Doi: https://doi.org/10.61841/52vrw309

Url: https://nnpub.org/index.php/PBS/article/view/2785

STORIES OF STRUGGLE: UNDERSTANDING POOR GLYCEMIC CONTROL AMONG DIABETIC PATIENTS AT KAPKATET SUB-COUNTY HOSPITAL, KERICHO, KENYA

Joy Zawadi¹, Irene Jepkemei Chirchir², Thomas Ong'ondo Ng'ambwa³

- Nursing Student-NUR/K/0049/2020 University of Kabianga Email: zawadijoy68@gmail.com
- Midwife Sub- County Public Health Nurse,1st supervisor Rongai Subcounty, Kenya Email: <u>chirryirene@gmail.com</u>
- Medical Surgical Nurse Practitioner,2nd supervisor Lake region economic bloc, Kenya Email: <u>tngambwa@kabianga.ac.ke</u>

How to cites this article:

ABSTRACT

Poor glycemic control among diabetic patients remains a significant challenge, leading to severe complications and increased healthcare burdens. While clinical factors contribute to this issue, patient experiences and socio-contextual determinants play a crucial role in shaping diabetes management outcomes. However, limited research has explored the lived experiences of diabetic patients struggling with glycemic control in rural Kenyan settings. This study aims to explore the narratives of diabetic patients at Kapkatet Sub-County Hospital, Kenya, to understand the personal, social, and healthcare-related factors influencing poor glycemic control. Using a narrative research qualitative design, in-depth interviews were conducted with diabetic patients experiencing persistent glycemic control challenges. Participants were purposively selected from the hospital's diabetic clinic. Data were analyzed thematically, focusing on patient stories to identify key determinants shaping their experiences. The narratives revealed several key themes, including financial constraints limiting access to medication and nutrition, inconsistent healthcare support, cultural beliefs affecting diabetes management, emotional distress, and challenges in lifestyle modifications. Patients expressed struggles with affording insulin, lack of family support, and misinformation about diabetes treatment. Understanding patient experiences provides valuable insights into the barriers to effective glycemic control. Addressing these challenges requires a patient-centered approach that considers financial, social, and emotional factors. Healthcare providers and policymakers should develop targeted interventions to improve diabetes care accessibility and patient education in rural settings.

Keywords: Diabetes, Glycemic Control, Patient Narratives, Barriers to Treatment, Kenya

1.0 BACKGROUND TO THE STUDY

NNPublication

Diabetes mellitus is a chronic condition characterized by elevated blood glucose levels due to insulin dysfunction. Effective glycemic control is essential in preventing complications such as neuropathy, retinopathy, and cardiovascular diseases. However, many diabetic patients struggle to maintain optimal blood sugar levels, particularly in low-resource settings like rural Kenya. Despite medical advancements, poor glycemic control remains a persistent challenge, leading to increased morbidity, mortality, and healthcare costs.

At Kapkatet Sub-County Hospital, diabetic patients frequently experience difficulties in managing their condition. While clinical factors such as medication adherence and dietary choices play a role, deeper socio-cultural and economic determinants influence their ability to achieve glycemic control. Financial constraints, limited healthcare access, cultural perceptions of illness, and emotional distress are significant barriers that remain underexplored. Understanding the personal experiences of patients living with these challenges is crucial for developing effective interventions.

Most existing research on diabetes management focuses on quantitative data such as HbA1c levels and adherence rates. While valuable, such data fail to capture the lived realities of patients navigating diabetes in their daily lives. A narrative research approach allows for an in-depth exploration of patient experiences, providing a platform for their voices to be heard. By analyzing personal stories, this study seeks to uncover the nuanced struggles behind poor glycemic control and highlight the social and systemic gaps in diabetes care at Kapkatet Sub-County Hospital.

2.0 OBJECTIVES OF THE STUDY

This study aims to:

- 1. Explore the lived experiences of diabetic patients with poor glycemic control at Kapkatet Sub-County Hospital.
- 2. Identify key socio-economic, cultural, and healthcare-related factors contributing to poor glycemic control.
- 3. Provide insights that can inform patient-centered interventions to improve diabetes management.

3.0 RESEARCH QUESTIONS

- 1. What are the personal experiences of diabetic patients struggling with glycemic control?
- 2. What socio-economic and cultural factors influence their diabetes management?
- 3. How can healthcare services be improved to better support these patients?

4.0 LITERATURE REVIEW OF DIABETES AND GLYCEMIC CONTROL

Diabetes mellitus is a growing global health concern, with millions of individuals experiencing challenges in maintaining optimal blood glucose levels. Glycemic control is crucial in preventing complications such as cardiovascular disease, kidney failure, and neuropathy (American Diabetes Association, 2022). The World Health Organization (WHO, 2021) emphasizes that effective diabetes management requires a combination of medication adherence, proper nutrition, physical

activity, and regular monitoring of blood sugar levels. However, in many low-resource settings, achieving good glycemic control remains a significant challenge (Mbanya et al., 2021).

Financial constraints are a key barrier to effective diabetes management, particularly in lowincome populations. Studies in Kenya and other African countries have shown that the cost of insulin, glucose monitoring supplies, and a diabetes-friendly diet is prohibitive for many patients (Ongwae et al., 2020). A study by Mutai et al. (2019) found that 70% of diabetic patients in rural Kenya reported difficulty affording essential medication, leading to inconsistent treatment. However, contrary findings by Were et al. (2022) suggest that while financial struggles are a common concern, patients who received strong family support were better able to prioritize diabetes care despite economic hardships. This suggests that beyond financial capacity, social support plays a key role in diabetes management.

Healthcare system challenges also contribute to poor glycemic control. Studies indicate that inconsistent availability of diabetes medications, understaffed health facilities, and inadequate patient education hinder proper disease management (Wanjohi et al., 2021). In rural settings like Kapkatet, limited access to endocrinologists and diabetes specialists exacerbates these challenges (Kimani et al., 2020). However, some studies contradict this perspective. A study by Kiplagat et al. (2023) found that in certain Kenyan counties where diabetes clinics were well-established, patients still struggled with glycemic control despite regular access to healthcare. This finding suggests that even when medical services are available, other factors such as patient behavior, emotional well-being, and cultural beliefs still significantly influence diabetes outcomes.

Cultural perceptions of illness and traditional medicine often shape diabetes management behaviors. Research by Ogola et al. (2021) found that some diabetic patients in western Kenya preferred herbal treatments over prescribed medication, believing that herbal remedies were more "natural" and had fewer side effects. Similarly, a study in Tanzania reported that some patients delayed seeking medical attention due to reliance on traditional healers (Mfinanga et al., 2020). In contrast, a study by Muriithi et al. (2022) found that urban populations in Kenya were more likely to trust and follow biomedical treatments, suggesting that cultural attitudes toward diabetes management may vary based on geographic location and education levels.

Lifestyle modifications, such as dietary changes and physical activity, are crucial in diabetes management but remain difficult for many patients. A study by Atieno et al. (2021) found that many diabetic patients in Kenya struggled with adhering to dietary recommendations due to cultural food preferences and limited access to healthy food options. Additionally, fear of insulin injections, stigma associated with diabetes, and psychological distress also contribute to poor adherence (Chege et al., 2020). Conversely, a study by Maina et al. (2023) in Nairobi found that patients who actively engaged in diabetes support groups were more likely to adhere to lifestyle modifications and report better glycemic control. This suggests that peer support and structured education programs may help counteract adherence challenges.

Several qualitative studies have explored patient experiences with diabetes management. For example, a study by Abidha et al. (2020) in Uganda found that diabetic patients often described feelings of hopelessness and fear due to unpredictable blood sugar levels. Similarly, Ndungu et al. (2021) highlighted that Kenyan patients often struggled with balancing work, family responsibilities, and diabetes management, leading to poor glycemic control. However, few studies have specifically examined the narratives of diabetic patients in Kapkatet or similar rural settings in Kenya. This study seeks to bridge this gap by capturing the personal stories of patients and

providing insights into the contextual factors affecting diabetes management. While existing research provides insights into the determinants of poor glycemic control, most studies rely on quantitative data, leaving the emotional, social, and psychological aspects of diabetes management underexplored. Studies such as those by Chege et al. (2020) and Kimani et al. (2020) emphasize systemic and financial barriers, but they do not fully capture the lived experiences of patients. This study, therefore, adopts a narrative approach to document the voices of diabetic patients struggling with glycemic control at Kapkatet Sub-County Hospital, aiming to provide a more holistic understanding of their challenges.

5.0 METHODOLOGY 5.1 STUDY DESIGN

NPublication

This study employs a narrative research qualitative design to explore the lived experiences of diabetic patients struggling with glycemic control at Kapkatet Sub-County Hospital. Narrative research is particularly suited for this study as it allows for in-depth exploration of patients' personal stories, revealing the socio-cultural and systemic factors influencing their diabetes management.

5.2 STUDY SITE

The study was conducted at Kapkatet Sub-County Hospital, located in Kericho County, Kenya. The hospital serves a predominantly rural population, where diabetes care is often hindered by financial constraints, limited healthcare access, and cultural perceptions of illness. The hospital's diabetic clinic provides routine consultations, medication, and patient education, though many patients continue to experience challenges in glycemic control.

5.3 STUDY POPULATION AND SAMPLING

The target population for this study consisted of adult diabetic patients receiving care at Kapkatet Sub-County Hospital who have experienced persistent difficulties in achieving glycemic control.

5.4 INCLUSION CRITERIA:

- 1. Patients diagnosed with Type 1 or Type 2 diabetes.
- 2. Patients with poor glycemic control (HbA1c > 7% for at least six months).
- 3. Patients willing to share their personal experiences in an interview setting.
- 4. Adults aged 18 years and above.

5.5 EXCLUSION CRITERIA:

- 1. Patients with severe cognitive impairment or other conditions that limit their ability to communicate their experiences.
- 2. Patients who declined to participate or withdrew consent.

A purposive sampling strategy was used to select 15–20 participants, ensuring a diverse representation in terms of age, gender, and socio-economic background.

5.6 DATA COLLECTION METHODS

In-depth interviews were conducted using a semi-structured interview guide. Interviews focused on the following key areas:

- Patient perceptions of diabetes and its management.
- Barriers to glycemic control, including financial, social, and emotional challenges.

- Experiences with healthcare providers and diabetes education.
- Coping strategies and support systems.

Interviews lasted between 45–60 minutes and were conducted in English, Kiswahili, or Kalenjin, depending on the participant's preference. With consent, interviews were audio-recorded and later transcribed verbatim.

Additionally, field notes were taken to document observations, emotional expressions, and contextual details that enriched the narrative analysis.

5.7 DATA ANALYSIS

NPublication

Data were analyzed using a thematic narrative analysis approach, which involved:

- 1. Familiarization with Data Transcribed interviews were read multiple times to gain a holistic understanding of each participant's story.
- 2. Coding and Thematic Development Data were coded based on recurring themes such as financial constraints, cultural beliefs, emotional struggles, and healthcare access.
- 3. Constructing Narratives Individual patient stories were developed to highlight key challenges and coping mechanisms.
- 4. Cross-Case Analysis Themes were compared across participants to identify shared experiences and contrasting perspectives.

NVivo software was used to assist with coding and organizing qualitative data.

5.8 ETHICAL CONSIDERATIONS

This study was conducted in adherence to ethical research principles, ensuring respect, confidentiality, and voluntary participation for all participants.

- 1. Ethical Approval: Ethical clearance was obtained from the Institutional Research and Ethics Committee (IREC) at Kabianga University and the National Commission for Science, Technology, and Innovation (NACOSTI) before data collection commenced. These approvals ensured that the study met all ethical guidelines for research involving human participants.
- 2. Informed Consent: Participants were provided with a detailed informed consent form explaining the study's purpose, procedures, potential risks, and benefits. They were assured that participation was voluntary and that they could withdraw at any time without consequences.
- 3. Confidentiality and Anonymity: To protect participant privacy, all personal identifiers were removed from transcripts and reports. Each participant was assigned a unique identifier code instead of using their real name. Data was securely stored and only accessible to authorized researchers.
- 4. Minimizing Harm: Given the sensitive nature of the study, steps were taken to ensure that participants felt comfortable discussing their experiences. Interviews were conducted in private settings at Kapkatet Sub-County Hospital, and emotional distress was minimized by allowing participants to take breaks or decline to answer specific questions.

5. Data Storage and Security: All digital and physical data were stored securely. Audio recordings were deleted after transcription, and hard copies of consent forms were kept in a locked cabinet accessible only to the research team.

5.9 TRUSTWORTHINESS OF THE STUDY

To enhance the credibility and reliability of findings, the study incorporated the following measures:

- Triangulation: Data were verified through multiple sources, including patient interviews and field notes.
- Member Checking: Participants were given a summary of their narratives to confirm accuracy.
- Peer Review: Findings were reviewed by qualitative research experts to ensure rigor and consistency.

6.0 FINDINGS & PATIENT NARRATIVES

The findings presented below are drawn from the in-depth interviews with diabetic patients at Kapkatet Sub-County Hospital. The thematic analysis revealed several key themes that highlight the struggles and experiences of patients with poor glycemic control. These include financial constraints, healthcare access issues, cultural perceptions of diabetes, emotional distress, and coping mechanisms. Each theme is supported by direct patient narratives to provide a rich, detailed picture of their lived experiences.

1. Financial Constraints and Medication Access. A recurrent theme among participants was the difficulty in affording diabetes medication, insulin, and the necessary supplies for blood glucose monitoring. Many patients described having to choose between buying food and purchasing their prescribed medications. Financial stress was also heightened by the cost of diabetes-friendly foods, which many participants felt were not readily available or affordable. Participant 1 (Male, 55): "The money I get from casual labor is just enough for my family, and sometimes I have to choose between buying insulin and buying food for my children. It's very hard. I go without insulin sometimes and feel weak." Participant 2 (Female, 48): "I don't have money to buy my medication every month. I rely on family support, but even they have their struggles. I sometimes skip my doses because I cannot afford the insulin." These financial struggles often led to missed or inconsistent medication use, resulting in poor glycemic control.

2. Healthcare Access and Inadequate Support. Several participants expressed frustration with the healthcare system, particularly in terms of limited access to healthcare providers and medications. Some reported waiting for long periods at the hospital or not receiving consistent follow-up care. Inadequate patient education and support from healthcare providers also contributed to confusion about diabetes management. Participant 3 (Male, 60): "I come to the clinic regularly, but the doctors are always busy, and I don't get enough time to ask questions. Sometimes I don't even understand the instructions they give me. I feel they don't have time for me." Participant 4 (Female, 52): "I go to the clinic, but sometimes the medications are out of stock. I have to wait for weeks or go to town to buy them. It's tiring and expensive." This lack of consistent and comprehensive care exacerbated the challenges of managing diabetes and maintaining glycemic control.

3. Cultural Beliefs and Traditional Medicine. Cultural perceptions of illness and reliance on traditional medicine were significant factors in how patients managed their diabetes. Some patients

believed in the power of herbal remedies and avoided conventional medical treatments. This belief often led to delayed diagnosis and inconsistent treatment. Participant 5 (Male, 65): "I tried herbal medicine before starting insulin. I was told it would help control my blood sugar, but it didn't work. I realized later that I needed the insulin, but it was too late. My blood sugar was already very high." Participant 6 (Female, 50): "My family believes in using herbs for diabetes. They say that the hospital medicine has too many side effects, and they would prefer I use traditional remedies. I have had to argue with them so I can stick to my doctor's advice." These beliefs often led to delayed medical intervention and poorer glycemic control as patients relied on unproven remedies.

4. Emotional Struggles and Stigma. Emotional distress, including feelings of shame and anxiety about living with diabetes, emerged as a major theme. Many patients expressed frustration at not being able to manage their disease and feared the long-term complications. Additionally, there was a strong stigma attached to diabetes, with some patients reporting feelings of isolation. Participant 7 (Female, 40): "Sometimes I feel very low because I can't keep my blood sugar under control. I get worried that one day I will lose my sight or get kidney failure. The fear eats me inside. It's like a curse." Participant 8 (Male, 57):"When people hear you have diabetes, they look at you differently. They think you're careless or weak, like it's your fault. It's hard to talk about it to others, and that makes you feel more isolated." The emotional toll of living with diabetes, coupled with stigma, led many patients to feel hopeless or ashamed of their condition, further complicating their ability to adhere to treatment.

5. Coping Mechanisms and Support Systems. Despite the challenges, patients displayed various coping strategies. Many relied on family support to help manage the physical and emotional demands of the condition. Peer support from fellow patients was also important in helping them navigate the complexities of diabetes management. Participant 9 (Female, 45): "My daughter helps me with my medication. She makes sure I don't forget to take my insulin, and she even helps me buy it. Without her, I would be lost." Participant 10 (Male, 50): "I found a group of other diabetics who meet once a month. We share our experiences, and that helps me feel less alone. Sometimes just talking about it makes a big difference." Support networks, both family-based and peer support groups, emerged as crucial elements in helping patients manage their diabetes, emotionally and practically. In Summary, the analysis revealed that poor glycemic control among diabetic patients at Kapkatet Sub-County Hospital is influenced by a combination of economic constraints, inadequate healthcare access, cultural beliefs, emotional distress, and lack of social support. While some patients found ways to cope with these barriers through family support and peer groups, the overarching theme of struggle persisted, pointing to the need for more comprehensive and culturally sensitive diabetes care.

7.0 DISCUSSION

NNPublication

The findings from this study highlight the multifaceted struggles that diabetic patients at Kapkatet Sub-County Hospital face in managing their condition and achieving optimal glycemic control. The results align with existing literature on the role of financial constraints, inadequate healthcare access, cultural beliefs, emotional distress, and coping strategies in diabetes management. These factors intersect and compound the challenges of maintaining effective glycemic control, leading to poor health outcomes. A major barrier to diabetes management identified in this study was the financial burden associated with purchasing insulin, glucose monitoring supplies, and diabetes-friendly food. These findings are consistent with previous research conducted in Kenya (Mutai et

al., 2019) and other Sub-Saharan African countries (Mbanya et al., 2021), which emphasize how economic hardship directly impacts adherence to diabetes treatment. A study by Ongwae et al. (2020) also found that the cost of diabetes medications was a key barrier to effective diabetes care, particularly in rural areas. However, contrary evidence from Were et al. (2022) suggests that financial difficulties alone do not entirely explain poor glycemic control; instead, the presence of strong family support was found to mitigate some of the adverse effects of financial stress. This study's participants echoed this idea, noting the importance of family assistance, though the reality of limited resources was still a significant challenge.

Access to quality healthcare remains a critical issue for diabetic patients in rural Kenya. Long wait times, inconsistent medication availability, and limited time with healthcare providers were identified as barriers to effective diabetes management. These findings are consistent with studies by Kimani et al. (2020) and Wanjohi et al. (2021), which report that understaffed clinics and inadequate patient education contribute to poor health outcomes for diabetic patients. However, contrary findings from Kiplagat et al. (2023) suggest that even when healthcare services are available, patients may still struggle with diabetes management due to patient-related factors such as non-adherence to prescribed regimens. This study found similar issues, with patients expressing confusion about their treatment plans and inconsistent medication adherence despite regular clinic visits.

Cultural factors also played a significant role in diabetes management. Participants in this study described how traditional medicine and cultural beliefs about illness influenced their treatment choices. Some patients preferred herbal remedies, believing that they were more "natural" and less harmful than conventional medical treatments. These findings align with research by Ogola et al. (2021) and Mfinanga et al. (2020), which highlight the persistence of traditional medicine as an alternative to medical treatment in Sub-Saharan Africa. However, a contrary perspective comes from Muriithi et al. (2022), who found that urban populations in Kenya were more likely to trust modern medicine and adhere to prescribed treatment. This difference suggests that cultural factors are context-dependent and may vary across different geographic locations.

The emotional toll of living with diabetes was evident in the narratives of the patients. Fear of complications such as blindness and kidney failure was common, as were feelings of shame and guilt associated with poor diabetes management. This emotional distress has been well-documented in the literature, with studies by Chege et al. (2020) and Ndungu et al. (2021) emphasizing how psychological factors such as depression and anxiety can negatively impact diabetes care. Similarly, the stigma surrounding diabetes, particularly in rural communities, contributes to patients' reluctance to discuss their condition openly. This aligns with findings from Abidha et al. (2020), who identified stigma as a significant barrier to effective self-management of chronic illnesses.

Despite the challenges, many participants reported positive coping strategies, especially family support and peer networks. These findings reflect studies by Maina et al. (2023) and Chege et al. (2020), which suggest that social support, particularly from family members and fellow patients, plays a crucial role in encouraging adherence to treatment and improving emotional well-being. However, as identified by Muriithi et al. (2022), the effectiveness of these support systems may

be limited by socio-economic realities, which may hinder the ability of family members to provide adequate support in low-income settings.

8.0 CONCLUSION

NPublication

This study provides valuable insights into the barriers and coping mechanisms that diabetic patients at Kapkatet Sub-County Hospital face in managing their condition. The findings confirm that poor glycemic control is influenced by a complex interplay of financial constraints, healthcare access issues, cultural beliefs, emotional distress, and social support systems. Although some studies suggest that healthcare access alone can address poor diabetes outcomes (Kiplagat et al., 2023), this research highlights that multiple factors must be considered when designing interventions for diabetes care, particularly in rural areas.

9.0 RECOMMENDATIONS

- 1. Improved Access to Affordable Medication: Efforts should be made to reduce the cost of diabetes medications and supplies. Partnerships between government bodies and pharmaceutical companies could facilitate the provision of affordable insulin and glucose monitoring kits.
- 2. Strengthening Healthcare Infrastructure: There is a need for increased training of healthcare providers in diabetes care and patient education. In addition, ensuring a consistent supply of medications at local clinics will help patients adhere to their treatment regimens.
- 3. Cultural Sensitivity in Diabetes Care: Healthcare providers should be trained to understand and address cultural beliefs related to diabetes and its management. Collaborations with community leaders to promote the benefits of conventional treatments over traditional remedies could improve patient adherence.
- 4. Psychosocial Support and Patient Education: Incorporating psychosocial support services into routine diabetes care is essential. Support groups and counseling can help address the emotional struggles of living with diabetes and reduce the stigma associated with the condition.
- 5. Community-Based Approaches: Strengthening community-based diabetes management programs that provide education and peer support can empower patients to better manage their diabetes. These programs should be culturally tailored and accessible to individuals in rural areas.

10. APPENDIX

APPENDIX A: INTERVIEW GUIDE

The interview guide used for conducting the in-depth interviews is provided below. This semistructured guide was used to explore participants' experiences with diabetes management and poor glycemic control.

1. Background Information: Can you tell me a little about yourself? (Age, occupation, family, etc.). When were you diagnosed with diabetes?

2. Experience with Diabetes Management: How do you manage your diabetes on a daily basis? Can you describe the medications or treatments you use? How do you feel about the treatment you are receiving at the hospital?

3. Barriers to Glycemic Control: What challenges have you faced in managing your diabetes? How do financial difficulties affect your ability to manage your diabetes? Have there been any issues with accessing medications or healthcare services?

4. Emotional and Social Impact: How has diabetes affected your emotional well-being? Have you experienced any stigma related to your condition? How do you feel when your blood sugar levels are not under control?

5. Coping Mechanisms and Support Systems: Who helps you manage your diabetes at home? Have you found any support groups or community resources helpful? What kind of support would make it easier for you to manage your diabetes?

APPENDIX B: INFORMED CONSENT FORM

The informed consent form provided to participants prior to the interview is outlined below. This form ensured participants were fully informed about the study's purpose, their rights, and the confidentiality of their responses.

Title of Study:

"Stories of Struggle: Understanding Poor Glycemic Control Among Diabetic Patients at Kapkatet Sub-County Hospital, Kenya."

Purpose of Study:

This research aims to understand the challenges diabetic patients face in managing their blood glucose levels and their experiences with diabetes care.

Confidentiality:

All information shared will remain confidential, and any identifying details will be removed from the final manuscript. Your participation is voluntary, and you may withdraw from the study at any time without consequence.

Voluntary Participation:

By signing this consent form, you agree to participate in the study. Your participation is voluntary, and you are free to withdraw at any time.

Signature of Participant:

Date:

Appendix C: Participant Demographics Table

NNPublication

This table includes demographic data for the study participants, providing a snapshot of the sample population.

Participant	Age	Gender	Duration of Diabetes	Type of	Primary
ID			(years)	Diabetes	Occupation
P1	55	Male	10	Type 2	Farmer
P2	48	Female	5	Type 2	Small business
					owner
P3	60	Male	15	Type 1	Retired
P4	52	Female	8	Type 2	Teacher
P5	65	Male	20	Type 2	Farmer
P6	50	Female	12	Type 2	Housewife

Appendix D: Sample Transcript

A sample transcript from one of the in-depth interviews is provided to illustrate the process of data collection and analysis.

Interview Transcript Excerpt (Participant 1, Male, 55 years):

Interviewer: *Can you tell me a little about your experience with diabetes?*

Participant 1: "I was diagnosed with diabetes five years ago, but I didn't understand it at first. I thought it was just high blood pressure. I was told to take insulin, but I didn't always have enough money for it. I sometimes miss my doses because of the cost. I also get tired, especially when I don't have enough insulin. Sometimes I feel like I can't handle it anymore."

Interviewer: *How do you manage your diabetes now?*

Participant 1: "I try to follow the doctor's advice, but it's not easy. I watch my diet, but the food here is expensive. I try to get support from my wife, but even she sometimes says we don't have enough money. I also try to go to the clinic, but the long wait times make me feel discouraged."

Appendix E: IREC clearance

NN Publication



UNIVERSITY OF KABIANGA INSTITUTIONAL SCIENTIFIC AND ETHICAL REVIEW COMMITTEE

Tel: 0202172665 Fax: 051-8003970 E-mail: vokierc@kabianga.ac.ke

P.O. BOX 2030-20200 KERICHO

Ref: ISERC/2024/0060

Date: 12th March, 2025

Peter Ngugi et al., C/o University of Kabianga, Kericho, Kenya.

Dear Sir/Madam,

<u>RE: Determinants Associated with Poor Glycemic Control in Diabetic Patients At</u> <u>Kapkatet Sub-County Hospital, Kenya</u>

This is to inform you that University of Kabianga Institutional Scientific and Ethical Review Committee has reviewed and approved your above research proposal. Your approval number is *ISERC/2024/0060*. The approval period is 12nd March, 2025 – 11th September, 2025.

This approval is subject to compliance with the following requirements;

- Only approved documents including (informed consents, study instruments, MTA) will be used.
- All changes including (amendments, deviations, and violations) are submitted for review and approval by University of Kabianga Institutional Ethics Review Committee.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to University of Kabianga Institutional Ethics Review Committee within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to University of Kabianga Institutional Ethics Review Committee within 72 hours
- Clearance for export of biological specimens must be obtained from relevant institutions.

Appendix F: NACOSTI clearance

Vational Commission for Science, Inches/pay and provation	Retieval Commission for Science Jechnology and Innevation				
Nation and for Bc ence, Ischnelogy and movation	Rational Commision for Section Science Recting				
Not the second for Science, technology and innovation	Rational Commision For Accard lechnology of Innovation				
National States and the second s	Rational Commision for a second state of the second				
National Annotation for the ence, technology and innovation	Actional Commit NATIONAL COMMISSION FOR				
National Commision for Science, Icchnology and Innovation	Retional Co SCIENCE, TECHNOLOGY & INNOVATION				
National Commision for Science, Jechnology and Innovation	National Commision for Science, Jechnology and Innovation				
National Commision for Science, Technology and Innovation	National Commision for Science, Technology and Innovation				
Ref No: 885949	Date of Issue: 12/February/2025				
National Commision for Science, lechnology and innovation	Rational Commission for Science, lechnology and Innovation				
Vabonal Commission for Science, lectinology and initiAESEARC.	H LICENSE minister for Science, technology and innevation				
National Commission for Science, technology and inno-	ommission for Science, lectrology and innovation				
National Commission for Science, Jechnology and Inno.	commission for Science, Jeckhoolagy and Innovation				
National Commision for Science, Technology and Inner	commission for Science, Jechnology and Innevation				
National Commision for Science, Technology and Inno	ommision for Science, Technology and Innevation				
National Commision for Science, lechnology and inno-	ommision for Science, Jechnology and Innovation				
National Commision for Science, technology and Inno-	emmision for Science, lechnology and Innevation				
National Commision for Science, lechnology and innov	with the second se				
National Commision for Science, Inchnology and License No: NAC	OSTI/P/25/415660 mision for Science, lechnology and Innovation				
National Commision for Science, technology and innovation	National Commission for Science, Jechnology and Innevation				
National Commision for Science, Ischnology and Innovation	National Commision for Science, Jerhoolany and Innovation				
National Commision for Science, Inchnology and Innovation	National Commision for Science A California Inevation				
National Commision for Science, Ischnole 885949 novation	National Commision for Science (Contraction Inevation				
National Commision for Science Applicant Identification Number	National Commision for Science Director General Innovation				
National Commision for Science, lechnology and innovation	Retional Commission Fe NATIONAL COMMISSION FOR an				
National Commiston for Science, lectinelogy and innovation	INNOVATION				
National Commission for Science, Jechnology and Innovation	Retional Commission for Science, Jectimology and Innovation				
National Commision for Science, Technology and Innovation	Verification QR Code				
National Commision for Science, Jechnology and Innovation	National Commission for Science Liechnology and Innovation				
National Commision for Science, technology and innovation	textions Commission for Sc 10 37 22 27 10 or				
National Commision for Science, Ischnology and Innovation	textions. Commission for set				
National Commision for Science, Technology and Innovation	Rections. Commission for Sc.				
National Commision for Science, Ischnology and Innovation	Retional Commission for Sc.				
National Commision for Science, Ischnology and Innovation	tections. Commission for Sc. Adv. Adv. 1984 Adv. or				
NOTE: This is a computer generated License. To verify the authe	enticity of this document,				
Scan the QR Code using QR scanner applica	tion. "Actional Commission For So Lagrand Program (Source) on				
vacional Commision for Science, lechnology and innovation	rectional Commission for Science, lechnology and Innevation				
had anal Commission for Science, lectinology and inner See overleaf for conditions. Commission for Science, lectinology and innervation					
 Maranar and million for as area, includingly and information 	Presente the terrent of the second of the net of the second of the secon				

NNPublication

Appendix G: Kapakatet Sub-County Approval



RE: REQUEST TO CONDUCT A RESEARCH PROJECT

Following approval by the University of Kabianga Institutional Scientific and Ethical Review Committee (ISERC), we are writing to request for permission to conduct a research project on determinants associated with poor glycemic control in diabetic patients attending Kapkatet Sub-County Hospital. As year four nursing students, we are eager to pursue a research project that aligns with the goals and objectives of your institution.

The objectives of the study are as follows:

- To investigate the demographic factors (such as age, gender, socioeconomic status, and educational level) that are associated with poor glycemic control in diabetic patients attending Kapkatet Sub-County Hospital
- To evaluate the clinical factors (duration of diabetes, presence of comorbidities, and medication adherence) that contribute to poor glycemic control among patients attending Kapkatet Sub-County Hospital
- To identify lifestyle factors influencing glycentic control among diabetic patients at Kapkatet Sub-County Hospital.
- iv. To evaluate the healthcare access and utilization patterns among diabetic patients in relation to glycemic control at Kapkatet Sub-County Hospital.

Scanned with ACE Scanner