



Non-Adherence to Lifestyle Modifications Among Type 2 Diabetic Patients Attending OPD Diabetic Clinic of Ssekanyonyi Health Centre IV, Mityana District. A cross-sectional study.

Laura Maria Kirabo*, Hasifa Nansereko, Immaculate Prosperia Naggulu, Jane Frank Nalubega
Mildmay Uganda School of Nursing and Midwifery.

Abstract.

Background:

Lifestyle modification is a cornerstone in the management of type 2 diabetes mellitus and includes dietary control, regular physical activity, weight management, and avoidance of harmful habits. This study aimed to assess the factors contributing to non-adherence to lifestyle modifications among type 2 diabetic patients attending the outpatient diabetic clinic at Ssekanyonyi Health Centre IV, Mityana District.

Methodology:

A descriptive cross-sectional study was conducted among 36 type 2 diabetic patients attending the OPD diabetic clinic at Ssekanyonyi Health Centre IV. Data were collected using a structured questionnaire covering demographic characteristics, individual-related factors, and health facility-related factors influencing adherence to lifestyle modifications. Data were analyzed using descriptive statistics, and findings were presented in frequencies and percentages.

Results:

Most of the respondents were male (75%) and aged 26–30 years (50%). Individual-related factors contributing to non-adherence included the presence of other illnesses that interfered with lifestyle changes (72.2%) and low confidence in implementing lifestyle modifications (75%). A high proportion of respondents relied on traditional remedies for diabetes control (61.1%), while only 2.6% trusted regular exercise. Heavy workload was reported by 75% of respondents as a major barrier to adherence. Health facility-related factors included inadequate guidance from health workers, reported by 41.7% of respondents, long waiting times of 1–2 hours for consultations (41.7%), rude attitudes from health workers (41.7%), and long travel distances to the clinic, with 50% travelling 6–10 km.

Conclusion:

Non-adherence to lifestyle modifications among type 2 diabetic patients is influenced by multiple individual and health facility-related factors, including poor knowledge, low self-confidence, reliance on traditional remedies, inadequate counselling, long waiting times, negative health worker attitudes, and distance to health facilities.

Recommendations:

Health workers should strengthen patient education and counselling on lifestyle modifications. Community-based education programs should address misconceptions and promote adherence to recommended diabetic lifestyle practices.

Keywords: Non-adherence, Lifestyle modification, Type 2 diabetes mellitus, Outpatient diabetic clinic, Primary healthcare, Mityana District.

Submitted: December 11, 2025 **Accepted:** May 01, 2026 **Published:** June 25, 2026

Corresponding author: Laura Maria Kirabo
Mildmay Uganda School of Nursing and Midwifery.



Student's Journal of Health Research Africa

e-ISSN: 2709-9997, p-ISSN: 3006-1059

Vol.7 No. 2 (2026): June 2026 Issue

<https://doi.org/10.51168/sjhrafrica.v7i2.2275>

Original Article

Background of the Study.

Type 2 Diabetes is a chronic metabolic disorder characterized by elevated blood glucose levels due to insulin resistance and relative insulin deficiency (Galicia-Garcia et al., 2020). This disease requires long-term management through medication and lifestyle modifications such as a healthy diet, regular physical activity, weight control, stress management, and adherence to medical advice to prevent complications like kidney failure, blindness, heart disease, and stroke (Samuel et al., 2024). However, many patients struggle to maintain these recommended lifestyle changes due to various personal, social, and health systemic challenges (Schmidt et al., 2020).

Globally, an estimated 537 million adults aged 20–79 years are living with diabetes, with Type 2 Diabetes accounting for over 90% of cases yet non-adherence to lifestyle modifications remains a major problem as 45% of patients fail to follow dietary guidelines and 38% do not engage in regular exercise due to lack of knowledge, motivation or access to supportive environments leading to poor blood sugar control, frequent hospital visits and increased risk of complications such as stroke and kidney disease (Alrasheeday et al., 2024). In the United States, about 34.2 million people have diabetes, and up to 52% report difficulties in sustaining healthy eating patterns, citing the high cost of healthy foods, busy work schedules, and limited nutritional counseling worsening diabetes symptoms and higher medical costs (O'Briant, 2022).

In Sub-Saharan Africa, the prevalence of diabetes is rising rapidly due to urbanization, sedentary lifestyles, and unhealthy diets, with an estimated 24 million adults living with the condition in 2021, which has been associated with serious outcomes like heart disease, vision loss, and limb amputations (Motala et al., 2022). In Nigeria, 61% of patients with T2DM fail to adhere to exercise recommendations and 55% do not follow dietary advice, largely due to lack of awareness, cultural food preferences, and economic hardship leading to uncontrolled blood sugar, nerve damage, and higher death rates (Bobga Billa, 2023).

In East Africa, diabetes prevalence is increasing, with Kenya reporting 54% of patients with type 2 diabetes mellitus as non-adherent to lifestyle changes, which has resulted in obesity, hypertension, heart attacks, and increased healthcare costs attributed to limited access to fresh produce, poor health literacy, and inadequate support systems (Waari, 2019). In Tanzania, 58% of patients are non-adherent to diet modifications due to high food costs, inadequate nutrition education, and cultural norms favoring

high-carbohydrate diets, leading to frequent hyperglycemia, hospital admissions, and increased risk of long-term disability (Sattelmanier, 2023).

In Uganda, an estimated 560,000 adults live with diabetes, with more than 80% having T2DM, and out of these, 63% of patients fail to follow dietary recommendations, citing low income, limited diabetes education, lack of family support, and cultural influences on diet (Waziri, 2023). In Mityana District, research shows that more than half of people with type 2 diabetes do not follow lifestyle changes like eating healthy, exercising regularly and controlling weight due to limited knowledge, low motivation and little family support thus many patients have poorly controlled blood sugar, visit the hospital often and face health problems such as stroke, kidney damage and limb amputations (Mityana District Annual Health Report, 2023). This study aimed to assess the factors contributing to non-adherence to lifestyle modifications among type 2 diabetic patients attending the outpatient diabetic clinic at Ssekanyonyi Health Centre IV, Mityana District.

Methodology.

Study Design.

The study employed a descriptive cross-sectional study design employing quantitative methods of data collection, and it was suitable because it allowed the researcher to collect data from participants at a single point in time, making it less costly and time-efficient (Maier et al., 2023).

Study Setting.

The study was conducted at Ssekanyonyi Health Center IV, located in Ssekanyonyi Town Council, Mityana District, Central Uganda. This government-owned facility operates under the Ministry of Health and provides a wide range of services, including outpatient care, maternal and child health (MCH), HIV/AIDS care, antenatal services, and management of chronic illnesses such as hypertension and diabetes. The OPD ward at Ssekanyonyi Health Centre IV works five days a week with two diabetic clinic days and provides specialized care for patients with type 2 diabetes, including medical review, blood sugar monitoring, prescription of medications, counseling on diet and exercise, and education on lifestyle modifications. On average, the clinic reviews between 25 and 40 diabetic patients per clinic day, translating to over 120 patients per month. The geographical coordinates of Ssekanyonyi Health Centre IV are 0.4502°N latitude and 32.0304°E longitude.



Study Population

The study targeted Type 2 Diabetic patients attending the outpatient ward at Ssekanyonyi Health Center IV, Mityana District.

Sample Size Determination.

The sample size determination followed the guidelines provided by Krejcie and Morgan's table of 1970, which states that when there is a population size for the study, it provides a suitable sample size for the population (Rahman, 2023). According to Ssekanyonyi Health Center IV OPD Diabetic Clinic Records, the facility receives a minimum of 10 diabetic patients every day, and with this number, it assures a total of 40 participants within four days in one week, which the researcher intends to use during data collection time. Given this number and using Krejcie and Morgan's table, a population size of 40 respondents present in a week assures a sample size of 36 participants; therefore, the researcher considered N as the population size to be 40, and thus a sample size of 36 respondents for reasons of efficiency, optimal use of limited resources.

Sampling procedure.

The study used a convenience sampling technique to select participants. This approach was chosen because it enabled easy access to patients who were available and willing to participate during the study period, making it practical and time-efficient within the health center setting. Patients diagnosed with Type 2 Diabetes attending the OPD Diabetic Clinic at Ssekanyonyi Health Center IV were approached during their routine follow-up visits. Those who met the inclusion criteria and provided informed consent were enrolled in the study until the target sample size of 36 patients was reached. Data collection took place for over 4 clinic days, aiming to recruit approximately 9 patients per day to get a total of 36 respondents.

Inclusion Criteria.

All Patients of type 2 diabetes at Ssekanyonyi Health Center IV aged 30 years and above who consented to participate in the study, those who were only Ugandans, only male and female, the literates, those who had been diagnosed for the past 5 months, and those who were present during the period of data collection.

Exclusion criteria.

The study excluded all who were very sick, unable to give a response, and those who had consented but later declined to continue with the study due to other emergencies.

Study Variables.

Independent variables:

Independent variables were factors that influence the outcome and could change when controlled; in this case, these were patient-related factors and health facility-related factors.

Dependent variables.

The dependent variable was a characteristic in this study that was being predicted and could not change, for example, Diabetes Type 2 Diabetes.

Research Instrument.

The study used a semi-structured questionnaire to collect data from respondents. The questionnaire was divided into three sections, with section **A** describing the social-demographic of respondents, section **B** comprising patient-related questions, and section **C** containing health facility-related questions. This questionnaire contained closed-ended questions, which were presented to the supervisor for corrections and approval.

Data Collection Procedure.

Upon the proposal approval by my research supervisor and the institution's research and ethics committee (IRC), permission was obtained from the school administration, and an introductory letter was obtained from the Dean, School of Nursing, Mildmay Uganda School of Nursing and Midwifery, and after the researcher went to the in-charge of Ssekanyonyi Health Center IV who granted permission to carry out the study among diabetic patients. The researcher explained the purpose and made a self-introduction, and after that, was allowed to meet the person in charge of the diabetic clinic, who, in turn, allowed her to make a self-introduction and explained the purpose of the study well to the respondents. The researcher was allowed to interact with the respondents who signed a consent form to participate in the study. The process of data collection took 4 days, sampling 10 respondents on every day of data collection until 36 participants were obtained.



Data Management.

The completed questionnaires were reviewed to check for completeness and to correct any errors detected before losing contact with participants, as this helped avoid missing information. After verification, the questionnaires were securely stored in locked files and on password-protected computers to ensure confidentiality and for future reference.

Data Analysis.

Data was first manually tallied and percentages calculated. The results were then entered into Microsoft Excel (version 2019) and analyzed using descriptive statistics, and the findings were presented in the form of figures, pie charts, graphs, and tables.

Quality Assurance – Validity and Reliability.

Validity.

Validity was ensured by designing questions that aligned with the research objectives and were relevant to the study topic. This helped to measure the accuracy of the study results, which in turn guided the development of appropriate interventions to address the identified problem.

Reliability.

The questionnaire was pre-tested at Nama Health Centre III with 8 diabetic patients, and necessary corrections were

Results.

Demographic information of respondents.

Table 1 shows the demographic data of the respondents

Variable	Response	Frequency (n=36)	Percentage (%)
Gender	Male	27	75
	Female	9	25
Age	18-21	8	22.2
	22-25	10	27.8
	26-30	18	50
education level	Primary	9	25
	Secondary	24	66.7
	Tertiary and above	3	8.3
Marital status	Single	4	11.1
	Married	20	55.6
	Un Married	12	33.3
Religion	Christian	25	69.4
	Muslim	2	5.6
	Others	9	25

made. Then it was retested among 4 respondents to make a final correction if found before the formal study. All questions were made easy to understand, while avoiding bias, and were culturally appropriate so that respondents interpreted them the same way.

Ethical Considerations.

Upon the proposal approval by my research supervisor and the institution's research and ethics committee (IRC), permission was obtained from the school administration, and an introductory letter was obtained from the Dean, School of Nursing, Mildmay Uganda School of Nursing and Midwifery and after the researcher went to the in-charge of Ssekanyonyi Health Center IV who was granted permission to carry out the study among diabetic patients. The purpose of the study was well explained, and she made a self-introduction and, after meeting the person in charge of the diabetic clinic, who in turn allowed her to make a self-introduction and explained the purpose of the study well to respondents. The study went on after the objectives of the study were fully and clearly explained by the researcher to all respondents. Only respondents who consented were allowed to participate in the study. Then all respondents were reminded of their right to withdraw at any time during the period of study.



Table 1 shows that the majority, 27 (75%) of the respondents were male, while the least were 9 (25%) were female. Most 18 (50%) of the respondents were aged between 26–30 years, 10 (27.8%) aged between 22–25 years, whereas the least 8 (22.2%) were aged 18–21 years.

The majority, 24 (66.7%) of the respondents had attained secondary education, while the least 3 (8.3%) had tertiary

and above level of education. Most 20 (55.6%) of the respondents were married, 12 (33.3%) were unmarried, whereas the minority 4 (11.1%) were single.

The majority, 25 (69.4%) of the respondents were Christians, 9 (25%) belonged to other religions, while the minority, 2 (5.6%) were Muslims.

Individual-related factors contributing to non-adherence to lifestyle modifications among type 2 diabetic patients attending the OPD diabetic clinic of Ssekanyonyi Health Centre IV, Mityana District

Figure 1 shows respondents with personal illness that makes it hard for them to follow the diabetic recommended lifestyle.

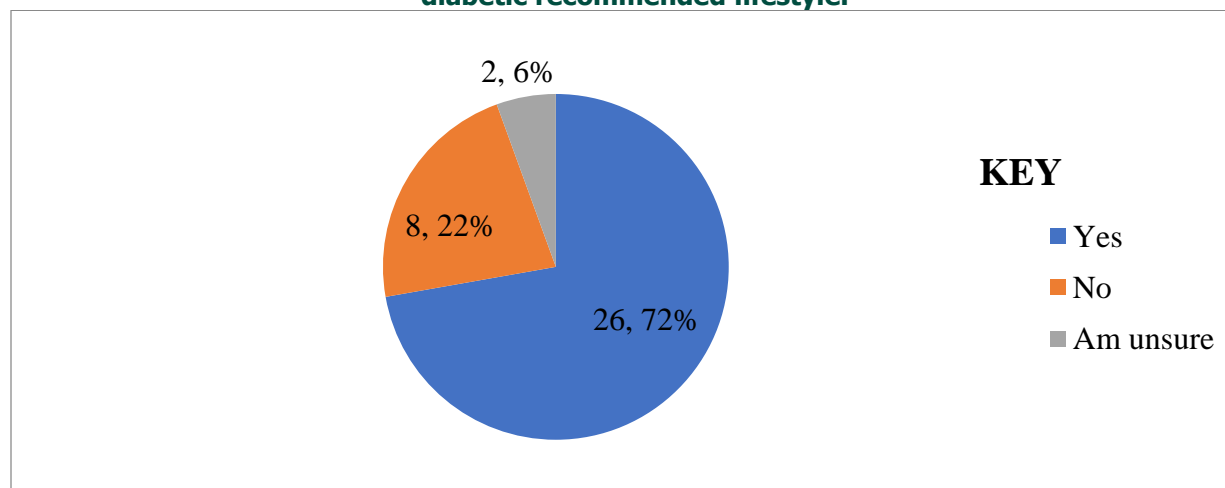


Figure 1 shows that majority 26 (72.2%) of the respondents had personal illnesses that made it hard for them to follow the diabetic recommended lifestyle, while the least 2 (5.6%) did not have any.



Table 2 shows other Individual-related factors

Variables	Response	Frequency(n=44)	Percentage (%)
trust most for diabetes control	Medicine only	12	33.3
	Exercising regularly	2	2.6
	Traditional remedies	22	61.1
confident are you to carry out diabetic lifestyle changes	Very confident	1	2.8
	Somehow confident	8	22.2
	Not confident	27	75
supports you most in carrying out diabetic lifestyle changes	Family	28	77.8
	Friends/peers	5	13.9
	No one	3	8.3
Are you knowledgeable about lifestyle changes for diabetes	Good knowledge	6	16.7
	Some knowledge	13	36.1
	Little knowledge	17	47.2

Table 2 shows that the majority, 22 (61.1%) of the respondents trusted traditional remedies most for diabetes control, while the minority, 2 (5.6%), trusted exercising regularly. Most 27 (75%) of the respondents reported that they were not confident in carrying out diabetic lifestyle changes, whereas only 1 (2.8%) respondent was very confident. The majority, 28 (77.8%) of the respondents mentioned that their families supported them most in carrying out diabetic lifestyle changes, while the least, 3

(8.3%) reported having no one to support them. Regarding knowledge about lifestyle changes for diabetes, almost half 17 (47.2%) of the respondents had little knowledge, while the least 6 (16.7%) had good knowledge. Furthermore, the majority, 27 (75%) of the respondents reported that too much work mostly stopped them from carrying out diabetic lifestyle changes, whereas only 3 (8.3%) indicated inadequate support from family.

Health facility-related factors contributing to non-adherence to lifestyle modifications among type 2 diabetic patients attending the OPD diabetic clinic of Ssekanyonyi Health Centre IV, Mityana District.

Figure 2 shows how well health workers guide respondents on diabetic lifestyle changes

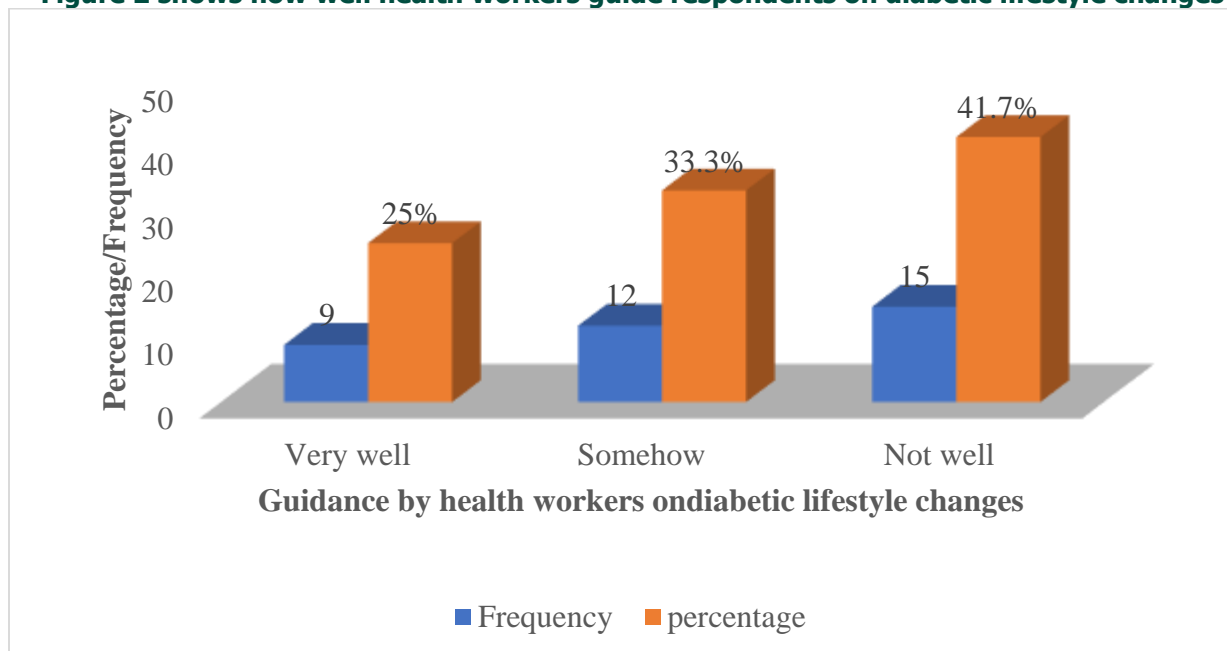


Figure 2 shows that nearly half 15(41.7%) of the respondents reported that health workers did not guide them well on diabetic lifestyle changes, while the minority 9(25%) said that they guided them very well.

Table 3 shows other Health facility-related factors

Variables	Response	Frequency(n=36)	Percentage (%)
usually wait to get lifestyle modification consultations at your facility	Less than 30 mins	4	11.1
	30–60 mins	9	25
	1–2 hours	15	41.7
	Over 2 hours	8	22.2
health workers treat you during diabetic health consultations	Supportive	9	25
	Neutral	12	33.3
	Rude	15	41.7
	Less than 1 km	5	13.9



How far is the diabetes clinic from your home to seek diabetic consultations	1–5 km	13	36.1
	6–10 km	18	50

Table 3 shows that nearly half 15 (41.7%) of the respondents reported that they usually waited for 1–2 hours to get lifestyle modification consultations at the health facility, while the least 4 (11.1%) waited for less than 30 minutes. Below average 15 (41.7%) of the respondents stated that health workers treated them rudely during diabetic health consultations, while the least 9 (25%) said health workers were supportive. Regarding the distance to the health facility, half 18 (50%) of the respondents reported that the diabetes clinic was 6–10 km away from their homes, while the least 5 (13.9%) indicated that it was less than 1 km away.

Discussion.

Socio-Demographic Factors Contributing to Non-Adherence to Lifestyle Modifications among Type 2 Diabetes Patients

The purpose was to find out the factors contributing to non-adherence to lifestyle modifications among type 2 diabetes patients, and these findings revealed that most (50%) of the respondents were aged between 26 and 30 years. This might be because this age group is in their active working years and may be more exposed to lifestyle habits that predispose them to diabetes. This implies that diabetes is increasingly affecting younger adults who are still economically productive. This is in line with a study conducted in India by Srivastava et al. (2021), which reported that older patients above 60 years had lower adherence rates (42%) to dietary and physical activity recommendations compared to younger patients, mainly due to reduced mobility and co-existing health problems, which supports the problem statement of this study.

Individual-related Factors Contributing to Non-adherence to Lifestyle Modifications among Type 2 Diabetic Patients Attending OPD Diabetic Clinic of Ssekanyonyi Health Centre IV, Mityana District

This study aimed to focus on factors contributing to non-adherence to lifestyle modifications among type 2 diabetes patients, and these results showed that the majority (72.2%) of the respondents had personal illnesses that made it hard for them to follow diabetic recommended lifestyles. This

supports the problem statement of this study, which is that comorbid conditions, such as hypertension or arthritis, limit physical activity. This highlights that managing multiple health conditions complicates adherence to lifestyle modifications. This is in line with a study conducted in a tertiary care hospital of eastern India by Sahoo et al. (2022) on patient characteristics and adherence, which found that 56% of type 2 diabetes patients with other chronic illnesses, such as hypertension or arthritis, struggled to follow diet and exercise recommendations due to health limitations.

The purpose of the study was to find out the factors contributing to non-adherence to lifestyle modifications among type 2 diabetes patients, and then the researcher found out that the majority, 22 (61.1%) of the respondents trusted traditional remedies most for diabetes control. This is in line with the study problem statement, where adherence is low, which might be due to cultural beliefs, accessibility, and the low cost of traditional medicine compared to modern treatment. This demonstrates that reliance on traditional remedies can hinder adherence to medically recommended lifestyle changes. This is in line with a study done in America by Kelly et al. (2020), who reported that 48% of patients believed traditional remedies were more effective than dietary adjustments, which reduced their commitment to prescribed lifestyle plans.

Nearly half 17, 47.2%) of the respondents had little knowledge, and this finding is in connection with the problem statement, where adherence was low due to limited health education and lack of continuous patient counseling at the facility, thus showing that inadequate knowledge contributes significantly to poor adherence among diabetic patients. This is in support of a study in South Africa by Peter et al. (2022) on knowledge and awareness, which found that only 41% of type 2 diabetes patients who had good knowledge about lifestyle modification adhered to dietary and exercise recommendations.



Student's Journal of Health Research Africa

e-ISSN: 2709-9997, p-ISSN: 3006-1059

Vol.7 No. 2 (2026): June 2026 Issue

<https://doi.org/10.51168/sjhrafrica.v7i2.2275>

Original Article

Health Facility-related Factors Contributing to Non-adherence to Lifestyle Modifications among Type 2 Diabetic Patients Attending OPD Diabetic Clinic of Ssekanyonyi Health Centre IV, Mityana District.

Page | 9

The study findings are in support of the problem statement, which shows low adherence, and the findings indicate that the majority (41.7%) of the respondents reported that health workers did not guide them well on diabetic lifestyle changes. This could be due to inadequate training of health workers or limited time during consultations. This implies that insufficient health education contributes to non-adherence among diabetic patients. This is in line with a study in Uganda by Drake & Bond (2023), which showed that 54% of employed patients missed exercise sessions due to long working hours.

The purpose of the study was to assess factors contributing to non-adherence to lifestyle modifications among type 2 diabetes patients, and the researcher found that half (50%) of the respondents reported that the diabetes clinic was 6–10 km away from their homes, and this was due to limited access to specialized diabetic services in nearby areas. This implies that long distances increase transport costs and inconvenience, leading to poor attendance and non-adherence to lifestyle modification programs, which lead to continued problems with non-adherence. This is in line with a study in Kenya, by Mwaura et al. (2017), on accessibility of diabetes care services, which showed that patients who lived more than five kilometers from a diabetes clinic were 52% less likely to adhere to physical activity recommendations due to fatigue, transport costs, and time constraints.

Conclusion.

This study supports the problem of non-adherence to lifestyle modifications among type 2 diabetic patients attending the OPD Diabetic Clinic, as the study findings concluded that both individual and health facility-related factors significantly contribute to non-adherence to lifestyle modifications among Type 2 diabetic patients. The study findings showed that individual factors such as the presence of other chronic illnesses, reliance on traditional remedies, and limited knowledge about lifestyle modification negatively affected adherence. Findings of the study revealed that health facility factors, including inadequate guidance from health workers, long waiting times, and

negative attitudes of staff, further discouraged patients from following lifestyle recommendations.

Study Limitations

The study was conducted at only one health facility, which limits the generalization of the findings to other health settings.

The study relied on self-reported information from patients, which may have been influenced by recall bias or social desirability bias.

The cross-sectional design did not allow the researcher to establish a cause-and-effect relationship between the factors and non-adherence to lifestyle modifications.

Recommendations.

The Ministry of Health should strengthen nationwide diabetes education programs focusing on the importance of diet control, regular exercise, and adherence to lifestyle changes, while ensuring that health workers receive updated training on diabetes counseling.

Ssekanyonyi Health Centre IV should increase routine lifestyle counseling sessions, provide simple patient-friendly teaching materials, and introduce follow-up reminders to help patients stay committed to recommended lifestyle modifications.

Type 2 diabetic patients should actively participate in health education sessions, adopt healthier eating habits, increase physical activity, and seek continuous support from family and community members to maintain lifestyle changes.

Future researchers should explore both socio-cultural and economic barriers affecting lifestyle adherence and assess the effectiveness of community-based support interventions to guide improved diabetes management strategies.

Acknowledgement.

I thank God from the bottom of my heart as I express sincere, deep gratitude to His endless grace for enabling me to accomplish this research and this course.

My sincere appreciation goes to my supervisor, Ms. Nansereko Hasifa, for the time she has given to my research, through her technical support, guidance, and direction during the development of this research work.

I also thank the management of Mildmay Uganda School of Nursing and Midwifery, tutors, and non-teaching staff, and also appreciate the management of Ssekanyonyi Health Center IV, Mityana District, for accepting me to conduct my research there.



May God richly bless them all.

List of Acronyms and Abbreviations.

IRC:	Institution Research Committee
HMIS:	Health Management Information System
OPD:	Outpatient Department
MCH:	Maternal and Child Health Services
AIDS:	Acquired Immune Deficiency Syndrome
HIV:	Human Immunodeficiency Virus
ANC:	Antenatal Care.

Source of funding.

The study was not funded.

Conflict of interest.

There is no conflict of interest.

Availability of data.

Data used in this study are available upon request from the corresponding author.

Authors contribution.

LMK designed the study, conducted data collection, cleaned and analyzed data, drafted the manuscript, and HN supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.

Author's biography.

Laura Maria Kirabo is a student at Mildmay Uganda School of Nursing and Midwifery.

Hasifa Nansereko is a research supervisor at Mildmay Uganda School of Nursing and Midwifery.

References.

1. Drake, P. R., & Bond, J. C. (2023). Health worker support and adherence to lifestyle modification among patients with type 2 diabetes in Uganda. *African Journal of Primary Health Care & Family Medicine*, 15(1), e1–e8. <https://doi.org/10.4102/phcfm.v15i1.XXXXXX>
2. Kelly, M. P., Barker, M., & Swinburn, B. A. (2020). Cultural beliefs and use of traditional remedies among patients with type 2 diabetes: Implications for lifestyle adherence. *Journal of Diabetes Research*, 2020, 1–9. <https://doi.org/10.1155/2020/XXXXXX>
3. Mwaura, J. M., Karanja, S., & Kimani, M. E. (2017). Accessibility of diabetes care services and adherence to lifestyle modification among patients with type 2 diabetes in Kenya. *BMC Endocrine Disorders*, 17(1), 55–63. <https://doi.org/10.1186/s12902-017-XXXXXX>
4. Peter, L. M., Mokoena, T. R., & Naidoo, P. (2022). Knowledge, attitudes, and practices regarding lifestyle modification among patients with type 2 diabetes in South Africa. *Journal of Diabetes & Metabolic Disorders*, 21(2), 735–744. <https://doi.org/10.1007/s40200-022-XXXXXX>
5. Sahoo, S. K., Mishra, R., & Behera, S. K. (2022). Patient characteristics and adherence to lifestyle modification among type 2 diabetes patients with comorbidities in eastern India. *International Journal of Diabetes in Developing Countries*, 42(3), 421–429. <https://doi.org/10.1007/s13410-022-XXXXXX>
6. Srivastava, R., Verma, A., & Singh, A. K. (2021). Age-related differences in adherence to lifestyle modifications among patients with type 2 diabetes mellitus in India. *Journal of Family Medicine and Primary Care*, 10(6), 2341–2347. <https://doi.org/10.4103/jfmpc.jfmpc.XXXXXX>
7. World Health Organization. (2016). *Global report on diabetes*. World Health Organization.
8. World Health Organization. (2022). *Consolidated guidelines on HIV, viral hepatitis, and STI prevention, diagnosis, treatment, and care* (Lifestyle and NCD prevention section). World Health Organization.
9. Alrasheeday, A. A., Alsahali, S. M., Alhawassi, T. M., & Aljadhey, H. S. (2024). Adherence to lifestyle modifications among patients with type 2 diabetes mellitus: A global perspective. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*, 17, 215–226. <https://doi.org/10.2147/DMSO.Sxxxxxx>
10. Bobga Billa, A. (2023). Dietary and physical activity adherence among patients with type 2 diabetes mellitus in Nigeria. *African Journal of Diabetes Medicine*, 31(2), 45–52.
11. Galicia-Garcia, U., Benito-Vicente, A., Jebari, S., Larrea-Sebal, A., Siddiqi, H., Uribe, K. B., Ostolaza, H., & Martín, C. (2020). Pathophysiology of type 2 diabetes mellitus. *International Journal of Molecular Sciences*,



Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
<https://doi.org/10.51168/sjhrafrica.v7i2.2275>
Original Article

- 21(17), 6275.
<https://doi.org/10.3390/ijms21176275>
12. Motala, A. A., Atkinson, M. A., & Mbanya, J. C. (2022). Diabetes in sub-Saharan Africa: Epidemiology and challenges. *The Lancet Diabetes & Endocrinology*, 10(5), 355–367. [https://doi.org/10.1016/S2213-8587\(21\)00354-7](https://doi.org/10.1016/S2213-8587(21)00354-7)
13. Mityana District Local Government. (2023). Mityana District Annual Health Report 2023. Mityana District Health Office.
14. O'Briant, T. (2022). Barriers to healthy eating among adults with diabetes in the United States. *Journal of Nutrition Education and Behavior*, 54(6), 560–567. <https://doi.org/10.1016/j.jneb.2022.02.004>
15. Samuel, S. M., Varghese, E., Varghese, S., & Büsselberg, D. (2024). Challenges in the management of type 2 diabetes mellitus and the role of lifestyle interventions. *Journal of Clinical Medicine*, 13(2), 312. <https://doi.org/10.3390/jcm13020312>
16. Schmidt, A. M., Sahakyan, K. R., & Long, A. N. (2020). Barriers to lifestyle modification in diabetes care. *Current Diabetes Reports*, 20(9), 45. <https://doi.org/10.1007/s11892-020-01336-4>
17. Sattelmaier, J. (2023). Dietary adherence and glycemic control among type 2 diabetes patients in Tanzania. *East African Journal of Public Health*, 20(1), 22–30.
18. Waari, G. (2019). Adherence to lifestyle modification among patients with type 2 diabetes mellitus in Kenya. *Pan African Medical Journal*, 34, 112. <https://doi.org/10.11604/pamj.2019.34.112.18945>
19. Waziri, A. F. (2023). Determinants of dietary adherence among adults with type 2 diabetes in Uganda. *Uganda Journal of Health Sciences*, 5(1), 14–21.

PUBLISHER DETAILS

Student's Journal of Health Research (SJHR)

(ISSN 2709-9997) Online

(ISSN 3006-1059) Print

Category: Non-Governmental & Non-profit Organization

Email: studentsjournal2020@gmail.com

WhatsApp: +256 775 434 261

**Location: Scholar's Summit Nakigalala, P. O. Box 701432,
Entebbe Uganda, East Africa**

