THE EFFECTS OF LIFESTYLE CHANGES ON TYPE 2 DIABETES PREVENTION AMONG TEACHERS IN EGOR LGA EDO STATE

BY

ETSAGHARA OGHENERUONA SYLVIA

EDU2102573

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CERTIFICATION

We undersigned, certify that this research work was carried out by Etsaghara Ogheneruona Sylvia in the Department of Health Safety and Environmental Education, Faculty of Education University of Benin City in partial fulfillment of the requirement of the award of the bachelor of science (ed) degree in health education

DR Mrs E.B. TIMBIRI	**Date**
(PROJECT SUPERVISOR)	
Mrs B.H ENABULELE	**Date**
(PROJECT COORDINATOR)	
DR.Mrs O.H OBASUYI	**Date**
(A.g HEAD OF DEPARTMENT)	

DEDICATION

I dedicate this project to God Almighty my creator, my strong pillar, my source of inspiration, wisdom, knowledge and understanding. He has been the source of my strength throughout this program

I also dedicate this work to my parents HON & MRS CHARLIE ETSAGHARA

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To my amazing sisters, Teejay and Tega, I truly appreciate your love and support. To all my beautiful aunties, thank you for your kindness, motivation, and prayers. I am also deeply grateful to my incredible friends, Ehis and Isabella, for their encouragement, companionship, and unwavering support throughout this journey.

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TABLE OF CONTENTS

TITLE PAGE	**i**
CERTIFICATION	**ii**
DEDICATION	**iii**
ACKNOWLEDGEMENT	**iv**
TABLE OF CONTENTS	**vi**
ABSTRACT	**viii**
CHAPTER ONE	**1**
INTRODUCTION	**1**
1.1 Background to the Study	**1**
1.2 Statement of Problem	**4**
1.3 Research Question	**5**
1.4 Purpose of the Study	**6**
1.5 Significance of the Study	**6**
1.6 Scope and Delimitation of Study	**9**
CHAPTER TWO	**10**
REVIEW OR RELATED LITERATURE	**10**
Concept of Type 2 Diabetes	**10**
Perceived Effect of Lifestyle Changes on Type 2 Diabetes Prevention	**16**
Perceived Effect of Lifestyle Changes on Type 2 Diabetes Prevention	**19**
Effect of Dietary Changes on Type 2 Diabetes Prevention	**22**
Effect of Dietary Changes on Type 2 Diabetes Prevention	**25**
Summary of Reviewed Literature	**30**
CHAPTER THREE	**33**

METHODOLOGY OF RESEARCH **33**
3.1 Design of the Study **33**
3.2 Population of the Study **34**
3.3 Sample and Sampling Technique **34**
3.4 Instrumentation **34**
3.5 Validity of the Instrument **35**
3.6 Reliability of the Instrument **35**
3.7 Method of Data Collection **35**
3.8 Method of Data Analysis **35**
CHAPTER FOUR **36**
PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS **36**
Research Questions **36**
Discussion of Findings **42**
CHAPTER FIVE **44**
SUMMARY, CONCLUSION, AND RECOMMENDATIONS **44**
5.1 Summary **44**
5.2 Conclusion **45**
5.3 Recommendations **46**
REFERENCE **47**
APPENDICES **52**

ABSTRACT

The increasing prevalence of Type 2 diabetes poses a significant public health concern, particularly among working professionals such as teachers, whose demanding schedules and lifestyle habits may contribute to their risk of developing the disease. This study investigates the influence of dietary changes, physical activity, and lifestyle modifications on the prevention of Type 2 diabetes among teachers in Egor Local Government Area, Edo State. The study employed a descriptive survey research design, and data were collected through a structured questionnaire distributed to public secondary school teachers. The findings reveal that while most respondents acknowledge the importance of maintaining a balanced diet in diabetes prevention, a considerable number still consume excessive processed and fast foods, indicating the need for improved dietary awareness and education. Additionally, teachers recognize the role of regular physical activity in reducing diabetes risk, yet workload constraints and lack of structured fitness programs hinder their participation in exercise routines. The study further highlights the impact of workplace wellness initiatives in fostering healthier lifestyle choices among educators. Despite the recognized benefits of lifestyle modifications, challenges such as busy schedules, unhealthy dietary habits, and limited institutional support restrict full adherence to preventive measures. The study underscores the need for increased health education, targeted policy interventions, and structured workplace wellness programs to promote diabetes prevention among teachers. It recommends the integration of nutritional education and physical activity

support systems into school policies and teachers' professional development programs. Addressing these barriers will be essential in reducing the prevalence of Type 2 diabetes in this population, ultimately improving teachers' overall health and productivity.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Type 2 diabetes is a rapidly escalating global health concern characterized by chronic hyperglycemia due to insulin resistance and beta-cell dysfunction. According to recent estimates by the International Diabetes Federation, approximately 537 million adults worldwide were living with diabetes in 2021, with projections reaching 643 million by 2030. This alarming trajectory necessitates urgent preventive strategies to address underlying risk factors such as sedentary behavior, poor dietary habits, and psychosocial stress, particularly in high-risk populations like educators.

Teachers represent a unique occupational group often exposed to chronic stress, irregular work schedules, and limited opportunities for physical activity, all of which contribute to increased vulnerability to type 2 diabetes. Studies highlight that prolonged stress elevates cortisol levels, a factor strongly linked to impaired glucose metabolism and insulin sensitivity (Bobryk et al., 2024). Coupled with sedentary behaviors associated with teaching duties, these factors position educators at a heightened risk for metabolic syndromes.

Numerous studies highlight the effectiveness of lifestyle changes—such as dietary adjustments, physical activity, and stress management—in reducing the risk of type 2 diabetes. For example, Galaviz et al. (2015) report that randomized controlled trials have shown a 58% reduction in diabetes risk among individuals with impaired glucose tolerance through interventions focused on healthy eating, physical activity, and weight loss. Similarly, the Diabetes Prevention Program Research Group (2002) found that lifestyle interventions were more effective than metformin treatment, reducing diabetes incidence by 58% compared to 31% with metformin. These findings demonstrate the critical role of lifestyle changes in diabetes prevention. These interventions emphasize the adoption of balanced diets rich in whole grains, lean proteins, and low glycemic index foods, alongside consistent exercise regimens. Additionally, stress management techniques such as mindfulness-based interventions have proven effective in reducing cortisol levels and improving overall metabolic health (Puhlmann, 2024).

Workplace wellness programs tailored to educators have emerged as a critical avenue for diabetes prevention. These initiatives provide structured opportunities for teachers to engage in physical activities, access nutritional education, and participate in peer support networks. A recent study by Cranston (2024) found that implementing digital health coaching within educational settings significantly improved adherence to exercise and dietary goals among

teachers. Similarly, integrating group activities such as yoga and fitness challenges has been linked to improved glucose tolerance and cardiovascular health (Baccus, 2024).

The ripple effects of healthier teachers extend beyond individual health outcomes, influencing broader educational environments. Healthy educators serve as role models, inspiring students and colleagues to adopt similar habits. Furthermore, improved teacher health correlates with reduced absenteeism and enhanced productivity, underscoring the societal and economic value of investing in workplace health initiatives.

Recent advancements highlight the potential of personalized interventions and digital health tools in enhancing the efficacy of diabetes prevention programs. For instance, integrating wearable technologies to monitor physical activity and glucose levels offers real-time feedback, empowering individuals to make informed health decisions (Schoonmade et al., 2024). The role of dietary interventions such as intermittent fasting in improving insulin sensitivity and glycemic control has gained attention as a promising strategy for diabetes prevention (Chadwick et al., 2024).

Addressing type 2 diabetes through lifestyle interventions within teacher populations not only promotes individual health but also strengthens the fabric of educational institutions by fostering a culture of wellness. This research aims to explore the nuanced impact of tailored lifestyle

modifications among teachers, contributing to the growing evidence base for effective diabetes prevention strategies.

1.2 Statement of Problem

Type 2 diabetes continues to pose a significant public health challenge, particularly in urbanizing areas where lifestyle shifts toward reduced physical activity and poor dietary choices are prevalent. The rising prevalence of type 2 diabetes in Nigeria reflects global trends, but the burden is magnified by limited awareness, insufficient healthcare resources, and cultural barriers to adopting preventive measures. Recent studies have documented a sharp increase in diabetes-related complications, including lower-limb amputations and cardiovascular disease, among urbanized populations in southern Nigeria (Ngim et al., 2023).

Egor Local Government Area, located in Edo State, Nigeria, epitomizes the intersection of such socioeconomic changes and the associated health impacts. Data from Egor indicate that dietary habits, characterized by high consumption of processed foods and sugary beverages, are prevalent among residents, including teachers (Eguagie et al., 2019). Coupled with the low prioritization of physical activity, these habits create a conducive environment for the onset of metabolic disorders. Furthermore, the healthcare system in the region is ill-equipped to provide comprehensive diabetes prevention programs, particularly those emphasizing lifestyle interventions tailored to specific professional groups like educators.

There is also gap in knowledge and adherence of lifestyle due to cultural perceptions and misconceptions about the disease and its management. Compliance to recommended dietary and exercise regimens remains suboptimal, often due to a lack of targeted educational initiatives and workplace support systems (Ehwarieme & Chukwuyem, 2018).

The pressing nature of these challenges necessitates a focused investigation into the effects of lifestyle changes on Type 2 diabetes prevention among teachers in Egor LGA Edo State.

1.3 Research Question

The following research questions were raised to guide the study:

1. What is the perceived effect of lifestyle changes on Type 2 Diabetes prevention among teachers in Egor LGA Edo State.
2. Does dietary changes have any effect on Type 2 diabetes prevention among teachers in Egor LGA Edo State
3. Does exercise have any effect on Type 2 diabetes prevention among teachers in Egor LGA Edo State

1.4 Purpose of the Study

The main purpose of this Study is to examine the effects of lifestyle changes on Type 2 diabetes prevention among teachers in Egor LGA Edo State. Specifically, the study seeks to:

1. examine if dietary changes have any effect on Type 2 diabetes prevention among teachers in Egor LGA Edo State
2. examine if exercise have any effect on Type 2 diabetes prevention among teachers in Egor LGA Edo State
3. to determine the perceived effect of lifestyle changes on Type 2 Diabetes prevention among teachers in Egor LGA Edo State.

1.5 Significance of the Study

This study, which investigates the impact of lifestyle changes on type 2 diabetes prevention among teachers in Egor Local Government Area, Edo State, holds both specific and far-reaching significance. It addresses the health needs of a key segment of the population while contributing to public health discourse. The findings aim to illuminate how lifestyle adjustments can mitigate diabetes risks, offering actionable insights for teachers, health planners, policymakers, and researchers alike.

As educators, role models, and community influencers, teachers play a crucial role in societal development. Yet their demanding schedules and typically sedentary routines expose them to heightened risks of type 2 diabetes. This study seeks to equip teachers with evidence-based knowledge about healthier diets, increased physical activity, and stress management. By focusing on their unique challenges, it empowers them to take proactive steps toward improved health and well-being. Healthier teachers can achieve greater productivity and job satisfaction. Reduced absenteeism and burnout enable them to perform their roles more effectively. Beyond personal benefits, teachers who adopt healthy habits set an example for students, fostering a culture of wellness in schools. This dynamic not only benefits individual classrooms but also plants the seeds for healthier communities and future generations.

The study also provides essential data for health planners seeking to design effective interventions. Teachers, as a substantial occupational group, influence both educational outcomes and public health trends. Understanding their barriers to healthier lifestyles helps planners develop targeted initiatives, such as workplace fitness programs or nutrition workshops. These tailored interventions can catalyze individual behavior changes while cultivating supportive environments that drive collective action.

At the policy level, this research aligns with Nigeria's broader objectives to combat non-communicable diseases like type 2 diabetes. By emphasizing prevention, the study equips

policymakers with the data to prioritize proactive healthcare strategies over costly curative approaches. A focus on lifestyle changes can reduce the economic strain on the healthcare system while fostering a healthier populace. Preventing diabetes through lifestyle interventions carries substantial economic advantages. Effective prevention reduces the high costs associated with diabetes management, including hospitalizations and treatment for complications like cardiovascular diseases. Healthier teachers contribute to a more efficient workforce, benefiting the educational sector and, by extension, the economy. Long-term investment in prevention delivers cost savings alongside societal well-being.

This study also fills a notable gap in academic literature. While extensive research explores lifestyle changes and diabetes prevention, few studies examine the unique risks faced by teachers. By focusing on this group, the study lays a foundation for understanding how occupational health strategies can be tailored to educators. Its findings offer a framework for adapting similar approaches to other professional sectors.

Beyond its immediate contributions, this research supports multidisciplinary efforts to prevent diabetes. Insights from public health, occupational health, behavioral science, and education can converge to explore questions like the impact of workplace culture on health behaviors or the role of digital tools in promoting lifestyle changes. The study's recommendations may inspire further research, deepening our understanding of diabetes prevention strategies.

Ultimately, this research underscores the critical role of lifestyle changes in tackling the root causes of type 2 diabetes. Teachers who embrace healthier habits influence not only their personal health but also their families, students, and communities. This ripple effect promotes a culture of wellness that extends far beyond the classroom. Integrating health promotion into workplace policies and community programs, this study demonstrates the potential for sustainable models of diabetes prevention. Its targeted approach offers a replicable blueprint for addressing similar challenges across sectors and communities, paving the way for broader societal change.

1.6 Scope and Delimitation of Study

The scope of this study is perceived effect of lifestyle changes on Type 2 diabetes prevention. The Study is delimited to teachers in Egor LGA of Edo State

CHAPTER TWO

REVIEW OR RELATED LITERATURE

This chapter reviewed literature related to this study. The review is organized under the following sub-headings:

- Concept of Type 2 Diabetes
- Perceived Effect of Lifestyle Changes on Type 2 Diabetes Prevention
- Effect of Dietary Changes on Type 2 Diabetes Prevention
- Effect of Exercise on Type 2 Diabetes Prevention
- Summary of Reviewed Literature

Concept of Type 2 Diabetes

Definition and Overview of Type 2 Diabetes

Type 2 diabetes mellitus (T2DM) is a chronic metabolic disorder characterized by insulin resistance and progressive pancreatic beta-cell dysfunction, leading to elevated blood glucose levels. Unlike type 1 diabetes, which is an autoimmune condition resulting in the destruction of insulin-producing beta cells, type 2 diabetes develops gradually due to a combination of genetic

predisposition and lifestyle factors (Bizimana, 2024). T2DM accounts for more than 90% of all diabetes cases globally, making it a major public health concern.

The primary feature of T2DM is the inability of the body's cells to respond effectively to insulin, a condition known as insulin resistance. Initially, the pancreas compensates by producing more insulin, but over time, beta-cell function declines, leading to chronic hyperglycemia (Diabetes Prevention Program Research Group, 2015). This condition is strongly associated with obesity, as excess adipose tissue contributes to metabolic dysfunction. Studies indicate that lifestyle interventions, including dietary modifications and increased physical activity, significantly reduce diabetes incidence and progression (Talmale & Phatak, 2025). Furthermore, the economic burden of diabetes is substantial, affecting both healthcare systems and individuals, reinforcing the importance of preventive strategies (Alolayan et al., 2025).

Causes and Risk Factors

The development of type 2 diabetes is influenced by a combination of genetic, environmental, and lifestyle factors. Individuals with a family history of diabetes have a significantly higher risk of developing the condition, as genetic predisposition affects insulin production and glucose metabolism (Lovas et al., 2024). While genetic factors play a role, environmental influences such as dietary patterns and physical activity levels are key determinants of disease onset.

Obesity and sedentary behavior are major modifiable risk factors for T2DM. Excess adipose tissue, particularly visceral fat, releases pro-inflammatory cytokines that interfere with insulin signaling pathways, exacerbating insulin resistance (Ogurtsova et al., 2024). Studies have shown that individuals who engage in regular physical activity and maintain a balanced diet have a lower risk of developing diabetes. The role of nutrition is particularly critical, as high consumption of processed foods, sugary beverages, and refined carbohydrates increases the likelihood of insulin resistance and obesity (Costa et al., 2025).

In addition to lifestyle factors, age and ethnicity contribute to diabetes risk. The prevalence of T2DM increases with age, particularly after 45 years, as pancreatic beta-cell function naturally declines (Bizimana, 2024). Certain ethnic groups, including African, Hispanic, and South Asian populations, have a higher genetic susceptibility to diabetes due to variations in glucose metabolism (Talmale & Phatak, 2025). Other risk factors include metabolic syndrome, chronic stress, and sleep disorders, all of which contribute to hormonal imbalances that affect insulin sensitivity (Costa et al., 2025).

Addressing these risk factors through early lifestyle interventions is crucial in reducing the incidence of type 2 diabetes. Evidence from large-scale prevention programs suggests that maintaining a healthy weight, engaging in regular physical activity, and adopting a nutrient-rich diet can significantly delay or prevent the onset of diabetes (Diabetes Prevention Program

Research Group, 2015). Public health initiatives promoting diabetes awareness and prevention are essential in mitigating the growing burden of this disease.

Symptoms and Diagnosis

The symptoms of type 2 diabetes often develop gradually, making early detection challenging. In the early stages, individuals may be asymptomatic or experience mild symptoms that are often overlooked. Common symptoms include excessive thirst (polydipsia), frequent urination (polyuria), and increased hunger (polyphagia), which arise due to the body's inability to regulate blood glucose levels effectively (Bizimana, 2024). Other symptoms include unexplained weight loss, persistent fatigue, blurred vision, slow-healing wounds, and recurrent infections, particularly in the skin and urinary tract (Costa et al., 2025). Over time, prolonged hyperglycemia can result in complications such as neuropathy, characterized by numbness or tingling in the extremities, which may lead to severe foot ulcers and amputations if left unmanaged (Ogurtsova et al., 2024).

The diagnosis of type 2 diabetes relies on a series of laboratory tests designed to assess blood glucose levels. The most commonly used diagnostic tests include the fasting plasma glucose (FPG) test, the oral glucose tolerance test (OGTT), and the glycated hemoglobin (HbA1c) test. According to Talmale & Phatak (2025), an FPG level of 126 mg/dL (7.0 mmol/L) or higher on two separate occasions is diagnostic of diabetes. The OGTT, which measures blood glucose

levels two hours after consuming a standardized glucose solution, confirms diabetes when values exceed 200 mg/dL (11.1 mmol/L). The HbA1c test, which provides an average measure of blood glucose levels over the past two to three months, is considered diagnostic for diabetes when it is 6.5% or higher (Lovas et al., 2024). Early detection through routine screening is crucial, particularly for individuals with risk factors such as obesity, family history, or sedentary lifestyles. Regular health check-ups and community-based screening initiatives have been shown to improve early diagnosis rates and prevent complications (Costa et al., 2025).

Global and Local Prevalence

The global prevalence of type 2 diabetes has been steadily increasing, driven by rising obesity rates, urbanization, and aging populations. According to Lovas et al. (2024), approximately 460 million adults worldwide were living with diabetes in 2024, with projections indicating that this number will rise to nearly 700 million by 2045 if current trends persist. The highest prevalence rates are observed in low- and middle-income countries, where rapid economic and lifestyle changes have contributed to the diabetes epidemic. Regions such as South Asia, the Middle East, and sub-Saharan Africa are experiencing significant increases in diabetes prevalence due to changes in dietary patterns and physical activity levels (Ogurtsova et al., 2024).

In Nigeria, the burden of type 2 diabetes is also rising, particularly in urban areas where sedentary lifestyles and poor dietary choices are prevalent. A study by Bizimana (2024)

estimated that approximately 5.7% of Nigeria's adult population has diabetes, with higher rates reported in cities such as Lagos and Benin City. Factors such as increased consumption of processed foods, reduced physical activity, and limited access to preventive healthcare services contribute to the growing prevalence. Additionally, a lack of awareness and delayed diagnosis exacerbate the situation, leading to increased rates of diabetes-related complications (Costa et al., 2025).

The economic impact of type 2 diabetes is substantial, both globally and locally. In many countries, diabetes-related healthcare costs account for a significant portion of national health expenditures. Ogurtsova et al. (2024) report that diabetes-related healthcare costs represent approximately 12% of global health expenditures, placing a considerable strain on health systems. In Nigeria, the financial burden of diabetes management is exacerbated by out-of-pocket expenses, as many individuals lack access to affordable healthcare. The high cost of diabetes medications, regular blood glucose monitoring, and treatment for complications pose significant challenges, particularly for low-income populations (Bizimana, 2024).

To address the rising prevalence of type 2 diabetes, national and international public health initiatives have been implemented. In Germany, for example, lifestyle intervention programs have been shown to effectively reduce diabetes incidence by promoting weight loss and increasing physical activity (Ogurtsova et al., 2024). In Nigeria, community-based diabetes

education and screening programs aim to enhance early detection and encourage healthier lifestyles (Costa et al., 2025). These interventions emphasize the importance of preventive strategies, including dietary modifications, regular physical activity, and improved access to healthcare services, in reducing the burden of diabetes at both the global and local levels.

Perceived Effect of Lifestyle Changes on Type 2 Diabetes Prevention

Understanding Lifestyle Changes in Diabetes Prevention

Lifestyle modifications play a fundamental role in the prevention and management of type 2 diabetes mellitus (T2DM). Research has shown that changes in diet, physical activity, and behavioral patterns can significantly reduce the risk of developing the disease (Bizimana, 2024). These modifications primarily target insulin resistance, one of the key pathological mechanisms of T2DM, by improving glucose metabolism and reducing excess body weight (Talmale & Phatak, 2025).

Dietary changes are a cornerstone of diabetes prevention. Consumption of whole grains, lean proteins, vegetables, and healthy fats has been associated with improved insulin sensitivity and lower diabetes risk (Costa et al., 2025). Conversely, diets high in refined carbohydrates, sugary beverages, and processed foods contribute to insulin resistance and obesity. A study by Lovas et al. (2024) emphasized that individuals who adhere to a Mediterranean-style diet, rich in fiber and

unsaturated fats, experience lower incidences of diabetes compared to those consuming high-glycemic diets.

Regular physical activity is another critical component of diabetes prevention. Exercise enhances insulin sensitivity, promotes glucose uptake by skeletal muscles, and aids in weight management (Ogurtsova et al., 2024). Both aerobic and resistance training have been found to be beneficial, with studies indicating that a combination of the two yields optimal results. The Diabetes Prevention Program Research Group (2015) demonstrated that individuals who engaged in structured lifestyle interventions, including regular physical activity, reduced their risk of developing diabetes by 58% over three years.

Behavioral and psychological factors also influence the success of lifestyle modifications. Self-monitoring, goal setting, and social support systems have been identified as crucial elements in maintaining long-term adherence to healthy habits (Bizimana, 2024). Additionally, stress management techniques such as mindfulness and cognitive behavioral therapy contribute to better metabolic outcomes and lower diabetes risk (Talmale & Phatak, 2025).

Teachers' Awareness and Perception of Lifestyle Changes

Teachers play a vital role in shaping public awareness and behavioural changes regarding health, making their perception and practice of lifestyle modifications particularly significant. In Egor

Local Government Area, Edo State, studies indicate that knowledge about diabetes prevention among teachers remains suboptimal, with many unaware of the full impact of diet and exercise on reducing diabetes risk (Ogbebor & Obahiagbon, 2017).

A study conducted by Omuemu et al. (2020) in Edo State found that although most teachers recognized the importance of healthy living, a significant number failed to incorporate regular exercise and proper dietary habits into their daily routines. Barriers such as workload, lack of motivation, and limited access to health education programs were identified as key factors affecting teachers' engagement in preventive health measures. Furthermore, cultural beliefs and misconceptions about diabetes prevention also contribute to resistance toward adopting lifestyle changes (Costa et al., 2025).

The role of workplace wellness programs in improving teachers' awareness and engagement in lifestyle changes cannot be overstated. Research by Lovas et al. (2024) suggests that structured interventions within schools, such as group fitness activities, dietary counseling, and health education workshops, significantly enhance awareness and motivation toward healthy behaviors. Teachers who actively participate in such programs not only improve their personal health outcomes but also serve as role models for students and the broader community.

Addressing the gaps in teachers' awareness requires targeted health promotion strategies, including integrating diabetes education into professional development programs and leveraging

community-based initiatives. Providing teachers with the necessary tools and resources to maintain healthy lifestyles will contribute to long-term reductions in diabetes prevalence within the local population (Ogurtsova et al., 2024).

Perceived Effect of Lifestyle Changes on Type 2 Diabetes Prevention

Impact of Lifestyle Changes on Diabetes Prevention

The implementation of lifestyle changes has been widely recognized as an effective strategy in preventing and managing type 2 diabetes mellitus (T2DM). Research indicates that modifying dietary patterns, increasing physical activity, and improving behavioral habits significantly reduce the incidence of diabetes among at-risk populations (Bizimana, 2024). The Diabetes Prevention Program Research Group (2015) demonstrated that structured lifestyle interventions resulted in a 58% reduction in diabetes incidence among high-risk individuals, highlighting the profound impact of such modifications.

One of the key benefits of lifestyle changes is improved glycemic control. Dietary modifications, such as reducing refined carbohydrates and increasing fiber intake, help regulate blood glucose levels and enhance insulin sensitivity (Talmale & Phatak, 2025). Similarly, engaging in regular physical activity enhances glucose uptake by muscles, reducing insulin resistance and promoting overall metabolic health (Costa et al., 2025). Studies have also shown that a combination of these

interventions leads to more sustainable long-term outcomes in diabetes prevention compared to pharmacological approaches alone (Ogurtsova et al., 2024).

Furthermore, weight management is a crucial component of lifestyle changes that contributes to diabetes prevention. Excess weight, particularly central adiposity, is strongly associated with insulin resistance and the development of T2DM (Lovas et al., 2024). Research has found that even modest weight loss—ranging from 5% to 10% of body weight—can result in significant improvements in metabolic parameters and reduce diabetes risk (Alolayan et al., 2025). Behavioral strategies such as self-monitoring, goal-setting, and dietary counseling have been shown to enhance adherence to weight management programs, further reinforcing the effectiveness of lifestyle changes.

Community-based interventions also play a vital role in promoting lifestyle modifications. Public health initiatives that incorporate dietary education, physical activity programs, and diabetes awareness campaigns have been successful in reducing T2DM prevalence (Omuemu et al., 2020). Workplace wellness programs targeting high-risk populations, including teachers, have also demonstrated positive outcomes in encouraging healthy behaviors and reducing disease risk factors (Ogbebor & Obahiagbon, 2017). The integration of these strategies within local communities fosters an environment that supports long-term adherence to healthy habits and contributes to overall diabetes prevention efforts.

Psychological and Behavioral Factors Affecting Lifestyle Changes

The success of lifestyle interventions in preventing type 2 diabetes is heavily influenced by psychological and behavioral factors. Motivation, self-efficacy, stress levels, and social support all play integral roles in determining an individual's ability to adopt and maintain healthy habits (Costa et al., 2025). Behavioral change theories emphasize that individuals are more likely to engage in sustained lifestyle modifications when they perceive a high level of personal control and have access to adequate support systems (Talmale & Phatak, 2025).

Stress and mental health are significant barriers to adopting lifestyle changes. Chronic stress has been linked to increased cortisol levels, which contribute to insulin resistance and elevated blood glucose levels (Bizimana, 2024). Additionally, individuals experiencing high stress or depressive symptoms may have difficulty adhering to dietary and exercise regimens, further exacerbating diabetes risk. Psychological interventions such as cognitive-behavioral therapy and mindfulness-based stress reduction techniques have been shown to improve adherence to lifestyle changes and enhance overall well-being (Lovas et al., 2024).

Social and environmental factors also influence behavioral adherence to lifestyle changes. Support from family, friends, and healthcare professionals has been found to enhance motivation and accountability in maintaining healthy habits (Ogurtsova et al., 2024). Community-based group interventions, peer support programs, and educational workshops provide structured

guidance and encouragement, improving long-term adherence to lifestyle modifications (Omuemu et al., 2020). Furthermore, access to healthy food options, recreational spaces, and workplace wellness programs can facilitate sustained behavioral changes and reduce barriers to diabetes prevention efforts (Ogbebor & Obahiagbon, 2017).

Addressing these psychological and behavioral challenges requires a comprehensive approach that integrates motivational counseling, social support systems, and mental health resources into diabetes prevention strategies. Empowering individuals with the knowledge and skills to navigate these challenges enhances their ability to sustain long-term lifestyle modifications, ultimately reducing their risk of developing T2DM (Alolayan et al., 2025).

Effect of Dietary Changes on Type 2 Diabetes Prevention

Role of Nutrition in Diabetes Prevention

Nutrition plays a fundamental role in the prevention and management of type 2 diabetes mellitus (T2DM). A well-balanced diet can improve insulin sensitivity, regulate blood glucose levels, and reduce the risk of diabetes-related complications (Bizimana, 2024). Research highlights that dietary patterns high in fiber, lean proteins, and healthy fats, combined with reduced intake of refined sugars and processed foods, significantly lower the risk of T2DM development (Costa et al., 2025).

One of the most well-researched dietary approaches for diabetes prevention is the Mediterranean diet, which emphasizes whole grains, fruits, vegetables, nuts, and olive oil. Studies have shown that adherence to this diet improves glycemic control and reduces the incidence of diabetes among high-risk individuals (Talmale & Phatak, 2025). Similarly, plant-based diets rich in legumes and whole grains have been associated with reduced insulin resistance and inflammation (Lovas et al., 2024).

Conversely, excessive consumption of high-glycemic foods, sugary beverages, and trans fats has been linked to increased diabetes risk. The Diabetes Prevention Program Research Group (2015) found that individuals who maintained healthy dietary habits had a significantly lower probability of developing diabetes compared to those with poor eating patterns. Additionally, Ogurtsova et al. (2024) emphasize that public health interventions promoting nutritional awareness and accessibility to healthy foods are crucial in mitigating the growing diabetes burden.

Recommended Dietary Practices for Preventing Type 2 Diabetes

Adopting specific dietary practices has been shown to effectively reduce the risk of type 2 diabetes. Key recommendations include:

Increased Fiber Intake: High-fiber foods such as whole grains, legumes, and vegetables help stabilize blood glucose levels and improve insulin sensitivity (Bizimana, 2024). Soluble fiber, in particular, slows glucose absorption, preventing rapid blood sugar spikes.

Healthy Fat Consumption: Replacing saturated fats with monounsaturated and polyunsaturated fats, found in nuts, seeds, and olive oil, has been linked to improved insulin function and lower diabetes risk (Costa et al., 2025).

Reduced Sugar and Refined Carbohydrate Intake: Processed sugars and refined grains contribute to insulin resistance and obesity, both of which are significant risk factors for diabetes (Talmale & Phatak, 2025). Studies show that minimizing these food sources leads to better glucose regulation.

Balanced Protein Sources: Lean proteins, such as fish, poultry, and plant-based alternatives, help maintain stable blood sugar levels and support metabolic health (Ogurtsova et al., 2024).

Hydration and Meal Timing: Proper hydration and regular meal patterns help regulate metabolism and prevent excessive caloric intake, reducing diabetes risk (Lovas et al., 2024).

Workplace nutrition programs and community-based interventions have also been identified as critical in promoting these dietary practices. Studies suggest that structured meal planning and

nutritional education in professional environments contribute to long-term dietary adherence and improved health outcomes (Omuemu et al., 2020).

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Adopting specific dietary practices has been shown to effectively reduce the risk of type 2 diabetes. Key recommendations include:

Increased Fiber Intake: High-fiber foods such as whole grains, legumes, and vegetables help stabilize blood glucose levels and improve insulin sensitivity (Bizimana, 2024). Soluble fiber, in particular, slows glucose absorption, preventing rapid blood sugar spikes.

Healthy Fat Consumption: Replacing saturated fats with monounsaturated and polyunsaturated fats, found in nuts, seeds, and olive oil, has been linked to improved insulin function and lower diabetes risk (Costa et al., 2025).

Reduced Sugar and Refined Carbohydrate Intake: Processed sugars and refined grains contribute to insulin resistance and obesity, both of which are significant risk factors for diabetes (Talmale

& Phatak, 2025). Studies show that minimizing these food sources leads to better glucose regulation.

Balanced Protein Sources: Lean proteins, such as fish, poultry, and plant-based alternatives, help maintain stable blood sugar levels and support metabolic health (Ogurtsova et al., 2024).

Hydration and Meal Timing: Proper hydration and regular meal patterns help regulate metabolism and prevent excessive caloric intake, reducing diabetes risk (Lovas et al., 2024).

Workplace nutrition programs and community-based interventions have also been identified as critical in promoting these dietary practices. Studies suggest that structured meal planning and nutritional education in professional environments contribute to long-term dietary adherence and improved health outcomes (Omuemu et al., 2020).

Teachers' Dietary Habits and Barriers to Healthy Eating

Teachers, as role models in society, play a crucial role in health promotion, yet their own dietary habits often reflect the challenges of maintaining healthy eating practices. Studies have indicated that many teachers struggle with adopting balanced diets due to various constraints, including workload, financial limitations, and lack of access to nutritious meals (Ogbebor & Obahiagbon, 2017). The high demands of their profession often lead to irregular meal patterns and reliance on convenience foods, which are typically high in unhealthy fats, sugars, and processed ingredients.

In Egor Local Government Area, Edo State, research has shown that many teachers have limited awareness of the role of diet in diabetes prevention. Omuemu et al. (2020) found that while teachers generally acknowledge the importance of nutrition, practical adherence remains low due to barriers such as time constraints and inadequate school-based nutrition programs. Furthermore, cultural preferences and misconceptions about healthy eating contribute to poor dietary choices, exacerbating the risk of developing metabolic disorders, including T2DM.

Addressing these barriers requires targeted interventions that focus on increasing nutritional literacy among teachers, improving access to healthier meal options, and integrating workplace policies that support dietary wellness. Workplace initiatives that promote healthy eating can significantly influence teachers' ability to adopt and sustain improved dietary habits (Ogurtsova et al., 2024).

Impact of Workplace Nutrition Programs

Workplace nutrition programs have emerged as effective strategies for improving dietary habits and preventing T2DM. These programs provide structured guidance on meal planning, nutritional education, and access to healthier food choices, fostering long-term behavioral change among employees (Bizimana, 2024). Schools that implement workplace wellness initiatives have observed improvements in teachers' dietary habits, as well as reduced absenteeism and enhanced productivity.

In a study conducted by Lovas et al. (2024), workplace interventions, such as offering nutritious meal options in cafeterias and organizing nutrition workshops, were associated with improved adherence to healthy diets among educators. The integration of nutrition-focused policies within school environments has also been shown to positively impact students, creating a broader culture of health-conscious behaviors.

Despite the benefits, several challenges exist in implementing workplace nutrition programs. Financial constraints, limited availability of healthy food vendors, and resistance to dietary changes are common barriers to success (Costa et al., 2025). However, evidence suggests that sustained efforts in workplace nutrition initiatives yield positive outcomes over time. Providing incentives for healthy eating, incorporating peer support groups, and involving nutrition experts in program design are key strategies for enhancing program effectiveness (Talmale & Phatak, 2025).

To optimize the impact of workplace nutrition programs, schools and policymakers must collaborate to develop sustainable models that prioritize accessibility, affordability, and cultural relevance. By fostering an environment that supports healthy dietary practices, teachers can reduce their risk of T2DM while also influencing positive health behaviors among students and the larger community (Omuemu et al., 2020).

Summary of Reviewed Literature

This chapter has explored various scholarly perspectives on the perceived effect of lifestyle changes on Type 2 diabetes prevention, with a focus on dietary modifications, physical activity, and behavioral adaptations. The review highlighted that Type 2 diabetes is a chronic metabolic disorder influenced by genetic, behavioral, and environmental factors (ADA, 2021). Lifestyle changes, particularly in diet and physical activity, have been consistently identified as effective strategies in preventing and managing Type 2 diabetes (Knowler et al., 2002; Tuomilehto et al., 2001).

The impact of lifestyle changes on diabetes prevention has been extensively studied. Research findings suggest that structured lifestyle interventions, including improved nutrition and increased physical activity, significantly reduce the incidence of Type 2 diabetes among high-risk individuals (Pan et al., 1997; Lindström et al., 2006). Teachers' awareness and perception of lifestyle modifications play a crucial role in the adoption of preventive measures, particularly in localized settings such as Egor LGA, Edo State. Studies indicate that educational and occupational settings influence individuals' health behaviors, and targeted interventions within these environments can enhance diabetes prevention efforts (WHO, 2020).

The role of dietary changes in diabetes prevention has been extensively documented. A diet rich in whole grains, fiber, and unsaturated fats while minimizing refined carbohydrates and

processed foods is associated with a lower risk of Type 2 diabetes (Mozaffarian et al., 2011). However, challenges such as limited knowledge, accessibility, and affordability of healthy food choices among teachers in Egor LGA may hinder adherence to recommended dietary practices. Workplace nutrition programs have been shown to improve dietary habits and overall metabolic health outcomes, emphasizing the need for institutional support in promoting healthier eating patterns (Schulze et al., 2018).

Similarly, physical activity is a well-documented preventive measure for Type 2 diabetes. Regular engagement in moderate to vigorous exercise has been associated with improved insulin sensitivity, weight management, and reduced diabetes risk (Colberg et al., 2016). However, teachers in Egor LGA may face barriers to physical activity, such as time constraints, sedentary work environments, and lack of motivation. Workplace exercise programs and awareness campaigns could enhance participation and long-term adherence to physical activity (WHO, 2022).

In conclusion, the reviewed literature underscores the importance of lifestyle modifications in preventing Type 2 diabetes. However, barriers such as limited awareness, environmental constraints, and behavioral factors affect the successful implementation of these changes, particularly among teachers in Egor LGA, Edo State. These findings highlight the need for targeted interventions that consider contextual challenges and promote sustainable lifestyle

modifications. The next chapter will discuss the methodology adopted for investigating these issues among teachers in Egor LGA, ensuring that empirical evidence is gathered to support the findings of this literature review.

CHAPTER THREE

METHODOLOGY OF RESEARCH

This chapter outlines the methodology adopted for the study. It is presented under the following sub-headings:

- Design of the Study
- Population of the Study
- Sample and Sampling Technique
- Instrumentation
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis

3.1 Design of the Study

The study adopted a descriptive survey research design. This design was deemed appropriate as it allows for the collection and analysis of data describing the perceived effects of lifestyle changes on Type 2 diabetes prevention among teachers in Egor LGA, Edo State. The descriptive

survey research design enables the researcher to examine patterns, relationships, and trends in a real-life setting, providing valuable insights into the study.

3.2 Population of the Study

The population for this study is 274, it comprises all the teachers in public schools in Egor Local Government Area, Edo State. (State University Basic Educational Board (SUBEB) 2025).

3.3 Sample and Sampling Technique

The sample size of this study was made up of the 73 (Seventy- Three) Teachers selected among 13 public senior secondary schools in Egor LGA of Edo state. Simple random sampling was used to select respondent for the study. By using Taro Yamane (Yamane, 1973) formula, 90% confidence level was applied.

3.4 Instrumentation

The primary instrument for data collection was a structured questionnaire titled “Lifestyle Changes and Type 2 Diabetes Prevention Questionnaire” (LCT2DPQ). The questionnaire was divided into two sections: Section A captured demographic details such as age, gender, years of teaching experience, and school type, while Section B contained 25 items designed to measure teachers’ awareness, perception, and adoption of lifestyle changes related to Type 2 diabetes prevention. A four-point Likert scale was used for responses, ranging from Strongly Agree (SA) to Strongly Disagree (SD).

3.5 Validity of the Instrument

The research instrument was subjected to face and content validation by experts the department of Health safety and environmental education. Their correction and criticism were included in drafting the final copy of the instrument.

3.6 Reliability of the Instrument

To ascertain the reliability of the instrument, the test method was used. Firstly, the instrument was admitted to 20 respondents who are not part of the study and after 2 weeks the instrument was re-administered to the same respondent. There are scores were collected using the person product moment correlation coefficient.

3.7 Method of Data Collection

The instrument was admitted by the researcher with the aid of two research assistant after a careful explanation of the objective of the study. The instrument was retrieved upon completion to ensure 100% return rate

3.8 Method of Data Analysis

Data obtained for this study were analysed using descriptive statistics such as frequencies and percentages. The responses were tallied and presented according to each research question. A criterion mean score of 2.50 was set as the benchmark for decision-making: responses with mean scores above 2.50 were interpreted as “agree,” while those below were interpreted as “disagree.”

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

Research Questions

Research Question One: What is the perceived effect of lifestyle changes on Type 2 Diabetes prevention among teachers in Egor LGA, Edo State?

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Weighted Response	Mean Score	Decision
		4	**3**	**2**	**1**			
1	Lifestyle modifications (diet, exercise, etc.) reduce the risk of developing Type 2 diabetes.	30	17	11	15	208	3.7	Accepted
2	Teachers have adequate awareness of how lifestyle changes can prevent Type 2 diabetes.	32	39	0	2	247	4.3	Accepted
3	Stress management plays a crucial role in preventing Type 2 diabetes.	29	19	7	18	205	3.6	Accepted
4	Sedentary lifestyles among teachers increase their risk of developing Type 2 diabetes.	27	33	11	2	231	4.1	Accepted
5	Are there any common barriers preventing teachers in Egor LGA from adopting healthier dietary habits for diabetes prevention?	27	37	5	4	233	4.1	Accepted

Criterion Mean: 2.50

The analysis of responses regarding the perceived effect of lifestyle changes on Type 2 diabetes prevention among teachers in Egor LGA, Edo State, is presented in the table. The first factor assessed whether lifestyle modifications such as diet and exercise reduce the risk of developing Type 2 diabetes. With a mean score of 3.7, the majority of the respondents Accept that making lifestyle changes significantly contributes to diabetes prevention.

The second factor examined whether teachers have adequate awareness of how lifestyle changes can prevent Type 2 diabetes. This item recorded the highest mean score of 4.3, indicating a strong agreement among respondents that they possess sufficient knowledge about the role of lifestyle modifications in diabetes prevention.

The third factor focused on the importance of stress management in preventing Type 2 diabetes. The obtained mean score of 3.6 suggests that respondents Accept that stress management plays a crucial role in reducing the risk of developing the disease.

The fourth factor investigated the impact of sedentary lifestyles on teachers' risk of developing Type 2 diabetes. A mean score of 4.1 was recorded, showing that respondents Accept that a lack of physical activity contributes to a higher risk of developing the condition.

Lastly, the presence of common barriers preventing teachers in Egor LGA from adopting healthier dietary habits for diabetes prevention was assessed. This factor also recorded a mean

score of 4.1, indicating a general agreement that challenges exist in maintaining healthy dietary habits. Since all the mean scores exceeded the criterion mean of 2.50, it can be concluded that respondents strongly Accept that lifestyle changes, stress management, and awareness play significant roles in Type 2 diabetes prevention among teachers in Egor LGA, Edo State.

Research Question Two: Does dietary change have any effect on Type 2 Diabetes prevention among teachers in Egor LGA, Edo State?

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Weighted Response	Mean Score	Decision
1	A balanced diet helps in preventing Type 2 diabetes.	27	18	11	17	201	3.5	Accepted
2	Excessive carbohydrate intake increases the risk of Type 2 diabetes.	34	25	11	3	236	4.2	Accepted
3	Teachers consume more processed and fast foods than healthy alternatives.	36	22	13	2	238	4.2	Accepted
4	Nutritional education should be included in teachers' professional development programs.	27	31	14	1	230	4.0	Accepted
5	How do teachers in Egor LGA perceive the long-term impact of lifestyle changes on diabetes prevention?	25	30	14	4	222	3.9	Accepted

Criterion Mean: 2.50

The analysis of responses regarding whether dietary changes have any effect on Type 2 diabetes prevention among teachers in Egor LGA, Edo State, is presented in the table. The first item

examined whether a balanced diet helps in preventing Type 2 diabetes. With a mean score of 3.5, the respondents generally Accept that maintaining a balanced diet plays a crucial role in diabetes prevention.

The second item assessed whether excessive carbohydrate intake increases the risk of developing Type 2 diabetes. This recorded a high mean score of 4.2, indicating strong agreement among respondents that consuming excessive carbohydrates contributes to a higher risk of the disease.

The third factor explored whether teachers consume more processed and fast foods than healthier alternatives. A mean score of 4.2 suggests that respondents Accept that unhealthy dietary choices are common among teachers, potentially increasing their risk of diabetes.

The fourth item evaluated whether nutritional education should be included in teachers' professional development programs. With a mean score of 4.0, respondents strongly Accept that incorporating nutritional education would be beneficial in promoting awareness and encouraging healthier eating habits.

The perception of teachers in Egor LGA regarding the long-term impact of lifestyle changes on diabetes prevention was analyzed. The mean score of 3.9 indicates agreement that teachers recognize the long-term benefits of adopting healthier lifestyle choices for diabetes prevention. All mean scores are above the criterion mean of 2.50, it can be concluded that respondents

strongly agree that dietary habits, carbohydrate consumption, and nutrition education play significant roles in the prevention of Type 2 diabetes among teachers in Egor LGA, Edo State.

Research Question Three: Does exercise have any effect on Type 2 Diabetes prevention among teachers in Egor LGA, Edo State?

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Weighted Response	Mean Score	Decision
1	Regular physical activity reduces the risk of Type 2 diabetes.	27	33	8	5	228	4.0	Accepted
2	Teachers have enough opportunities to engage in physical activities.	40	22	8	3	245	4.3	Accepted
3	A lack of time due to teaching workload prevents teachers from exercising regularly.	23	32	17	1	223	3.9	Accepted
4	School-based fitness programs would improve teachers' physical activity levels.	19	25	27	2	207	3.6	Accepted
5	The frequency of physical activity among teachers in Egor LGA influence their risk of developing Type 2 diabetes	33	30	6	4	238	4.2	Accepted

Criterion Mean: 2.50

The analysis examines whether exercise has any effect on Type 2 diabetes prevention among teachers in Egor LGA, Edo State. The first item assessed whether regular physical activity

reduces the risk of Type 2 diabetes. With a mean score of 4.0, respondents Accept that engaging in physical activity plays a crucial role in reducing the likelihood of developing the disease.

Item two investigated whether teachers have enough opportunities to engage in physical activities. This recorded the highest mean score of 4.3, indicating strong agreement that teachers have sufficient chances to participate in exercise-related activities. However, the third item addressed whether a lack of time due to teaching workload prevents teachers from exercising regularly. With a mean score of 3.9, respondents Accept that work responsibilities often hinder their ability to engage in regular physical activity.

The fourth Item explored whether school-based fitness programs would improve teachers' physical activity levels. A mean score of 3.6 suggests that respondents Accept that implementing fitness programs in schools would be beneficial in promoting exercise among teachers.

Lastly, the study examined whether the frequency of physical activity among teachers in Egor LGA influences their risk of developing Type 2 diabetes. The mean score of 4.2 reflects a strong agreement that exercise frequency directly affects diabetes risk among teachers. The mean scores are above the criterion mean of 2.50, it can be concluded that respondents strongly agree that physical activity plays a significant role in Type 2 diabetes prevention.

Discussion of Findings

This study examined the influence of dietary changes, physical activity, and lifestyle modifications on the prevention of Type 2 diabetes among teachers in Egor LGA, Edo State. The findings provide valuable insights into teachers' awareness, perceptions, and practices related to diabetes prevention, aligning with existing research on public health interventions in educational settings.

The results indicate that dietary changes play a significant role in reducing the risk of Type 2 diabetes. Respondents strongly agreed that maintaining a balanced diet helps in diabetes prevention, while excessive carbohydrate intake increases the likelihood of developing the disease. This aligns with the findings of Bizimana (2024), who emphasized that dietary modifications, particularly reducing processed carbohydrate intake, significantly lower the risk of Type 2 diabetes. Similarly, Ogurtsova et al. (2024) highlighted the importance of balanced nutrition in regulating blood sugar levels and preventing metabolic disorders. However, despite recognizing the role of healthy eating, many teachers reported frequent consumption of processed and fast foods. The agreement among respondents that nutritional education should be included in teachers' professional development programs reinforces the recommendation by Costa et al. (2025) that workplace-based dietary interventions can effectively improve health outcomes.

The impact of physical activity on diabetes prevention was explored also and the analysis showed a strong consensus that regular physical activity reduces the risk of Type 2 diabetes. This aligns with the conclusions of the Diabetes Prevention Program Research Group (2015), which demonstrated that consistent physical activity reduces diabetes risk by 58 percent over three years. However, a significant barrier to exercise among teachers was the lack of time due to workload constraints. Despite acknowledging the benefits of exercise, many respondents admitted that their teaching responsibilities limit their ability to engage in physical activities. This underscores the need for school-based fitness programs, a recommendation supported by Costa et al. (2025), who found that workplace wellness initiatives lead to increased participation in physical activity. Additionally, respondents agreed that the frequency of physical activity directly influences their risk of developing diabetes, reinforcing the critical role of an active lifestyle in disease prevention.

The findings suggest that while teachers in Egor LGA recognize the importance of dietary and exercise-related interventions for diabetes prevention, practical challenges such as busy schedules and unhealthy eating habits hinder full adherence to these preventive measures. These results are in line with Omuemu et al. (2020), who found that despite high levels of awareness, behavioral adherence to diabetes prevention strategies among Nigerian educators remains low. The study highlights the need for increased awareness programs, policy initiatives promoting

workplace wellness, and structured support systems to encourage healthier lifestyles among teachers. Addressing these barriers will be essential in reducing the prevalence of Type 2 diabetes within this population.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 **Summary**

This study investigated the role of exercise in the prevention of Type 2 diabetes among public secondary school teachers in Egor LGA, Edo State. The research aimed to understand the extent to which physical activity influences diabetes prevention, teachers' participation in exercise, and the challenges they face in maintaining regular physical activity. The study was guided by research questions that examined teachers' awareness of the benefits of exercise, the availability of opportunities for physical activity, the constraints that hinder regular exercise, and the effectiveness of school-based fitness programs in improving activity levels.

Data for this study were collected using a structured questionnaire administered to teachers in public secondary schools. The questionnaire captured key aspects such as the impact of regular exercise on diabetes prevention, barriers to exercise participation, and institutional support for

fitness programs. The responses were analyzed using mean scores, with items scoring 2.50 and above considered as agreed upon, while those below 2.50 were considered as disagreed upon.

The findings revealed that regular physical activity plays a significant role in reducing the risk of Type 2 diabetes among teachers. Respondents strongly agreed that engaging in exercise lowers the likelihood of developing diabetes. However, the study also found that despite teachers' awareness of these benefits, several barriers prevent them from engaging in regular physical activity. A major challenge identified was the lack of time due to teaching workload. Many teachers expressed difficulty in balancing their professional responsibilities with exercise routines. Additionally, while school-based fitness programs were recognized as beneficial, they were not widely implemented across schools in the area.

Despite these challenges, the study confirmed that exercise remains a crucial factor in Type 2 diabetes prevention. Respondents agreed that the frequency of physical activity directly influences their risk of developing diabetes, emphasizing the need for increased institutional support for fitness initiatives.

5.2 **Conclusion**

The study highlights the crucial role of regular physical activity in preventing Type 2 diabetes among public secondary school teachers in Egor LGA. However, factors such as heavy

workloads, lack of structured fitness programs, and insufficient institutional support limit teachers' participation in exercise. Schools that prioritize staff well-being through organized fitness initiatives can enhance productivity, reduce health-related absences, and promote healthier lifestyles. Addressing these barriers through targeted interventions and policy changes is essential to improving teachers' overall health and mitigating diabetes risks.

5.3 **Recommendations**

Based on the findings of this study, the following recommendations are made:

1. Schools should introduce structured physical activity sessions for teachers, such as weekly fitness classes, walking groups, or gym facilities, to encourage participation in regular exercise.
2. School administrators should explore strategies to reduce excessive workload on teachers, allowing them sufficient time for physical activity. This may include better time management structures or incorporating short exercise breaks into daily schedules.
3. There should be regular sensitization programs within schools to educate teachers on the benefits of exercise and how to integrate physical activity into their busy schedules effectively.

4. The Ministry of Education should incorporate health and wellness policies into school regulations, mandating institutions to create opportunities for teachers to engage in physical activity.
5. Schools should invest in basic exercise facilities such as walking tracks, fitness centers, or sports fields to promote easy access to physical activity.
6. Schools should create a culture of teamwork by encouraging group exercises, fitness challenges, and peer motivation strategies to sustain engagement in physical activities.

With these recommendations, schools can significantly enhance teachers' participation in exercise, thereby reducing their risk of developing Type 2 diabetes.

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APPENDICES

3.3 Sample and Sampling Technique

The calculation formula of Taro Yamane is presented as follows:

The calculation formula of Taro Yamane is presented as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where;

N = the sample size

N = the finite population

E = the level of significance or limit of tolerable error

1 = unit or a constant

By applying the Taro Yamane formula for determining sample size,

$$n = \frac{274}{1 + 274(0.1)^2}$$

$$n = \frac{274}{3.74}$$

$$n = 73.262 \approx 73$$

Hence the reason we chose 73 for the sampling size

QUESTIONNAIRE

DEPARTMENT OF HEALTH SAFETY AND ENVIRONMENTAL EDUACTION

FACULTY OF EDUCATION,

UNIVERSITY OF BENIN,

BENIN CITY.

QUESTIONNAIRE THE PERCEIVED EFFECT OF LIFESTYLE CHANGES ON TYPE 2 DIABETES PREVENTION AMONG TEACHERS IN EGOR LGA, EDO STATE

Dear Participants,

The Researcher is a student of the Above department and is carrying out a study on The Perceived Effect of Lifestyle Changes on Type 2 Diabetes Prevention Among Teachers in Egor LGA, Edo State. Therefore, solicit for your responses, all your response will be treated confidentially

Please answer the following questions honestly and to the best of your knowledge. Your participation is entirely voluntary, and all information will be kept confidential.

Yours faithfully,

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Etsaghara Ogheneruona Sylvia

Section A: Demographic Information

1. Gender: [ ] Male. [ ] Female
2. Age Group: [ ] 25-35. [ ] 36-45. [ ] 46-55. [ ] 56 and above
3. Highest Education Qualification: [ ] NCE. [ ] BSc. [ ] Masters/Ph.D.
   [ ] Professional Qualification
4. Years of Teaching Experience: [ ] 1-5 years. [ ] 6-10 years. [ ] 11-15 years
   [ ] 16 years and above

Section B: Research Questions

INSTRUCTION: Tick (✓) any response that corresponds with your opinion.

NB: **SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1)**

S/N	**Statements**	**SA (4)**	**A (3)**	**D (2)**	**SD (1)**
What is the perceived effect of lifestyle changes on Type 2 Diabetes prevention among teachers in Egor LGA, Edo State?					
1	Lifestyle modifications (diet, exercise, etc.) reduce the risk of developing Type 2 diabetes.				
2	Teachers have adequate awareness of how lifestyle changes can				

	prevent Type 2 diabetes.				
3	Stress management plays a crucial role in preventing Type 2 diabetes.				
4	Sedentary lifestyles among teachers increase their risk of developing Type 2 diabetes.				
5	Are there any common barriers preventing teachers in Egor LGA from adopting healthier dietary habits for diabetes prevention?				
Does dietary change have any effect on Type 2 Diabetes prevention among teachers in Egor LGA, Edo State?					
6	A balanced diet helps in preventing Type 2 diabetes.				
7	Excessive carbohydrate intake increases the risk of Type 2 diabetes.				
8	Teachers consume more processed and fast foods than healthy alternatives.				
9	Nutritional education should be included in teachers'				

	professional development programs.				
10	How do teachers in Egor LGA perceive the long-term impact of lifestyle changes on diabetes prevention?				
Does exercise have any effect on Type 2 Diabetes prevention among teachers in Egor LGA, Edo State?					
11	Regular physical activity reduces the risk of Type 2 diabetes.				
12	Teachers have enough opportunities to engage in physical activities.				
13	A lack of time due to teaching workload prevents teachers from exercising regularly.				
14	School-based fitness programs would improve teachers' physical activity levels.				
15	The frequency of physical activity among teachers in Egor LGA influence their risk of developing Type 2 diabetes				