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Associated Factors of Healthy Lifestyle and Personal Control Among Outpatients with Type II Diabetes Mellitus in Biliran, Philippines

Ma. Flossie L. Tangpuz

Graduate School,University of the Visayas (main Campus) Corner D. Jakosalem & Colon St., Cebu City Philippines 6000

ABSTRACT

The study aims to assess the healthy lifestyle and personal control and associated factors among outpatients with type 2 diabetes in Biliran Provincial Hospital: Proposed Plan to Improve Healthy Lifestyle. The study utilized a descriptive-correlational research design. The researcher observes, describes and documents and effect related to the phenomenon which further assess the healthy lifestyle and personal control among patients with Type II Diabetes Milletus. It was conducted in Biliran Provincial Hospital. There were two hundred fifty-three respondents of the study.

Majority of the respondents are female belonging to age ranging from 51-61 years old who are considered senior citizens. In terms of civil status, majority are married while single belong to the minority group. Majority of the clients of Type 2 Diabetes Mellitus are College graduates. Many of them are also working in terms of their working status.

Consequently, on the health status of the respondents, findings of the study revealed that majority of them are non-smokers while the smokers are few. Besides, they can consume one pack of cigarettes per day. As to the Body Mass Index (BMI), majority of them have high BMI and are considered obese. There was no significant relationship between the gender and working status and the lifestyle of the respondents. There is a significant relationship between the age, educational status, civil status and the lifestyle of the respondents. In the personal control of the respondents, there is no significant relationship between the gender and working status. There is a significant relationship between the personal control and the civil status. Age and educational status. There is no significant relationship between the health-related status and the personal control of the respondents. Lastly, there is a significant relationship between the health-related status and the lifestyle of the respondents. To address the findings of the study a proposed plan of improvement of healthy lifestyle.

Keywords: Descriptive-Correlational Design of Healthy Lifestyle, Healthy Lifestyle andal Control of Type II Diabetes Mellitus.

Chapter I
THE PROBLEM
Introduction

Diabetes mellitus is a global health problem that is because of the high prevalence, complications and mortality and enormous health care costs. World Health Organization (WHO) in 2019 classified diabetes

mellitus based on clinical care into type 1 diabetes, caused by absolute insulin deficiency, this type of diabetes is found in children and adults; type 2 diabetes, the causes of this disease vary from insulin resistance and insulin deficiency to insulin hormone imbalance; hybrid forms of diabetes, including slowly evolving immune-mediated diabetes and ketosis-prone type diabetes; other specific type of diabetes; unclassified diabetes; and hyperglycemia first detecting during pregnancy.

Diabetes mellitus, particularly Type II, continues to be a significant public health concern globally, and the Philippines is no exception. In the province of Biliran, like many other regions, the prevalence of Type II diabetes mellitus among outpatients poses substantial challenges to healthcare systems and patient quality of life. Managing this condition requires not only medical intervention but also a comprehensive approach that includes lifestyle modifications and personal control measures.

A healthy lifestyle encompasses various dimensions, including diet, physical activity, and mental well-being, all of which are crucial in managing Type II diabetes mellitus. Personal control, on the other hand, refers to the patients' ability to manage their condition through self-discipline, knowledge, and empowerment. Understanding the interplay between these factors can help in developing targeted interventions that support patients in maintaining better health and preventing complications. Environmental health related lifestyle factors have been extensively studies, such as dietary habits, substance abuse (smoking), physical exercise and sleeping quality. The hallmark of this vast literature is “lifestyle choices” which suggests that all these factors are amenable to change. Consequently, health professionals , health organizations, and governments in different time periods and countries have implemented numerous health promotion programs targeting either specific health-related risk factors Practicing a healthy lifestyle is the primary means of reducing the risk factors of TWNdiabetes complications. Data from WHO showed that around 1.6 million deaths before age of 70 years were directly caused by Type II diabetes in 2016. Data-related diabetes complication showed 50% of diabetic patients die because of heart disease. In addition, two percent of the population of diabetic patients become blind, percent suffer from serious vision problems, 10 percent to 20 percent die from kidney failure and 50 percent experience nerve damage (neuropathic diabetes).

According to the International Diabetes Federation or IDF, the prevalence rate of diabetes in Filipino adults is approximately six point one percent. That means that out of 63 million adults in our country, almost four million have diabetes. But, even with these high figures, there could be more undocumented diabetes cases in the Philippines. After all, the IDF did not include younger people in their data, and they did not take pre-diabetes into consideration.

Overwhelming evidence shows that lifestyle changes—namely, improvements in physical activity and diet, leading to weight loss—reduce diabetes risk significantly. Randomized controlled trials have shown that lifestyle interventions focused on physical activity, healthy diets, and weight loss can reduce diabetes risk by 58 percent in people with IGT. Evidence also shows that lifestyle changes may help mitigate the effects of genes on diabetes risk. For instance, in the US Diabetes Prevention Program (DPP), the association between susceptible genotypes and progression to diabetes was attenuated in individuals receiving a lifestyle intervention. Similarly, a study among Swedish adults showed that the genetic predisposition to diabetes may be offset by physically active lifestyles (Galaviz et al., 2020).

Adherence to therapy is the extent to which a person's behavior in taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a healthcare provider. Patients presenting with type 2 diabetes mellitus are initially encouraged to maintain a healthy diet and exercise regimen, followed by early medication that generally includes one or more oral hypoglycemic

agents and later may include an injectable treatment. To prevent complications associated with Type II diabetes, therapy frequently also includes medications for control of blood pressure, dyslipidemia and other disorders, since patients often have more than three or four chronic conditions. Despite the benefits of therapy, studies have indicated that recommended glycemic goals are achieved by less than 50 percent patients, which may be associated with decreased adherence to therapies. As a result, hyperglycemia and long-term complications increase morbidity and premature mortality, and lead to increased costs to health services. Reasons for nonadherence are multifactorial and difficult to identify. They include age, information, perception and duration of disease, complexity of dosing regimen, polytherapy, psychological factors, safety, tolerability, and cost. Various measures to increase patient satisfaction and increase adherence in Type II diabetes have been investigated. These include reducing the complexity of therapy by fixed-dose combination pills and less frequent dosing regimens, using medications that are associated with fewer adverse events (hypoglycemia or weight gain), educational initiatives with improved patient-healthcare provider communication, reminder systems and social support to help reduce costs. In the current narrative review, factors that influence adherence to different therapies for Type II diabetes are discussed, along with outcomes of poor adherence, the economic impact of nonadherence, and strategies aimed at improving adherence (Perez et al., 2021).

The practical value of this study lies in its potential to improve the health outcomes of outpatients with Type II diabetes mellitus in Biliran, Philippines. By identifying and addressing gaps in the associated factors of healthy lifestyle and personal control, this research can lead to the development of tailored interventions and programs that promote better diabetes management. Improved health outcomes can reduce the burden on healthcare systems, enhance patients' quality of life, and decrease the long-term complications associated with diabetes.

The researcher has a robust background in the management of type II Diabetes mellitus, demonstrated through working in a medical-surgical unit especially its lifestyle and personal control among diabetes patients. The researcher’s experience in conducting surveys, analyzing health data, and collaborating with healthcare professionals equips them with the necessary skills to execute this study effectively. The researcher's familiarity with the local context of Biliran and existing healthcare challenges ensures a culturally sensitive and contextually relevant approach to the research.

This thesis provides critical insights into the associated factors of a healthy lifestyle and personal control among Type II diabetes mellitus patients. By understanding these factors, nurses can tailor patient education programs to address specific barriers and promote effective self-management practices. This contributes to the overall goal of nursing to improve patient outcomes through education and support. The findings from this research can inform evidence-based practice in nursing by highlighting effective strategies for diabetes management. Nurses can incorporate these strategies into their daily practice, ensuring that interventions are based on the latest research and tailored to the needs of their patients.

Medical-surgical nurses frequently care for patients with Type II diabetes mellitus who are undergoing surgical procedures. Understanding the associated factors of healthy lifestyles and personal control can help these nurses manage diabetes more effectively during the perioperative period, reducing the risk of complications and promoting faster recovery. Preoperative and postoperative education is a critical component of medical-surgical nursing. Insights from this thesis can be used to develop targeted educational materials that prepare diabetes patients for surgery and recovery, emphasizing the importance of lifestyle modifications and self-management.

Medical-surgical nurses often work within multidisciplinary teams that include dietitians, endocrinologists, and physical therapists. The findings from this thesis can enhance collaboration by providing a comprehensive understanding of the factors influencing diabetes management, facilitating coordinated and patient-centered care.

Managing chronic conditions like diabetes is a significant aspect of medical-surgical nursing practice.

The choice of the topic will greatly help the field of medical surgical nursing as it will be able to help medical-surgical wards develop continuing quality improvements through the assessment of patient feedbacks. This means of provoking the quality of nursing care service as the baseline data will serve as a driving force to bang to higher heights the quality of nursing care provided the medical-surgical ward. In general, the patients will be benefitted greatly from the conduct of the study as consumers of healthcare services. This research is in line with the third sustainability goals of health and well-being. Lastly, the researcher has had experience in conducting research, with his experience along with the dedication and interest in the topic, this work will be a successful one.

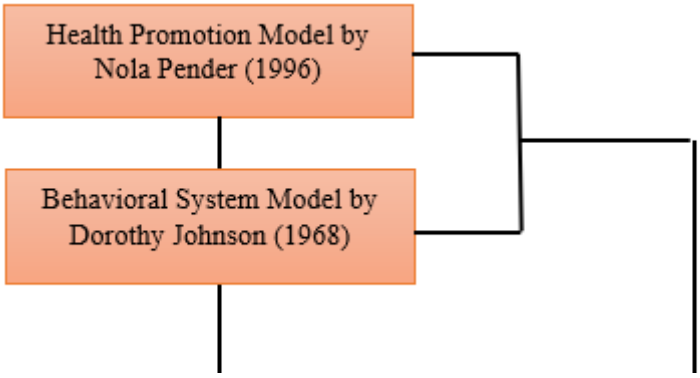
Thus, the study aimed to assess the associated factors of a healthy lifestyle and personal control among outpatients with Type diabetes mellitus in Biliran, Philippines. By identifying and analyzing these factors, the research seeks to provide insights that can inform healthcare practices and policies, ultimately improving patient outcomes especially in caring for clients with these disorders

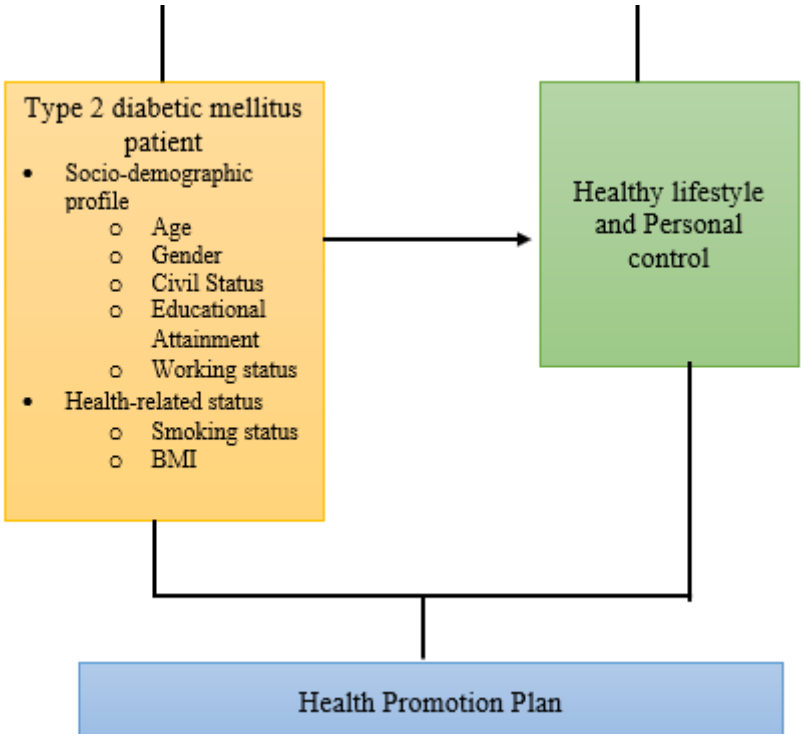
Theoretical Framework.

The study is anchored on Nola Pender's Health Promotion Model (1996) and Dorothy Johnson's Behavioral System Theory (1968). Health Promotion Model is directed at increasing a patient's level of well-being. It describes the multidimensional nature of persons as they interact within their environment to pursue health.

Nola Pender's Health Promotion Model (HPM) supports the study on associated factors in healthy lifestyle and personal control among outpatients with Type 2 diabetes mellitus. These factors can significantly impact an individual's health behaviors and management of diabetes. HPM highlights the importance of perceived benefits and barriers to action, perceived self-efficacy, and activity-related affect. These elements are crucial in understanding how patients perceive their ability to manage their condition and adopt

Figure 1 Schematic Diagram of the study utilizing Nola Pender and the Behavioral System Model of Dorothy Johnson's Model





experiences, behavior-specific cognitions and affect, and behavioral outcomes. The theory notes that each person has unique personal characteristics and experiences that affect subsequent actions. The set of variables for behavior specific knowledge and affect have important motivational significance. The variables can be modified through nursing actions. Health promoting behavior is the desired behavioral outcome, which makes it the end point in the Health Promotion Model. These behaviors should result in improved health, enhanced functional ability and better quality of life at all stages of development. The final behavioral demand is also influenced by the immediate competing demand and preferences, which can derail intended actions for promoting health.

The Health Promotion Model makes four assumptions. Individuals seek to actively regulate their own behavior. Individuals, in all their biopsychosocial complexity, interact with the environment, progressively transforming the environment as well as being transformed over time. Health professionals, such as nurses, constitute a part of the interpersonal environment, which exerts influence on people through their life span. Self-initiated reconfiguration of the person-environment interactive patterns is essential to changing behavior. There are thirteen theoretical statements that come from the model. They provide a basis for investigative work on health behaviors. The statements are: Prior behavior and inherited and acquired characteristics influence beliefs, affect, and enactment of health-promoting behavior. Persons commit to engaging in behaviors from which they anticipate deriving personally valued benefits. Perceived barriers can constrain commitment to action, a mediator of behavior as well as actual behavior or self-efficacy to execute a given behavior increases the likelihood of commitment to action and actual performance of the behavior. Greater perceived self-efficacy results in fewer perceived barriers to a specific health behavior. Positive affect toward a behavior results in greater perceived self-efficacy, which can in turn, result in increased positive affect.

When positive emotions or affect are associated with a behavior, the probability of commitment and action is increased. Persons are more likely to commit to and engage in health-promoting behaviors when significant others model the behavior, expect the behavior to occur, and aid and support to enable the

behavior. Families, peers, and health care providers are important sources of interpersonal influence that can increase or decrease commitment to and engagement in health-promoting behavior. Situational influences in the external environment can increase or decrease commitment to or participation in health-promoting behavior. The greater the commitments to a specific plan of action, the more likely health-promoting behaviors are to be maintained over time.

Commitment to a plan of action is less likely to result in the desired behavior when competing demands over which persons have little control require immediate attention. Persons can modify cognitions, affect, and the interpersonal and physical environment to create incentives for health actions . Health Promotion Model are individual characteristics and experiences, prior behavior, and the frequency of the similar behavior in the past. Direct and indirect effects on the likelihood of engaging in health-promoting behaviors. Personal factors are categorized as biological, psychological and socio-cultural. These factors are predictive of a given behavior and shaped by the nature of the target behavior being considered. Biological personal factors include variables such as age gender body mass index pubertal status, aerobic capacity, strength, agility, or balance. Psychological personal factors include variables such as self-esteem, self-motivation personal competence perceived health status and definition of health. Socio-cultural personal factors include variables such as race ethnicity, acculturation, education, and socioeconomic status.

Perceived benefits of action are the anticipated positive outcomes that will occur from health behavior. Perceived barriers to action are anticipated, imagined, or real blocks and costs of understanding a given behavior. Perceived self-efficacy is the judgment or personal capability to organize and execute a health-promoting behavior. Perceived self-efficacy influences perceived barriers to action so higher efficacy result in lowered perceptions of barriers to the performance of the behavior. Activity-related affect is defined as the subjective positive or negative feeling that occurs based on the stimulus properties of the behavior itself. They influence self-efficacy, which means the more positive the subjective feeling, the greater the feeling of efficacy. In turn, increased feelings of efficacy can generate further positive affect.

Interpersonal influences are cognition-concerning behaviors, beliefs, or attitudes of the others. Interpersonal influences include norms (expectations of significant others), social support (instrumental and emotional encouragement) and modeling (vicarious learning through observing others engaged in a particular behavior). Primary sources of interpersonal influences are families, peers, and healthcare providers.

Situational influences are personal perceptions and cognitions that can facilitate or impede behavior. They include perceptions of options available, as well as demand characteristics and aesthetic features of the environment in which given health promotion is proposed to take place. Situational influences may have direct or indirect influences on health behavior. Within the behavioral outcome, there is a commitment to a plan of action, which is the concept of intention and identification of a planned strategy that leads to implementation of health behavior. Competing demands are those alternative behaviors over which individuals have low control because there are environmental contingencies such as work or family care responsibilities. Competing preferences are alternative behavior over which individuals exert relatively high control.

Dorothy Johnson has had an influence on the behavior of the client. She defined the system that functions as a whole virtue of the interdependence of its parts. A behavioral system is patterned, repetitive and purposeful. She proposed that nursing care facilitated the client's maintenance of a state of equilibrium. She stated that "stressed" by a stimulus of either an internal or external nature. These stressful stimuli

created such disturbances, or tensions in the patient that a state of disequilibrium occurred. She also identified two areas that nurse care should be based in order to return the client to a state of equilibrium (Conner,1981)

Johnson states that a nurse used the behavioral system as their knowledge base, comparable to the biological system that physicians uses as their base of knowledge. The behavioral model is "all patterned, repetitive, purposeful ways of behaving that characterize each person's life make us an organized and integrated whole or a system. Categorizing behaviors can be predicted and ordered. Johnson categorized all human behavior into seven subsystems: attachment, achievement, aggressiveness, dependence, sexual, infective and eliminative. Each subsystem is composed of a set of behavioral responses or tendencies that share a common goal. These responses are developed through experience and learning and are determined by numerous physical, biological, psychological, and social factors. The first assumption is "from the form the behavior takes and the consequences it achieved can be inferred what drive has been stimulated or what goal is being sought" (Johnson, 2000).

The second assumption is that each individual has a "predisposition to act with reference to the goal, in certain ways rather than in other ways (Johnson, 2000) The third assumption is that each subsystem has available a repertoire of choices or "scope of action? Alternatives from which choices can be made. As life experiences occur, individuals add to the number of alternative actions available to them. At some point, however, the acquisition of new alternatives of behavior decreases as the individual becomes comfortable with the available repertoire. The fourth assumption about is that they produce observable outcomes-that is the individual's behavior (Johnson, 2000). The observable behaviors allow an outsider to note the actions the individual is taking to reach a goal related to a specified subsystem.

The ability of the patients with Diabetes Mellitus Type 2 is healthy lifestyle and to manage personal control and adherence to lifestyle mode of the disease as an optimal level based on the knowledge and skills but on motivation, willingness and ability to make behavioral changes. Many of these changes include those that are recommended for all people and related to food intake, regular exercise, and participation in regular screening examinations. For the persons with diabetes however failure to integrate the diabetes regimen into daily life leases to more frequent and more severe complications.

Adherence to lifestyle mode to the diabetes regimen may mean changing exciting health behavior to life. This change involves disruption of belief structures and organized patterns of living and incorporation of new beliefs and patterns of behavior. Patients may be reassured by knowing that the most people experience emotional distress on learning that they are diabetic, and they may expect to feel more comfortable as they experience living and incorporation of new beliefs and patterns of behavior.

As seen in the diagram, the study variable on healthy lifestyle and personal control is anchored on the two theories: Nola Pender's Health Promotion Model (1996) and Dorothy Johnson's Behavioral System Theory (1968). The study starts with determining the socio-demographic profile and health-related status of the Type II diabetic patients. This is then followed by the determination of the healthy lifestyle and personal control. They will then be correlated and as an output a health promotion plan will be proposed.

Statement of Purpose

The aim of the study assessed the associated factors of healthy lifestyle and personal control among outpatients with type 2 diabetes in a Provincial Hospital, Biliran Philippines for the first half of 2024.

Specifically, it sought to answer the following questions:

1. What was the profile and health related status among outpatients' respondents type 2 diabetic mellitus patients on the following?

1.1 Socio-demographic profile:

1.1.1 age.

1.1.2 gender.

1.1.3 civil status.

1.1.4 educational attainment; and

1.1.5 working status.

1.2 health-related status:

1.2.1 smoking status; and

1.2.2 basal metabolic indicator?

2. What was the level of healthy lifestyle and personal control of the respondents?
3. Was there a significant relationship between the socio-demographic profile and healthy lifestyle and personal control among patients?
4. Was there a significant relationship between the health-related status and healthy lifestyle and personal control.
5. Based on the findings of the study, what Health Promotion Plan was developed?

Statement of Null Hypotheses

Ho1: There was no significant relationship between the socio-demographic profile and the healthy lifestyle and personal control of type II diabetic patients.

Ho2: There was no significant relationship between the health-related status and the healthy lifestyle and personal control of Type II diabetic patients.

Significance of Study

The researcher envisioned the study with the following significance in different aspects.

Patients/Clients. The results of this study were beneficial to patients for these will inform them of their healthy lifestyle and personal control that may affect their present status.

Medical-Surgical Nurses. Through this study, it will provide the medical-surgical nurses with valuable insights into the lifestyle and personal control factors that influence diabetes management. By understanding these factors, nurses can tailor their care plans to better address the unique needs of each patient, leading to improved patient management during hospitalization and after discharge. Knowledge from this study can help medical-surgical nurses implement strategies to minimize these risks, providing targeted patient education, and closely monitoring for signs of complications. They will be responsible for the perioperative care of patients, managing their condition intraoperatively, and ensuring effective postoperative care. Enhanced perioperative management can lead to better surgical outcomes and quicker recovery times. Gives holistic approach to diabetes management, considering physical, psychological, and social factors. Medical-surgical nurses can integrate this holistic perspective into their practice, ensuring comprehensive care that supports overall patient well-being, not just their immediate surgical needs.

By offering deeper insights into the factors influencing healthy lifestyles and personal control among diabetes patients, the study equips nurses with the knowledge and tools needed to provide more effective, personalized, and holistic care. This, in turn, leads to better patient outcomes, reduced complications, and enhanced professional practice in the medical-surgical field.

Healthcare Workers. The findings of the study serve as baseline information to the healthcare workers in educating and caring their patients.

Family Members. They will also give insights to the family members of patients with type II Diabetes Mellitus in assisting the healthcare workers in educating their patients. It will also educate the other members of the family on how to care and prevent complications.

Policy Makers. They use evidence to legitimize diabetes prevention policies. A review of government policies to prevent diabetes throughout the life course found that many of the known government policy measures. However, the study also found that policy-makers framed their accounts of diabetes prevention policies in terms of individual behavior change, monitoring personal quantitative markers but with limited ability to effect population-level approaches .This approach aligns with the current prevailing neoliberal political context, which focuses on individual lifestyle choices to prevent disease rather than on infrastructure measures to improve the environments and contexts within which those choices are made .

Department of Health. Through the output of the study, they will be able to plan and organize a program that will focus on the healthy lifestyle of Type II Diabetes Mellitus patients through the health centers all over the country.

Association of Nursing Supervisors of the Philippines. Through this association of nursing supervisors, they will be aware and monitor the different programs on healthy lifestyle and personal control of Type II Diabetes Mellitus Patients in their respective healthcare institutions.

Community. They will benefit the study in giving awareness and understanding prior towards optimum healthcare.

Researchers. They will serve as baseline information for future researchers and may give them insights in conducting related studies.

Future Researchers. The study will guide diabetic clients in terms of healthy lifestyle and physical control.

Definition of Terms

The following terms were clearly defined to avoid confusion and ambiguity; terms are defined conceptually and operationally in the study.

Diabetes Mellitus Type II. This refers to a metabolic disorder that is characterized by high blood glucose in the context of insulin resistance and relative insulin deficiency. This happens when your body does not make enough insulin or unable to use insulin properly called insulin deficiency. While the inability to use the insulin is called insulin resistance.

Healthy lifestyle and Personal Control. Refers to the respondents practicing health habits like regular exercise, balance diet, blood sugar monitoring, medications, quitting smoking and stress. It also refers to managing the blood glucose, blood pressure, and cholesterol, a quitting smoking , eating a healthy diet and reducing stress. In this way lifestyle changes include planning healthy meals, limiting calories if overweight, and being physically active.

Health-Related Status. Refers to smoking status and basal metabolic indicator.

Smoking Status. This refers to whether the patient is a smoker or non-smoker.

Basal Mass Indicator. The Body Mass Indicator obtained by dividing a person's weight in kilograms by their height squared in meters. It is used to measure body fat but does not differentiate muscle mass from mass.

Health Promotion Plan. This refers to the output of the study in addressing the descriptive findings on healthy lifestyle and personal control as well as the correlation between the socio-demographic profile and educational health-related status with healthy lifestyle and personal control.

Socio-Demographic Profile. Refers to the age. gender, civil status, attainment, and working experience of the clients.

Age. This term refers to the period during which the patient has lived or existed. Age is a factor in determining the respondent's profile.

Gender. It refers to the person's concept of himself as being male and masculine or female and feminine, or ambivalent.

Civil Status. This refers to the respondents being single or married or widowed.

Educational Attainment. Level of education the patient has attained from formal schooling either elementary to graduate school.

Working Status. This refers to whether the patient is working or not or self-employed.

RESEARCH METHODOLOGY

This chapter presents the research design, environment, respondents, sampling design, data gathering procedure and statistical treatment.

Design

The study utilized a descriptive-correlational research design. It is used when little is known about a particular phenomenon (Burns, et al., 2019). The researcher observes, describes and documents and effect related to the phenomenon. Descriptive designs describe what actually exists, determine the frequency with which it occurs, and categorize the information. In application, the study assessed the associated factors of healthy lifestyle and personal control among the outpatients of Type II Diabetes Mellitus patients.

A correlational design is a type of non-experimental research method, in which a researcher measures two variables, understands and assess the statistical relationship between them with no influence from any extraneous variable (Bhat, 2020). As applied in the study , this paper assessed the relationship of socio-demographic profile and health status of healthy lifestyle and personal control among the outpatients of Type II Diabetes Mellitus.

Environment

The study was conducted in one of the hospitals in Biliran, Philippines. The researcher chose this hospital because it is where she is supervising nursing students who were having their related learning experiences. The hospital stands as the sole healthcare based in the province of Biliran in Eastern Visayas Region. It is located in Naval, Biliran the capital town of Biliran Province catering to the medical needs of the people of the said province. A pivotal institution, it handles a substantial daily influx of patients, managing 60-80 Out-Patient Department (OPD) cases and 40-50 Emergency Room (ER) cases. This medical hub plays a crucial role in delivering vital healthcare services to the local community, exemplifying resilience and dedication in the face of healthcare challenges. It has a 120-bed capacity composed of medical ward, obstetrics ward, surgical ward, and pediatric ward. It has Emergency room, delivery room and operating room.

The mission of the said hospital is to provided health care services to all Biliranon and other clients through upgraded and expanded hospital capabilities by competent cordial and committed personnel. The vision is a center of equitable and sustainable quality health care service to all Biliranon and other clients.

Respondents

There were 201 outpatients diabetic mellitus Type II. All Diabetic Mellitus patient type 2 in OPD of Biliran Provincial Hospital for three months. The 201 outpatients with Type 2 Diabetes Mellitus, was based on the treated patients at the outpatient department for a period of two months (April to May 2024). The respondents' ages range, gender distribution, varying levels of educational attainment and health status were noted.

Sampling Design.

A non-probability sampling technique was used specifically Quota sampling. Quota sampling achieves a representative generation distribution but is not a random sample because of the sampling frame is unknown**.**

Inclusion Criteria. The following are the inclusion criteria. Respondents must be enrolled in the diabetic clinic of the Out-Patient Department of the said hospital who are diagnosed with Diabetes Mellitus Type II and having maintenance of medications for 5 or more years.

Exclusion Criteria. For the exclusion criteria, those patients who are admitted in the hospital. Though there were diagnosed with Type II Diabetes Mellitus. Patients who are not enrolled at the Outpatient Department are not also included in the study. Patients who were newly diagnosed with Type II Diabetes Mellitus are excluded in the study.

Instrument

The study made use of a two-part questionnaire. Part one covers the socio-demographic and health-related characteristics among outpatients having Type II Diabetes Mellitus. For the socio-demographic characteristics, it includes the gender, age. civil status, educational attainment. and working status. In health-related status, it characterizes whether the respondents are smoking or not, how many packs per day does the respondent consume and its basal metabolic indicator which categorizes the respondents obese or not.

Part two of the instrument is an adopted instrument--The Healthy lifestyle and Personal Control Questionnaire (HLPCQ) was utilized in the study by Christina Darviri (2014). This is a 26-item tool in which the respondent is asked to indicate the frequency of adopting 26 positively stated lifestyle habits using a Likert-type scale (1 = Never or rarely, 2 = Sometimes, 3 = Often and 4 = Always). It measures the healthy lifestyle and personal control of individuals who have increased control over their health which is the main goal of health promotion program or plan. HLPCQ includes the 26-item tool having an introductory phrase like " How often….and are classified into classification such as: There are 12 items concerning diet like dietary healthy choices which represent control over food quantity and quality and dietary harm avoidance, representing control over "food temptations "such as stress eating, binge-eating, soft drink and fast-food consumption,,8 items referring to a daily routine representing the individual's control over consistent timing of meals and sleep , 2 items referring to organized physical exercise , representing the tendency to follow scheduled organized physical exercise and four items referring to practices of social and mental balance representing the individual's inclination to socialize, balance leisure and personal time and adopt positive thinking or cognitive control over stressors. All subscales showed satisfactory internal consistency and variance, relative to theoretical score ranges. Parametric scoring and interpretation are as follows: 1.00-1.75=Poor (never), 1.76-2.50=Fair (rarely), 2.51-3.25=Good (often), 3.26-4.00=Very Good (always). The instrument was translated to Cebuano translation for easy comprehension of the respondents. The converted questionnaire was also validated by a research expert.

Data Gathering Procedure

The data gathering procedure was done in the following stages: pre-data stage, actual data gathering that is administration of questionnaires, and post data gathering stages.

Pre-Data Gathering Stage. Three research titles were initially submitted for approval Once the title was approved, transmittal letters to the Dean of College of Allied Health Sciences. Graduate Studies and Chief of Hospital were submitted for approva Following the approval, a draft of the manuscript was made and submitted for a design hearing under a panel of experts. Suggestions and recommendations were complied. The paper was submitted for ethical review in the university. Once a notice to proceed was issued this signaled the recruitment of the first respondent.

Actual Data Gathering. The study made use of the face-to-face intercept method of recruitment at the outpatient department of the hospital. They were also assessed if they qualified based on the inclusion and exclusion criteria. Once they qualified, there were invited to participate in the study. Once they voluntarily join by signing the informed consent form, they were made to answer the questionnaire. They answered the questionnaire in a private place of their choice . Questionnaires were checked if they had not missed out any question. All incomplete questionnaire was returned for completion. This was done repeatedly until the sample size was achieved.

Post-Data Gathering. All answers to the questionnaires were tallied, tabulated and summarized using the Micro Excel format. The raw data were submitted to the statistician for appropriate statistical treatment. Data were presented in tables along with their interpretations, implications and supporting literatures and studies. All answered questionnaires were shredded at the end of the data analysis while all raw data were permanently deleted.

Statistical Treatment of Data

The study employed both descriptive and inferential statistics. The following statistical treatments were used:

Frequency Distribution and Simple Percentage. This was used to determine the socio-demographic profile and the health-related status of the respondents.

Weighted Mean and Standard Deviation. This was used to determine the healthy lifestyle and personal control of the patients.

Chi Square and Cramer's V. This was used in assessing whether there was a significant relationship between the socio-demographic profile and health-related status with healthy lifestyle and personal control. The Cramer's V was used to test the strength of the association should chi square reveal a significant correlation.

Ethical Considerations

The study involves human participation, it is critical that ethical guidelines be followed in its execution. The following ethical principles will be observed.

Protection of Human Rights. To accomplish this, three ethical principles shall be followed: respect for persons, beneficence, and justice. Respondents was treated as independent agents in order to observe respect for persons. This manner, they have the option of participating in the study or not. They demonstrated by signing the informed consent form. To maintain beneficence, no harm was done to the respondents because the data would be gathered solely through a questionnaire. There were no interventions or treatment alternatives. Finally, justice was upheld because all respondents were subjected to the same data collection technique, which is the completion of the questionnaire. They were chosen and recruited based on the inclusion and exclusion criteria.

Transparency. When the study was completed, a copy will be given to the university library. The work will also be submitted for possible oral or poster presentations in any research fora locally or internationally and for publication in a local or international journal.

Risk-Benefit Ratio Determination. The researcher made sure that the risks involved was outweighed by the benefits that were experienced in the study.

Risks. Respondents only be exposed to minimal risks, which are comparable to the dangers associated with normal daily activities. Physical harm was avoided because the only data collection approach was answering a questionnaire; no treatments was implemented. Economic harm must be avoided as well because respondents were not required to pay for their participation. They paid for expenses incurred as a result of the study.

Benefits. This study was beneficial to the nurses as they would gain insights about their associated factors of healthy lifestyle and personal control among outpatients with Type 2 Diabetes Mellitus, and this would be a ground for engaging in activities that further protect and improve their healthy lifestyle and personal control.. This way they were able to carry out their respective responsibilities and roles in the hospital effectively and efficiently. Clients were greatly benefit from being serviced by the nurse do not have issues with healthy lifestyle and personal control with type 2 diabetes mellitus. Patients or clients being recipients of care, when taken care of by nurses who are resilient, they will be given the quality of care that meets their expectation which brings about a high level of customer service. The services provided somehow meet their expectations or even surpass their expectations which will greatly influence in gaining a higher level of customer satisfaction.

Hospital administrators gained insights about their healthy lifestyle and personal control . This way they were be able to devise activities which will be reflected in the operational and strategic plans that are geared towards protecting the mental health and improve resilience of the nurses in the end protects the nurse's welfare. The findings of the study can serve as a basis in drafting regulations and policies or laws that protect the mental health , not just during a pandemic but in the course of their employment in hospitals. New regulations and policies may be issued to mandate hospital to introduce specific activities that protect the mental health of their employees.

The findings of the study can serve as a reference in studies relating to the associated factors on healthy lifestyle and personal control among outpatients with Type 2 Diabetes Mellitus. The study findings may also be validated using a wider coverage in terms of environment and greater number of respondents. Other findings of the study can be used for new research studies using complicated designs to yield other research findings.

Informed Consent. The study made use of an informed consent to guarantee that the participation of the respondents is voluntary. The informed consent form contained the following:

Participants Status. Respondents were oriented that this work is for educational purposes only and that this work is in compliance with the requirement for the researcher's master's degree.

Study Goals. The purpose of the study was to assess whether the socio-demographic profile and health-related status were correlated with a healthy lifestyle and personal control among patients with Type II Diabetes Mellitus in a Provincial Hospital**.**

Type of Data. Data that were gathered are quantitative data as responses to the questionnaire.

Procedures. Procedures were discussed under data gathering procedures. The nature of the commitment was that answering the questionnaire would only take 5 to 10 minutes of the respondents' time, and their participation in the study was limited to answering the questionnaire

Sponsorship. There are no sponsors for the study.
Participant Selection. Respondents were selected using the inclusion and exclusion criteria along with the sampling design.
Potential Risks. This study involved only minimal risks and they are discussed in the preceding paragraphs on risk-benefit ratio determination.\
Potential Benefits. The benefits of the study are discussed in the risk-benefit ratio determination.
Alternatives. There was no alternative to interventions or treatments as this study is purely non-experimental and that no interventions or treatments introduced to the respondents.
Compensation. There are no incentives or compensation that were given to the respondents. They w thanked personally by the researcher for their participation through words of gratitude.
Confidentiality Pledge. The respondents of this study was assured of the confidentiality of information. They were anonymized. Confidentiality measures are discussed in the succeeding sections.
Voluntary Consent. Participation in the study is purely voluntary. There were no coercion, undue force, intimidation, duress, and undue influence that were exerted.
Right to Withdraw and Withhold Information. The respondents was informed that they have the right to withdraw and withhold information at any point of the study. Should they decide to withdraw from the study or withhold any information, they were subjected to any penalties or be punished for doing so and this did not affect their status as nurses in the hospital.
Contact Information. Through the informed consent form the respondents can contact the researchers or the UV-IRB, if they have questions, comments or complaints on the study. They may contact UV-IRB at +63 (32) 4168607, or email at rec@uv.edu.ph
Authorization to Access Private Information. The research has no access confidential information. It is restricted to the respondents' socio-demographic characteristics of the outpatients of type 2 Diabetes Mellitus. Privacy and Confidentiality. The provisions of the Data Privacy Act will be rigorously adhered to, and respondents had the option to choose which place they answered They we required to select a location where they can enjoy privacy. Confidentiality measures will be implemented, including anonymization of all respondents. There was no collection of private and personal information. Only numbers were assigned to respondents. The original data were stored on a password-protected laptop. Only the researcher had access to the questionnaires, which were stored in a closed cabinet. To prevent the identification of a respondent, the data was presented in tabular form. At the conclusion of the study, the original data was deleted permanently, and the completed questionnaires were shredded. No compensation was provided to respondents for their participation in the study. Additionally, no incentives were offered; instead, participants received words of gratitude for their time and participation.
Debriefings, Communication, and Referrals. There were no debriefings because the questionnaire contained instructions on how to respond. When necessary, only verbal communication was used, and referrals were made.
Conflict of Interests. The researcher declares no conflict of interest.
Collaborative Study Terms of Reference. This research was conducted independently of any individual or entity. The researcher owned all intellectual property rights, including publication rights. However, with a signed written agreement, the Research Adviser may be named as a secondary author.
Recruitment. Face-to-face intercept was used to recruit respondents. To prevent cross-infection of COVID-19 infection, strict health precautions was followed. The sampling methodology and inclusion and exclusion criteria was a guide in the recruitment process.

Vulnerability Assessment. Prior to recruiting respondents, the researcher will do a thorough assessment to ensure that none of them belong to the vulnerable subjects. As a rule, no vulnerable persons will be recruited as respondents.

RESULT AND DISCUSSION:

This chapter presents the data gathered on the associated factors in healthy lifestyle and personal control among patients with Type II Diabetes Mellitus in a Provincial hospital. Data were analyzed, interpreted then followed the discussion of the findings and its implications.

Socio-Demographic Profile of the Type II Diabetic Mellitus Patients

Table 1is the presentation of the data on the socio-demographic profile of the Type II Diabetes Mellitus Patients in terms of gender, age, civil status, educational attainment and working status.

Table 1 Socio-Demographic Profile of the Type II Diabetic Mellitus Patients

Socio-Demographic Profile	*f*	*%*
Gender		
Male	116	44.10
Female	147	55.89
Age		
21 – 30 years old	2	2.66
31 – 40 years old	19	9.12
41 – 50 years old	35	15.58
51 – 60 years old	139	52.85
61 – 70 years old	51	19.39
Civil Status		
Single	17	6.46
Married	178	67.68
Widowed	68	25.85
Educational Attainment		
Elementary	20	7.60
High School	60	22.81
College	133	50.87
Graduate School	41	15.58
Work Status		
Working	148	56.27
Not working	48	18.25
Self-employed	67	25.47

Note: *n=263.*

The table reflects the socio-demographic characteristics of the patients.

Gender. The gender distribution of the respondents was majority of the respondents are female which is 55.89 percent . In the study of Adamson (2021) he pointed out that women may be more likely to adhere to dietary recommendations than men. This could influence the overall findings related to diet as a factor in managing T2DM. In terms of physical activity, men and women might engage differently in physical

activities. For healthcare utilization, women are generally more likely to visit healthcare providers regularly, which might influence their level of personal control and management of T2DM. As to psychosocial factors on stress and coping mechanisms, the way men and women handle stress and their coping mechanisms can vary, impacting their ability to manage diabetes effectively. Women might have stronger social support networks, which can play a crucial role in diabetes management. Men and women may have different levels of access to economic resources, affecting their ability to afford healthy foods, medications, and other necessities for diabetes management. For healthcare access, gender disparities in healthcare access can affect the level of care and support each gender receives.

Age. Majority of the respondents belong to age ranging from 51-60 years old. Few were from age ranging from 51-70 years old. Also, few were coming 41-50 years old while very few were from age ranging from 31-40 years old. Also, very few were from the age ranging from 71 and above. Very few were from age ranging 21-30 years old. From the data, the majority of respondents fall within the age group of 51-60 years, comprising over half of the total sample. The second-largest age group is 61-70 years, making up 19.39% of the respondents. There is a significant drop in the number of respondents aged 41-50 years, 31-40 years, and 71 and above. The youngest age group has the least representation. Prevalence among middle-aged and elderly suggests that Type 2 Diabetes Mellitus is more prevalent among middle-aged and elderly patients in this provincial hospital. This trend is consistent with the general understanding that the risk of developing Type 2 Diabetes increases with age. The low representation of younger adults, very low percentage of respondents aged 21-30. There is high prevalence of Type 2 Diabetes Mellitus among middle-aged and elderly patients suggests a need for increased healthcare resources and services targeted at these age groups. Hospitals and clinics should prioritize diabetes screening, education, and management programs for patients aged 51 and above to address the higher demand for care and support (Leal, 2020).

Civil Status. In terms of civil status, majority were married, almost a quarter were separated from their partners, few were widowed and very few were still single. The civil status distribution among respondents shows a predominance of married individuals, with the majority being married. The next largest group comprises those who are separated from their partners, followed by widows and widowers. A small minority of respondents are the civil status distribution among respondents, with the majority being married, followed by those who are separated, widows and widowers, and a small minority of another group, has several implications such as health and social support that married individuals, who constitute the majority, are likely to have better social support systems, which can positively impact their health and well-being. The presence of a spouse can provide emotional and practical support, which is crucial for managing stress and chronic conditions. However, those who are separated, widowed, or in the minority group may face challenges such as loneliness and lack of immediate support, which can negatively impact their health. In economic stability married individuals might experience more economic stability due to dual-income households or shared financial responsibilities. This stability can lead to better access to healthcare, healthier living conditions, and the ability to maintain a healthier lifestyle. In contrast, separated and widowed individuals might face financial hardships, affecting their ability to afford necessary healthcare services and maintain a healthy lifestyle. Likewise, the civil status of respondents can have significant implications for mental health. Married individuals might have better mental health due to companionship and support from their spouses. Conversely, separated individuals might experience higher levels of stress, depression, and anxiety due to relationship breakdowns. Widows and widowers might face grief and loneliness, impacting their mental health.

Educational Attainment. Just over half of the diabetic mellitus patients were college graduates, almost a quarter were high school graduates, and few were graduates from the graduate school. In terms of educational attainment, college graduates: The majority of patients with diabetes mellitus have completed college. This suggests a relatively high level of educational attainment among these patients, which might influence their understanding of the disease, adherence to treatment, and overall health literacy. High school graduates: A significant portion of the respondents have only completed high school. This group might have different educational needs and challenges in managing their condition compared to those with higher education. It is noteworthy percentage of the patients have attained graduate-level education. These individuals might have a more profound understanding of health-related issues and a greater ability to access resources for managing their diabetes.

Work Status. Just over half of the respondents were working while a quarter were self-employed and few of the respondents were not working. More than half of the respondents are working, which indicates that they can manage their diabetes while maintaining a job. This could imply a level of control over their condition that allows them to be productive in the workforce. This group may have more flexibility in managing their time and health needs but also may face unique stressors and responsibilities that can impact their health. A notable percentage of the respondents are not working. This could be due to complications related to diabetes, other health issues, or economic conditions. Not being employed might affect their access to healthcare and their ability to manage diabetes effectively due to financial constraints levels. For instance, high school graduates might benefit from more fundamental health education, while college and graduate school attendees might need more advanced and detailed information. Majority who are employed, Special attention should be given to those not working. They might need additional support, such as financial assistance, access to free or low-cost medical services, and community support programs. The data indicates a diverse population of diabetic patients with varying levels of education and employment status. Effective diabetes management programs need to consider these differences to provide targeted support and resources, ensuring all patients have the necessary tools and knowledge to manage their condition effectively. This approach can help in improving health outcomes and quality of life for diabetic patients across different socio-economic backgrounds.

Health-Related Status of the Type II Diabetic Mellitus Patients

Table 2 reflects the health-related characteristics of the participants as to smoking number of packs per day and the Basal Metabolic Indicator.

Table 2 Health-Related Status of the Type II Diabetic Mellitus Patients

Health-related status	*F*	*%*
Smoking status		
Smoker	93	54.70
Non-Smoker	170	64.63
Number of packs per day (n=93)		
Less than 1 pack	2	0.76
1 pack	72	27.37
2 packs	13	4.94
3 packs	6	2.28
BMI		

Normal	12	4.56
Overweight	53	20.15
Obese	198	75.28

Note: *n-263.* Legend: BMI <18.5: underweight. BMI 18.5-24.9: normal weight. BMI ≥25.0: overweight. BMI ≥30.0: obesity.

Smoking Status. Among patients with Type 2 Diabetes Mellitus was that, majority of the patients were smokers. A significant proportion of patients with Type 2 Diabetes Mellitus (T2DM) were smokers. Smoking is a well-known risk factor for various health complications, including cardiovascular disease, which is particularly concerning for individuals with diabetes (Rossma, 2020). Non-Smokers is sixty-four and sixty-three-point percent (64.63%). Most patients are non-smokers, which is a positive indicator as non-smoking is a crucial component of a healthy lifestyle and effective diabetes management. Data show that healthy lifestyle and personal control have some health risks for smokers.

According to Taylor (2021), these are increased complications. Smokers with T2DM are at a higher risk for complications such as heart disease, stroke, and poor blood circulation. This can lead to more severe health issues and increased healthcare needs. Likewise impact on glycemic control. Smoking can affect insulin sensitivity and glucose metabolism, making diabetes management more challenging for smokers CScaffer, 2021).

Consequently, for the educational interventions, targeted smoking cessation program is a critical need for targeted smoking cessation programs specifically designed for patients with diabetes. These programs should focus on the unique challenges faced by this group and provide tailored support to help them quit smoking. The dangers of smoking for those with diabetes can help motivate patients to quit. Educational materials and counseling should emphasized the additional risks as smoking poses for their condition.

Number of Cigarette Packs Smoked Per Day Among Smokers with Type 2 Diabetes Mellitus less than one pack (0.76%): Only a very small percentage of smokers consume less than one pack of cigarettes per day. This group might have a lighter smoking habit, which could be easier to manage in cessation programs. Most smokers with T2DM smoke one pack per day. This indicates a significant daily nicotine intake, posing substantial health risks. Two (2) packs (4.94%): A smaller, yet concerning, percentage of smokers consume two packs per day, significantly increasing their risk for severe health complications. Three (3) packs (2.28%), A minority of smokers consume three packs per day, representing the heaviest smokers within the group and those at the highest risk for adverse health effects. For healthy lifestyle and personal control is health risks based on smoking intensity: Less than one pack per day. Based on the study of Lazarus (2018) the health risks are lower compared to heavier smokers; even light smoking can exacerbate diabetes complications and should be addressed. Smoking one pack daily is a substantial risk factor for cardiovascular diseases, poor glycemic control, and other diabetes-related complications. Three (3) packs per day: Heavy smokers face the most severe health risks, including a very high probability of developing life-threatening conditions. Intensive intervention is crucial for this group. There is a tailored smoking cessation program which is customized approaches. Heavy smokers may require comprehensive behavioral therapy and psychological support to address the addiction and underlying factors contributing to heavy smoking, (Lazarus, 2018). Healthcare providers should regularly assess the smoking habits of their patients and provide tailored advice and resources for quitting. Frequent check-ins can help track progress and adjust cessation strategies as needed.

BMI range Distribution Among Patients with Type 2 Diabetes Mellitus is normal which is four-point fifty six percent (4.56%). Only a small percentage of patients have a normal BMI. This suggests that a very minor segment of the population with T2DM falls within the healthy weight. Overweight (20.15%), a significant portion of patients are overweight. Being overweight is a known risk factor for the development and worsening of diabetes. Obese (75.28%). Most patients are obese. Obesity is strongly associated with the development and poor management of T2DM, and it significantly increases the risk of complications. For a healthy lifestyle and to manage health risks associated with BMI, aim for a normal BMI by following these guidelines: Patients with a normal BMI are at a lower risk for diabetes complications compared to overweight and obese patients. However, maintaining a normal BMI requires ongoing management and healthy lifestyle choices. Overweight patients are at an increased risk for insulin resistance, cardiovascular diseases, and other diabetes-related complications. This group is at a critical juncture where lifestyle interventions can significantly improve their health outcomes (Lazarus, 2021).

For obese, which is high prevalence of obesity among patients with T2DM is alarming. Obesity exacerbates insulin resistance and increases the likelihood of severe complications, including cardiovascular disease, neuropathy, and retinopathy. Addressing obesity is paramount in managing T2DM effectively recommendations, and behavioral therapy. Providing personalized nutritional advice can help patients make healthier food choices. Education on portion control, balanced diets, and the importance of reducing sugar and saturated fat intake is crucial. Encouraging regular physical activity tailored to the individual's abilities and health status can aid in weight loss and improve insulin sensitivity. Exercise programs should be designed to be sustainable and enjoyable for the patients. Continuous monitoring of BMI and other health indicators can help track progress and adjust interventions as needed. Regular check-ups and follow-ups are essential. Involving a team of healthcare providers, including dietitians, endocrinologists, and physical therapists, can provide a holistic approach to managing obesity and diabetes. Educating patients about the impact of BMI on diabetes and how they can manage their weight through diet, exercise, and lifestyle changes is crucial. Empowering patients with knowledge can motivate them to take an active role in their health. Facilitating support groups where patients can share experiences, challenges, and successes can provide motivation and practical tips for weight management. Based on the gathered data, the high prevalence of overweight and obesity among patients with Type 2 Diabetes Mellitus highlights the critical need for targeted interventions to manage and reduce weight. Addressing these issues through comprehensive weight management programs, regular monitoring, patient education, and a multi-disciplinary approach can significantly improve health outcomes and enhance personal control over diabetes management. Focusing on these strategies will help in mitigating the risks associated with high BMI and promoting a healthier lifestyle among patients with T2DM.

Healthy Lifestyle and Personal Control of the Type II Diabetic Mellitus Patients

Table 3 shows the healthy lifestyle and personal control of the participants. It consists of 26 indicators.

Table 3 Healthy Lifestyle and Personal Control of the Type II Diabetic Mellitus Patients

	Healthy Lifestyle Indicators	Mean	SD	Interpretation
1.	Are you careful about how much food you put on your plate	2.77	1.02	Often
2.	Do you check the food labels before buying a product	2.39	0.89	Rarely
3	Do you calculate the calories of your meals	2.11	0.94	Rarely

4.	Do you limit fat in your meals?	2.14	0.93	Rarely
5.	Do you like cooking.	2.77	1.10	Often
6.	Do you eat organic foods?	2.41	0.77	Rarely
7.	Do you eat whole-wheat products?	2.41	0.79	Rarely
8.	Do you avoid eating packaged-or-fast-food	2.41	0.93	Rarely
9.	Do you avoid soft drinks	2.29	0.94	Rarely
10.	Do you avoid eating when stressed or disappointed	2.47	0.93	Rarely
11.	Do you avoid binge eating when you are out with friends?	2.36	0.97	Rarely
12.	Do you eat your meals at the same time each day?	2.94	0.93	Often
13.	Are you careful about not missing a meal each day.	2.88	0.97	Often
14.	Do you eat a good breakfast?	2.67	0.97	Often
15.	Do you sleep at the same time each day?	2.19	0.86	Rarely
16.	Do you follow a scheduled program for your daily activities,	2.30	0.94	Rarely
17.	Do you eat breakfast at the same time each day	2.95	1.01	Often
18.	Do you eat lunch at the same time each day?	3.16	0.73	Often
19.	Do you eat dinner at the same time each day?	3.16	0.74	Often
20.	Do you practice aerobic exercise for 20 or more minutes at least 3 times per week?	1.92	0.86	Rarely
	Factor mean	2.53	0.91	Good
	Personal Control Indicators			
21.	Do you exercise in an organized manner?	2.09	1.04	Rarely

Table continued

Healthy Lifestyle and Personal Control of the Type II Diabetic Mellitus Patients

Healthy Lifestyle Indicators		Mean	SD	Interpretation
22.	Do you share your personal problems or worries with others.	2.38	1.14	Rarely
23.	Do you concentrate on positive thoughts during difficulties?	2.69	0.87	Often
24.	Do you empty your brain of thoughts or the next day's program during bedtime?	2.74	0.90	Often
25.	Do you care about meeting and discussing with your family daily?	2.71	1.04	Often
26.	Do you balance your time between work, personal life and leisure?	2.89	0.96	Often
	Factor mean	2.58	0.99	Good

Legend: *1.00-1.75=Poor (never), 1.76-2.50=Fair (rarely), 2.51-3.25=Good (often), 3.26-4.00=Very Good (always)*

Table 4 reflects the following results in terms of the Dietary Intake of the respondents. Majority of the participants show a generally good dietary intake and dietary avoidance of food. In the study of Christian (2018). Good dietary intake and dietary avoidance among outpatients with type 2 diabetes mellitus have several implications and interpretations that are crucial for managing the condition effectively like: glycemic control, improved blood sugar levels, adherence to a balanced diet that focuses on low glycemic index foods, high fiber, and controlled carbohydrate intake can help maintain stable blood glucose levels. Proper dietary practices can minimize the occurrence of both high and low blood sugar episodes, which are common concerns for diabetic patients. A diet rich in nutrients but low in empty calories and unhealthy fats can support weight loss or maintenance, which is crucial for improving insulin sensitivity and overall diabetes management. A heart-healthy diet that includes fruits, vegetables, whole grains, lean proteins, and healthy fats can lower the risk of cardiovascular diseases, which diabetic patients are particularly prone to. Good dietary habits can reduce the risk of diabetes-related complications such as neuropathy, nephropathy, and retinopathy. A balanced diet can improve overall energy levels, mood, and quality of life, enabling patients to manage their condition more effectively. Patients adhering to recommended dietary guidelines are likely to experience better health outcomes, indicating the importance of education and support in dietary management.

In terms of daily routine, following a scheduled program for daily activities indicate areas for improvement among patients with Type 2 Diabetes Mellitus. Result shows that majority of the participants have fair practices of their daily structured daily routines. Based on the study of Darviri et al (2014) for managing diabetes and overall health of the patients can improve their daily habits, leading to better blood sugar control and enhanced overall well-being.

In terms of organized physical exercise, majority of the participant have a fair practice in this activity. In aerobic exercise practice has a weighted mean of (WM -1.92) which indicates that participants have a fair practice of engaging in aerobic exercise for 20 or more minutes at least three times per week. According to blood Sugar Control: Regular aerobic exercise helps improve insulin sensitivity and blood glucose control. Physical activity is a key component of diabetes management as it helps lower blood sugar level. Aerobic exercise aids in weight management, which is crucial for patients with Type 2 Diabetes Mellitus to prevent obesity-related complications. Exercise improves cardiovascular health, reducing the risk of heart disease, which is a common complication in diabetes Many patients may struggle to find time for regular exercise due to busy schedules or other commitments. Based on the study of Cruz (2019) they are physical limitations of some individuals. They can be done at home or in the community, such as walking, swimming, cycling, or dancing. Personalized exercise plans that fit individual lifestyles and preferences. This can include recommendations for low-impact exercises for those with physical limitations. Encourage the use of fitness trackers or mobile apps to monitor exercise habits and progress. This can help patients stay motivated and see their improvements over time. For example, starting with 10 minutes of exercise per day and gradually increasing the duration. Other strategies are walking during breaks, taking the stairs instead of the elevator, or scheduling exercise sessions like appointments. Results of the study indicates a need for improvement. Regular aerobic exercise is crucial for effective diabetes management and overall health. This will lead to better blood sugar control, improved cardiovascular health, and enhanced quality of life for individuals with Type 2 Diabetes Mellitus.

For personal control of the participants, results show good scores in which the participants have developed effective strategies for managing their overall mental health and wellbeing. However, there is always room for improvement. Building on these positive tendencies, further programs aimed at enhancing resilience

and coping mechanisms can be introduced. Regular mental health check-ins, stress management workshops, and support groups can reinforce these positive behaviors. Ensuring that individuals continue to practice good sleep hygiene can have widespread benefits.

Correlation Between the Socio-Demographic Characteristics and Healthy Lifestyle and Personal Control of the Participants

Table 4 represents the correlation between socio-demographic characteristics, healthy lifestyle, and personal control of Type 2 Diabetes Mellitus patient. Socio-demographic characteristics of the participants includes the gender, age, civil status, educational attainment, employment status and the working status of the participants.

The table represents the correlation between socio-demographic characteristics and healthy lifestyle and personal control of the participants.

Table 4 Correlation Between Socio-Demographic Characteristics, Healthy Lifestyle and Personal Control

Pair of variables	X^2	Df	p-value	Cramer's V	Decision	Interpretation
Socio-Demographic Characteristics and Healthy Lifestyle						
Gender	1.85	3	.603	.123	Failed to reject Ho	Not significant
Age	94.25	15	.000	.348	Reject Ho	Significant
Civil status	34.88	9	.000	.210	Reject Ho	Significant
Education	12.84	9	.170	.128	Failed to reject Ho	Not significant
Work status	60.53	6	.000	.339	Reject Ho	Significant
Socio-Demographic Profile and Personal Control						
Gender	2.54	3	.467	.098	Failed to reject Ho	Not significant
Age	28.80	15	.017	.191	Reject Ho	Significant
Civil status	22.13	9	.008	.167	Reject Ho	Significant
Educational Attainment	24.08	9	.004	.175	Reject Ho	Significant
Work status	11.24	6	.081	.146	Failed to reject Ho	Not significant

Legend: Significant if *p* value is $\leq$ .05. Cramer's V interpretation: > 0.1 is weak association, > 0.03 is moderate association, and > 0.5 is strong association.

Gender and Healthy Lifestyle. There is no significant relationship between gender and healthy lifestyle. This is evidenced by the high p-value (greater than 0.05), leading us to fail to reject the null hypothesis (Ho). The low Cramer's V indicates a weak association. Since the p-value is greater than 0.05, we conclude that gender does not significantly affect the lifestyle choices of respondents. This weak association (Cramer's V = .123) suggests that other factors might be more influential. The relationship between lifestyle and gender is not statistically significant (p > .05). Therefore, we fail to reject the null hypothesis

(Ho) that there is no relationship between lifestyle and gender. In other words, there is no meaningful relationship between lifestyle and gender based on this data analysis. The non-significant relationship between gender and lifestyle suggests that, based on this analysis, there is no inherent relationship between gender and lifestyle choices. However, it is important to recognize that gender-related factors (such as societal norms, roles, and expectations) can influence lifestyle behaviors in complex ways that may not be fully captured by a simple correlation analysis. Future research could delve deeper into gender-specific determinants of lifestyle to provide a more nuanced understanding.

Age and Healthy Lifestyle. There is a significant relationship between age and healthy lifestyle, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a moderate association. A significant correlation (p-value < 0.05) indicates that age is an important factor in determining lifestyle. The moderate association (Cramer's V = .348) implies that age-related factors such as health conditions, mobility, and social activities might play a substantial role in lifestyle choices. The relationship between lifestyle and age is statistically significant ($p < .05$). We reject the null hypothesis (Ho) and conclude that there is a significant relationship between lifestyle and age. The correlation value of 94.25 indicates a strong positive correlation, suggesting that age is closely associated with lifestyle factors. The correlations between age and lifestyle implies strong positive correlation between age and lifestyle suggests that as individuals age, their lifestyle choices and behaviors tend to change significantly. This finding highlights the importance of considering age-related factors when designing lifestyle interventions or health promotion programs. Understanding how age influences lifestyle can help tailor interventions to specific age groups for better outcomes.

Civil Status and Healthy Lifestyle. There is a significant correlation between civil status and healthy lifestyle, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a weak to moderate association. A significant correlation (p-value < 0.05) indicates that age is an important factor in determining lifestyle. The moderate association (Cramer's V = .348) implies that age-related factors such as health conditions, mobility, and social activities might play a substantial role in lifestyle choices. Civil Status. The relationship between lifestyle and civil status is statistically significant ($p < .05$). We reject the null hypothesis (Ho) and conclude that there is a significant relationship between lifestyle and civil status. The correlation value of 34.88 indicates a moderate positive correlation, suggesting that civil status influences lifestyle choices.

The correlation between civil status and healthy lifestyle implies moderate positive correlation which indicates that different civil status categories (such as single, married, divorced) may influence individuals' lifestyles. For example, married individuals may have different lifestyle patterns compared to single individuals. These findings suggest that lifestyle interventions or health promotion efforts may need to consider the social context and support systems associated with different civil statuses to promote healthy lifestyles effectively.

Educational Attainment and Healthy Lifestyle. There is no significant relationship between educational attainment and healthy lifestyle. This is evidenced by the high p-value (greater than 0.05), leading us to fail to reject the null hypothesis. The low Cramer's V indicates a weak association. The relationship between lifestyle and education is not statistically significant ($p > .05$). Therefore, we fail to reject the null hypothesis (Ho) that there is no relationship between lifestyle and education level. This implies that education level does not significantly impact lifestyle choices based on this analysis. The non-significant relationship between education and lifestyle implies that, based on this analysis, education level does not have a direct impact on lifestyle choices. However, it is essential to note that other factors not

captured in this study may influence the relationship between education and lifestyle. Future research could explore additional variables or interactions to gain a more comprehensive understanding of how education influences lifestyle behaviors

Work and Healthy Lifestyle. There is a significant relationship between work and healthy lifestyle, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a moderate association that is significant correlation (p-value < 0.05) indicates that work status affects lifestyle. The moderate association (Cramer's V = .339) implies that job type, work environment, and work-life balance might play significant roles in lifestyle decisions.

The significant correlations with age, civil status, and work suggest that policies and programs aiming to improve lifestyle should be tailored to these demographic factors. For example, age-specific fitness programs or work-life balance initiatives could be more effective. HealthCare providers should consider these demographic factors when advising patients on lifestyle changes. Personalized lifestyle interventions based on age, civil status, and work status might yield better outcomes.\

Education: The lack of significant correlation (p-value > 0.05) indicates that educational attainment does not significantly impact lifestyle. The weak association (Cramer's V = .128) suggests that lifestyle choices may be more influenced by other variables. Work: relationship between lifestyle and work status is statistically significant (p < .05). We reject the null hypothesis (Ho) and conclude that there is a significant relationship between lifestyle and work status. The correlation value of 60.53 indicates a strong positive correlation, suggesting that work status plays a significant role in determining lifestyle patterns. The strong positive relationship between work status and lifestyle indicates that individuals' employment status significantly influences their lifestyle choices and habits. This finding underscores the importance of considering work-related factors (such as work hours, job demands, workplace environment) when promoting healthy lifestyles among working populations. Workplace wellness programs and interventions targeting specific work-related lifestyle factors may be beneficial in improving overall health and well-being. Age, civil status, and work status are significantly correlated with lifestyle. Gender and education level do not show a significant correlation with lifestyle based on the analyzed data. These findings provide insights into the factors that influence lifestyle choices and can inform further research or interventions related to lifestyle and its determinants.

In terms of the correlation between Gender and Personal Control of participants. There is no significant correlation between gender and personal control. The high p-value (greater than 0.05) leads us to fail to reject the null hypothesis (Ho). The low Cramer's V indicates a very weak association. Since the p-value is greater than 0.05, we conclude that gender does not significantly affect personal control. The very weak association (Cramer's V = .098) suggests that other factors might be more influential.

Age and Personal Control. There is a significant correlation between age and personal control, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a weak to moderate association. This means that age is a factor that influences how much control a patient feels they have over managing their T2DM. Cramer's V indicating a weak to moderate association suggests that while age does influence personal control, it is not the sole or strongest factor. Other factors such as education, socioeconomic status, health literacy, and social support may also play significant roles. Rejecting the null hypothesis implies that the relationship between age and personal control is not due to random chance. This finding supports the need for age-specific strategies in managing personal control among T2DM patients.

Civil Status and Personal Control. There is a significant correlation between civil status and personal control, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a weak to moderate association. Civil Status: A significant correlation (p-value < 0.05) indicates that civil status affects personal control. The weak to moderate association (Cramer's V = .167) suggests that relationship status and family responsibilities might influence personal control decisions. Married or partnered Individuals might have better personal control due to the support of their spouse or partner. Counseling for these patients can leverage this support system, encouraging the involvement of partners in the management of T2DM.

Single, divorced, or widowed individuals patients may lack immediate support, which could impact their personal control. They might benefit from additional resources such as peer support groups, social services, and community programs designed to provide support and enhance their self-management skills.

Education and Personal Control: There is a significant correlation between education and personal control, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a weak to moderate association. Patients with higher levels of education may have better health literacy and more effective personal control over their diabetes management. Educational programs for this group can be more detailed, incorporating advanced concepts and encouraging self-directed learning. Patients with lower levels of education might need more basic, straightforward educational materials and instructions. Programs should use simple language, visual aids, and practical demonstrations to enhance understanding and retention.

Work and Personal Control. There is no significant correlation between work and personal control. The p-value is greater than 0.05, leading us to fail to reject the null hypothesis. The Cramer's V indicates a weak association. Work: The lack of significant correlation (p-value > 0.05) indicates that work status does not significantly impact personal control. The weak association (Cramer's V = .146) suggests that lifestyle choices related to work might be influenced by other variables

Correlation Between Health-Related Characteristics and Healthy Lifestyle and Personal Control

Table 5 is the presentation of the data on the relationship between health-related characteristics and healthy lifestyle and personal control.

Table 5 Correlation Between Health-Related Characteristics and Healthy Lifestyle and Personal Control

Pair of variables	X^2	df	p-value	Cramer's V	Decision	Interpretation
Health Related Characteristics and Healthy Lifestyle						
BMI	13.01	6	.043	.157	Reject Ho	Significant
Smoking Status	12.91	3	.005	.222	Reject Ho	Significant
Health Related Characteristics and Personal Control						
BMI	7.42	6	.284	.119	Failed to reject Ho	Not significant

Smoking status	3.97	3	.264	.123	Failed to reject Ho	Not significant

Legend: Significant if p value is ≤ .05. Cramer's V interpretation: > 0.1 is weak association, > 0.03 is moderate association, and > 0.5 is strong association.

The table shows the relationship between health-related characteristics, healthy lifestyle , and personal control of the participants..There is a significant correlation between BMI and lifestyle, with a p-value less than 0.05, leading us to reject the null hypothesis (Ho). The Cramer's V indicates a weak to moderate association.

Healthy Lifestyle and Smoking. There is a significant correlation between smoking and lifestyle, with a p-value less than 0.05, leading us to reject the null hypothesis. The Cramer's V indicates a moderate association. Lifestyle and Smoking: The significant correlation (p-value < 0.05) indicates that smoking status significantly affects lifestyle. The moderate association (Cramer's V = .222) suggests that smoking habits are closely related to lifestyle choices. Smokers might have different dietary habits, physical activity levels, and stress management practices compared to non-smokers. In the study of Shirinzadeh (2019) he pointed out that epidemiological studies have revealed associations between cigarette smoking and the increased risk of developing T2DM. Several population-based studies indicated the association between cigarette smoking and an increased risk of T2DM and, clinical trials provided an insight into mechanisms through that smoking and nicotine exposure affect body composition, and insulin sensitivity . In the Philippines, smoking ishighly prevalent. By the latest estimates, 48% of men and nine percent of women in the adult population smoke, which translates to approximately 17 million adult Filipino smokers. Furthermore, 23% of young people (aged 13–15 years) smoke.

Healthy Lifestyle and BMI. The significant correlation (p-value < 0.05) indicates that BMI is an important factor in determining lifestyle. The weak to moderate association (Cramer's V = .157) implies that variations in BMI might influence lifestyle choices such as diet, physical activity, and overall health behaviors. For instance, individuals with higher or lower BMI might adopt specific lifestyle changes to manage their weight and health.

Healthcare providers should consider BMI when advising patients on lifestyle changes. Personalized interventions that focus on healthy weight management through balanced diet and regular physical activity can be effective in promoting better lifestyle choices.

In the study of Gray et al, (2020), elevated BMI was also with progressively higher risk for all DM complications. The relationship between excess weight and being diagnosed with a DM complication was stronger for women than for men. For women, being just slightly overweight led to a higher risk of cardiovascular (HR=1.34), cerebrovascular (HR=1.30), renal (HR=1.31), and lower extremity (HR= 1.41) complications. For men, a slightly overweight status was not a significant risk factor for developing any DM complications. For women in the upper range of the overweight category, the risk increased for cardiovascular (HR=1.45), renal (HR=1.55), ocular (HR=1.84), and lower extremity (HR=1.55) complications. Men too became at a greater risk for cardiovascular (HR=1.22), renal (HR=1.30), and lower extremity complications (HR=1.47) relative to men with normal BMI

The magnitude of hazard ratios continues to increase for both men and women with further increases in BMI. Women with 30 ≤ BMI ≤ 39.99 were at an increased risk of cardiovascular (HR=2.04), cerebrovascular (HR=1.70), renal (HR=1.86), ocular (HR=2.02), and lower extremity (HR=2.06); those with BMI ≥ 40 had a much greater risk of cardiovascular (HR=2.45), cerebrovascular (HR=2.00), renal

(HR=2.23), ocular (HR=1.65), and lower extremity (HR=2.95) relative to women with 18.5 ≤ BMI < 25. At 30 ≤ BMI ≤ 39.99, men too were at an increased risk of cardiovascular (HR=1.91), cerebrovascular (HR=1.47), renal (HR=2.13), ocular (HR=2.17), and lower extremity (HR=2.13) complications; and those with BMI ≥ 40 were at a much greater relative risk of cardiovascular (HR=2.88), renal (HR=2.56), ocular (HR=4.53), and lower extremity (HR=3.79)) relative to men with normal BMI.

Further studies could explore additional variables or employ different methodologies to better understand what influences personal control in patients with Type II Diabetes Mellitus. Educating patients on the multifaceted aspects of personal control can be crucial. Emphasizing a holistic approach to managing Type II Diabetes Mellitus that goes beyond BMI and smoking might be more effective. Intervention programs designed to improve personal control should consider incorporating a broader range of factors, potentially including psychological support, lifestyle changes, and self-management education. Relationship between the personal control to BMI and smoking. The Chi-Square test was used to determine if there is a significant association between the variables BMI and smoking with personal control among patients with Type II Diabetes Mellitus.

For BMI, the Chi-Square value is 7.42 with 6 degrees of freedom and a p-value of 0.284. The p-value (0.284) is greater than the alpha level (0.119), indicating that we fail to reject the null hypothesis. This suggests that there is no significant association between BMI and personal control among the patients.

For smoking, the Chi-Square value is 3.97 with 3 degrees of freedom and a p-value of 0.264. The p-value (0.264) is also greater than the alpha level (0.123), indicating that we fail to reject the null hypothesis. This implies that there is no significant association between smoking and personal control among the patients.

Since neither BMI nor smoking shows a significant association with personal control in this study, it may suggest that other factors could be more influential in affecting personal control among patients with Type II Diabetes Mellitus.

HEALTH PROMOTION PLAN

Rationale

Having Type 2 Diabetes Mellitus affects individuals, health care systems, economies, and whole societies worldwide. Diabetes has become a major public health threat involves having a healthy lifestyle and personal control. Lifestyle intervention programs promoting healthy diets, physical activity, and modest body weight reductions can prevent or delay the onset of diabetes among high-risk populations. Evidence supports the efficacy and effectiveness of such interventions across clinical and community settings, delivery formats, and implementers. At-risk individuals need education, access to ongoing support, and an adequate environment to engage in health-enhancing behaviors. Health care practitioners and systems can contribute by providing individual counseling, establishing referral systems and linkages with community programs and resources, or by introducing health information technologies to screen for unhealthy behaviors or deliver interventions. These strategies represent opportunities where practitioners, communities, and health care systems can work. Lifestyle is one of the most important things you can do to manage diabetes and minimize your risk of developing complications. A healthy lifestyle involves being active, losing weight if you are overweight, getting enough exercise, having a healthy diet, not smoking, and no intake of alcohol intake keep Type II diabetes under control (for example, having a healthy diet, taking more exercise and losing weight.

Findings of the study revealed that there is a need to improve a healthy lifestyle of patients with Type 2 Diabetes Mellitus.

General Objectives

The primary purpose of this proposed health promotion plan is to improve healthy lifestyle and personal control among Type 2 Diabetes Mellitus Clients.

Specific Objectives

Specifically, this proposed plan to improve healthy lifestyle aims to:

a. To help and assist medical-surgical clients in improving healthy lifestyle in terms of achieving dietary changes, physical activity, sleeping of clients, weight management, stress management and routine monitoring.
b. Collaborate with all members of the interprofessional team, including nutritionists, to educate, treat, and monitor patients with obesity and type 2 diabetes mellitus regarding the role of nutrition in preventing, treating, and reversing diabetes.

CONCERNS/Needs Improvement	**SPECIFIC OBJECTIVES**	**ACTIVITIES**	**PERSONS RESPONSIBLE**	**RESOURCES**	**TIME FRAME**	**SUCCESS INDICATORS**
The need to create healthy diet	To plan a healthy dietary plan	**Personally Initiated Activities:** *****Read and view videos on how to prepare the following Healthy Menu *Vegetarian Diet *Mediterranean Diet * DASH Diet *Avoid sugary drinks *Carbohydrate counting *Plate method	*Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Nutritionist	*Desktop *Laptop **Androids *Internet connectivity	*Fourth Quarter of 2024 and onwards	*Saved articles or videos

		Hospital-initiated Activities *****Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *****Heighten referral system				
The need to improve physical activity	To design a regular physical activity	**Personally Initiated Activities:** *Thirty-minute moderate physical activity (5 days a week) *Regular physical exercise *Light activities include housework, gardening and walking *Keep an exercise schedule *Stay hydrated	*Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Health care professional	*Desktop *Laptop **Androids *Internet connectivity	Third Quarter 2024 and onwards	

		Hospital-initiated Activities *Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *Heighten referral system				
The need to reduce the level of HbA1c	To encourage the client to stop smoking	**Personally Initiated Activities:** *Encourage to drink **Hospital-initiated Activities** *Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *Heighten referral system o	*Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Health care professional	*Desktop *Laptop **Androids *Internet connectivity	Fourth Quarter of 2024 and onwards	
The need to maintain normal BMI	To reduce and maintain the normal BMI	**Personally Initiated Activities:** Monitor weight and	*Staff Nurse *Nurse Managers *Chief Nurse	*Desktop *Laptop **Androids	First Trimester of 2025	

		maintain the desired body weight **Hospital-initiated Activities** *Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *Heighten referral system	*Hospital Administrator *Health care professional	*Internet connectivity		
Risk of alcohol intake	To encourage to stop alcohol drinks	**Personally Initiated Activities:** *Choose your drinks carefully *Conduct a seminar on "Alcoholism, its significance to health"	*Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Health care professional	*Desktop *Laptop **Androids *Internet connectivity	First Trimester of 2024 and onwards	
The need to have a regular check-up with the Doctor	To point the importance of regular physical check up	**Personally Initiated Activities:** *Regular Monitoring *Regular monitoring of Glucose Level **Hospital-initiated Activities**	Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Health care professional	*Desktop *Laptop **Androids *Internet connectivity	First Trimester of 2024 and onwards	

		*Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *Heighten referral system				
The need to avoid Stress	To reduce stress	**Personally Initiated Activities:** *Stress management *Guided imagery *Meditation *Progressive muscle relaxation *Deep breathing *Going for a walk *Hugs *Aromatherapy *Creativity *Healthy diet Stress relief supplements *Leisure activities *Positive self-talk *Yoga *Gratitude	Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Health care professional	*Desktop *Laptop **Androids *Internet connectivity	Fourth Trimester of 2024 onwards	

		*Exercise *Evaluating priorities *Social support *Eliminating stressors **Hospital-initiated Activities** *Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *Heighten referral system				
Reduce number of hours of sleep	To meet the required number of hours sleep	**Personally Initiated Activities**: *Practice good sleep hygiene *Keep a Regular Bedtime * Turn off electronics * Do not drink alcohol before bedtime * Exercise during the Day	Staff Nurse *Nurse Managers *Chief Nurse *Hospital Administrator *Health care professional	*Desktop *Laptop **Androids *Internet connectivity	Fourth Trimester of 2024 onwards	

		* Focus on controlling your blood sugar *Avoid Caffeinated beverages * Stick to consistent sleep time *Create a bedtime ritual relaxing activity **Hospital-initiated Activities** *Conduct a seminar on healthy dietary plan * Conduct a review of the manpower needs **Resources** *Heighten referral system				

Summary of Findings

Findings of the study revealed that:

Majority of the respondents are female belonging to age ranging from 51-61 years old who are considered senior citizens. In terms of civil status, majority are married while single belong to the minority group. Majority of the clients of Type 2 Diabetes Mellitus are College graduates. Many of them are also working in terms of their working status.

Consequently, on the health status of the respondents, majority of them are non-smokers while the smokers are few. Besides, they can consume one pack of cigarettes per day. As to the Body Mass Index (BMI), majority of them have high BMI (obese).

There was no significant relationship between the gender and working status and the lifestyle of the respondents. There is a significant relationship between the age, educational status, civil status and the

lifestyle of the respondents. In the personal control of the respondents, there is no significant relationship between the gender and working status. There is a significant relationship between the personal control and the civil status. Age and educational status. There is no significant relationship between the health-related status and the personal control of the respondents. Lastly, there is a significant relationship between the health-related status and the lifestyle of the respondents.

Conclusion

In conclusion, gender and working status do not influence the lifestyle and personal control of the respondents. But the profile on the age, civil status, and educational qualification of the respondent may influence the lifestyle and personal control of the respondents. The health-related status may influence the lifestyle of the clients. The health-related status does not influence the personal control of the clients. Furthermore, the profile of age, civil status, educational qualification, and the health-related status of the clients may greatly influence the lifestyle of the respondents. Consequently, the profile on gender, working status and health related status of the respondents is not influenced by the personal control of the clients. Findings of the study affirmed the theory of Health Promotion Theory that provides a comprehensive framework that can guide the study on healthy lifestyle and personal control among type II diabetes mellitus patients by emphasizing the importance of individual characteristics, cognitive and affective factors, and behavioral outcomes in promoting health-enhancing behaviors. Furthermore, individual characteristics and experiences, biological, psychological, and socio-cultural factors of an individual may influence healthy lifestyle and personal control of a medical-surgical patients. Findings of the study are reflective of what had been explained in the Behavioral System theory includes behavioral healthy lifestyle and personal control of the clients in terms of food intake, regular exercise, regular screening and physical check-up.

Recommendations

The following are the recommendations are given based on the findings of the study.

Practice. By integrating these recommendations into practice, medical-surgical nurses can play a crucial role in enhancing the health and personal control of outpatients with T2DM, ultimately leading to better health outcomes and improved quality of life. Individualized care plans that consider each medical-surgical patient's unique needs, preferences, and circumstances. Adopt a holistic approach that addresses not only the physical aspects of T2DM but also the psychological, social, and economic factors that can impact health and personal control. Utilize digital tools such as mobile health apps, telehealth services, and online education resources to support patient self-management and improve accessibility to care. Findings of the study will be presented to the Medical-Surgical Outpatient Department where the study was conducted. They may also completely adopt or adopt in parts the Healthy Lifestyle Plan to improve healthy lifestyle and personal control. There may be used to revisit, review, and revised their respective staff development plan for nurses.

Policy. The study findings will be able to serve as a reference in crafting policies or regulations or manuals by the Medical-Surgical Outpatient Department in order to strengthen health education or health teaching of the medical-surgical nurses in caring especially to these diabetic clients. Also , to create policies in improving healthy lifestyle of the medical-surgical clients through the introduction.

Education, Findings of the study can serve as a reference for studies relating to healthy lifestyle plan of Type 2 Diabetes Mellitus. It will serve as a reference in discussing research concepts, statistics, and

research in ethics. The topics can be a good topic for discussion in classrooms. Educate patients about T2DM, including its causes, complications, and the importance of maintaining a healthy lifestyle. Provide detailed instructions on diet, exercise, medication adherence, and blood sugar monitoring.

Research. The study is intended for dissemination by participating in either local or i nal research congress as either oral presentation or poster presentation.

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