at Federal Medical Center Lokoja Kogi State were sampled. The intervention manual and questionnaire were vetted by 3 jurors from the department of human Kinetics and Health Education, Faculty of Education Ahmadu Bello University, Zaria, Nigeria. A pilot study was conducted with 25 diabetic patients attending clinic. The data collected were analyzed using statistical package for social sciences of Cronbach Alfa and Guttman split half of reliability coefficient of 0.85 were obtained which shows the result of the pilot study was reliable. The study used two groups control group and experimental group. The control group do not receive any treatment during the intervention phase. Collected data were analyzed using frequency and percentage for demographic variable while one sample t-test were use to analyzed the formulate hypothesis at 0.05 level of significance.

Results

Table 1: Distribution of the Demographic Characteristics of Respondents

Item	Variable	Experimental Group		Control Group	
		N	**(%)**	**N**	**(%)**
Hospital	FMC Lokoja	58	96.7	40	66.7
	Specialist Hospital	2	3.3	20	33.3
Age	Below 22 years	6	10.0	0	0.0
	22-29 years	24	40.0	14	23.3
	30-39 years	26	43.3	32	53.3
	Above 39	4	6.7	12	20
Educational level	Islamic	4	6.7	2	3.3
	Primary	4	6.7	10	16.7
	Secondary	12	20.0	6	10
	NCE	16	26.7	10	16.7
	Diploma	14	23.3	24	40
	Degree	8	13.3	6	10
	Post degree	2	3.3	0	0.0

Source: Field survey 2023

A careful look at the one above shows that most of the diabetic patients were visiting federal medical center than specialist hospital.

Answering research question one: What is the effect of health education intervention on knowledge of diabetes management strategies among diabetes patient attending clinic in Kogi State. The results revealed that the treatment group and more knowledgeable about the diabetes management strategy after the intervention than the control group with the mean score of 3.18 41 which was found to be greater than the fixed mean of 2.5.

Answering a science question 2: What is the effect of health education intervention on practical towards diabetic management strategies among diabetic patients attending clinic in Kogi State. The results showed an aggregate mean of 2.4241 which was found to be less than the fixed mean of 2.5. This indicates that diabetic patients do not have significant factors of management strategies.

Hypothesis one: There is no significant effect on health education intervention on knowledge of diabetes management strategies among diabetic patients attending clinic in Kogi State.

Table 2: One Sample t-test Analysis on knowledge of diabetes management strategies among diabetic patients

	Mean	SD	t-value	df	p-value
Actual Mean	31.1841	1.2577	3.201	58	0.021
Constant Mean	2.50	0.00			

Concerning the knowledge of diabetes management strategies, table 2 above shows that the participants both control group and experimental group with aggregate mean score shows in table 2 above was significant. The observe p-value of 0.021 and positive value of 3.201 respectively. Therefore, the formulated hypothesis is rejected. There is significant effect of 6-week intervention on diabetic management.

Hypothesis two: There is no significant effect on health education intervention on practice towards diabetes management strategies among diabetes patient attending clinic in Kogi State.
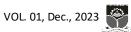
Table 3: One Sample t-test on practice towards diabetic management strategies among diabetic patient

	Mean	SD	t-value	df	p-value
Actual Mean	2.4241	.8762	1.291	58	0.18
Constant Mean	2.50	0.00			

Concerning the practice of diabetic management strategies among diabetic patients attending diabetic clinic in Kogi State. Table 3, above revealed that the participants on control group and experimental groups do not practice the diabetic management strategies despite the intervention to the experimental group and the pre-intervention phase to the control group. Therefore, the hypothesis to which stated that there is no significant effect of health education intervention on practice towards diabetic management strategies among diabetic patients attending diabetic clinic in Kogi State was retained.

Discussion of Findings

All participants in this study were diabetic patients attending clinic in Kogi State the result shows that both the groups are knowledgeable about diabetic management strategies. More than 10 subject had one or more DM relative. 60 diabetics were allocated into two groups; 30 in experimental and 30 in control groups. Health education intervention were given at pre-intervention phase and intervention phase to only the experimental group. The aim of the intervention is to bring glycemic control in diabetic patients. Similar results were seen in the study of (Afaya et al., 2020; Asmelash et al., 2019) who noted a significant degree in the fasting and postprandial blood glucose level from baseline on the final follow-up in the intervention group. Experimental group are more knowledgeable as the final follow-up intervention group than the control group study by Khabaz et al., (2017) resolve with the constructing results.

Knowledge score in the test group of patients improve with the health education compared with those of the control group another study by Asmelash and colleagues (2019) reported in regular dietary pattern and sedentary lifestyle as the risk Factor at a booted two diabetic mellitus (DM). Adopting healthy lifestyle can be very useful in avoiding all the complications of these avoidable disease.

Conclusion

Effective health education resulted in improved knowledge and better adoption or favorable practice which ultimately leads to better glycemic control in patients with type 2 D, thus, help to slow progression and prevent complications non-pharmacological interventions for a cornerstone of diabetic management and require favorable patient knowledge and good practice health education, therefore is an essential tool in management that of diabetics
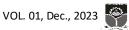
Recommendations

Health directorates in collaboration with various health unit should roll out more programs to tackle the prevention of this alarming disease through common through community mobilization and enlightening campaign by health workers in the country

Conflict of Interest
The authors declare no conflicting interests.

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