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DEPARTMENT OF NURSING

DIPLOMA PROGRAMMES



**CHALLENGES OF NEWLY DIAGNOSED DIABETIC PATIENT AT THE DIABETIC
CLINIC IN HOLY FAMILY HOSPITAL, BEREKUM.**

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DECLARATION

We hereby declare that this submission is our own work towards the Diploma in Midwifery and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

The focus of the study was to determine the challenges of newly diagnosed diabetic patient at the diabetic clinic in Holy Family Hospital, Berekum. A descriptive study design was used for the study. Fifty (50) diabetic patients were randomly chosen for the study. A well-structured questionnaire was used to collect data.

The study found out that majority of the respondents do not have challenges as a newly diagnosed diabetic patient. Some of the challenges faced by newly diagnosed diabetic patients were; difficulties in adjusting to diet, difficulties in administration of insulin and accurate time for drug management. Majority of the respondents (44%) had no idea about the type of diabetics they were suffering from. Majority of the respondents (58%) believed diabetes to be a hereditary disease, 20% believed diabetes to be caused by eating sugary foods, 4% believed diabetes to be caused by a punishment and 2% believed it be a curse on an individual. Sixteen percent (16%) had no idea about how diabetes is caused. Majority of the respondents (86%) had knowledge that newly diagnosed diabetic patients should avoid some kind of foods. Majority of the respondents (80%) have difficulties adjusting to the new food regimen. Majority of the respondents (84%) uses oral drugs, 80% uses insulin injection, 42% of the respondents uses IV treatment and only 4% of the respondents uses herbal preparation.

The study recommended that MOH should facilitate the creation of more diabetic clinic centers at the various teaching, regional and district hospital for effective management of diabetics and the management of Holy Family Hospital, Berekum should organize in-service training for nurses and other health personnels as to equip them to be abreast with the pattern of the changing health needs of patients and trends of diabetes management.

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ABBREVIATIONS

IDF	International Diabetes Federation
AIDS	Acquired Immuno-deficiency Syndrome
NCDs	Noncommunicable diseases
CDC	Center for Disease Control and Prevention
QOL	Quality Of Life
DM	Diabetes Mellitus
PAID	Problem Areas in Diabetes
ADDQOL	Audit of Diabetes-Dependent Quality of Life
DHP	Diabetes Health Profile
QSD-R	Questionnaire on Stress in Diabetes Patients-Revised
DQLCT-R	Diabetes Quality of Life Clinical Trials Questionnaire
HFH	Holy Family Hospital
WHO	World Health Organization
MOH	Ministry of Health

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CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Diabetes is a disease in which there is a disorder of metabolism where the body is unable to properly use glucose for fuel, energy and store the excess glucose. This results from defects in insulin secretion, insulin action or both. This can lead to a host of long-term complications such as heart attacks, strokes, blindness, kidney failure and diseases of blood vessels.

Diabetes was previously considered to only affect more affluent communities and societies. Developing countries, which are already crippled with infectious diseases such as tuberculosis, AIDS and malaria, were considered to be almost immune from diabetes. Nevertheless, the situation has been changing in recent years, and chronic non-communicable diseases (NCDs) such as diabetes, hypertension and cardiovascular disorders have become the most serious health concerns in both developed and developing countries. It has been estimated that the largest increase in the number of people with diabetes will occur in the regions comprising the developing countries (International Diabetes Federation [IDF], 2017). The main risk factors for the high prevalence of diabetes include high familial aggregation, obesity, insulin resistance and metabolic syndrome, lifestyle changes such as increased consumption of saturated fats, sugars and sedentary behavior as a result of urbanization, and gestational diabetes (Yadav, et al., 2018).

In the Philippines, diabetes continues to be a threat to the society's wellbeing and health care. As claimed by the Department of Health (2017), diabetes is the sixth leading cause of death among Filipinos in 2013. Over six million Filipinos are diagnosed with the disease.

In 2019, 7.1% of adults aged 20-79 had diabetes, which is a chronic metabolic disease characterized by hyperglycaemia (Arcellana & Jimeno, 2020). The escalating incidence of the

disease has a massive impact on third-world countries, especially in the Philippines. According to the International Diabetes Federation (2020), there are 3,993,300 diabetes cases in every 63,265,700 Filipino adults, having a prevalence rate of 6.3% in adults. Particularly in NCR, there were a total of 30,212 diabetes cases as of December 31, 2017 (NCDPCP Coordinators, 2017). By 2025, it is anticipated that Asia will witness a tremendous increase in people with diabetes (Tan, 2015).

Diabetes, being a chronic disease, necessitates multimodal management incorporating nutritional therapy, pharmacologic therapy, medical therapy, close monitoring, then follow up (Arcellana & Jimeno, 2020). If left untreated or undertreated, the condition will worsen, leading to the accumulation of sugar in the blood. This also leads to complications resulting in damage to vital organs that leads to premature death ([CDC], 2020). Visible complications include amputation to the lower extremities, heart disease, blindness, failure of kidney operations, as well as being prone to infections.

Moreover, refilling of prescriptions in the setting of an enhanced community quarantine remains a daunting task. The usage of old medications remains unclear, whether or not old prescriptions should be considered valid in pharmacies during this time of the pandemic (Arcellana & Jimeno, 2020). Increased risk of acquiring obesity is caused by stress and physical inactivity at home (Nouhjah & Jahanfar, 2020), as well as the daily routine of most people during these times have increased the occurrence of a sedentary lifestyle and psychological burden for diabetic patients (Maddaloni, et al., 2020). All of these activities will result in a change in glucose control.

Preliminary interactions with some newly diagnosed Diabetic patients at the Diabetic Clinic in Holy Family Hospital, Berekum indicates that, they encounter challenges in relation to their

condition. This study is to ascertain the challenges faced by the newly diagnosed diabetic patients.

1.1 Problem statement

Diabetes mellitus is known to influence the patients' physical, social, and psychological well-being (Hall, et al., 2015). Poor diet, lack of physical activities, and poor self-monitoring of glucose levels are some of the most common obstacles faced by DM patients (Pilv, et al., 2018). Better glycaemic control can progressively prevent or delay complications and improve quality of life (QOL). On the other hand, lack of attention, insufficient time to provide patient specific education, and overcrowding of health institutions by DM patients are some of the perceived translational obstacles faced by the healthcare providers (Assah & Mbanya, 2017). A closer understanding of the DM patients' specific obstacles will provide a greater clarity of the factors influencing their disease-related QOL and coping with daily life. Several studies were conducted using different diabetes specific QOL instruments conducted on target population (type 1 or type 2 or both) among different ethnic communities and countries (Tang, et al., 2017). However, popular scales such diabetes related QOL, the Audit of Diabetes-Dependent Quality of Life (ADDQOL), and Problem Areas in Diabetes (PAID) have been widely used across different populations. In contrast, the Diabetes Health Profile (DHP), Questionnaire on Stress in Diabetes Patients-Revised (QSD-R), and Diabetes Quality of Life Clinical Trials Questionnaire (DQLCT-R) have not been used in any studies (Tang, et al., 2017). All these scales frequently measured health-related QOL (HRQOL) and little attention was given to understand the patient-specific obstacles. Furthermore, considering selection of Africans, only few studies assessed adherence (Cumming, et al., 2019), mental health outcomes, and two randomized controlled trials conducted on African-American communities with DM.

The diabetic patient faces challenges in the management of diabetes. Experiencing the problem, side effects of treatment and lifestyle changes can make adapting to change difficult. Many feel that extending their life with the shots and constant finger sticks, with the dietary restrictions and re-organization of their life to be on a strict schedule of when they eat, snack, exercise and give themselves injections, isn't worth it.

Given these, it is relevant to carry out this study at the Diabetic clinic at Holy Family Hospital, Berekum to identify the challenges faced by newly diagnosed diabetic patients.

1.2 General objective of the study

The main objective of the study is to determine the challenges of newly diagnosed diabetic patient at the diabetic clinic in Holy Family Hospital, Berekum.

1.3 Specific Objectives

1. To determine challenges in accessing appropriate information and knowledge gap in the newly diagnosed diabetic patient in the management of the conditions at Holy Family Hospital, Berekum.
2. To determine the challenges of dietary management face by diabetic patients at Holy Family Hospital, Berekum.
3. To determine the challenges in accessing appropriate knowledge on diabetes management at Holy Family Hospital, Berekum
4. To determine the challenges faced by diabetic patients in adjusting to the drug management of diabetes at Holy Family Hospital, Berekum

1.4 Operational Definition

Knowledge: defined as having an adequate understanding of diabetes

Diabetes: Diabetes is a disease in which there is disorder of metabolism where the body is unable to properly use glucose for fuel, energy and store glucose.

Diabetic: A person diagnosed as having diabetes.

Challenge: A difficult task that tests the ability of the newly diagnosed diabetic at HFH, Berekum.

Client: A person who uses the services or advice of a health professional at HFH, Berekum

Patient: A person who is ill or is undergoing treatment for diabetes at HFH, Berekum.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains a review of relevant literature related to the research topic: “challenges of newly diagnosed diabetic patient at the diabetic clinic in Holy Family Hospital, Berekum.”. The sources of information include books, journals, and online articles, research reports.

2.1 Overview

Worldwide, diabetes is a health problem, which is fast becoming a pandemic. The prevalence of the diabetes disease is estimated at 4.6% (150 million). World Health Organization (WHO) has predicted that the prevalence will double to 300 million by the year 2025 (WHO, 2019).

People who are diagnosed as having diabetes have to deal with a complex package of tasks in order to prevent complications. These tasks include dietary restrictions, exercise, constrain of finger pricks to check blood glucose level and giving themselves injections. This total lifestyle change is difficult according to an article by (Ron, 2016).

2.2 Nursing theory on health needs of a newly diagnosed diabetic

Orem’s nursing model (1971) fundamentals of nursing of self-care, defines self-care as care which consists of activities that individuals carry out on their own. Orem’s model is based on the belief that the individual has a need for self-care actions and that nursing can assist in meeting that need to maintain life, health and wellbeing.

Orem identified three categories of self-care activities requisites:

- Universal
- Developmental
- Health deviation

The universal self-care requisites are common to all, and aim at meeting basic human needs like food, rest, air etc. This is applicable in patients who are not prevented by illness to practice self-care, who usually maintain their health through self-care such as in a newly diagnosed diabetic.

Developmental self-care requisites are associated with events such as loss of spouse, problems of social adaptation. This requires that health professional provides assistance to the client to develop personally and work at his or her own self-care.

Health deviation requisites exist for persons who are ill, injured, or have some deformity. Physical function or normal behavior may be affected such as individual's reduction of power to self-care agency. Orem indicates that the client needs nursing care whenever there is a health-related self-care deficit.

The self-care needs of the diabetic vary, depending on pathological variable, disease progress and individual's coping mechanisms. The health professional determines the reasons why a client is unable to meet these needs and self-care abilities, so as to provide the diabetic patient with appropriate information in managing the condition.

2.3 Challenges of the newly diagnosed diabetic

A comparative study of the knowledge, beliefs and practices of diabetic patients cared for, at a teaching hospital which was a free service and those cared for by private practitioners which was a paid service, was carried out. The aim of this study was to determine and compare the knowledge, beliefs and practices of diabetics receiving free medical care and those paying for medical care in Tamilnadu, India. Education is now recognized as an integral element of quality care for managing diabetes such as on diet, drug therapy, accessing knowledge on diabetes management and knowledge gap since living as a diabetic remains an awesome responsibility, involving daily demands far beyond people's compliance (Sivagnanam, et al., 2014).

A major concern with the diabetes epidemic is the anticipated increase in mortality and morbidity related to the complications of the disease. Insufficient drug therapies, poor patient compliance to therapy and inadequate management regimes may be contribute to the increasing incidence of complications linked to the disease (Sena & Bento, 2019).

Studies on adherence in diabetics indicate that lack of information or update in knowledge and management skills were contributory factors to non-adherence. This is because the disease imposes major changes in the lifestyle of the individual, and many people find it difficult to change life-long habits (Corkoney & Hark, 2017).

Glasgow and Ruggiero (2019), found out that knowledge about diabetes may enhance coping with the illness and may improve adjustment to the illness. However, knowledge about diabetes has been found to be insufficient to ensure optimal diabetes outcomes. Sixty percent of the study participants could not correctly define diabetes.

A questionnaire was administered to elicit diabetic patient's knowledge regarding diet, exercise, adverse effects, habits and other matters; their beliefs about diabetes; their practices regarding diet, medication and self-monitoring. The results showed a large gap in knowledge and action and a need for increased efforts towards patients' education regarding diabetes (Ann, 2015).

Mccooy and Kidney (2020), conducted a descriptive cross-sectional study on the topic challenges for younger adults with diabetes. The study found out that lack of access to health care contributes to poor diabetes management and outcomes. Despite relatively high rates of insurance among young Minnesota adults with diabetes, young adults with diabetes may still experience gaps in insurance coverage that can lead to inadequate HbA1c control and contribute to acute hypoglycemic and hyperglycemic events. Minnesotans 18-34 years old are

the least likely to have paid sick time available to them, which can prevent them from seeking and obtaining care needed to manage their diabetes.

Gardsten (2018), conducted a descriptive study to identify perceived challenges related to self-managemnet among recently diagnosed adults and those with longer experience of type 2 diabetes as a foundation for the future development of a person-centered information and communication technology service. The study concluded that, adults with diabetes have different needs for support during different phases of the disease. From a person-centered perspective, it would be desireable to meet individular needs for self-management on peoples' own terms through a technological service that could reach and connect to a large number of people.

Whittemore (2019) conducted a qualitative descriptive study in Mexico City on the challenges to diabetes self-management for adults with type 2 diabetes in low-resource setting. Adults with type 2 diabetes in Mexico often lack knowledge and understanding about type 2 diabetes, its etiology and self-managemnt.many Mexican adults do not associate diet and physical activity with type 2 diabetes, instead they believe that the primary etiology of type 2 diabetes is extreme fright, shock or sudden scare. The study concluded that, evidence-based diabetes self-managemnt programs need to become more accessible, taking into consideration the social determinants of health and building upon current initiatives to improve early diagnosis and treatment of type 2 diabetes. Cultural beliefs, personal control and low health literacy influences diabetes self-management in adults with type 2 diabetes with limited resources.

2.4 Challenge of dietary management face by diabetics

In another study on the prevention of diabetes type 2, adherence to a reduced-fat diet and to regular physical exercise has been effective in reducing the onset of the disease. For those already suffering from the disease, good adherence to treatment, including suggested dietary

modifications, physical activity, foot care and ophthalmological check-ups, has been shown to be effective in reducing complications and disability, while improving patients' quality of life and life expectancy (WHO, 2019).

Hatipoglu (2022), conducted a study on what newly diagnosed diabetic patients should expect. It was found that diet and physical activity play an important role in keeping blood sugar in a desirable range. It was recommended that a healthy meal plan and heart-healthy diets, such as the Mediterranean diet or the DASH diet (designed to lower blood pressure), both of which promote whole grains, fruits and vegetables. People with diabetes should limit saturated fat and trans fats, salt and added sugar. They need to pay attention to portion sizes and carbohydrates, in particular, because carbs affect blood sugar more than other foods. That said, it's important to personalize dietary recommendations as much as possible, reflecting cultural and family influences. You can't expect patients of varying racial and ethnic backgrounds to follow a cookie-cutter diet. "We need to cater to the needs of the patient. You have to understand their level of their literacy and be careful and sensitive about those issues and their family dynamic. Are they the one who cooks the meal or is it someone else? We need to teach the family." Timing of meals also differs patient to patient. Patients who take medications or insulin may have to eat the same time each day. Physical activity lowers blood sugar, so timing of food in the context of physical activity must be considered.

A study done on the Cultural and Family Challenges to Managing Type 2 Diabetes in Immigrant Chinese Americans by Chesla, Kevin, Kwam and Chun (2019) showed that Cultural and family challenges to diabetes management within foreign-born Chinese American families included how dietary prescriptions challenged food beliefs and practices.

Furthermore, the findings of Haper-Jaques (2014), also emphasize the fact that diabetic patients are faced with challenges when dealing with their change in diet. One of the patients interviewed and she stated that the food she eats tastes like dust.

A study conducted by Jones (2022) on the topic “what to do after a diabetes diagnosis”. The study found out that if a diabetic patient is carrying extra weight, especially around the midsection, it is recommended to lose weight, which helps in the management of diabetes (types 2). He further stated that, even if you are at weight that is healthy for you, you will need to follow an eating plan that supports diabetes management. This can include; limiting saturated fats and cholesterol, avoiding trans fats, choosing foods with monounsaturated oils, eating a number of total calories that is appropriate and healthy, eating a nutritionally balanced diet that is rich in whole-grain foods, vegetables and fruits.

2.5 Challenges in accessing appropriate knowledge on management

According to an article on “adapting to life with diabetes” by Gilles (2017), indicates that, most people upon diagnosis experience a steep learning curve as they try to digest all they can about diabetes management. Unfortunately, many stop learning after the first few months, since they assume they know enough which is not so. Rather, the more informed a diabetic is about diabetes, the more confidence one is in managing diabetes. This is possible by accessing information to increase one’s knowledge of diabetes.

Adults with diabetes have different needs for support during different phases of the disease. From a person-centred perspective, it would be desirable to meet individual needs for self-management on peoples' own terms through a technological service that could reach and connect to a large number of people (Rask & Larsson, 2018).

The findings of Oware-Gyekye (2015), study on “addressing the quality gaps in diabetes prevention and care “, which indicated that both low literacy and low health literacy can cause

patients to make mistakes with general health and medication regimen. Also, people with poor reading skills were identified as having more health problems and they also had difficulty using the health care system and understanding health care information.

In view of a research done on “Health Illiterate-related diabetes prevalence in Vietnamese-American Populations” by Logan (2015) they recommend that diabetics should access for information through internet, media and health centers.

Jones (2022), found out that managing type 2 diabetes is a lifelong commitment. Type 2 diabetes is typically progressive, but proper management can help slow the progression and prevent or delay complications. To help manage diabetes long term, it requires that; one takes medication as directed, monitors blood sugar level regularly, schedules regular visits with the healthcare provider to monitor management plan’s effectiveness and make changes as necessary, continue to follow a diabetic-friendly eating plan, stay physically active and stick to other healthy lifestyle habits, take care of feet and examine them for redness and sores.

2.6 Challenges faced by diabetic patients in adjusting to the drug management of diabetes

A study carried out by Peggy and Shelly (2018) on the barriers of medication adherence in poorly controlled Diabetes Mellitus brought certain challenges that affect the adherence challenges to light and this included paying for medications, remembering doses, reading prescription labels and obtaining refills.

Another study carried out by Enwere, Salako and Falade (2016) on the prescription and cost of medications on diabetic patients at the diabetic clinic in Ibadan revealed that the commonest reasons that militate against adherence to prescribed drugs were high cost of drugs and large number of drugs to be used.

The findings from a study carried out by Corkoney and Hark (2017), on drug therapy problems in patients with diabetes, showed that patients taking medications have drug therapy problems.

77% of the sample had 1 or more drug therapy problems, while 39% had 3 or more and 17% had 5 or more drug therapy problems identified and resolved during the study period. The most frequent category of drug therapy problem is that the patient is in need of additional drug therapy. The second most common drug therapy problem category is that the dosage of the medication the patient is taking is too low to be effective. This is a very costly drug therapy problem since the patient continues to suffer and many medical problems are precipitated when the correct medication is selected, the patient faithfully follows the instructions, but the dosage is not sufficient to produce the desired goal of therapy. Ineffective drug therapy is one of the most common and costly problems in today's health care system.

A study conducted by Wild (2019), found that assess to the quality of performance of intentional or unintentional errors of insulin administration. Among the errors of insulin administration identified were the use of unhygienic injections in 80% of patients, the administration of incorrect doses of insulin in 58% and the intentional omission of insulin in 31%.

The pharmacological treatment concerned oral medication and injection of insulin and the difference was huge for all interviewees. Oral medication was no problem for the majority, although some experienced skepticism or fear at the start. Overall, the need for drugs was accepted, especially by those already taking other medications; one more pill was no big deal. In contrast, need for insulin treatment in the future was seen as a huge threat, associated with prejudices and fear. The interviewees were afraid of injections and the possible consequences for daily life, such as hindrance for travel or performing favorite leisure-time activities. In any case, some of the interviewees concluded that if they had to comply they would manage and accept it (Pikkemaat & Bostrom, 2019).

CHAPTER THREE

MATERIALS AND METHODS

3.0 Introduction

This chapter talks about the study area, study population, study design, sampling techniques, data collection method and instrument, data analysis techniques, ethical consideration, and the limitations of the study.

3.1 Study area

The study was conducted at the Holy Family Hospital, Berekum. The hospital is a Christian Health Association of Ghana (CHAG) facility under the National Catholic Health Service (Catholic Diocese of Sunyani). The facility is located on the Biadan road, and 36.8km from Sunyani which serves as a Municipal Hospital. Due to the strategic location of the hospital, patients from other parts of Ghana and neighboring countries like La Cote D'Ivoire visit the hospital. The hospital has a bed capacity of about 250 beds and provides services such as; inpatient (Paediatric, Males, Females, and Surgical) wards, outpatient, Reproductive and Child Health Clinic, Maternity and Labour and Emergency, Diabetic clinic Psychiatric unit, Eye clinic: Ear, Nose and Throat clinic, Dental clinic and Theater. The Post-Natal services are part of the Reproductive and child health department where care is provided for babies and mothers on five (5) working clinic days per week.

3.2 The study population

The target population for the study is all diabetic patients in the Berekum Municipality and the accessible population is diabetic patients visiting the Diabetic clinic of the Holy Family Hospital, Berekum.

3.3 Study design

A descriptive study design was used for the study. This design was used for the study because there was the need to describe the characteristics of the phenomenon being studied. The design also allows for us to observe the students in their natural and unchanged environment. The data collection in descriptive research allows for the gathering of in-depth information about the research problem.

3.4 Sampling technique and size

A total of fifty (50) diabetic patients were selected for the study. The respondents were obtained using the convenient sampling method. This method was used because it is inexpensive and respondents are easy to reach. The first 50 diabetic patients who visited the diabetic clinic from 9:00 am to 11:00 am were selected.

3.5 Data collection methods and instruments

Data collection was done through the use of structured questionnaires consisting of both closed-ended and open-ended questions for easy expression of views and ideas. This was chosen as the method of data collection because it is relatively cheaper, avoided embarrassment on the part of the respondents, and the complete anonymity of respondents. Questionnaires were shared with patients who attended the clinic. We explained to them how the questionnaires were to be filled. Each patient used a maximum of 30 minutes to complete the questionnaire.

3.6 Data analysis techniques

The data obtained from the study were checked for accuracy, utility, and completeness. Data were analyzed using Microsoft Excel 2013 and results were presented in tables and figures.

3.7 Ethical consideration

An introductory letter was sent to the Management of the Holy Family Hospital, Berekum for approval to conduct the study. Participants were informed of the benefits, risks, purpose, and

procedure of the study and their right to withdraw from the study at any point without penalty. All participants agreed voluntarily to be part of the study. Respondents were assured of anonymity and confidentiality by not providing any form of identification on the questionnaire. However, identification codes were used to represent the respondent according to their chronologic entry into the study.

3.8 Limitations of the study

The study was limited by the convenience sampling method that was used to select participants since not every participant had an equal and independent chance of being selected. Also, it was difficult to generalize our findings since a small sample size and one facility were used.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0 Introduction

This chapter deals with analysis of data collected from the field of study and the results obtained from the analysis. The data analysis was done with Microsoft Excel and was presented in tables and figures.

4.1 Demographic Variables

Table 1: Age Distribution of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Age	17-30	5	10
	31-40	19	38
	41-50	16	32
	Above 50	10	20

From Table 1, most of the respondents (38%) were aged between 31-40 years, less than half of the respondents (32%) were aged between 41-50 years. Few of the respondents (20%) were aged above 50 years and 10% were between 17-30 years.

Table 2: Sex Distribution of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Sex	Male	27	54
	Female	23	46

The majority of the respondents (54%) were males and 46% were females.

Table 3: Marital Status of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Marital Status	Single	9	18
	Married	40	80
	Divorced	1	2

Most of the respondents (80%) were married and 18% of the respondent were single. Only 2% of the respondents was divorced.

4.2 Challenges of the newly diagnosed diabetic

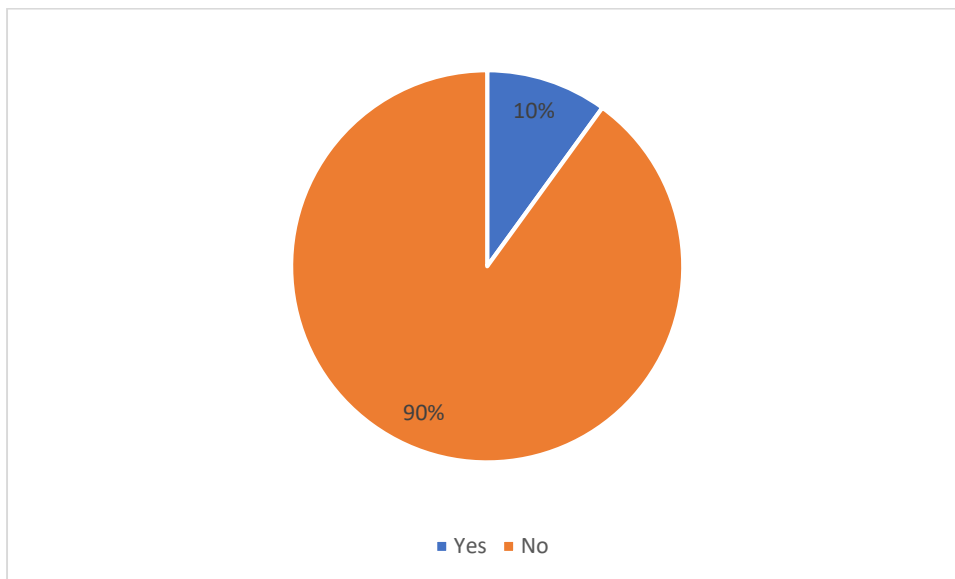


Figure 1: Challenges as a newly diagnose diabetic

From figure 1, majority of the respondents do not have challenges as a newly diagnosed diabetic patient while only 10% of the respondents do experience challenges.

Some of the challenges faced by newly diagnosed diabetic patients were; difficulties in adjusting to diet, difficulties in administration of insulin and accurate time for drug management.

Table 4: Type of diabetics

Variable	Categories	Frequency (n)	Percentage (%)
What type of diabetes do you have?	Diabetes insipidus	3	6
	Diabetes mellitus	17	34
	Juvenile diabetes	1	2
	Gestational diabetes	7	14
	No idea	22	44

Respondents were asked they type of diabetics they have; majority of the respondents (44%) had no idea about the type of diabetics they were suffering from, 34% of the respondents suffered from diabetes mellitus, 14% of the respondents suffered from gestational diabetes, 6% of the respondents suffered from diabetes insipidus and only 2% of the respondents suffered from juvenile diabetes.

Table 5: Respondents knowledge on the causes of diabetes

Variable	Categories	Frequency (n)	Percentage (%)
What do you know to be the cause(s) of diabetes?	Eating sugary foods	10	20
	Curses	1	2
	Punishment	2	4
	Hereditary	29	58
	No idea	8	16

From table 5, majority of the respondents (58%) believed diabetes to be a hereditary disease, 20% believed diabetes to be caused by eating sugary foods, 4% believed diabetes to be caused

by a punishment and 2% believed it be a curse on an individual. Sixteen percent (16%) had no idea about how diabetes is caused.

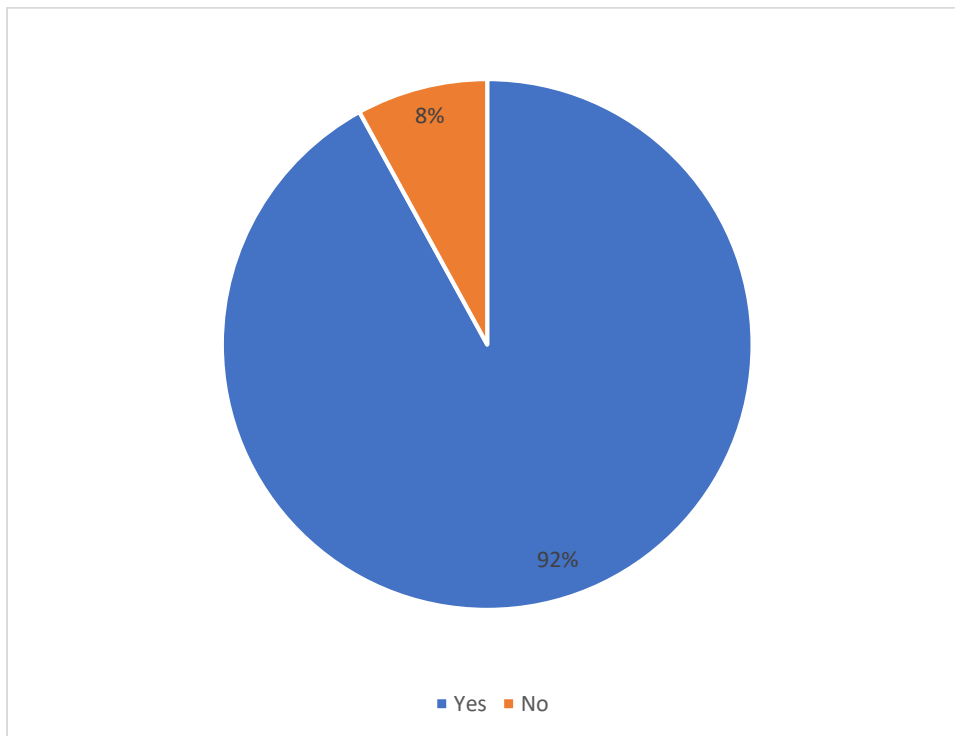


Figure 2: Education on condition upon diagnoses

Majority of the respondents (92%) were educated about the condition upon diagnosis while few of the respondents (8%) were not educated upon diagnose of diabetes.

Table 6: Who gave you the education

Variable	Categories	Frequency (n)	Percentage (%)
Who gave you the education?	Doctor	30	60
	Nurse	41	82
	Dietician	29	58
	Relative	2	4
	Friend	3	6

Majority of the respondents (82%) were educated on the condition by a nurse, 60% of the respondents were educated on the condition by a doctor, 58% were educated by a dietician, 6% of the respondents were educated by a friend and only 4% were educated by a relative.

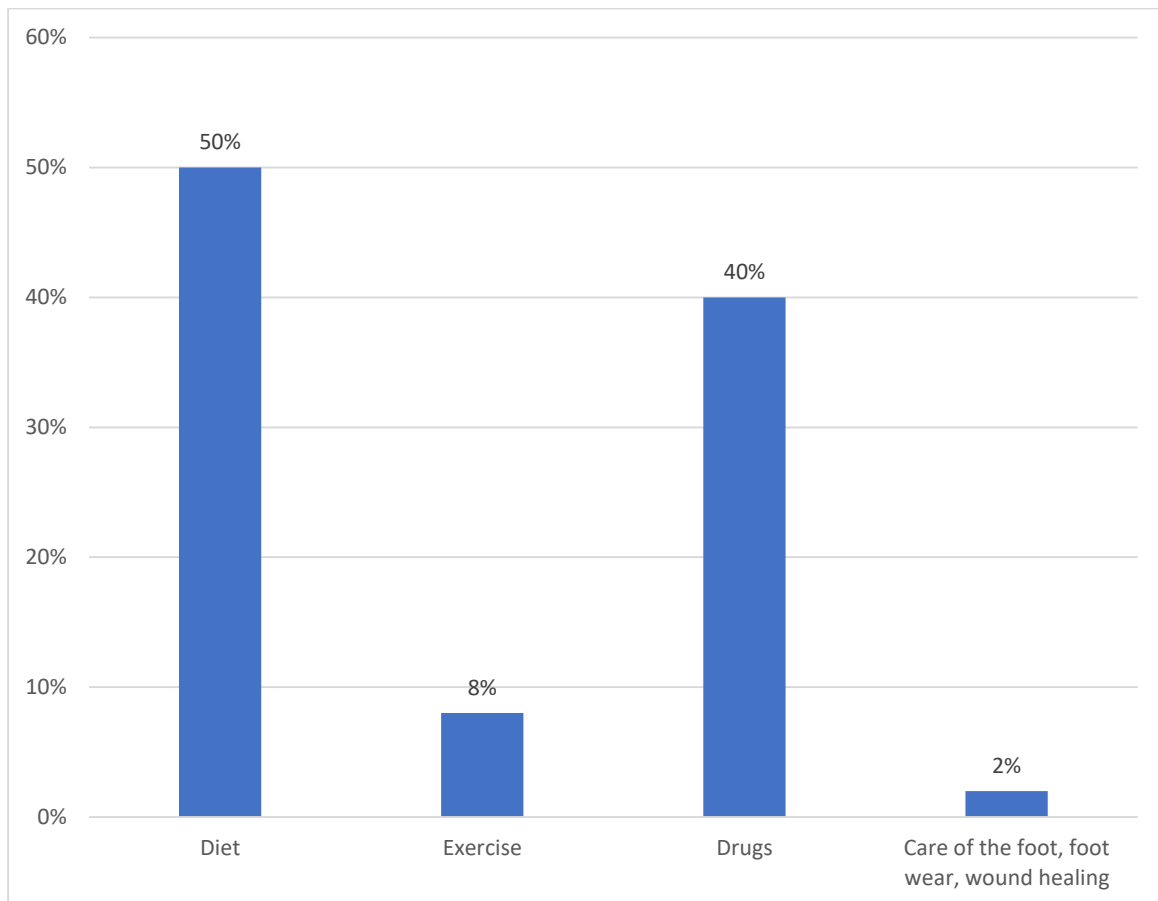


Figure 3: Area of education

Half of the respondents (50%) were educated on diet, 40% of the respondents were educated on drugs, few of the respondents (8%) were educated on exercise and on its importance and 2% of the respondents were educated on the care of the foot, foot wear and wound healing.

4.3 Nutritional Management

Table 7: Knowledge on the food diabetic patients

Variable	Categories	Frequency (n)	Percentage (%)
Must a newly diagnosed diabetic avoid some kinds of food stuffs?	Yes	43	86
	No	7	14
	No idea	0	0

From table 7, majority of the respondents (86%) had knowledge that newly diagnosed diabetic patients should avoid some kind of foods while 14% of the respondents did not have knowledge.

The reasons why diabetic patients should avoid certain foods are; sugar foods can spike or increase the blood glucose level and eating too much carbohydrate late in the evening increases the sugar level.

Table 8: Adjustment on diet

Variable	Categories	Frequency (n)	Percentage (%)
Have there been an adjustment or change in your diet?	Yes	29	58
	No	21	42

From table 8, majority of the respondents indicated that there has been an adjustment or change in diet upon diagnose while 42% of the respondents have not changed their diet upon diagnoses.

Table 9: Difficulties in adjusting to diet

Variable	Categories	Frequency (n)	Percentage (%)
Is it difficult to adjust to the new food regimen?	Yes	40	80
	No	10	20

From table 9, majority of the respondents (80%) have difficulties adjusting to the new food regimen while 20% of the respondents do not have difficulties adjusting to food regimen.

Table 10: Accessibility of new food regimen

Variable	Categories	Frequency (n)	Percentage (%)
Are the new food items easily accessible to you?	Yes	50	100
	No	0	0

From table 10, all of the respondents (100%) indicated that they have access to the new food regimen they were educated on.

Table 11: Challenge on the food management

Variable	Categories	Frequency (n)	Percentage (%)
Do you have any challenge on the food management?	Yes	30	60
	No	20	40

From table 11, majority of the respondents indicated that they face challenges in food management since they were diagnosed while 40% of the respondents do not face challenges with food management.

The challenges faced by respondents are; most of the respondents indicated that it is difficult to eat without sugar, others indicated that they do not get satisfied when they eat less of the carbohydrate meals and few of the respondent find it difficult to eat early.

4.4 Drug management

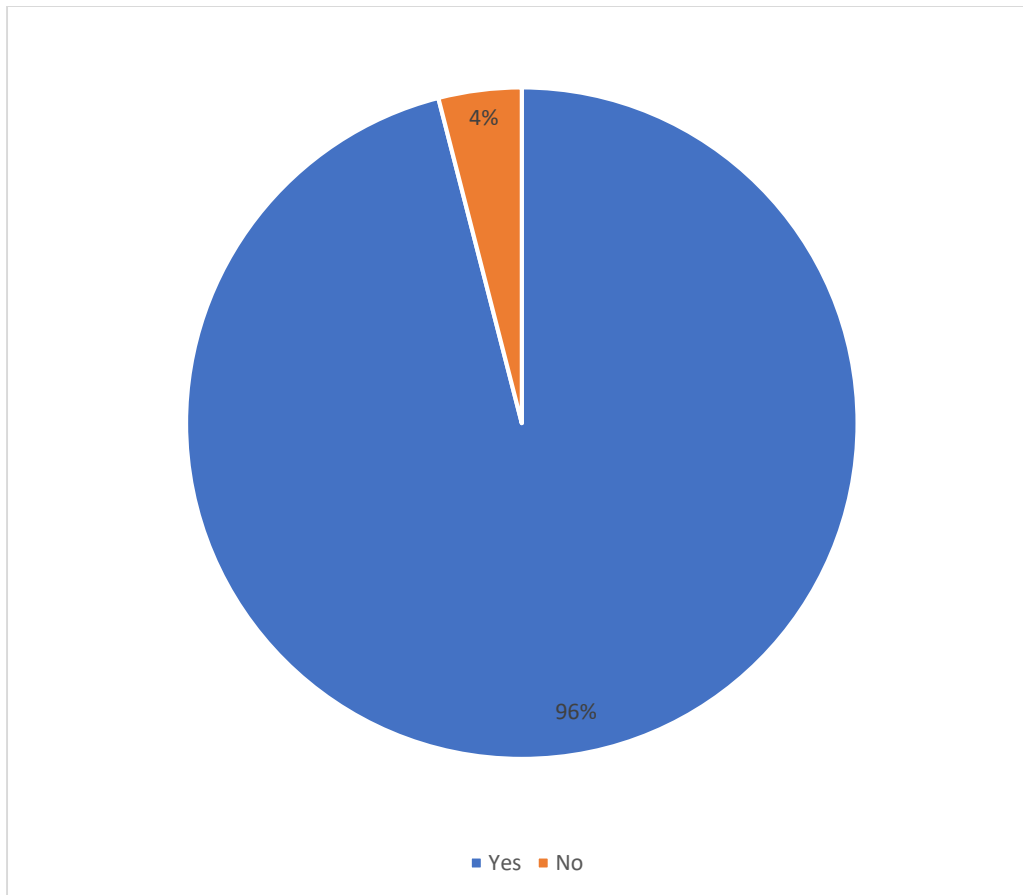


Figure 4: Challenges in the treatment regimen

From figure 4, majority of the respondents (96%) had challenges with the treatment regimen while only 4% of the respondents do not have any challenges in the treatment regimen.

Below were some of the reasons given for the challenges respondents face with regard to the treatment regimen; monetary issues, it is very difficult to take in the drugs and most of the respondents skip the drugs due to forgetfulness.

Table 12: Type of drug used for treatment

Variable	Categories	Frequency (n)	Percentage (%)
What kind of drug(s) is/are used for managing diabetes?	Oral drugs	42	84
	Insulin injection	40	80
	I.V treatment	21	42
	Herbal preparations	2	4

From table 12, majority of the respondents (84%) uses oral drugs, 80% uses insulin injection, 42% of the respondents uses IV treatment and only 4% of the respondents uses herbal preparation.

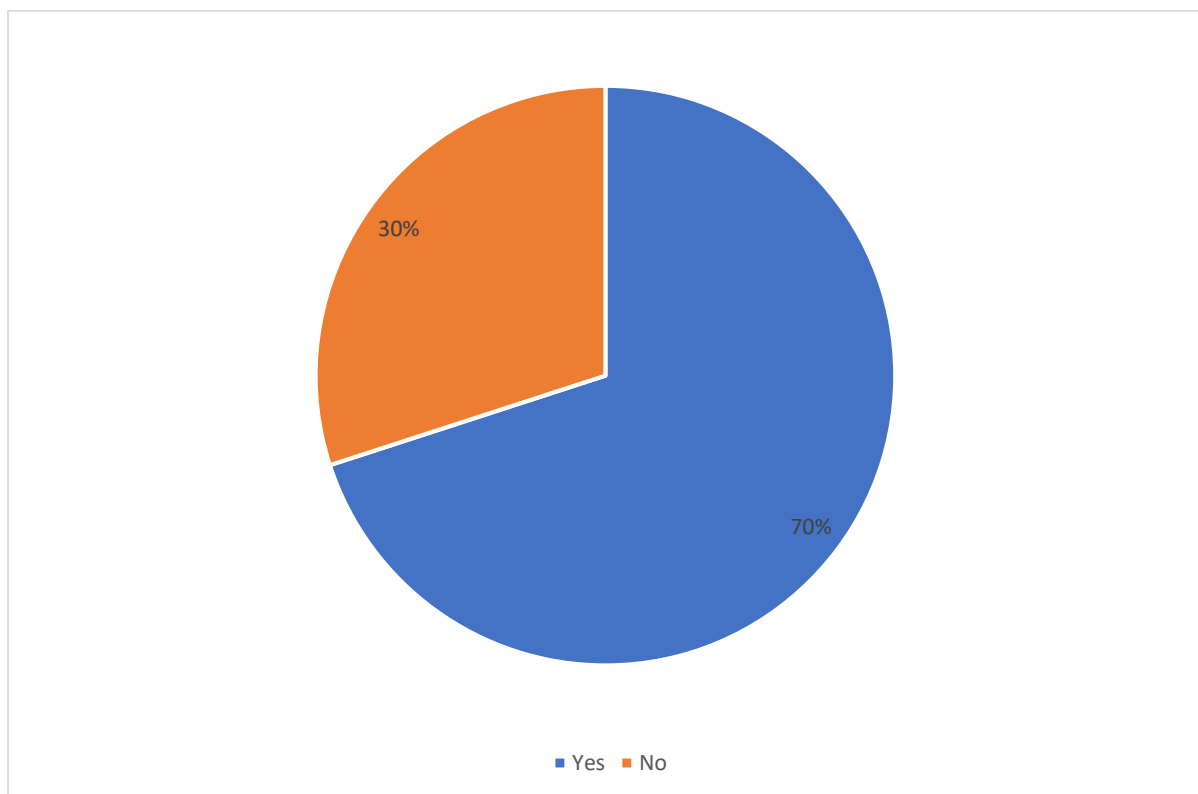


Figure 5: Challenge with insulin injection

From figure 5, majority of the respondents (70%) face challenges with insulin injection while 30% do not face.

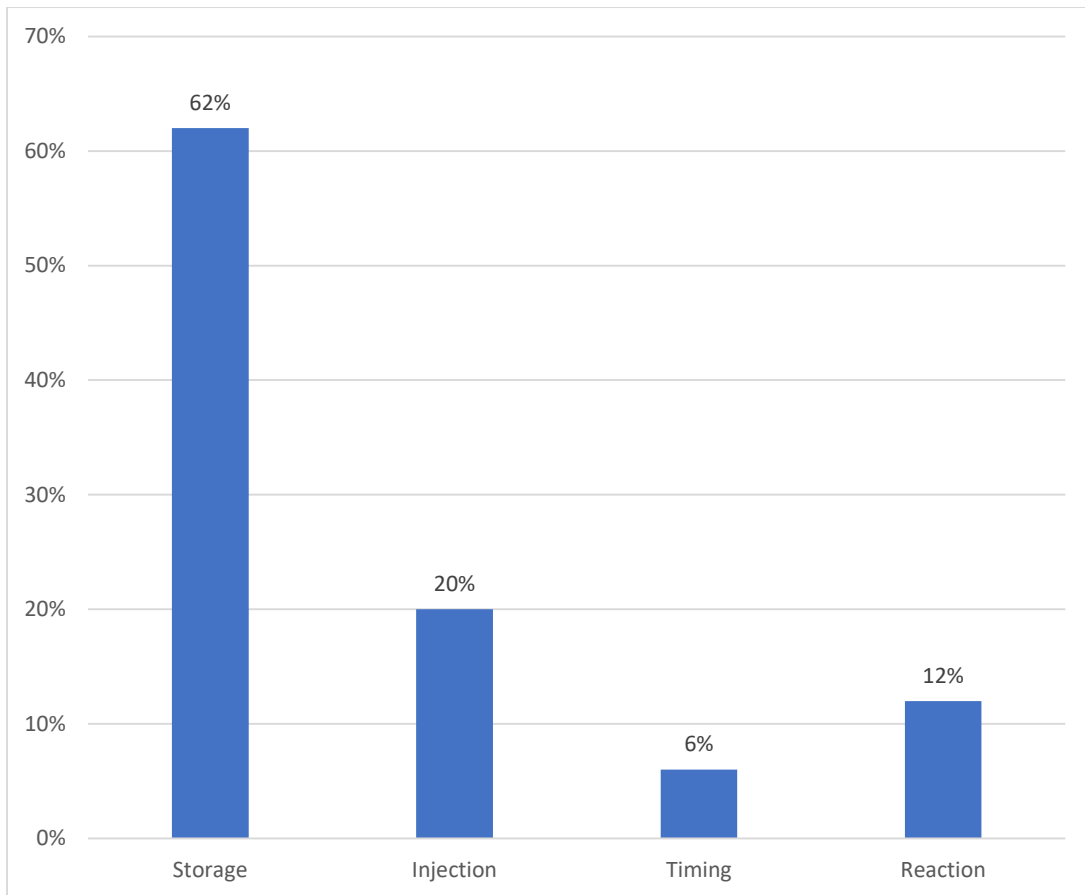


Figure 6: Challenges with insulin injection

From figure 6, majority of the respondents (62%) have storage as a challenge with regards to insulin administration, 20% of the respondents find it difficult with injection of the insulin, 12% of the respondents have reaction with the insulin injection and 6% find it difficult with the timing of insulin administration.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.0 Introduction

This chapter provides an in-depth look at the major findings that emerged out of the research, comparison of the analyzed data with findings from other literature, conclusion, and recommendations.

5.1 Discussions

5.1.1 Challenges as a newly diagnose diabetic

Majority of the respondents do not have challenges as a newly diagnosed diabetic patient while only 10% of the respondents do experience challenges. Some of the challenges faced by newly diagnosed diabetic patients were; difficulties in adjusting to diet, difficulties in administration of insulin and accurate time for drug management. Correspondently, Sivagnanam, et al., 2014 conducted a study to determine and compare the knowledge, believes and practices of diabetics receiving free medical care and those paying for medical care in Tamilnadu, India. The study found out that, respondents were had challenges on the knowledge of diabetic and therefore, education was recognized as an integral element of quality care for managing diabetes such as on diet, drug therapy, accessing knowledge on diabetes management and knowledge gap since living as a diabetic remains an awesome responsibility, involving daily demands far beyond people's compliance.

Majority of the respondents (58%) believed diabetes to be a hereditary disease and 20% believed diabetes to be caused by eating sugary foods. Similarly, Pilv, et al., (2018) conducted a study on diabetes mellitus and the study found out that, poor diet, lack of physical activities, and poor self-monitoring of glucose levels are some of the most common obstacles faced by DM patients.

5.1.2 Challenge of dietary management face by diabetics

Majority of the respondents indicated that they face challenges in food management since they were diagnosed. Majority of the respondents indicated that there has been an adjustment or change in diet upon diagnosis. Majority of the respondents (80%) have difficulties adjusting to the new food regimen. The challenges faced by respondents are; most of the respondents indicated that it is difficult to eat without sugar, others indicated that they do not get satisfied when they eat less of the carbohydrate meals and few of the respondent find it difficult to eat early. This finding is in line with a study conducted by WHO (2019). It was found that adherence to a reduced-fat diet and to regular physical exercise has been effective in reducing the onset of the disease. For those already suffering from the disease, good adherence to treatment, including suggested dietary modifications, physical activity, foot care and ophthalmological check-ups, has been shown to be effective in reducing complications and disability, while improving patients' quality of life and life expectancy.

Again, Haper-Jaques (2014), also emphasize the fact that diabetic patients are faced with challenges when dealing with their change in diet. One of the patients interviewed and she stated that the food she eats tastes like dust.

Majority of the respondents had knowledge that newly diagnosed diabetic patients should avoid some kind of foods. This finding is in line with a study conducted by Jones (2022). It was found that if a diabetic patient is carrying extra weight, especially around the midsection, it is recommended to lose weight, which helps in the management of diabetes (types 2). It was further stated that, even if you are at weight that is healthy for you, you will need to follow an eating plan that supports diabetes management. This can include; limiting saturated fats and cholesterol, avoiding trans fats, choosing foods with monounsaturated oils, eating a number of total calories that is appropriate and healthy, eating a nutritionally balanced diet that is rich in whole-grain foods, vegetables and fruits.

5.1.3 Challenges in accessing appropriate knowledge on management

Majority of the respondents (96%) had challenges with the treatment regimen while only 4% of the respondents do not have any challenges in the treatment regimen. The reasons given for the challenges respondents face with regard to the treatment regimen; monetary issues, it is very difficult to take in the drugs and most of the respondents skip the drugs due to forgetfulness. This is similar to a study conducted by Peggy and Shelly (2018) on the barriers of medication adherence in poorly controlled Diabetes Mellitus. It was found that the challenges that affect the adherence challenges to light and this included paying for medications, remembering doses, reading prescription labels and obtaining refills.

Again, Enwere, Salako and Falade (2016) conducted a study on the prescription and cost of medications on diabetic patients at the diabetic clinic in Ibadan revealed that the commonest reasons that militate against adherence to prescribed drugs were high cost of drugs and large number of drugs to be used.

Majority of the respondents (84%) uses oral drugs, 80% uses insulin injection, 42% of the respondents uses IV treatment and only 4% of the respondents uses herbal preparation. This is similar to a study conducted by Pikkemaat and Bostrom (2019). It was concluded that the pharmacological treatment concerned oral medication and injection of insulin and the difference was huge for all interviewees. Oral medication was no problem for the majority, although some experienced skepticism or fear at the start. Overall, the need for drugs was accepted, especially by those already taking other medications; one more pill was no big deal. In contrast, need for insulin treatment in the future was seen as a huge threat, associated with prejudices and fear. The interviewees were afraid of injections and the possible consequences for daily life, such as hindrance for travel or performing favorite leisure-time activities. In any case, some of the interviewees concluded that if they had to comply they would manage and accept it.

Majority of the respondents (62%) have storage as a challenge with regards to insulin administration, 20% of the respondents find it difficult with injection of the insulin, 12% of the respondents have reaction with the insulin injection and 6% find it difficult with the timing of insulin administration. Correspondingly, a study conducted by Wild (2019), assessed the quality of performance of intentional or unintentional errors of insulin administration. Among the errors of insulin administration identified were the use of unhygienic injections in 80% of patients, the administration of incorrect doses of insulin in 58% and the intentional omission of insulin in 31%.

5.2 Conclusion

The following conclusions were drawn from the study;

1. Majority of the respondents do not have challenges as a newly diagnosed diabetic patient.
2. Majority of the respondents (44%) had no idea about the type of diabetics they were suffering from.
3. Majority of the respondents (58%) believed diabetes to be a hereditary disease.
4. Half of the respondents (50%) were educated on diet by dietician, nurses and doctors.
5. Majority of the respondents (86%) had knowledge that newly diagnosed diabetic patients should avoid some kind of foods.
6. Majority of the respondents (80%) have difficulties adjusting to the new food regimen.
7. Majority of the respondents face challenges in food management since they were diagnoses.
8. Majority of the respondents (96%) had challenges with the treatment regimen.

5.3 Recommendation.

With respect to the findings of the study, the following recommendations were made:

1. The MOH should facilitate the creation of more diabetic clinic centers at the various teaching, regional and district hospital for effective management of diabetics.
2. The MOH should ensure that effective self-management practices assessment and monitoring tools are developed and used at the various diabetic clinics to aid diabetes management.
3. The management of Holy Family Hospital, Berekum should organize in-service training for nurses and other health personnels as to equip them to be abreast with the pattern of the changing health needs of patients and trends of diabetes management.
4. Diabetic patients should be encourage on the need and importance of taking the medication regimen to help reduce diabetes.

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APPENDICES

APPENDIX 1

HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

QUESTIONNAIRE

Dear Respondent,

We are final year students of the Holy Family Nursing and Midwifery Training College, Berekum, conducting a study on the topic: determine the challenges of newly diagnosed diabetic patient at the diabetic clinic in Holy Family Hospital, Berekum

Any information provided shall be secured and kept private. To ensure confidentiality and anonymity, your name is not required. Participation is voluntary and you have the sole right to withdraw from participating in this study at any time at your discretion.

PLEASE TICK [√] THE MOST APPROPRIATE RESPONSE TO THE QUESTION IN THE SPACE PROVIDED AND/OR WRITE IN THE SPACE PROVIDED

PLEASE TICK [√] THE APPROPRIATE BOX WHERE APPLICABLE

SECTION A: Demographic Data

1. Age: A. 17-30 [] B. 31-40 [] C. 41-50 [] D. Above 50 [], specify
2. Sex: A. Male [] B. Female []
3. Marital status: A. Single [] B. Married [] C. Divorced []

SECTION B: Challenges of the newly diagnosed diabetic

4. Do you face any challenges as a newly diagnose diabetic?
 - a. Yes [] b. No []

If yes, state some of them

.....
5. What type of diabetes do you have?

- a. Diabetes insipidus [] b. Diabetes mellitus [] c. Juvenile diabetes [] d. Gestational diabetes [] e. No idea []

6. What do you know to be the cause(s) of diabetes?

- a. Eating sugary foods [] b. Curses [] c. Punishment [] d. Hereditary [] e. No idea []

Accessing Appropriate Information

7. Were you educated on the condition, upon diagnoses?

- a. Yes [] b. No []

Select all that apply

8. Who gave you the education?

- i. Doctor []
- ii. Nurse []
- iii. Dietician []
- iv. Relative []
- v. Friend []

Select all that apply

9. Which area of diabetes management, were you educated on?

- a. Diet []
- b. Exercise []
- c. Drug []
- d. Care of the foot, foot wear, wound healing []

Nutritional Management

10. Must a newly diagnosed diabetic avoid some kinds of food stuffs?

a. Yes [] b. No [] c. No idea []

If yes, why?

.....

11. Have there been an adjustment or change in your diet?

a. Yes [] b. No []

12. Is it difficult to adjust to the new food regimen?

a. Yes [] b. No []

13. Is the new food items easily accessible to you?

a. Yes [] b. No []

If no, why?

14. Do you have any challenge on the food management?

a. Yes [] b. No []

If Yes specify.....

DRUG MANAGEMENT

15. Do you face challenges in the treatment regimen?

a. Yes [] b. No []

16. If “Yes”, state the challenge you encounter adhering to the treatment regimen.

.....

.....
17. What kind of drug(s) is/are used for managing diabetes?

Select all that apply

- i. Oral drugs
- ii. Insulin injection
- iii. I.V treatment
- iv. Herbal preparations

18. Do you have any challenge with insulin injection?

- a. Yes
- b. No

19. What is the challenge?

- a. Storage
- b. Injection
- c. Timing
- d. Reaction

NATIONAL CATHOLIC HEALTH SERVICE (DIOCESE OF SUNYANI)

**HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE
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Ghana, W/Africa

Tel. 0352222124

Fax: 0352222474

November 16, 2023

ur Ref.

ur Ref.

Date

The Administrator
Holy Family Hospital
P.O. Box 21
Berekum, Bono Region

Dear Administrator

PERMISSION TO CONDUCT RESEARCH

I wish to introduce to you the under listed names of final year students of the College:

1. Yaa Dansowaa Boachie
2. Adwoa Afriyie Ansah
3. Umaima Alhassan

As part of the pre-requisite for the award of Diploma in Midwifery they are to conduct a research study, on the topic 'The Challenges of newly Diagnosed Diabetic Patient at the Diabetic Clinic at the Holy Family Hospital, Berekum.

I would be grateful if you could assist them with any material or help they may need to accomplish this task.

Thank you.

Yours sincerely

Ernestina Mensah

Supervisor

For: Principal