

# Perspectives of Patients and Healthcare Providers on Peer Support Strategies in Foot Self-Care among Diabetic Patients in Western Kenya

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## ABSTRACT

**Context:** Patients with chronic conditions such as diabetes need assistance in learning and maintaining self-care practices that support healthy living and prevent the development of complications. Despite numerous studies showing that providing informational, instrumental, emotional, and appraisal support have benefits if implemented, the reported benefits of these support strategies in foot self-care practices among diabetic patients remain variable, with very few studies documenting their use. In chronic disease management, peers can support their own recovery and the recovery of others through practical and emotional support, positive self-disclosure, promoting hope, empowerment, self-efficacy, and expanding social networks.

**Aim:** The aim of the study was to explore patients' and healthcare providers' perspectives on peer support strategies in foot self-care practices among diabetic patients in Western Kenya.

**Methods:** A qualitative descriptive study was conducted among patients attending the diabetic clinic at teaching and referral hospitals in Western Kenya to explore patients' and healthcare providers' perspectives on peer support strategies in foot self-care practices. Fifty-eight participants were purposively sampled into the peer support groups. Additionally, thirty-seven health care providers, who were the key informants, were purposively sampled. Data collection was accomplished using a focus group discussion guide and a key informant guide. Data collection continued until data saturation was achieved. Qualitative data were audio-recorded, transcribed verbatim, and analyzed thematically.

**Results:** The findings indicated that peer support strategies fostered improved coping and greater emotional resilience among participants. Peer interactions were perceived as providing sufficient, reliable, and dependable assistance, with participants describing the support as both practical and emotionally helpful in addressing ongoing challenges. Healthcare providers reported that informational, emotional, instrumental, and appraisal support were essential components of patient care; however, their delivery was constrained by high patient load, limited time, and lack of structured systems.

**Conclusion:** Peer support represents a valuable approach for enhancing coping and emotional resilience by providing dependable and meaningful support, underscoring its relevance in addressing both practical and emotional aspects of chronic disease management. The study recommends integrating peer support programs into diabetes care settings to maximize the benefits of all the support strategies. This ensures that patients receive holistic support that addresses both their practical and emotional needs.

**Keywords:** Diabetic patients, foot self-care, perspectives of peer support strategies

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## 1. Introduction

As the prevalence of diabetes increases, there is a parallel increase in the number of patients who suffer from diabetes related complications (Banik et al., 2020). The lifetime risk of a patient with diabetes developing a foot-related complication is as high as 25% to 45% according to the *International Diabetes Federation (2021)*.

Cheah et al. (2001); Doull et al. (2017) cited several studies that called for more research in holistic, patient-centered approaches with emphasis on self-care strategies and creating 'expert patients' who are actively involved in the management of their diseases. Peer support has been

fronted as one of the strategies that support self-care practices, in an effective and cost-friendly way (Fisher et al., 2017; Munce et al., 2017).

Peer support is defined as "support from a person who has experiential knowledge of a specific behavior or stressor and has similar characteristics as the target population." Thus, people with a common illness can share knowledge, challenges, and opportunities in a less formal, less hierarchical way, and in a more reciprocal relationship than between clients and health care providers (Puschner, 2018).

Convening people with similar experiences creates a supportive space underpinned by respect, collective responsibility and an agreement on what is helpful. Peer support can be informal or formal. Informal peer support

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happens naturally within communities when people help others in similar circumstances based on their lived experience. However, without structure, this form of peer support is challenging to evaluate. In contrast, formal peer support intentionally brings people with similar experiences together to share knowledge for mutual benefit, building social connections and improving outcomes (Fortuna et al., 2022).

Peer support is a strategy that has been widely used to improve physical, emotional, and psychological health, and to promote behavior change and self-care across diverse conditions and population groups. Peer support strategies are also uniquely able to offer individuals support and advice grounded in experiential knowledge and specific to a particular condition, circumstance, or cultural setting (Doull et al., 2017).

## 2. Significance of the study

The influence of peer support on managing diabetes differs across populations. Although some health economic evaluations suggest that peer support interventions are cost-effective and reduce healthcare expenses, others indicate that cost-effectiveness varies significantly depending on the implementation model (Mohebi et al., 2018). Direct interaction between healthcare providers and patients remains essential for promoting foot self-care practices to prevent diabetic foot complications. However, patients often encounter barriers such as an inadequate number of healthcare providers relative to demand (Kasiya et al., 2017).

There is an urgent need for innovative strategies to enhance diabetes self-care and prevent related complications. Peer support emerges as a promising, evidence-based approach. This study aims to contribute to diabetes care by proposing a cost-effective model for preventing diabetic foot complications. Its findings will inform the development of a sustainable, policy-supported peer support program that delivers long-term value to patients.

The results will benefit multiple stakeholders, including healthcare providers, policymakers, national and county governments, diabetic patients, and future researchers. Specifically, health service providers at Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH), Siaya County Teaching and Referral Hospital (SCTRH), and Kakamega County Teaching and Referral Hospital (KCTRH) will gain insights from an evidence-based audit to refine strategies for peer support. Policymakers will leverage recommendations to design health policies anchored on robust safeguards.

Government agencies will use the findings to track progress toward Vision 2030 and the Sustainable Development Goals (SDGs). Citizens may benefit from improved investments by stakeholders addressing identified gaps. Finally, scholars will find this study a valuable resource for future research on the prevention of diabetic foot complications.

## 3. Aim of the study

The aim of the study was to explore patients' and healthcare providers' perspectives on peer support strategies in foot self-care practices among diabetic patients in Western Kenya.

## 4. Subjects & Methods

### 4.1. Research Design

This qualitative inquiry represents a component of a larger mixed-methods doctoral study, with quantitative findings reported separately. This qualitative descriptive study designed to explore and interpret the lived experiences of peer mentees participating in a peer support programme. The approach was used to gain an in-depth understanding of how participants perceived and made meaning of peer support in relation to foot self-care practices. Data were collected through semi-structured interviews and focus group discussions using guiding questions that explored participants' experiences, perceptions, and reflections across different phases of their engagement with the peer support program.

### 4.2. Study Setting

Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) is in Kisumu County, Kenya. It is a tier six health facility funded by the Government of Kenya and overseen by the Ministry of Health. JOOTRH is one of the preferred study sites because it is the Major Referral Hospital in the Nyanza and Western regions of Kenya, serving a population of more than 5 million; average annual outpatient visits are 197,200, and inpatient admissions are about 21,000. JOOTRH serves this population as the regional referral hospital. There are approximately 900 operational inpatient beds and four dedicated outpatient clinics.

The diabetic services there encompass both inpatient and outpatient. Every day of the week, besides Saturday and Sunday, the clinic at JOOTRH sees diabetic patients. On average, they serve about seventeen patients a day, both type 1 and type 2 diabetics. On Fridays, specifically trained diabetic doctors work at the clinic and can see up to 30 diabetic patients (JOOTRH, 2015).

### 4.3. Subjects

The study participants were adult patients diagnosed with diabetes and attending the diabetes clinic at Jaramogi Oginga Odinga Teaching and Referral Hospital. Participants were selected because they had direct experience with peer support activities relevant to foot self-care practices. In addition, healthcare providers working in the diabetes clinic were included as key informants to provide complementary professional perspectives.

### 4.4 Sampling Procedure

A purposive sampling approach was used to recruit participants who could provide rich and relevant information regarding peer support experiences.

A total of fifty-eight (58) diabetic patients participated in the study and were engaged in focus group discussions conducted over a one-month period. Seven focus groups were formed, each comprising 8–9 participants, to facilitate in-depth discussion and interaction. The composition of the groups allowed for variation in age, gender, and duration of living with diabetes, in order to capture diverse experiences. Sampling and data collection continued until information saturation was achieved.

In addition to patient participants, a purposive sample of healthcare providers working in the diabetes clinic served as key informants. These included nurses and clinicians involved in diabetic care and patient education. Key informants were selected based on their professional experience with peer support initiatives and diabetic foot care. Their perspectives were used to provide contextual insights and to complement patient-reported experiences during data analysis. A total of thirty-seven (37) healthcare providers participated as key informants.

#### **4.4. Tools of Data Collection**

Data was collected using qualitative data collection guides designed to elicit in-depth information on participants' experiences and perceptions of peer support in diabetic foot self-care.

##### **4.4.1. Focus Group Discussion (FGD) Guide**

A semi-structured focus group discussion guide was used to collect data from diabetic patients participating in peer support groups. The guide consisted of open-ended questions that explored participants' lived experiences with peer support, focusing on how peer interactions influenced how they offer and receive emotional support (expression of empathy, coping strategies, resilience), instrumental support (providing, tangible aid), informational support (advise, information and guidance) and appraisal support (personal evaluation, feedback and promoting a sense of belonging) for foot self-care practices. The guide was flexible to allow participants to introduce issues they considered important, consistent with the study approach.

##### **4.4.2. Key Informant Interview (KII) Guide**

A semi-structured key informant interview guide was used to collect data from healthcare providers involved in diabetes care at the study site. The interviews aimed to obtain contextual and professional perspectives on the implementation and functioning of peer support strategies within the clinic setting.

The guide explored healthcare providers' views on the organization and delivery of peer support, including informational, emotional, instrumental, and appraisal support provided to patients. It also addressed mechanisms for skill development in foot self-care, provision of practical assistance, feedback and reinforcement strategies, and the perceived role of peer support in enhancing patient engagement and self-management.

#### **4.5. Procedures**

The study was conducted in conformance with the Declaration of Helsinki. The Research and Ethics Committee of the Masinde Muliro University of Science and Technology approved the study as per the university research policy [MMU/COR; 403012 Vol 6(01)]. The research also sought approval from the ethical review committees at JOOTRH. All participants gave written informed consent, stating that they understood the details of the study procedures and aims, that they were aware of their right to withdraw from the study at any point in time, that the information given would remain confidential and that there would be no detrimental effect to their medical care whether they decided to participate or not. Participants were informed that data from the study would be kept strictly confidential.

A total of seven peer support groups were formed. Each group had one peer mentor and 7 to 8 peer mentees. These groups formed the basis for focus group discussions used to explore participants' experiences of peer support in foot self-care. Peer mentors were selected from among patients receiving care at the clinic who were considered, by clinical staff, to demonstrate confidence and experience in diabetes self-management and foot care. Prior to initiating peer support activities, mentors received orientation sessions to familiarize them with their roles and responsibilities within the peer groups. These sessions focused on facilitating group interactions, sharing personal experiences, and supporting peer mentees through discussion and mutual learning rather than formal instruction. Focus group discussions were conducted with peer mentees to explore their perceptions, experiences, and meanings attributed to participation in peer support activities.

Key informant interviews were also conducted to provide contextual insights into how peer support was integrated into routine care and how it influenced patient engagement in foot self-care practices. The health care providers in the diabetes clinics were the key informants. All interviews were recorded by an MP4 recorder device with the participants' consent. The interviews were transcribed verbatim. They were read several times to achieve immersion and to understand the experiences. The text was then broken into meaning units, including words, sentences, or paragraphs, and significant aspects related to the participants' experiences were highlighted.

A framework analysis was used to uncover sub-themes, patterns, and insights within the transcribed data. To ensure the rigor and trustworthiness of the qualitative findings, several strategies were employed. Credibility was enhanced through prolonged engagement with the data, peer debriefing, and the use of verbatim quotations to support emerging themes. Dependability was ensured by maintaining a clear audit trail of the data collection and analysis processes. Confirmability was strengthened through collaborative coding and regular discussions among the research team to minimize researcher bias.

Transferability was supported by providing detailed descriptions of the study context, participants, and procedures to allow readers to assess the applicability of the findings to similar settings. Member checking was performed where feasible to validate interpretations with participants.

#### 4.6. Data Analysis

Qualitative data were analyzed using thematic analysis following an inductive approach. Audio-recorded interviews and focus group discussions were transcribed verbatim and read repeatedly to achieve data familiarization. Initial codes were generated manually by the researchers and organized into potential themes based

on patterns of meaning across the dataset. Themes were reviewed, refined, and defined through iterative discussion among the research team to ensure coherence and consistency with the study objectives. Credibility of the findings was enhanced through peer debriefing and comparison of codes, while representative quotations were used to support the identified themes.

#### 5. Results

Table 1 reveals the participant sociodemographic and disease-related characteristics. It provides insights, with reference to counts and percentages, and provide an understanding of the distribution of demographic and clinical characteristics within the study population.

**Table (1): Sociodemographic and disease-related characteristics of participants (n=58).**

Participant characteristics	Study group	
	No.	%
<b>Age Group (Years)</b>		
<50	26	44.8
≤50	32	55.2
Mean±SD	51.7±10.9	
<b>Gender</b>		
Male	24	41.4
Female	34	58.6
<b>Level of education</b>		
Primary	7	12.1
Secondary	23	39.6
College	21	36.2
Advanced degree	7	12.1
<b>Employment status</b>		
Employed	26	44.8
Business	15	25.9
Retired	8	13.8
Unemployed	9	15.5
<b>Marital status</b>		
Married	39	67.3
Single	6	10.3
Divorced	4	6.9
Widowed	9	15.5
<b>Comorbidity</b>		
Yes	18	45
No	40	55
<b>DM Type</b>		
Type 1	17	29.3
Type 2	33	56.9
Gestational	0	0
Late onset type 1	8	13.8
<b>Duration with DM</b>		
≤10 Years	25	43.1
>10 Years	33	56.9

\*DM – Diabetes Mellitus

## I. Reported Benefits of Peer Support Strategies on Foot Self-Care Practices among Diabetic Patients in Western Kenya

The focus group discussions (FGDs) conducted as part of this study shed light on the experiences and perceptions of diabetic patients engaged in peer support groups. From the patients' experiences, the thematic areas that emerged were grouped into individual attitudes of participants towards foot care, receiving informational support, receiving emotional support, receiving instrumental support, and receiving appraisal support. This diverse set of topics allowed for a comprehensive exploration of the multifaceted nature of peer support in foot self-care among diabetic patients.

### Theme 1: Attitude towards Foot Care

The theme of "Attitude" emerged as a central and pivotal aspect of the participants' experiences and perceptions. Participants' attitudes towards foot care played a crucial role in shaping their behaviors and decisions regarding foot self-care. Here, we explore the sub-themes within the "Attitude" proposition.

#### 1.1. Perceptions of regularity of foot inspection

Regularity in foot inspection emerged as a pivotal theme, with many participants deeming it essential and integrating it as a daily activity to preempt risks. One individual stressed, *"I think regular foot inspection is very important. I do it daily. I don't want to take any chances with my feet."* (FGD 12).

Commitment methods varied, with another sharing, *"I set alarms to remind me. It's become a habit now. I don't want to risk complications."* (FGD 18)

However, attitudes toward regularity displayed a spectrum. While some remained consistent, others occasionally lapsed for various reasons. One participant admitted, *"I try my best, but there are days when I forget, especially when life gets busy. It's not always easy."* (FGD 3) Echoing this sentiment, another shared, *"Yeah, I can relate to that. Sometimes, I get lazy or distracted, and I skip a day or two."* (FGD 4)

Mechanisms to bolster consistency varied: Some leveraged alarms or peer support, while others were galvanized by prior foot complications. One remarked, *"I think peer support has helped me stay consistent. Knowing others are doing it too makes me feel like I also need to be doing it."* (FGD 23). The feedback paints a nuanced picture of the participants' commitment to regular foot inspection and the strategies they deploy.

The role of the peer support group in fostering regularity of foot inspection also emerged, with numerous participants emphasizing their positive impact on effective foot care. Peer mentors not only offered guidance but also ingrained foot care habits in some. One individual shared, *"Well, I've learned a lot from other people in this group. There is always a constant reminder to check our feet."* (FGD 32)

However, balancing foot care with other life responsibilities presented challenges. Some participants admitted to grappling with these demands, while others stressed the need to elevate foot care to the top of their priority list. One participant noted, *"I struggle sometimes. It's not easy to manage everything, but I try my best."* (FGD 12). Echoing the challenge, another said, *"Managing foot care is a challenge for me too. It's like a constant battle."* (FGD 30) Yet, the importance of prioritizing foot care was clear, with one stating, *"I think it's all about priorities. You have to make it a priority in your life and make sure you perform it daily."* (FGD 9)

Amid these challenges, adopting regular routines and cultivating a sense of empowerment became vital strategies for effective foot care. Establishing consistent routines and drawing empowerment from effective foot care practices emerged as key to navigating these hurdles.

#### 1.2. Motivation to adhere to recommended foot care practices

Various sources of motivation emerged from participants' narratives, ranging from personal connections to broader life aspirations. Family stood out for some, with one individual sharing, *"My family... I want to be there for them, so I follow my foot care plan we set in the groups diligently."* (FGD 18). Peer support was another influential factor, with one participant noting, *"Peer support plays a significant role. Seeing others committed to it motivates me."* (FGD 13)

The importance of control amid diabetes complexities was emphasized by many. A sense of empowerment through dedicated foot care was evident, with one individual observing, *"Diabetes can be overwhelming, but focusing on foot care gives me a sense of control. Seeing that I am able to do it well tells me that this disease is manageable."* (FGD 22)

The role of peer mentors in this empowerment journey was highlighted, with another sharing, *"Peer mentors have been a game-changer for my motivation. We motivate each other."* (FGD 31)

Looking towards a brighter, complication-free future was a driving force for some. The power of visualization came forth as a tool to stay committed to proactive foot care and to envisage a healthier future without the burdens of foot-related complications.

#### 1.3. Consequences of neglecting diabetic foot care

The dire repercussions of neglecting diabetic foot care were deeply ingrained in participants' perspectives, with many highlighting a spectrum of outcomes, including ulcers, infections, and even amputations. One participant expressed, *"Neglecting foot care can lead to ulcers and infections that can be so painful and ugly. Members have shared the stories of others, and I don't want to experience that."* (FGD 14)

The gravity of amputation as a potential consequence resonated deeply, with another sharing, *"I've seen friends*

struggle with amputations, and it's a life-changing experience. That's enough to keep me on track." (FGD 37)

Yet, beyond the tangible physical implications, participants were acutely aware of the emotional ramifications both for themselves and their loved ones. A participant remarked, "It's not just physical consequences; there are emotional ones too. It can be mentally distressing" (FGD 22). This sentiment was echoed by another who emphasized the ripple effect, noting, "It's not just about us. Our loved ones suffer when we neglect our foot care." (FGD 23)

## Theme 2: Informational Support

This theme highlighted the vital role of peer support in providing valuable information and guidance to patients with diabetes. The FGD transcripts reveal several key sub-themes related to the informational support provided by peer mentors for diabetic foot care. These sub-themes include:

### 2.1. Clarity and understandability of information

Effective communication is key of successful peer support, as echoed by participants. They lauded the clarity and comprehensibility of the information provided in the peer support groups. Specifically, the use of straightforward language and the breakdown of intricate concepts emerged as key strengths. One participant appreciated this approach, noting, "My peer mentor uses simple language and helps us to understand those difficult medical terms." (FGD 1)

Beyond just clear communication, mentors' patience played a crucial role. As another participant mentioned, "My mentor always encourages me to ask questions and doesn't mind explaining things many times." (FGD 28)

### 2.2. Increased confidence

Peer support has had a transformative impact on participants' self-assurance in handling their foot care. Their testimonials point to a newfound confidence, stemming not just from the acquisition of knowledge but also from the realization that they have a reliable figure to lean on for guidance. As one participant recounted, "My mentor's guidance and support made me feel less anxious about potential complications." (FGD 2). This sentiment of empowerment was echoed by another, who shared, "Now, I know what steps to take, and that knowledge has boosted my confidence." (FGD 24)

Increased confidence and empowerment in diabetes and foot care management stand out in participants' experiences, with many attributing their advancements to the instrumental support. A newfound sense of control and proactive management emerges. One individual shared, "I've learned so much from the program that I now feel more confident in taking care of my feet." (FGD 37)

The tangible benefits of the support are evident, as another mentioned, "I am so comfortable now thanks to the right shoes and care." (FGD 33). In addition, this support was instrumental in enhancing participants' knowledge of foot care among diabetics, as demonstrated by the sentiments of some of the participants like, "My mentor

and I discussed the different risk factors and complications associated with diabetic foot care." (FGD 16)

The comprehensive nature of the support becomes clear with another remarking, "The support has helped me with the knowledge and skills to manage foot care effectively" (FGD 36). These testimonials spotlight the transformative power of support in bolstering confidence and proactive care.

The consistent theme emerging is that, beyond the tangible advice and techniques, the emotional and motivational support offered in the peer support groups plays a pivotal role. This support not only equips participants with the tools they need but also fosters a renewed sense of agency and control over their health.

### 2.3. Sufficiency of informational support

Participants' feedback indicated a largely positive reception of the peer support program, with many finding the information received adequate for their foot care needs. For instance, one participant felt reassured, sharing, "My mentor is always available to answer questions and provide guidance." (FGD 13)

However, a recurring suggestion that emerged was the integration of supplementary materials into the program. As one participant articulated, "I think it's sufficient, but sometimes I wish there was something like notes I could refer to." (FGD 25). This sentiment underscores the potential for enhancing the program's efficacy by providing participants with tangible written resources. Such materials could serve as a valuable reference, particularly when direct mentor interaction is not feasible, ensuring participants always have reliable information at their fingertips.

## Theme 3: Emotional Support

This theme highlighted the emotional connections and the role of peer support in providing empathy, understanding, and encouragement to diabetic patients.

### 3.1. Improved coping

Peer support provides solace during challenging periods, alleviating feelings of isolation and stress. One participant confirmed, "Absolutely! That understanding and shared experience make the journey less lonely." (FGD 14)

This support reassures participants they aren't navigating their diabetic journey alone, as another noted, "Peer support has reduced the anxiety I used to feel around managing my diabetes." (FGD 27). Providing a figurative safety net, the emotional backing reshapes how individuals handle diabetes-related emotional hurdles. These sentiments underscore the transformative role of mentor support in enhancing emotional well-being.

### 3.2. Enhanced emotional resilience

Participants credit the peer support program for making them emotionally resilient and prepared to tackle challenges. One individual reflected, "This group has given me the strength to face challenges and not be defeated easily. Others are doing it, why not me?" (FGD 23)

Moreover, mentors provide coping strategies that fortify emotional stability, as another participant noted,

"With the coping strategies shared within the group, I've grown emotionally stronger." (FGD 29). The emotional trials accompanying diabetes become surmountable with the foundational tools provided by mentors. These sentiments highlight the empowering and transformative impact of peer support on emotional strength.

#### Theme 4: Instrumental Support

Instrumental support was one of the themes that emerged from the FGDs on a peer support intervention for performing foot self-care practices. This theme highlighted the tangible aid and practical assistance provided by the peer support group to diabetic patients, helping them manage foot care effectively. The sub-themes that emerged are reported below.

##### 4.1. Practical support

Participants consistently find the support both practical and beneficial, noting improvements in foot comfort, pain management, stress relief, medication consistency, and overall wellness.

While some acknowledged initial hurdles, they appreciated the enduring advantages. One participant stated, "I agree. The foot massages and exercises suggested in the peer support group have helped me manage pain and improve circulation." (FGD 18)

Another emphasized the practicality of dietary guidance, noting, "The meal planning assistance has practical implications for my health, and it's made healthy eating more manageable." (FGD 30). This personalized touch makes the support especially valuable, as another participant remarked, "The support feels like it is just for me because in the group we consider unique challenges someone may have then give the right advice." (FGD 23). These insights underscore the tangible, tailored benefits of peer support.

##### 4.2. Reliable instrumental support from peer mentors

Trust and dependability characterize relationships in peer support programs, with many highlighting their mentors' consistent availability and prompt responses. A sense of security emerges from knowing that dependable support is always within reach. One individual commented, "I've found my mentor to be quite reliable. They've never let me down when I needed assistance." (FGD 29). This reliability translates into reduced stress for some, as another participant echoed, "The fact that my group members are so reliable has lessened my anxiety. I don't feel like I'm managing my diabetes on my own." (FGD 36)

The dedication of mentors was also evident, even amidst busy schedules, with one noting, "Even when they are very busy, my mentor ensures they're there for me when I require assistance." (FGD 14). The feedback underscores the unwavering dedication and reliability of the support provided.

## 5. Appraisal Support

The topic of appraisal support also emerged as a major theme. Thematic analysis of the FGD reveals several key sub-themes and findings as reported below.

### 5.1. Helpful support

Most participants value the constructive nature of the appraisal support they receive. One participant said, "Overall, I do find the support from my peer mentor to be constructive. She offers practical advice and shares her experiences, which I find beneficial." (FGD 11). This constructive feedback is crucial in helping participants to refine their routines and enhance diabetes management, as another noted, "The feedback I get from the group is usually quite constructive, and it helps me make improvements in my daily routines." (FGD 38). The consensus highlights the positive impact of helpful feedback.

The value of open communication with mentors to ensure tailored support was emphasized. One shared, "It made me feel discouraged, but I talked to her about it, and she adjusted her approach." (FGD 12). This open dialogue allows for better alignment of support, with another participant considering, "I haven't yet, but I think it's a good idea. I'll talk to my mentor about it." (FGD 13). The feedback underscores the significance of discussing needs and preferences in peer support.

### 5.2. Positive influence on diabetes management

It was unanimously agreed that appraisal support enhances their diabetic foot care management. One testified, "Taking into account the feedback from my peer mentor has helped me improve my foot care routines." (FGD 34). They cite specific benefits, such as better foot care routines, improved exercise habits, and better medication adherence. Another participant shared, "I've lost some weight and improved my diet significantly with the help of my group members. It's boosted my self-esteem." (FGD 9). The feedback illuminates the positive impact of peer support on diabetic care.

Positive reinforcement plays a key role in this uplifted mindset, with another noting, "When I receive positive feedback and recognition for my efforts, it makes me more determined to continue managing my diabetes well." (FGD 7). The feedback emphasizes the transformative power of encouragement and recognition in diabetes management.

### 5.3. Accuracy of feedback

Feedback from peer mentors is widely perceived as precise and mirroring participants' efforts. One participant remarked, "My mentor noticed a change in the condition of my feet that I hadn't paid attention to. Thanks to her keen eye, I was able to address the issue before it became more serious." (FGD 2). This accurate feedback facilitates timely interventions and improved care, as another shared, "My mentor helped me identify patterns in my blood sugar levels, which allowed me to adjust my medication and diet for better control." (FGD 13). The testimonials underscore the value of observant and accurate peer support in diabetes management.

Participants experience a heightened sense of achievement and pride thanks to their mentors' support. One individual mentioned, "Achieving small milestones feels more significant with their encouragement." (FGD 18). Specific achievements, such as consistent medication adherence and weight reduction, stand out. Another

participant shared, "I used to struggle with keeping up with my medication, but with my mentor's guidance, I've been consistent for six months now, and I'm really proud of that." (FGD 22). These sentiments underline the empowering impact of mentor support on personal accomplishments in diabetes management.

**Table (2): Distribution of healthcare providers per study site (n= 37).**

Cader	Health care provider	
	No.	%
Consultant doctor	4	10.8
General doctor	3	8.2
Nurse	19	51.4
Clinical officer	8	21.6
Pharmacist	3	8.2
<b>Total (in the)</b>	<b>37</b>	<b>100</b>

**II. Peer Support Strategies Employed by Health Care Providers**

The strategies that formed the main themes in this study included informational support, emotional support, instrumental support and appraisal support. Table 2 reveals the distribution per carder of health care providers. Health care providers within the diabetic clinics included consultant physicians, registered medical officers, nurses, clinical officers and pharmacists. The majority of health care providers at the diabetes clinics were nurses (19, 51.4%), with the least being pharmacists (3, 8.2%).

**Theme 1: Informational Support**

This form of support offers ideas, counselling, opinions and suggestions that patients can use to understand and solve their problems.

**1.1. Structured Guidelines**

Ministry of Health guidelines and protocols served as the primary source of information for diabetes patients. One informant remarked, "There is information everywhere, you can see this one on how to manage feet for a diabetic patient. They are always on the walls." (KI3)

Healthcare providers, however, underscored the challenges in using the structured guidelines as the main source of information on foot care, with one stating, "We don't even have time to take the patients through these guidelines, they (the patients) just look at the guidelines and if they have questions they ask. It is hard to know whether they understand or not, while another respondent said, "It takes years for new guidelines to come, since I was employed, this is the only one (guideline) I have seen, yet many things have changed." (KI 9)

**1.2. Tailored informational support**

Key informants consistently conveyed the challenges they experienced in providing information tailored to specific patients, with one stating, "We have over two hundred patients in the consultant clinics, just look at this number.....is it really possible to sit down with each and every patient to assess their individual needs and tailor

responses towards them?" Yet another reported, "We teach them all together. We have health education every day, if patients come late to the clinic, they will miss this session, but I am glad a majority of them come very early." (KI 6)

**Theme 2: Emotional Support**

This form of support encompasses endowment of understanding, compassion, affection, resilience, empathy and consideration.

**2.1. Availability of emotional support**

Health care providers reported that there is no structured framework for providing emotional support. They, however, noted that this form of support was crucial to the patient's overall well-being. One respondent said, "We rarely offer that kind of support but when we notice a patient is overwhelmed, we refer them to the counsellor if (the counsellor) they are available." (KI 11)

**2.2. Challenges of offering emotional support**

Healthcare providers also expressed challenges in providing this form of support, with one stating, "Some patients may even call you late in the night; this can be quite inconveniencing." (KI 8), underscoring the challenges of delivering this support.

**Theme 3: Instrumental Support**

This theme highlighted tangible support provided to patients to assist them in their day-to-day diabetes management and in the prevention of associated complications.

**3.1. Forms of instrumental support**

Health care providers highlighted the importance of instrumental support with one stating "Diabetes requires one to acquire skills in their daily management, for example, we show them how to hold the needle and inject insulin." with another remarking, "The kind of aid we offer is limited to medical advice, we can only tell the patient the right foods to eat but we cannot escort them to the markets or give them referrals of where to buy that is their choice." (KI 5)

### 3.2. Transportation assistance and access

Healthcare providers expressed a particular challenge in helping patients access the hospital, especially those who came from different counties. One responder commented, "Most of our patients find coming to the hospital for a medical check-up every month quite expensive, so we encourage them to team up and share a common transport. This option is cheaper." Another one stated, "Sometimes we link them up with community resources or volunteers to ensure patients have reliable transportation options." (KI 12)

#### Theme 4: Appraisal Support

This form of support encompasses constructive criticism, affirmation and confirmation.

##### 4.1. Positive reinforcement

Healthcare providers consistently recognize patients' efforts and progress. One stated, "It is always important to pat them on the back when they make progress because it is not easy.... though sometimes we may forget. Patients are so many." (KI 17)

##### 4.2. Acknowledgment of challenges

Providers empathetically acknowledge the challenges patients face but underscore the importance of encouraging the patients with one healthcare provider commenting, "We understand that managing diabetes can be tough, so when they have setbacks, we tell them it is okay; what matters is their overall progress." (KI 10)

##### 4.3. Goal setting and encouragement

Health care providers collaborate with patients to set realistic goals. One participant said they encourage their patients by saying, "Let's work together to achieve your target weight" or "You're on the right track; keep it up, inspecting your feet daily is the right way to go!" (KI 2).

## 5. Discussion

During the FGDs and key informant interviews, several themes emerged, which are explored broadly as attitude towards foot care, informational support, emotional support, instrumental support, and appraisal support. These themes were then explored into sub-themes that best fit each as they arose from the analysis.

Analysis of attitude shows that it is a central and pivotal aspect in the experiences and perceptions of participants, where their attitudes toward foot care played a fundamental role in shaping behaviors and decisions related to the management of diabetes in general and specifically to foot care. Perceptions of regularity of foot inspection emerged as a fundamental aspect of foot care among diabetics. Participants acknowledged its essential nature and, in some cases, incorporated it as a daily ritual. This is consistent with existing literature on foot care among diabetics, which emphasizes the significance of daily foot checks to detect early signs of complications (*Centers for Disease Control and Prevention, 2023*)

Peer support emerged as a central factor influencing effective foot care management. This aligns with research that highlights the value of peer support in diabetes self-management (*Garizábalo-Dávila et al., 2021; Haregu et al., 2023*). Participants not only acknowledged the guidance provided by members of the support group led by the peer mentors but also underscored how they helped instill proper foot care habits.

Further, motivation to adhere to foot care practices stemmed from various sources, including personal connections and broader life aspirations. Family and peer support played significant roles, aligning with existing research on the influence of peer support in diabetes management (*Mphasha et al., 2022; Onyango et al., 2022; Busebaia et al., 2023*). One study showed that participants' sense of empowerment and control through dedicated foot care practices can be a powerful motivator in managing the complexities of diabetes (*Varming et al., 2019*).

Lastly, participants vividly described the profound repercussions of neglecting foot care, including ulcers, infections, and amputations. Beyond physical implications, participants were keenly aware of the emotional toll on themselves and their loved ones. The instrumental role of support in educating and raising awareness about the holistic impact of foot care negligence underscores the value of peer support models (*Gray et al., 2023*).

The exploration of attitudes toward foot care among diabetic patients in the current study reveals a complex interplay of commitment, peer influence, perceived value, motivational factors, and awareness of potential consequences. These findings provide valuable insights into developing a peer support model for foot care management among people with diabetes. Tailored interventions that account for individuals' diverse attitudes and experiences are essential for promoting effective foot care practices and preventing complications in this vulnerable population.

The theme of "Informational Support" emerged as pivotal in providing essential information and guidance to diabetic patients. The participant consistently highlighted the informational support, which covered vital areas such as foot care practices, dietary guidelines, medication adherence, and strategies for effective blood sugar management. Existing research supports the importance of comprehensive education in diabetes self-management (*Marciano et al., 2019; ALSharit & Alhalal, 2022*).

Effective communication emerged as a cornerstone of successful peer mentorship. Participants valued the clarity and comprehensibility of the information provided, as well as their mentors' patience. Clear and understandable communication is critical in promoting patient understanding and adherence to recommendations, as emphasized in the literature (*Gao et al., 2013; Rachmawati et al., 2019; Banerjee et al., 2024*) highlighting the importance of plain language and accessibility in health communication.

Peer support also proved instrumental in enhancing participants' knowledge of foot care among diabetics, as demonstrated by the sentiments of some of the participants, which accentuates the educational value of peer support.

The program empowered participants with essential knowledge, from recognizing risk factors to wound care, thereby highlighting the effectiveness of peer-led interventions in improving patient knowledge and their potential to enhance self-care behaviors.

Beyond knowledge acquisition, peer support boosted participants' confidence in managing foot care-related activities as reported by *AlQahtani et al. (2020)*; *Dahal and Hosseinzadeh (2019)*. This peer support increased confidence is a crucial aspect of self-efficacy, a key determinant of diabetes self-management (*Vandenbosch et al., 2018*). Further, participant feedback indicates a largely positive reception of the peer support program.

However, there was a recurring suggestion to integrate supplementary materials into the program. Providing written resources aligns with recommendations to enhance diabetes education, which is also recommended by *İlhan et al. (2021)*. Such materials can act as valuable references, ensuring that participants have reliable information at their disposal, even when direct mentor interaction is not feasible. Lastly, participants enthusiastically endorsed the peer support program, emphasizing the dual role mentors play as empathetic companions and knowledgeable guides. This endorsement underscores the unique and powerful effect of peer support, combining emotional understanding with actionable guidance.

Existing literature supports the value of peer support in improving diabetes self-management outcomes and quality of life (*Garizábalo-Dávila et al., 2021*; *Maina et al., 2023*). Thus, informational support underscores the profound impact of peer support on knowledge acquisition, confidence-building, and overall well-being. This peer support model not only empowers individuals with diabetes to better manage their condition but also offers a sense of camaraderie and emotional support as supported by other literature by (*Alessi et al., 2022*).

In addition, the current study highlights that the Ministry of Health guidelines and protocols serve as a primary source of information on foot care practices for diabetes patients. These guidelines cover essential aspects of diabetes care, including foot care instructions. Informants noted that these guidelines are prominently displayed, making them accessible; however, patients often refer to the guidelines independently, raising concerns about their comprehension. Another provider emphasized that guidelines evolve slowly. However, the field of diabetes management continually evolves, necessitating more frequent updates.

Key informants acknowledged the difficulty of tailoring information to individual patients. The large volume of patients makes it impractical to sit down with each person and address their unique needs comprehensively. Health care providers often conduct group health education sessions. While efficient, this approach may not fully address individual concerns. Patients who arrive late to these sessions miss out, emphasizing the need for alternative strategies. The recommendations from participants underscore the potential to enhance such programs through supplementary materials

and provide valuable insights for the development of effective interventions in diabetic care.

"Emotional Support" emerged as a theme, highlighting the profound impact of peer support in providing empathy, understanding, and encouragement to individuals managing diabetes. Emotional support was credited with serving as a source of solace during challenging periods, alleviating feelings of isolation, stress and anxiety. Studies by *Alessi et al. (2022)* and *Kalra et al. (2018)* suggest that emotional support can enhance individuals' ability to cope with stress. The qualitative study by *Alessi et al. (2022)* demonstrated relatively lower anxiety among diabetics related to emotional support received from peers, family and the whole treatment and care team.

Likewise, peer support was recognized for making participants emotionally resilient and better prepared to tackle challenges. Coping strategies shared by mentors were highlighted for strengthening emotional stability. This finding is similar to the concept of resilience-building through social support demonstrated by other studies (*Chittooru et al., 2022*; *Nair et al., 2023*).

Health care providers acknowledged that there is no well-defined or systematic framework for providing emotional support to patients with diabetes. This lack of structure may lead to inconsistent approaches and varying levels of emotional support across healthcare settings. Despite the absence of a formal framework, healthcare providers recognized the critical importance of emotional support for patients. Emotional well-being significantly impacts overall health outcomes, and acknowledging patients' emotional needs is essential. Healthcare providers also reported challenges in providing emotional support. Balancing availability and boundaries while addressing patients' emotional needs remains a delicate task. This is consistent with the existing literature, which emphasizes the role of emotional support in promoting patients' well-being and resulting in positive health outcomes (*Varming et al., 2019*; *Alessi et al., 2022*). These findings underscore the profound impact of emotional support on the well-being and self-management of individuals with diabetes, underscoring the importance of peer support in this regard.

"Instrumental Support" also emerged as a central theme, highlighting the tangible aid and practical assistance provided by peer support to individuals managing diabetes. Participants consistently found the support practical and beneficial, reporting improvements in foot comfort, pain management, stress reduction, medication adherence, and overall well-being. The personalized nature of the support was particularly valued. *Pienaar and Reid (2021)* suggest that practical assistance can enhance self-care behaviors and health outcomes. Favorable outcomes resulting from instrumental support were reported by some of the participants. These included increased confidence, effective pain management, improved circulation, early identification of issues, fewer blisters, and increased mobility. Participants credited mentorship for refining their foot care practices, which is consistent with the literature on the positive impact of peer support on diabetes self-management (*Chen et al., 2024*).

Trust and dependability characterized the relationship with mentors, with participants emphasizing their mentors' consistent availability and prompt response. The reliability of mentorship translated into reduced stress for participants, underscoring the importance of dependable support in chronic illness management, as also highlighted by other studies (Ghasemi et al., 2021; Sharma & Khan, 2021). The reliability and trustworthiness of mentorship, as elucidated by this research, and the combination of satisfaction and constructive feedback emphasizes both the positive impact of mentorship and opportunities for enhancement, thus highlighting the significant role of peer mentorship in enhancing the practical aspects of managing diabetes and foot care.

Health care providers highlighted the importance of instrumental support. The scope of support provided by healthcare professionals is often limited to medical advice. Successful management of diabetes and prevention of foot complications require attaining, mastering, and sustaining these self-care skills, which may not be adequately provided by healthcare providers due to various limitations, as expressed by the providers.

Lastly, "Appraisal Support" emerged as a recurrent theme in the analysis, with the research showing that participants found practical advice and shared experiences beneficial for refining their routines and improving diabetes management. Constructive feedback can enhance individuals' self-care behaviors and outcomes, as open communication serves as a bridge that aligns the mentorship process with each participant's uniqueness (Tiruneh et al., 2018; Wei et al., 2020). Discussing needs and preferences facilitated a harmonious and effective mentorship journey, which illustrates the importance of dialogue in mentorship.

It was also demonstrated that appraisal support had a positive impact on diabetes management, with participants reporting improvements in their foot care routines. The mentorship transformed the diabetes narrative into a consistent improvement in well-being through positive feedback and encouragement.

Mentor-supported journeys became tales of achievement and pride as participants celebrated personal accomplishments in managing their diabetes, adding depth and satisfaction to their diabetic narratives. Other studies have shown that recognizing achievements can boost individuals' self-confidence and motivation (Ghasemi et al., 2021; Pienaar & Reid, 2021). The participants' expression that self-care has created a sense of accomplishment nurtured by mentorship. Participants overwhelmingly agreed on the indispensability of appraisal support, considering mentors as essential pillars in diabetes management. The integral role of peer mentors in diabetes management aligns with research emphasizing the importance of social support in chronic illness care (Tseng et al., 2022). These findings highlight the significant impact of appraisal support in enhancing the self-care behaviours and well-being of individuals managing diabetes.

In addition, health care providers acknowledged the importance of appraisal support by providing positive

reinforcement. Providers also empathetically acknowledged the challenges patients face and underscored the importance of encouraging the patients. Rodriguez et al. (2022) also emphasized the importance of appraisal support in improving outcomes among diabetes patients, acknowledging that appraisal support motivates patients to continually do their best to prevent complications and improve the quality of their outcomes.

## 6. Conclusion

Reported benefits of peer strategies included: regularity of foot inspection, motivation to adhere to recommended practices, awareness of the consequences of neglecting foot care, confidence in foot care, improved coping, emotional resilience, dependability of mentors, helpful support, and tangible, practical support and motivation to adhere to recommended guidelines.

## 7. Recommendations

Health care institutions should adopt a comprehensive approach to peer support in diabetes care programs that should encompass informational, emotional, instrumental, and appraisal support to maximize on the benefits of all the support strategies. This ensures that patients receive holistic support that addresses both their practical and emotional needs.

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