

The Impact of Social and Cultural Elements on the Self-Management of Type 2 Diabetes Mellitus in Eastern Tanzania Urban Settings: A Qualitative Research Study

Thobias Jeremiah Ongito^{1*}; Malonja Yona Magaluda²

¹Community Development Project and Planning Department, Catholic University of Mbeya

²Mbeya University of Science and Technology.

Corresponding Author: Thobias Jeremiah Ongito^{1*}; Email: thobias.ongito@cuom.ac.tz

Publication Date: 2026/06/18

Abstract: This study intended to explore the social and cultural factors affecting self-management of type 2 diabetes mellitus among adults in Temeke Municipality, in Dar es Salaam, Tanzania. The study was informed by the Health Belief Model. We utilised a qualitative exploratory study design. We included 20 patients with type 2 diabetes mellitus attending clinics and 10 healthcare providers who were sampled conventionally and purposively, respectively. Data collection involved in-depth interviews and focus group discussions through interview guides. The study found that gender-based roles, cultural realities among patients with type 2 diabetes mellitus, stigma, dietary practices, level of education, personal attitude, religious beliefs and use of traditional medicines, and lack of family support were significant social and cultural factors affecting self-management of type 2 diabetes mellitus. We recommend that health education and counselling adopt a context-sensitive approach that considers family dynamics, cultural and religious beliefs, gender roles, social norms, and structural limitations rather than assuming uniform adoption of recommended practices. Interventions should engage families, tailor advice to culturally meaningful foods, reduce community stigma, and empower patients to sustain effective self-management despite social and cultural barriers.

Keywords: Diabetes Mellitus, Type 2 Diabetes Mellitus, Self-Management, Social and Cultural Factors, Self-Care.

How to Cite: Thobias Jeremiah Ongito; Malonja Yona Magaluda (2026) The Impact of Social and Cultural Elements on the Self-Management of Type 2 Diabetes Mellitus in Eastern Tanzania Urban Settings: A Qualitative Research Study.

International Journal of Innovative Science and Research Technology, 11(5), 4471-4479.

<https://doi.org/10.38124/ijisrt/26may2204>

I. INTRODUCTION

Diabetes is an increasingly significant health issue worldwide, especially in low- and middle-income countries (LMICs), where 4 in 5 people affected with the disease live (World Health Organisation, 2024). Diabetes mellitus is categorised into type 1 diabetes mellitus (T1DM) and type 2 diabetes mellitus (T2DM). T2DM accounts for more than 90% of all diabetes cases worldwide (American Diabetes Association, 2018; Hall et al., 2019). The International Diabetes Federation (IDF) Diabetes Atlas 10th Edition (2021) reports that around 439 million individuals are affected by Type 2 Diabetes Mellitus (T2DM) (IDF, 2021).

The number of individuals diagnosed with diabetes is expected to rise from 537 million in 2021 to 643 million by 2030, and further to 783 million by 2045 (IDF, 2021; Magliano & Boyko, 2021). This increase will account for

more than 75% of the global diabetes burden (Egede & Ellis, 2020). The World Health Organisation (WHO) reported that diabetes mellitus was the seventh leading cause of death in 2016, with 46% of diabetes-related deaths occurring in developing countries (World Health Organisation, 2016). Type 2 diabetes mellitus contributed to 1.4 million deaths in 2023; this number is projected to rise to more than 2 million deaths in 2050 (Abid et al., 2025).

Improper management of type 2 diabetes mellitus (T2DM) can result in severe complications such as heart disease, vision problems (diabetic retinopathy), nerve damage (neuropathy), and kidney damage (nephropathy) (World Health Organisation, 2021). In high-income countries, the magnitude of the problem is well documented. For example, in the United States, T2DM affects approximately 30 million people, representing 9.4% of the population (Centres for Disease Control and Prevention,

2020). Similarly, in Germany, 8.8% of adults were diagnosed with diabetes between 2017 and 2020 (German Health Update [GEDA], 2021), while in Sweden, diabetes prevalence ranges from 2.2% to 4.3%, affecting approximately 300,000 people (SWEDC, 2017). In China, a national survey reported an age-standardised diabetes prevalence of 9.6%, representing nearly 98.4 million adults, largely attributed to lifestyle changes such as overnutrition, sedentary work, and physical inactivity (National Survey, 2020).

Sub-Saharan Africa is experiencing a growing diabetes burden, although data on prevalence, risk factors, and complications remain limited. In Africa, access to diabetes care is constrained, with 86% of people with T2DM unable to access insulin and a substantial proportion of households unable to afford essential medications such as metformin (WHO, 2021). In 2020, an estimated 12.1 million people were living with diabetes in Africa, with projections indicating an increase to 23.9 million by 2030 (DSM, 2020). T2DM accounts for over 90% of diabetes cases in the region (IDBF, 2020). Many African nations, such as Cameroon, Ghana, Kenya, Nigeria, South Africa, and Uganda, have reported prevalence rates that surpass 10% (Iglay, 2018). In Kenya, prevalence ranges from 2% in rural areas to 12% in urban areas (Ruggeri, 2019), while South Africa reports prevalence rates between 3.9% and 8.8%, with higher rates in urban populations (OECD, 2020).

Tanzania, like many other African countries, is experiencing a rapidly increasing burden of T2DM. The prevalence of T2DM increased from 2.8% in 2011 to 12.8% in 2021 (Tanzania Ministry of Health, 2022). In response, the government established a non-communicable disease unit within the Ministry of Health and included diabetes-related services in the National Package of Essential Health Interventions for Tanzania (URT, 2015). Older people with chronic illnesses, including T2DM, in primary healthcare settings, are exempted from healthcare costs to improve access to care (Mubyazi, 2008). Despite these efforts, more than 60% of people living with diabetes in Tanzania remain undiagnosed, indicating weaknesses in health-seeking behaviour, screening, and case detection (Kavishe et al., 2015; Metta et al., 2015).

More than 50% of people living with type 2 diabetes do not take their medications (WHO, 2024). Effective diabetes self-management (DSM) is critical for preventing complications and reducing morbidity and mortality. However, adherence to DSM remains low. Studies indicate that self-management is influenced by interpersonal, social, and contextual factors, including cultural beliefs, dietary norms, social support, and economic constraints (Ahola & Groop, 2017; Nagelkerk et al., 2006). In Tanzania, previous studies have identified limited knowledge of diabetes self-management, as well as social, cultural, and economic barriers to medication adherence (Ruhembwa & Rashid, 2016; Nsereko et al., 2018; Moshia & Rashid, 2017). Nevertheless, few studies have qualitatively explored how social and cultural contexts shape daily self-management practices among people living with T2DM. Therefore, studying the social and cultural barriers to T2DM self-management is essential for designing contextually appropriate interventions. This study aims to explore social and cultural barriers to type 2 diabetes self-management in Temeke Municipality using a qualitative approach.

II. LITERATURE REVIEW

➤ Theoretical Framework

The Health Belief Model (HBM) explains how individuals' beliefs influence health-related behaviours. For behaviour change to occur, individuals must perceive the change as possible, beneficial, and outweighing any costs or barriers. Developed in the 1950s and later refined, the HBM has been widely applied in public health to explain why people often fail to engage in preventive or self-care activities (Sheeran & Abraham, 1995).

HBM comprises five components: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action. Perceived susceptibility refers to awareness of risk, while perceived severity reflects understanding of potential consequences. Perceived benefits involve recognition of the effectiveness of recommended actions, whereas perceived barriers capture social, cultural, or structural obstacles that impede behaviour. Cues to action are triggers, such as health education, symptoms, or advice, that stimulate readiness to act (Hausmann-Muela et al., 2023).

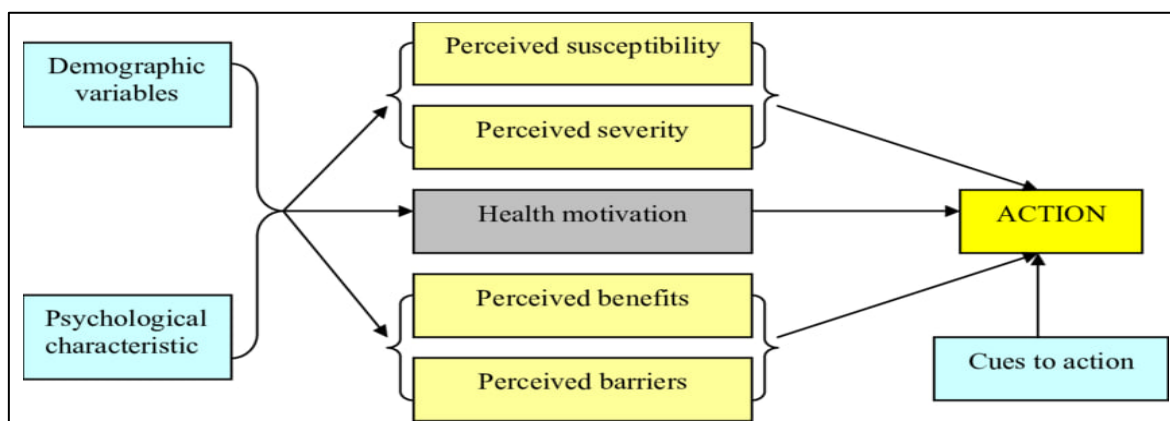


Fig 1 The Health Belief Model, Sheeran & Abraham, 1995 (As Adopted from Hausmann-Muela et al., 2023).

Applied to type 2 diabetes self-management, the HBM suggests that increasing awareness of disease risk and complications enhances susceptibility and severity perceptions. This can serve as a cue to action, motivating adherence to preventive and self-care behaviours. However, social and cultural barriers may limit the translation of knowledge into effective self-management, emphasising the relevance of the HBM in exploring these influences.

➤ *Empirical Literature Review*

Several studies in different contexts have explored the socio-cultural factors influencing self-management among patients with type 2 diabetes. Patel et al. (2015) studied the sociocultural factors influencing diabetes illness beliefs and self-management among British South Asians. The study adopted a mixed methods approach using in-depth interviews. The study revealed that fatalistic attitudes and beliefs influence the self-management practices. Dietary modifications were strongly recommended by the social supportive networks. However, this study was conducted in a South Asian context, whereas the present study examines broader social and cultural context factors influencing self-management of Type 2 diabetes within a different sociocultural setting.

Mathew et al. (2012) examined gender differences in diabetes self-management among patients with Type 2 diabetes in Toronto. Their qualitative study involved five focus groups and nine interviews with 35 participants from a diabetes education centre. Findings identified five main themes: identity and disclosure, blood glucose monitoring, dietary challenges, use of diabetes resources, and social support. Women were more likely to disclose their condition and engage with educational resources, while men focused on practical self-management and self-directed learning. Both genders sought support from healthcare providers for their management needs. The study highlighted gender-based differences in self-management but was conducted in a high-income Western context, in contrast to the current study's focus on distinct sociocultural influences.

Al-Khawaldeh et al. (2023) conducted a systematic review examining diabetes self-management among Arabic-speaking immigrants in high-income Western countries. The review revealed that fatalistic beliefs, reliance on traditional remedies, language barriers, and cultural stigma negatively influenced self-management behaviours, while family encouragement and religious faith served as facilitators. The present study differs by collecting primary data from participants in a different sociocultural context rather than synthesising literature from high-income Western settings.

In another study, Adhikari et al. (2021) explored barriers and facilitators of diabetes self-management in Rupandehi, Nepal. Using multiple stakeholders' perspectives in a qualitative approach, the study found that poverty, limited health literacy, traditional beliefs, and gender roles were significant barriers, whereas family and community support facilitated self-care practices. This study, however, focused on a specific geographic region, whereas the current research

examines social and cultural factors across a broader population.

Desse et al. (2024) conducted a qualitative exploratory study from Ethiopia, representative of SSA contexts, that explored patient-perceived challenges to Type 2 diabetes self-management. Four main themes were identified: cultural values and beliefs, kinship and social influences, educational aspects, and economic conditions. Misunderstandings about diabetes, dependence on herbal treatments, and ritual fasting emerged as significant obstacles to self-care practices, such as maintaining a healthy diet, adhering to medication, and monitoring blood glucose levels, particularly in low-income individuals. The authors suggested implementing culturally relevant educational programs and empowerment strategies..

In Tanzania, Chona et al. (2024) conducted a study on the barriers and facilitators of general diabetes care. It was a qualitative study that involved a total of 35 participants. The study found that the facilitators of diabetes care included a satisfactory patient-provider relationship, supportive clinical settings, and continuity of care. The barriers included financial limitations and unfavourable clinical settings. This study depicts that socio-economic and health system barriers hinder patients' self-management care. However, the focus of the study was not the factors influencing the patient-centred self-management of type 2 diabetes mellitus. Mosha and Rashidi's (2009) study in Dar es Salaam reported irregular glucose monitoring and inconsistent self-care practices among patients, largely attributed to low income and resource limitations.

III. METHODOLOGY

➤ *Study Design*

This study adopted a qualitative research approach with an exploratory research design. The study design allowed for an in-depth understanding of how individuals perceive, experience, and manage health-related challenges in their daily lives. Through in-depth interviews, participants were able to express their feelings, views, and perceptions, allowing a deeper understanding of the social and cultural barriers to self-management among people living with type 2 diabetes mellitus (T2DM).

➤ *Study Context*

This study was conducted in Temeke, which is a municipality located in Dar es Salaam, Eastern Tanzania, from 25th September to 20th December 2023. Temeke Municipality has a densely populated and socio-culturally diverse population. According to the 2022 Tanzania Housing and Population Census, Temeke Municipality has a population of 1,346,674, and it consists of a total of 136 healthcare facilities, including Temeke Regional Hospital and Mbagala Rangitatu Hospital, which serve a substantial number of Type 2 diabetic patients (Ministry of Finance and Planning [MoFP] et al., 2022). Urbanisation in Temeke has contributed to lifestyle changes and increased diabetes risk, yet district-specific data on self-management practices remain limited.

➤ *Study Population*

The target population comprised patients aged 18 years or above diagnosed with Type 2 diabetes who are receiving care at healthcare facilities in Temeke Municipality, Dar es Salaam. Participants included adult men and women of varying socio-economic and cultural backgrounds who attend these facilities for routine diabetes management and consented to participate in the study. The study excluded patients with Type 1 or gestational diabetes, critically ill patients, or those who declined consent.

➤ *Sample Size and Sampling Procedures*

Scholars, such as Smith et al. (2009) and Creswell (2014), recommended varying sample sizes in most qualitative studies. Furthermore, 10 to 30 participants are enough for qualitative studies to provide information. Therefore, based on Creswell (2014), for this study, the researcher collected data from 30 participants after reaching the saturation point, as there were no new emerging themes. The 30 participants were categorised as follows: 20 patients with diabetes mellitus and 10 health providers.

Table 1 Category and Number of Participants

Participants	Method/ Tool	Number of participants
Patient with diabetes mellitus	Focus Group Discussions	20
Health provider	Interviews	10
Total		30

Source: Researcher (2023)

Health providers in Temeke Municipality were purposively selected for their expertise on diabetes care and challenges. Data from key informants were collected via semi-structured interviews guided by an interview guide. Convenience sampling was employed for the patients with type 2 diabetes mellitus attending the facility for their follow-up clinics.

➤ *Data Collection Methods*

This study employed both primary and secondary data sources, as recommended by Burns et al. (2005). Secondary data were obtained from published literature and relevant documents related to diabetes mellitus, including national health policies such as the National Health Policy (2017) and previous research studies. These sources were used to inform the background and literature review of the study. Primary data were collected directly from participants using qualitative methods, specifically in-depth interviews and focus group discussions. In-depth interviews involved face-to-face interactions guided by a semi-structured interview guide. Each interview lasted 20–30 minutes, and data were captured through note-taking and audio recording with participants’ consent. Focus group discussions were conducted to explore shared views, social interactions, and variations in perceptions among participants.

➤ *Data Analysis*

This study employed thematic content analysis, a qualitative approach for identifying and interpreting patterns in data, following Braun and Clarke’s (2006) six-phase framework. The researcher familiarised themselves with the data, generated initial codes, and collated related codes to identify potential themes. Themes were then reviewed, refined, and clearly defined, and the results were synthesised into a coherent narrative suitable for publication.

➤ *Ethical Considerations*

Ethical principles were observed during the preparation, data collection, and reporting phases of the study to ensure the protection, dignity, and rights of all participants. Before data collection, ethical clearance was obtained from the Institute of Social Work, which issued a research clearance letter authorising the study. This clearance was presented to

the Temeke Municipality, and permission was subsequently obtained from relevant local authorities to conduct the study in the designated areas. Confidentiality and privacy were strictly maintained throughout the study. No identifying information was recorded, and all data were securely stored and accessed only by the researcher. Informed consent was obtained from all participants before their involvement in the study. They were informed of their right to decline participation or withdraw from the study at any time without penalty.

IV. RESULTS

This study investigated the unique influences present within Temeke Municipality, focusing on how gender roles, cultural norms, stigma, dietary practices, education levels, personal attitudes, religious beliefs, the use of traditional medicines, and family support systems impact patients' ability to manage their condition. The following were the identified themes:

➤ *Gender-Based Roles*

Respondents highlighted gender issues as influential factors in maintaining a healthy diet. Many T2DM patients reported difficulties related to gender roles in food shopping and preparation. In certain cultures, for instance, men typically do not participate in cooking, which can lead women to prepare less nutritious meals for them. This was supported by one of the patients when she stated.

“He may not feel like doing it, but finds himself in a situation where he can’t do otherwise! When he doesn’t do anything, children or other people who come to our home blame him for not assisting me... for example, you may find children asking him if he can’t see that I am seriously sick” (FGD, Participant 8)

Similarly, a female participant highlighted how reliance on others for meal preparation can compromise dietary adherence:

“Sometimes I ask my husband to buy vegetables and help with cooking, but he says it’s not his job. So, I end up

cooking quick meals that are easy to prepare but not always suitable for my diabetes” (FGD, Participant 12).

These narratives reveal a pattern of gendered challenges: male patients may struggle with limited participation in food preparation due to societal expectations, whereas female patients often bear the burden of cooking for the household, which can conflict with their dietary needs.

➤ *Cultural Realities and Religious Beliefs*

Culture plays a central role in shaping dietary habits and social routines, influencing both what people eat and how they participate in communal events. Among patients with type 2 diabetes mellitus (T2DM), cultural practices often create barriers to adherence to recommended diets. Traditional preferences for certain foods and established norms during social gatherings, such as weddings, funerals, or religious ceremonies, can conflict with dietary restrictions required for diabetes management. Health providers highlighted these challenges, emphasising the difficulty patients face in navigating culturally prescribed meals. One health practitioner explained:

“The problem with ceremonies is that they serve food that one cannot eat because of diabetes, and it is hard to ask for special food which is appropriate for your disease, you just eat” (Health practitioner, 2023).

Patients themselves expressed similar concerns, noting that refusing culturally significant foods can be seen as disrespectful or socially unacceptable. A patient noted:

“Even when I know the food is not good for my sugar levels, I feel pressured to eat it because everyone expects it. It is not easy to explain to relatives that I cannot eat what is prepared” (FGD, Participant 5).

Moreover, the caregivers and family members sometimes struggle with balancing cultural obligations and dietary recommendations, which can lead to tension within households. For instance, a spouse reported:

“During ceremonies, I try to prepare meals for my husband that are suitable for his diabetes, but everyone insists that he eats what is served. It is not just about food; it is about respecting our traditions” (FGD, Participant 3).

Religious rituals are also important socio-cultural barriers to self-management of diabetes mellitus in patients with T2DM. For example, among some Muslim patients, fasting during the holy month of Ramadan was reported to interfere with both diet and medication schedules. Patients may skip doses when they are not eating, which can affect blood sugar control.

A health provider noted the challenges arising from these cultural practices:

“Some patients still contradict their religious beliefs with the disease of diabetes mellitus” (Health provider, 2023).

These perspectives demonstrate that cultural norms and communal expectations are significant determinants of dietary adherence among T2DM patients. Furthermore, there exists a tension between the adoption of new, health-oriented diets and the perceived abandonment of one's cultural and religious identity. This phenomenon is particularly evident during significant social events, such as weddings, where attendees are expected to partake in traditional rituals.

➤ *Stigma*

Stigma emerged as a recurrent theme in the experiences of patients with type 2 diabetes mellitus (T2DM). Many participants attributed this stigma to negative attitudes and misunderstandings from members of their community. Participants mentioned that the community in their neighbourhood did not comprehend the challenges faced by individuals with diabetes, often engaging in stigmatising behaviour and gossiping about them. Consequently, patients feel disheartened and isolated. One participant vividly described the emotional toll of stigma, stating:

“(With delays) people would still instead discourage you! Sometimes they look at diabetes patients as if they were dead people! Useless, and if you don't make yourself strong enough and try your self-management against those barriers, you may get stressed and die. (FGD, Participant 9)

Healthcare providers also observed that stigma can undermine treatment adherence. Some patients avoid attending clinics or taking medications publicly due to fear of being judged, which may lead to poor glycaemic control and adverse health outcomes. A health practitioner explained:

“Patients sometimes skip clinic appointments or hide their medications because they don't want neighbours or relatives to see them. This fear is very real and affects their health management” (Health practitioner, 2023).

These perspectives highlight that stigma is a significant social and psychological barrier for T2DM patients. It not only affects treatment adherence but also impacts their emotional well-being.

➤ *Dietary Practices*

Respondents articulated the challenges associated with eating habits, highlighting specific cultural practices such as the consumption of rice within certain societies. They noted the psychological aspects of eating, including the pursuit of food that elicits happiness and the experience of isolation when dining apart from a communal family plate. As it was noted by one of the participants who stated;

I like rice, and it is served almost every day. Even when I try to limit it, people expect me to eat it, and sometimes I give in because it is part of the meal and refusing feels rude” (FGD, Participant 6).

Patients with type 2 diabetes mellitus struggle with other staple foods apart from rice. These foods have a high glycemic index that worsens their treatment outcomes in controlling the blood glucose. Another participant

highlighted the challenge with ugali, another culturally significant staple:

“Ugali is everywhere, at home, at the neighbours’, even at ceremonies. It is hard to control my portion because everyone eats it and encourages me to eat as well. If I don’t, I feel left out or impolite” (FGD, Participant 9).

Another aspect of the dietary practices in self-management of type 2 diabetes mellitus is the cost associated with special diets. Participants described that they can’t afford to buy the special diabetic plates as part of their daily living;

“I do not have a special diet at home...it is expensive, and this would be hard for the people I live with” (FGD, Participant 11)

In addition to this, another participant noted that;

“Remember, there are also household expenses to be incurred! I am a widower, and I have 10 children that I could take care of... There are also some other things we spend money on. Sometimes I prioritise my family and forget my diabetes” ((FGD, Participant 13)

➤ Level of Education

Education emerged as an important social factor influencing the self-management of patients with type 2 diabetes mellitus (T2DM). Participants and health providers noted that the level of formal education affects patients’ understanding of the disease, adherence to treatment, and engagement in healthy lifestyle practices. Patients with higher education levels were reported to remember to take their medications more consistently, understand dietary recommendations better, and are more likely to engage in physical activity as part of their self-care routine.

A health provider described the link between education and self-management:

“Few patients who look civilised are doing better than those with low education status” (Health provider; 2023).

Patients themselves reflected on how education influences their ability to make informed decisions. One patient noted:

“I read about my condition and follow the instructions carefully. I know which foods to avoid and when to take my medicine. I think education helps me stay on track” (FGD, Participant 2).

Conversely, patients with limited education often face challenges in understanding medical instructions or the importance of lifestyle modifications. Misconceptions about diet, exercise, or medication schedules were more common among this group, which can result in poor glycaemic control. One participant explained:

“Sometimes I don’t understand what the nurse tells me about diet or exercise. I try, but I forget things or do them incorrectly” (FGD, Participant 7).

These findings suggest that education influences not only knowledge but also confidence and motivation to perform self-management activities. Health education that meets the literacy level of the patients is needed to address the disparity in understanding of self-care in patients with type 2 diabetes mellitus.

➤ Personal Attitude

We found that patients may develop negative perceptions about managing their own health. They might struggle with consistently taking their medications due to the challenges of daily routines, lack of motivation, forgetfulness, and the inconvenience of visiting various clinics for consultations and obtaining prescriptions. Additionally, some hold mistaken beliefs that following a dietary plan has no significant impact on controlling diabetes. Others might finish their medication before their next appointment and therefore skip doses until they can see their healthcare provider again.

The health provider stated that;

“Patient’s attitude has a lot to do with self-management of whatever challenge; other clients who are positive do not get more challenges, as those with a negative attitude” (FGD, Participant 1)

Negative feelings and emotional distress were reported as significant barriers to adherence to self-management activities among patients with type 2 diabetes mellitus (T2DM). Psychosocial challenges, including depression, anxiety, and feelings of inadequacy, appeared to reduce patients’ motivation to follow dietary restrictions, take medications consistently, or engage in physical activity.

Several patients described how these emotional burdens affected their ability to manage the disease. One participant explained:

“Sometimes I feel so useless... I cannot provide for my family like I used to, and thinking about it makes me ignore taking my medicine or eating properly. I feel overwhelmed” (FGD, Participant 4).

Issues such as sexual dysfunction and reduced ability to participate in family or work activities also contributed to feelings of low self-worth. A participant noted:

“Since my illness, I cannot support my family the way I want. It makes me worried and stressed. At times, I feel like there is no point in following the diet or exercises because I am already failing in other parts of my life” (FGD, Participant 9).

Personal attitudes and beliefs are intertwined with physical health, influencing patients’ adherence to recommended self-management practices. Patients with

diabetes mellitus struggle with self-identity challenges that impact their illness beliefs and attitudes. In turn, they hinder the self-management practice.

➤ Use of Herbal Medications

Several participants reported challenges related to the use of traditional medications and cultural practices, which influenced adherence to diabetes management. Patients themselves described using herbal medications as part of their self-management, sometimes adjusting or temporarily stopping prescribed treatments. One participant explained:

“I sometimes used herbal liquid medication. At one point, I had to stop my other medications for a month. I took the herbal medicine when my insulin level had reached 416, and it decreased afterwards” (FGD, Participant 2).

Another participant shared a more unusual method of administration:

“This was brought to me by someone, and I would use it through the anus in the morning and in the evening. I still keep some grain from these herbs” (FGD, Participant 7).

Such practices may either complement or interfere with conventional treatment, highlighting the need for healthcare providers to engage in culturally sensitive discussions about medication adherence and the safe use of traditional therapies.

➤ Lack of Family Support

Findings revealed that family dynamics play a critical role in the management of type 2 diabetes mellitus (T2DM). Many participants emphasized that family support is essential, particularly in helping patients adhere to medication schedules, maintain dietary restrictions, and engage in recommended physical activities. Initially, families were often described as attentive and willing to assist, providing both emotional and practical support during the early stages of the illness.

However, participants also reported that this support tended to decrease over time. The prolonged nature of T2DM, combined with the perception that managing the disease is burdensome, sometimes led family members to feel exhausted or frustrated. One participant explained this experience:

“With time, relatives start showing that they are fed up because the patients have had enough of such long and incurable diseases” (FGD, Participant 2).

Other participants highlighted how this decline in support directly affected their daily self-management activities. One patient noted:

“At first, my children reminded me to take my medications and helped prepare meals, but now they seem tired of always asking me if I have eaten or taken my medicine. Sometimes I forget or skip doses” (FGD, Participant 5).

Another participant expressed the emotional impact of feeling like a burden:

“I feel guilty when my spouse or siblings seem annoyed by my constant needs. This makes me stressed, and sometimes I stop following the diet or exercising properly” (FGD, Participant 9).

The decline in family support was associated with feelings of isolation, discouragement, and stress among patients, which could negatively affect adherence to self-management activities. These findings highlight that while family support is a key facilitator in managing T2DM, the chronic nature of the disease can strain familial relationships.

V. DISCUSSION

The findings of this study indicate that perceived gender-based roles, cultural practices, dietary expectations, stigma, personal attributes and family support significantly influence patients' ability to adhere to dietary control, medication adherence, and physical activity as part of the self-management in patients with T2DM. These factors are rooted in cultural beliefs, family expectations, food practices, and social obligations.

The results are consistent with multiple studies showing that sociocultural context shapes health behaviours in chronic diseases, particularly type 2 diabetes mellitus. In many societies, including sub-Saharan Africa, food is not only a source of nutrition but also a central element of social interaction and family cohesion. As a result, patients may experience pressure to conform to family or community norms, which can conflict with recommended diabetes management practices (Desse et al., 2024). The practice of self-management in the sub-Saharan Africa setting is also coupled with the use of concomitant herbal medicines that are believed to supplement the biomedical drugs (Stephani et al., 2018). This influences poor outcomes in glycaemic control among patients with type 2 diabetes mellitus (Kamuhabwa & Charles, 2014).

Family support facilitates self-management when family members encourage adherence to medication or healthy diets, but becomes a barrier when traditional practices or expectations contradict medical advice. This aligns with findings by Rovner et al. (2013), who reported that social support could either reinforce or undermine diabetes self-management depending on cultural norms and family expectations. In the same vein, Mathew et al. (2012) reported gendered differences in the role of social networks, showing that women were more likely to engage socially with educational resources, whereas men relied more on self-directed strategies. In contrast, our study showed that the gender-specific expectations were limited to social expectations associated with food practices and decision-making power in the families.

Many participants reported difficulties restricting “unhealthy” foods during communal meals, similar to findings in South Asian populations where strong social

eating norms limited dietary adherence (Patel et al., 2015). In the SSA context, Desse et al. (2024) similarly noted that beliefs about staple foods and the cultural significance of meals can hinder compliance with dietary regimens. These results align with the HBM, as perceived social-normative barriers directly influence health behaviours.

Personal attitudes, beliefs and stigma were also identified as barriers, particularly where diabetes was perceived as inevitable or shameful. Such beliefs can reduce motivation to adhere to treatment and participate in self-care practices. Al-Khawaldeh et al. (2023) reported similar outcomes among Arabic-speaking immigrants in high-income countries, where fatalism and stigma shaped engagement with self-management (Al-Khawaldeh et al., 2023). In a similar context to this study, Mosha and Rashidi (2009) observed that emotional distress linked to social expectations and perceived stigma affected adherence to medication and blood glucose monitoring in Tanzanian patients (Mosha & Rashidi, 2009). These findings illustrate how perceived barriers and low self-efficacy, as defined in HBM, are central to understanding non-adherence in culturally complex settings.

VI. CONCLUSION AND RECOMMENDATIONS

Multiple socio-cultural barriers hinder the self-management of type 2 diabetes mellitus among the affected patients. Applying the Health Belief Model ensures that interventions target patients' perceived barriers and benefits, thereby improving self-efficacy and adherence to diabetes self-management practices. Health education and counselling should consider family dynamics, cultural and religious beliefs, gender roles, social norms, and structural limitations, rather than assuming uniform adoption of recommended practices. Strategies could include engaging family members in education sessions, modelling dietary advice to culturally significant foods, addressing cultural and religious beliefs through counselling and peer support, and improving access to healthcare resources. Interventions to improve diabetes management should therefore include strategies to reduce stigma in the community, raise awareness about the disease, and empower patients to maintain self-management despite negative social attitudes.

REFERENCES

- [1]. Abid, H. M. U., Hanif, M., Afzal, M. N. B., Azeem, M., Shahwar, D. E., & Mahmood, K. (2025). Global prevalence and mortality of type 2 diabetes from 1990 to 2019, with future projections to 2023 and 2050: A systematic review. *Global Drug Design & Development Review*, 9(1), 1–10. [https://doi.org/10.31703/gddr.2024\(IX-I\)](https://doi.org/10.31703/gddr.2024(IX-I))
- [2]. Adhikari, M., Devkota, H. R., & Cesuroglu, T. (2021). *Barriers to and facilitators of diabetes self-management practices in Rupandehi, Nepal: Multiple stakeholders' perspectives*. *BMC Public Health*, 21, Article 1269. <https://doi.org/10.1186/s12889-021-11308-4>
- [3]. Althubyani, A. N., Gupta, S., Tang, C. Y., Batra, M., Puvvada, R. K., Higgs, P., Joisa, M., & Thomas, J. (2024). Barriers and enablers of diabetes self-management strategies among Arabic-speaking immigrants living with type 2 diabetes in high-income western countries: A systematic review. *Journal of Immigrant and Minority Health*, 26(4), 761–774. <https://doi.org/10.1007/s10903-023-01576-0>
- [4]. Al-Maskari, F. et al., 2013. Knowledge, Attitude and Practices of Diabetes Patients in the United Arab Emirates. *PLoS ONE*, 8 (1)
- [5]. American Diabetes Association. Diagnosis and classification of diabetes mellitus. *Diabetes care*, 2018;37:S81 PubMed
- [6]. Chona, E. Z., Kayange, L. F., & Iseselo, M. K. (2024). Barriers and facilitators to satisfaction with diabetes care: The perspectives of patients attending public diabetic clinics in Dar es Salaam, Tanzania. *PLOS ONE*, 19(5), e0302858. <https://doi.org/10.1371/journal.pone.0302858>
- [7]. Creswell, J. W. (2018) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd edn. California: SAGE.
- [8]. Desse, T. A., Namara, K. M., & Manias, E. (2024). Patient-Perceived Challenges to Type 2 Diabetes Self-Management in Sub-Saharan Africa: A Qualitative Exploratory Study. *The science of diabetes self-management and care*, 50(6), 456–468. <https://doi.org/10.1177/26350106241279809>
- [9]. Hausmann-Muela, S; Muela Ribera, J; and Nyamongo, I. (2003). *Health-seeking behaviour and the health system response*.
- [10]. Iglay K, Hannachi H, Howie PJ, Xu J, Li X, Engel SS, et al. Prevalence and co-prevalence of comorbidities among patients with type 2 diabetes mellitus. *Curr Med Res Opin*. 2018; 32(7):1243–52.
- [11]. International Diabetes Federation. *Idf Diabetes Atlas*. 9th ed. Brussels, Belgium: International Diabetes Federation; 2019;
- [12]. International Diabetes Federation. *South Africa Diabetes report 2010-2045; 2020*. [Online; accessed March 2020]. <https://diabetesatlas.org/data/en/country/185/za.html>.
- [13]. Kamuhabwa, A. R., & Charles, E. (2014). Predictors of poor glycemic control in type 2 diabetic patients attending public hospitals in Dar es Salaam. *Drug, healthcare and patient safety*, 6, 155–165. <https://doi.org/10.2147/DHPS.S68786>
- [14]. Magliano, D. J., & Boyko, E. J. (Eds.). (2021). *IDF Diabetes Atlas* (10th ed.). International Diabetes Federation. <https://www.ncbi.nlm.nih.gov/books/NBK581934/>
- [15]. Mathew, R., Gucciardi, E., De Melo, M., & Barata, P. (2012). Self-management experiences among men and women with type 2 diabetes mellitus: A qualitative analysis. *BMC Family Practice*, 13, 122. <https://link.springer.com/article/10.1186/1471-2296-13-122>
- [16]. Ministry of Finance and Planning, National Bureau of Statistics (Tanzania), & President's Office – Finance and Planning, Office of the Chief Government

- Statistician (Zanzibar). (2022). The 2022 population and housing census: Administrative units population distribution report; Tanzania (Volume 1A). National Bureau of Statistics.
- [17]. Moshia, T. C. E., & Rashidi, H. (2009). Evaluation of self-care practices and emotional distress among people with Type 2 diabetes mellitus in Dar es Salaam, Tanzania. *Ecology of Food and Nutrition*, 48(2), 89–111. <https://pubmed.ncbi.nlm.nih.gov/21883073/>.
- [18]. Nguma, L.K (2010) Health Seeking and Health Related Behavior for Type 2 Diabetes Mellitus among Adults in an Urban Community in Tanzania.
- [19]. OECD (2011), “Diabetes prevalence and incidence”, in *Health at a Glance 2011: OECD Indicators*, OECD Publishing. http://dx.doi.org/10.1787/health_glance-2011-13-en
- [20]. OECD (2020), “Diabetes prevalence and incidence”, in *Health at a Glance 2011: OECD Indicators*, OECD Publishing. http://dx.doi.org/10.1787/health_glance-2011-13-en
- [21]. Patel, N. R., Chew-Graham, C., Bundy, C., Kennedy, A., Blickem, C., Reeves, D., & Rogers, A. (2015). *Illness beliefs and the sociocultural context of diabetes self-management in British South Asians: A mixed methods study*. *BMC Family Practice*, 16, Article 58. <https://doi.org/10.1186/s12875-015-0269-y>
- [22]. Sheeran, P. & Abraham, C. (1995) *The Health Belief Model, in Predicting Health Behaviour* (Conner, M. & Norman, P. eds.). Buckingham: Open University Press
- [23]. Stephani, V., Opoku, D., & Beran, D. (2018). *Self-management of diabetes in sub-Saharan Africa: A systematic review*. *BMC Public Health*, 18, Article 1148. <https://doi.org/10.1186/s12889-018-6050-0>
- [24]. World Health Organization, 2020. Diabetes Fact sheet. *Science of total environment*, 20(3) pp,0-1. Available at:<http://www.who.int/mediacenter/factsheets/fs312/index>.
- [25]. World Health Organization, 2022a. Diabetes Fact sheet. *Science of total environment*, 20(3), pp.0-1. Available at: <http://www.who.int/mediacenter/factsheets/fs312/en/index.html>.
- [26]. World Health Organization, 2019b. Diabetes, Fact sheet N312. August 2019. World Health Organization, 2019. Available at:<http://www.who.int/mediacenter/factsheets/fs312/en/index>
- [27]. World Health Organization. (2024). *Diabetes* [Fact sheet]. <https://www.who.int/news-room/factsheets/detail/diabetes>