



Effectiveness of Health Education Programme on Self-Care Management of Diabetic Patients Attending Primary Health Care Service in Lagos State

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KEYWORDS:

Self-Care Management, Healthy Eating, Physical Activity, Blood Glucose Checking, Adherence to Medication

WORD COUNT:

306

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ABSTRACT

This study evaluates the effectiveness of health education programme on self-care management of diabetic patients attending primary health care service in Lagos State. The sample for this study consisted of 150 respondents who submitted their consent forms, formed the study population. The purposive sampling technique was used to select the sample. The instrument used for data collection was self-developed questionnaire titled "Health Education Programme on Diabetes Self-Care Management Questionnaire (HEPSCMQ)" designed in line with Likert 4-point rating scale. The instrument was in two sections. Section A focused on bio-data, section B was used to collect information on the established variables of the study. The section consists of four questions on each of the variables selected for the study. The reliability of the instrument was carried out using the test-retest method. A total of 10 diabetic patients attending primary health Care at Ojo Primary Health centre who were not part of the sample were used for the reliability test. Data collected was subjected to Pearson Product Moment Correlation Coefficient [PPMCC) which yielded 0.87 after computation, indicating that the questionnaire is reliable. Data collected was analysed with SPSS software version 23.0. All hypotheses were tested at 0.05 level of significance. Findings from the study revealed that health education programme was effective on healthy eating, $F(1, 148) = 23.550, p < .0005, R^2 = .137$, regular physical Activity, $F(1, 148) = 38.488, p < .0005$ and $R^2 = .340$, blood glucose checking among diabetic patients attending primary health care service in Lagos State. It was recommended that Alimosho primary health centre should invite nutritionist to talk and educate the patients on eating of healthy food, health education to organize physical activity for the patients during clinic days and encourage patients who can purchase blood glucose test machine and make the test accessible to all patients at the health centre.

HOW TO CITE

Ogunbamowo W.B, Bodunrin A.O & Lamidi Z.A. (2026). Effectiveness of Health Education Programme on Self-Care Management of Diabetic Patients Attending Primary Health Care Service in Lagos State. *International Journal of Educational Perspectives*, 14(1), 72-83. <https://doi.org/10.5281/zenodo.19558965>.



Introduction

Diabetes is a chronic disease resulting from abnormalities in production or response to insulin hormone, leading to ineffective sugar utilization and high blood sugar levels (Sittipreechachan et al., 2022). Prolonged high blood sugar can cause organ dysfunction and failure, resulting in complications such as vision loss, chronic kidney failure, peripheral neuropathy, and difficult-to-heal wounds (Taaon et al., 2024). Diabetes is a chronic medical condition, that when uncontrolled may lead to complications including diabetic ketoacidosis, blindness, renal failure, neuropathy, and peripheral circulation insufficiency. Peripheral circulation insufficiency may lead to non-traumatic lower limb amputations, and is the number one cause for non-traumatic lower limb amputations (Shah et al., 2022). People diagnosed with diabetes are also more likely to acquire additional chronic conditions such as hypertension and hyperlipidemia. Diabetes, combined with hypertension and/or hyperlipidemia, increases the risk of developing cardiovascular disease and morbidities related to uncontrolled glucose levels (Clark, 2014). Complications of diabetes include renal disease and neuropathic pains, and are due to poorly controlled glucose. These complications are non-reversible, even with improved blood glucose control ((Shah et al., 2022)).

The World Health Organisation reported that the number of people living with diabetes in the African region is projected to rise to 54 million by 2045, marking the highest predicted increase globally if urgent action is not taken. The global health body noted that the rising prevalence of diabetes in Africa is driven by factors such as urbanisation, unhealthy diets, and lack of physical activity (Olatunde, 2025). The increasing mortality and morbidity rates of non-communicable diseases have become a global concern. According to the World Health Organisation (2018), 66% of mortality rates were from people with non-communicable diseases. It was also noted that the top 4 diseases of adults who died and required palliative care were cardiovascular disease (38.5%), cancer (34%), chronic respiratory disease (10.3%), and diabetes mellitus (4.5%). In 2021, it was reported that 537 million people worldwide have been diagnosed with diabetes. This figure is expected to increase to 643 million by 2030.

Additionally, diabetes has been linked to 6.7 million deaths globally (World Health Organisation, 2023). Diabetes mellitus is a significant global health issue; affecting 415 million people worldwide (International Diabetes Federation, 2017). More than 80% of individuals with diabetes reside in low-income and middle-income nations. This proportion is anticipated to rise to 642 million by 2040, if left unchecked. An estimated 5.0 million fatalities were attributed to diabetes among individuals aged 20-99 years. Of those, over one third (1.8 million) occurred in individuals under the age of 60 years (Cho et al., 2018; International Diabetes Federation, 2017).

Diabetes mellitus is a major public health problem that is approaching epidemic proportions worldwide. The prevalence of Diabetes is increasing rapidly; with an estimated 463 million (9.3%) adults aged 20 to 79 living with Diabetes mellitus worldwide (World Health Organization, 2023). Additionally, data indicates that around 4 million deaths were attributed to Diabetes mellitus annually (International Diabetes Federation, 2017). The International Diabetes Federation estimated that 382 million people had diabetes in 2013, and the number is projected to increase to 592 million by 2035 (American Diabetes Association, 2017). Diabetic-related complication impacts are worrying. Not only physically, but sooner or later, it was also identified to be lessening the patients' adherence and quality of life as well as increasing patient and family financial burdens. Psychologically, diabetic patients are also vulnerable for some types of psychological problems such as depression, anxiety, and emotional disorder (Pate et al., 2016). For minimizing those risks, patients are expected to actively manage their diabetes through diet, physical exercise, medication, as well as blood glucose regular check and control (Romero-Castillo et al., 2022). Rahman et al., (2017) studies found that diabetic patients with better self-management behaviours experienced less complication and had high quality of life.

The prevalence of diabetes has reached epidemic proportion globally with data from the developing countries like Nigeria scarcely available (Ogunbamowo and Oladipupo, 2019). The disease causes both macrovascular and microvascular



complications which eventually result in reduced life expectancy and ever-increasing healthcare expenditure (American Diabetes Association, 2017). Complications can lead to an increased prevalence of coronary artery disease, peripheral vascular diseases, stroke as well as retinopathy and nephropathy (Cho et al., 2018). Diabetes Mellitus is a significant risk factor for life-threatening conditions like cardiovascular diseases, blindness, kidney failure, and lower-limb amputation (American Diabetes Association, 2017; World Organization Health, 2016).

A multifaceted approach is therefore recommended and with the disease being chronic, patients play a significant role in the management (Ventegodt et al., 2016). Individuals suffering from Diabetes mellitus are required to follow certain self-care practices to achieve euglycaemic state and prevent complications. These practices include regular physical activity, appropriate dietary practices, compliance with treatment regimen, and tackling complications such as hypoglycaemic or hyperglycaemic episodes (Tan et al., 2020). An individual will change behaviour if they perceive a personal threat or illness secondary to the behaviour and believe changing the behaviour will effectively avert this threat or illness (Ogunbamowo et al., 2019). Regular practice of these activities is associated with good outcomes among people with diabetes mellitus. Development of diabetes complications is mainly influenced by poor awareness and practices among patients with diabetes mellitus. Therefore, Health education should be enhanced in order to increase awareness, additionally health facilities should come up with strategies to address this challenge (Berhanu et al., 2022).

Diabetes self-care involves a multifaceted approach beyond medication to control blood sugar levels (American Diabetes Association, 2017). The World Health Organization (WHO) defines self-care as the efforts carried out by people, families, and communities to improve health prevention, minimize illnesses, and restore health. It includes maintaining a healthy weight, engaging in regular physical activity, regularly checking one's blood sugar, taking care of one's feet, taking medications as prescribed, and avoiding hazards like smoking that might result in the development of diabetic

problems (Wang et al., 2022). Self-care techniques are crucial for managing blood sugar levels, reducing diabetes related complications, and enhancing quality of life (American Diabetes Association, 2017).

Diabetes self-management education (DSME) aims to provide individuals with diabetes the necessary knowledge and skill needed to bring about positive lifestyle changes to successfully manage the disease and its related conditions. This is accomplished through collaboration with the patient and other healthcare professionals not limited to primary care providers, diabetes educators, nurses, nutritionists, endocrinologists, etc. Therefore, preventing complications for diabetes patients can be achieved by effectively controlling blood sugar levels, regularly visiting a doctor, adhering to prescribed medications, reporting any unusual symptoms to the treating physician, avoiding self-medication, exercising regularly, refraining from alcohol consumption, not smoking, and undergoing annual health check-ups (Tan et al., 2020). In addition, diabetes remains a leading cause of other non-communicable diseases (NCDs), such as heart disease, stroke, hypertension, and chronic kidney failure (Mary & Dongre, 2022).

Blood glucose control plays a significant role in delaying the onset of complications. Uncontrolled Diabetes mellitus can put the patient at risk for a host of complications that can affect nearly every organ in the body resulting from damaged blood vessels, nerves, or both. These complications include cardiac failure, retinopathy, nephropathy, neuropathy and the gums and teeth disorders. Successful daily self-management of Diabetes is essential to the achievement of positive health outcomes. Ultimate to successful self-management of any disease is a sense of self-efficacy, a feeling of confidence in one's self-management abilities (Shiferaw et al., 2021).

According to Taaon et al., (2024), self-efficacy is defined as people's belief about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Enhanced self-efficacy has a bearing on improving patient self-management. Self-efficacy affects patients' ability to perform self-care in a



positive or negative way. Patient self-efficacy has been shown to positively contribute to improved self-care behaviour and better glycaemic control (Rahman et al., 2017).

Self-efficacy is the most consistent predictor of all adherence behaviours. It is evident that patients suffering from Diabetes mellitus require a lot of support in terms resources, information and confidence in order to carry out self-care effectively. High level of self-efficacy and adherence to self-care activities has a positive impact on the achievement of glycaemic goal among Diabetic patients (Seligman et al., 2018). Hence, patients should be taught on the activities that promote self-management in order to delay onset of complications and thus promote the quality of life. Self-efficacy was significantly associated with adherence to self-care activities and glycaemic control. It is apparent that patients who have high self-efficacy have a positive attitude towards caring out the self-care activities that promotes health behaviours (Pearson et al., 2019).

Diabetes education is an essential component of patients to effectively self-manage their disease and decrease the incidence of hyper- and hypoglycemic episodes, skin infections, eye disorders, heart attacks and strokes, and non-traumatic lower limb amputations. Effective management of diabetes greatly relies on the ability of the patient to properly perform self-care while at home, and should be individualized and follow the recommendations of the American Diabetes Association (American Diabetes Association, 2017).

In support, Pinchevsky et al., (2020), stressed the importance of individualised patient care based on health determinants and disparities such as patient behaviour, comorbidities, cultural differences, language barriers, and socioeconomic status. Educating patients about diabetes, its complications, and self-management empowers them to make informed decisions about their lifestyle, diet, and medication, contributing to improved blood glucose levels (World Health Organization, 2023; Ventegodt et al., 2016). Secondly, education is a cornerstone of a holistic self-care programme. By increasing participants' understanding of diabetes management-such as the

role of diet, exercise, and medication in controlling blood sugar levels-patients are better equipped to take proactive steps in managing their condition, enabling them to regulate their blood glucose levels more effectively, resulting in lower blood glucose level readings (Wang, Li & Chivese, 2022).

Adherence to diabetes self-care management is a lifestyle modification for people with diabetes which includes; medication, dietary practice and regular physical activity. Poor adherence to diabetes self-care practices can result in adverse health outcomes. Thus, it is important to adapt self-care behaviours to reduce and prevent complications from diabetes mellitus (Gregory et al., 2022).

A more structured educational process featuring a multimodal approach has also been organized to improve the current quality of care because this better aligns with recommended best practice guidelines. Since the trainings have been conducted, no research has been conducted to examine the effectiveness of health education programme on self-care management of diabetic among patients attending primary health care service in Alimosho local Government Area of Lagos. This is the gap this study has filled. The focus of this study therefore was to evaluate the effectiveness of the health education programme on self-care management of diabetes among diabetic patients attending primary health care services in Alimosho local Government Area of Lagos State.

The purpose of this study was to evaluates the effectiveness of health education programme on self-care management of diabetic patients attending primary health care service in Lagos State. Other purposes of the study are:

1. To find out the effectiveness of health education programme on healthy eating practices among diabetic patients attending primary health care service
2. To assess the effectiveness of health education programme on regular physical Activity among diabetic patients attending primary health care service



- To examine the effectiveness of health education programme on blood glucose check among diabetic patients attending primary health care service

The following research questions were answered in the study:

- What is the effectiveness of health education programme on healthy eating practices of diabetic patients attending primary health care service in Lagos State?
- Will health education programme have any effectiveness on regular physical Activity of diabetic patients attending primary health care service in Lagos State?
- Will health education programme have effect on blood glucose check of diabetic patients attending primary health care service in Lagos State?

The following research hypotheses were formulated for the study

- There is no significant effectiveness of health education programme on healthy eating practices among diabetic patients attending primary health care service in Lagos State
- Health education programme will not have any effectiveness on regular physical Activity among diabetic patients attending primary health care service in Lagos State
- Health education programme will not have significant effect on blood glucose check among diabetic patients attending primary health care service in Lagos State

Methodology

The descriptive survey research design was adopted and the population of this study consisted of all diabetic patients attending the primary health care in Alimosho Primary Health Centre. The sample for this study consisted of 150 diabetic patients that were willing and submitted their informed consent forms. The purposive sampling technique was used to select the sample. This sampling technique is appropriate to select diabetic patients attending primary health care in Alimosho Primary Health centre. Respondents that submitted their informed consent form were 150 out of 165 respondents. The instrument was a self-developed

questionnaire titled Health Education Programme on Self-care Diabetes Management Questionnaire (HEPSCDMQ) was used. The questionnaire was a closed ended type designed in line with the modified Likert 4-point Scale of Strongly Agree, (SA), Agree-(A), Disagree-(D) and Strongly Disagree, (SD). The questionnaire was in two sections. Section A focused on bio-data of respondents while section B was used to collect information on the established variables of the study. The section consists of four questions on each of the variables selected for the study. The instrument was validated by three experts in the Department of Human Kinetics, Sports and Health Education for content and construct related validity. The reliability of the instrument was carried out using the test-retest method. A total of 10 diabetic patients attending Ojo Primary Health Care who were not part of the main study were selected for reliability test. Data collected from the first week administration of the instrument was correlated with the second week administration of questionnaires. The two data collected was analysed with Pearson's Product Moment Correlation Coefficients [PPMCC] which yielded 0.87 after computation. A total of 165 copies of questionnaires were administered by the researcher with the help of two trained research assistant to the respondents on each of their clinic's days. The questionnaires were administered in four weeks by hand to all the respondents and a total of 150 questionnaires were returned. The data collected was analyzed using the descriptive statistics of frequency counts and simple percentage for demographic data of respondents, while the inferential statistics of linear regression analysis was used to test hypotheses at 0.05 alpha levels of significance.

Results

i. Data Presentation

Table 1: Data presentation on respondents' Age, Gender

Age	Frequency	Valid Percent
20-30 years	6	4.0
31-40 years	34	22.7



41-50 years	42	28.0
51 years & above	68	45.3
		Valid
Gender	Frequency	Percent
Male	97	64.7
Female	53	35.3
Total	150	100.0
		Valid
Occupation	Frequency	Percent
Artisan	25	16.7
Self employed	34	22.7
Retiree	46	30.7
Not working	33	22.0
Others	12	8.0
Total	150	100.0

Table 1 shows that a total of 42(28.0%) respondents were between 20-30 years, a total of 34(22.7) respondents were between 31-40 years, 42(28.0%) were between 41-50 years while a total of 51(45.3%) were 51 years and above. This indicates most of the patients were 51 years and above. Secondly a total of 97 (64.7%) respondents were males while a total of 53(35.3) % were female. This implies that the number of males is more than the females' patients. Finally, a total of 25(15.7%) were Artisan, 34(21.4%) were self-employed, 46(28.9%) respondents were retiree, 33(20.8%) were not employed while a total of 12(7.5%) respondents were other occupation.

ii. Testing of Hypotheses and Discussion Findings

Hypothesis 1: There is no significant effectiveness of health education programme on healthy eating among diabetic patients attending primary health care service in Lagos State

Table 2: Regression analysis on the effectiveness of health education on healthy eating
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371 ^a	.137	.131	1.02812

a. Predictors: (Constant), Health education programme)

Table 2 provides the R and r^2 values. The R represents the simple correlation and is .371 which indicates a low correlation while the $r^2 = .137$

which indicates the total variation in the dependent variable of healthy eating. The table shows that 14% variation which is very low.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.893	1	24.893	23.550	.000 ^b
	Residual	156.441	148	1.057		
	Total	181.333	149			

a. Dependent Variable: Healthy Eating

b. Predictors: (Constant), Health Education Programme

The table indicates that the regression model predicts the dependent variable of healthy eating significantly well. This indicates the statistical significance of the regression model.



Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	3.983	.284		14.027	.000
	Health Education Programme	-.458	.094	-.371	-4.853	.000

a. Dependent Variable: Healthy Eating

This table indicates that health education programme predicts healthy eating and also contributes statistically to the model as $p = .000$. The table's shows that the independent variable of health education programme statistically significantly predict the dependent variable of healthy eating $F(1, 148) = 23.550, p < .0005, r^2 = .137$. Therefore, the hypothesis which stated that there is no significant effectiveness of health education programme on healthy eating among diabetic patients attending primary health care

service in Lagos State was hereby rejected; indicating that health education programme on healthy eating among diabetic patients attending primary health care service in Lagos State was effective.

Hypothesis 2: Health education programme will not have any effectiveness on regular physical Activity among diabetic patients attending primary health care service in Lagos State

Table 3: Regression analysis on effectiveness of health education on regular physical activity

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.454 ^a	.206	.201	.84843

a. Predictors: (Constant), Regular Physical Activity

Table 3 provides the R and r^2 values. The R represents the simple correlation and is .454 which indicates a low correlation while the $r^2 = .206$ which indicates the total variation in the dependent variable of regular physical activity. The table

shows that 21% variation which is very low. The table indicates that the regression model predicts the dependent variable of regular physical activity significantly well. This indicates the statistical significance of the regression model. The table shows that 21% variation which is very small.

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27.705	1	27.705	38.488	.000 ^b
	Residual	106.535	148	.720		
	Total	134.240	149			

a. Dependent Variable: Regular Physical Activity



b. Predictors: (Constant), Health Education Programme

The table indicates that the regression model predicts the dependent variable of regular physical

activity significantly well. This indicates the statistical significance of the regression model.

Coefficients

Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.891	.234		8.071	.000
	Health Education Programme	.483	.078	.454	6.204	.000

a. Dependent Variable: Regular Physical Activity

This table indicates that regular physical activity also contributes statistically to the model as $p = .000$. The tables shows that the independent variable of health education programme statistically significantly predict the dependent variable of regular physical activity $F(1, 148) = 38.488$, $p < .0005$, $r^2 = .340$. Therefore, the hypothesis which stated that health education programme will not have any effectiveness on regular physical Activity among diabetic patients attending primary health care service in Lagos State is hereby rejected. This implies that health

education programme was effective on regular physical Activity among diabetic patients attending primary health care service in Lagos State.

Hypothesis 3: Health education programme will not have significant effect on blood glucose checking among diabetic patients attending primary health care service in Lagos State

Table 4: Regression analysis on the effectiveness of health education programme on blood glucose checking

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 ^a	.540	.536	.76594

a. Predictors: (Constant), Health Education Programme

Table 4 provides the R and r^2 values. The R represents the simple correlation and is .735 which indicates a high correlation while the $r^2 = .540$ which indicates the total variation in the dependent variable of blood glucose checking. The table indicates that the regression model predicts the

dependent variable of blood glucose checking significantly well. This indicates the statistical significance of the regression model. The table shows that 54% variation which is above average.

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	101.733	1	101.733	173.407	.000 ^b
	Residual	86.827	148	.587		
	Total	188.560	149			



- a. Dependent Variable: Blood Glucose checking
 b. Predictors: (Constant), Health Education Programme

The table indicates that the regression model predicts the dependent variable of blood glucose

checking significantly well. This indicates the statistical significance of the regression model.

		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	5.301	.212		25.059	.000
	Health Education Programme	-.926	.070	-.735	-13.168	.000

- a. Dependent Variable: Blood Glucose checking

This table indicates that health education programme predicts blood glucose checking and also contributes statistically to the model as $p = .000$. The tables shows that the independent variable of health education programme statistically significantly predict blood glucose checking $F(1, 148) = 173.407, p < .0005, r^2 = .283$. Therefore the hypothesis which stated that health education programme will not have significant effect on blood glucose checking among diabetic patients attending primary health care service in Lagos State is hereby rejected indicating that Health education programme was effective on blood glucose checking among diabetic patients attending primary health care service in Lagos State.

Discussion of Findings

Hypothesis one which stated that there is no significant effectiveness of health education programme on healthy eating among diabetic patients attending primary health care service in Lagos State was hereby rejected; indicating that health education programme on healthy eating among diabetic patients attending primary health care service in Lagos State was effective. This finding is in line with Gregory et al., (2022) who asserts that Self-care activities refer to behaviours such as following a diet plan, avoiding high fat foods, increased exercise, self-glucose monitoring, and foot care. Canadian Diabetes Association. 2008; Kulzer et al., 2007; Wang et al., (2022), Self-management education results in positive changes

in diabetes-related knowledge as well as psychological and behavioural domains. Hoogeveen, (2022), study reported that dietary strategy has also been shown to improve postprandial glycemia and reduce high-sensitivity C-reactive protein (hsCRP) over 1 year in people with type 2 diabetes (48), reduce the number of hypoglycemic events over 24 to 52 weeks in adults and children with type 1 diabetes and improve total cholesterol (TC) over 2 to 24 weeks in people with and without diabetes.

Hypothesis two which stated that health education programme will not have any effectiveness on regular physical Activity among diabetic patients attending primary health care service in Lagos State is hereby rejected. This implies that health education programme was effective on regular physical Activity among diabetic patients attending primary health care service in Lagos State. This finding corroborates United States Department of Health and Human Services, 2008; Hoogeveen, (2022), recommended that all adults, including those with diabetes, should engage in regular physical activity. Haskell et al., (2007), affirms that treatment adherence in diabetes involve engaging in positive lifestyle behaviours, including following a meal plan and engaging in appropriate physical activity; taking medications (insulin or an oral hypoglycemic agent) when indicated; monitoring blood glucose levels; responding to and self-treating diabetes-related symptoms; following foot-care guidelines; and seeking individually appropriate medical care for diabetes or other



health-related problems. Gregory et al., (2022) who asserts that Self-care activities refer to behaviours such as following a diet plan, avoiding high fat foods, increased exercise, self-glucose monitoring, and foot care. Canadian Diabetes Association. 2008; Kulzer et al., 2007; Hoogeveen, (2022). Self-management education results in positive changes in diabetes-related knowledge as well as psychological and behavioural domains

Hypothesis three which stated that health education programme will not have significant effect on blood glucose checking among diabetic patients attending primary health care service in Lagos State is hereby rejected indicating that health education programme was effective on blood glucose checking among diabetic patients attending primary health care service in Lagos State. This finding support Karter et al., 2006; Hoogeveen, (2022) asserts that monitoring blood glucose levels, whether using traditional self-monitoring of blood glucose (SMBG) devices or more recent flash glucose monitoring (FGM), can serve as a useful adjunct to other measures of glycemia, Gregory et al., (2022) who asserts that Self-care activities refer to behaviours such as following a diet plan, avoiding high fat foods, increased exercise, self-glucose monitoring, and foot care. Canadian Diabetes Association. 2008; Kulzer et al., 2007; Wang et al., (2022), self-management education results in positive changes in diabetes-related knowledge as well as psychological and behavioural domains. Polonsky et al., (2011), posits that monitoring blood glucose is most effective when combined with an education programme that incorporates instruction for people with diabetes on healthy behaviour changes in response to blood glucose values and for health-care providers on how to adjust antihyperglycemic medications in response to blood glucose readings. As part of this education, people with diabetes should receive instruction on how and when to perform self-monitoring; how to record the results in an organized fashion; the meaning of various BG levels and how behaviour and actions affect blood glucose results,

Conclusion

Based on the findings of this study, it was concluded that:

1. The health education programme taught patients what to consume and what not to consume
2. The health education programme encouraged diabetic patients to be participating in road walk regularly.
3. Diabetic patients learnt how to monitor my blood glucose during the health education programme

Recommendations

Based on the conclusions of this study, it was recommended that:

1. Alimosho primary health centre should invite nutritionist to talk and educate the patients how to follow healthy food
2. Alimosho primary Health centre should invite exercise physiology and health education to organize physical activity for the patients during clinic days
3. Alimosho Primary Health centre should encourage patients who can purchase blood glucose test machine and make the test accessible to all patients at the centre

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