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Foot Care Knowledge, Practices, and Diabetic Peripheral Neuropathy among Type 2 Diabetes Patients in a Tertiary care hospital, Tamil Nadu: A Mixed-Method Study

(Diabetic foot care practice and diabetic peripheral neuropathy)

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KEYWORDS

Knowledge, practice, foot care, diabetes.

ABSTRACT:

Background: Diabetes mellitus (DM) is a chronic metabolic disorder where foot complications significantly impact patients' quality of life. Objectives were to assess the knowledge and practice of foot care and to find the prevalence and predictors of diabetic peripheral neuropathy (DPN) among type 2 diabetes mellitus patients.

Materials and Methodology: This mixed method study was conducted in outpatient department of General Medicine (Non-communicable disease clinic) of a tertiary care hospital from August 2024 to June 2025 among the type 2 Diabetes mellitus patients attending the NCD clinic. Pre-tested structured questionnaire was used to collect the quantitative data and In-depth interview for qualitative data. Chi square test and binary logistic regression were used to find association between the risk factors and DPN, and predictors of Diabetic Peripheral Neuropathy (DPN) respectively.

Results: The prevalence of DPN was found to be 37.8%. Around 96% of the participants had the knowledge of taking medications regularly to avoid diabetic complications and 96.5% of them had the practice of washing their feet regularly. Occupation, duration of diabetes and presence of other co-morbidities were associated with Diabetic peripheral neuropathy. Poor practice, abnormal body mass index, presence of other co-morbidities were found to be significant predictors of DPN. Lack of knowledge and physical limitation stated as reasons for poor foot care practices.

Conclusion: Despite good knowledge and foot care practices, factors such as poor practice habits, abnormal BMI, co-morbidities, and lifestyle factors like alcohol use were key predictors, underscoring the need for comprehensive diabetes management strategies.

Introduction:

Diabetes mellitus (DM) is a chronic metabolic disorder characterized by persistent hyperglycemia due to defects in insulin secretion, insulin action, or both. It is one of the leading public health challenges globally. According to the International Diabetes Federation, approximately 537 million adults were living with diabetes in 2021, and this number is projected to rise to 643 million by 2030 and 783 million by 2045 [1]. In India, over 77 million people are currently affected by diabetes, and this number is steadily increasing due to rapid urbanization, sedentary lifestyles, and dietary changes [2].

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The burden of diabetes is not only due to its prevalence but also its long-term complications, among which diabetic foot complications are a significant concern. Diabetic foot problems include ulcers, infections, and gangrene, which often lead to lower limb amputations. It is estimated that 15–25% of people with diabetes will develop a foot ulcer during their lifetime [3]. In India, diabetic foot complications contribute to nearly 20% of diabetes-related hospitalizations, and about 85% of lower extremity amputations in diabetics are preceded by foot ulcers [4]

Foot complications significantly impact patients' quality of life, are largely preventable through proper foot care practices, including daily inspection, hygiene, wearing appropriate footwear, and early medical intervention for any injury. However, patients often lack adequate knowledge and fail to practice proper foot self-care. Knowledge about foot care plays a key role in reducing the risk of foot ulcers and amputations. However, due to limited awareness, cultural practices, low literacy levels, and insufficient patient education during clinic visits, many patients fail to adopt appropriate preventive measures [5].

Diabetic Peripheral Neuropathy (DPN) is the most frequent neuropathic complication associated with diabetes and according to scientific literature, the prevalence of DPN ranges from 18.8% to 61.9% [6]. DPN affects approximately 50% of people with diabetes during their lifetime and is also a major cause of non-traumatic lower-limb amputations, painful neuropathy, falls, and reduced quality of life [7]. The high DPN burden in India, along with rising diabetes rates, poses a major public health concern, particularly in rural and underserved areas [8].

The justification for this study is that despite frequent contact with the healthcare system, many diabetic patients do not receive adequate counseling about foot care and to gain insights into the existing levels of awareness and practice among diabetic patients regarding foot self-care. In the high burden of diabetic foot complications and the potential for prevention through simple self-care measures in day-to-day life.

Objectives of the study is primarily to assess the knowledge and practices of foot self-care among diabetes patients attending a tertiary care hospital, to examine the association between foot care knowledge/practices and demographic variables such as age, sex, education level, duration of diabetes, and history of foot complications and to find the prevalence of DPN.

MATERIALS AND METHODOLOGY:

Study setting: The study was conducted in the Non-communicable disease (NCD) clinic of General Medicine department in a Tertiary care hospital located in Chengalpattu, Tamil Nadu.

Study period: Study was conducted for a period of 12 months, from August 2024 to July 2025.

Study design: A hospital based cross-sectional mixed method study.

Study participants: Type 2 Diabetes Mellitus patients attending the Non-communicable Disease (NCD) clinic of General Medicine department of our institute during the study period.

Sample size: According to the study done by Mandal et al., in India it was found that 30.39% [9] of participants had good knowledge of foot care. Based on this, the calculated sample size was found to be 172 using formula $n=4pq/d^2$ with absolute precision of 7%.

(n = 4 x 30.39 x 69.31/ 72 = 8461/49 = 172)

Sampling: Consecutive sampling method.

Sampling procedure: All type 2 Diabetes Mellitus patients who visited the NCD clinic and met the inclusion criteria during the study period were recruited for the study until the required sample size was reached.

Inclusion criteria:

- All type 2 Diabetes mellitus patients attending the Non-communicable disease clinic of General Medicine department.

Exclusion criteria:

- Patients who already had diabetic foot, foot ulcers, or an amputated foot.
- Patients who were not willing to give consent for the study.

Study tool:

Data was collected by means of a pre-tested structured questionnaire which had three sections. The

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first section had questions related to the socio-demographic details and history related to type 2 Diabetes. The second section had questions to assess the foot care knowledge and practices, and the third section consisted of tests to diagnose diabetic peripheral neuropathy. Knowledge and practice questions were based on American College of Foot and Ankle Surgeons and the Diabetes UK. Three tests were used for diagnosing diabetic peripheral neuropathy: a) 10-gram monofilament test, b) tuning fork test, and c) ankle reflex.

Data collection procedure: This study was initiated after obtaining the Institutional Ethics Committee approval [Registration No:482(08)2024] and data collection was done in the NCD clinic. After obtaining an informed written consent, a pre-tested structured questionnaire was used for collecting the demographic details of the study participants and data related to type II diabetes mellitus. Then the data regarding the knowledge and practice of foot care were obtained from the participants. The knowledge and practice section had 11 questions each, and each correct question was assigned one mark. Knowledge and practices score were classified as good (score of 8-11), satisfactory (score of 6-7) and poor (score of < 6), and finally three tests were performed for diagnosing diabetic peripheral neuropathy. Monofilament test was done by buckling a 10-g monofilament in the plantar surface of the foot and the patient was asked whether he was able to perceive the pressure by responding “yes” or “no” and also to identify the correct site where the pressure was applied in the feet. Tuning fork test was done using a 128 Hz tuning fork and the vibration perception was tested on the feet. Both vibration and pressure were tested on 5 areas of both the feet. This was followed by ankle reflex test using a reflex hammer. Finally, the reasons for not practicing diabetic foot care were explored using the qualitative method of in-depth interviews (IDI). Diabetes patients who attended the NCD clinic were randomly selected for the IDI, and their reasons were line-listed.

Analysis plan:

Data were analyzed using Statistical Package for Social Sciences (SPSS) version 29 (IBM Corp. SPSS Statistics for Windows, Version 29. Armonk, NY: IBM Corp; 2022). To describe the data, descriptive statistics like frequency analysis, percentage analysis had been used for categorical variables and mean & standard deviation had been used for continuous variables. Chi-square test was used to find the association between diabetes risk factors and diabetic peripheral neuropathy. Binary logistic regression analysis was used to determine significant predicting factors of diabetic peripheral neuropathy. p value of less than 0.05 was considered as statistically significant. The data collected by in-depth interview were analyzed by thematic content analysis where the audio recorded qualitative data were transcribed into local language (Tamil), translated into English language and then the translated data were coded by key words and line listing of the reasons for poor foot care practices were done.

Results:

Characteristics of the participants:

The present study included 172 patients diagnosed with Type 2 Diabetes Mellitus (T2DM). Most participants were aged between 51–60 years (31.4%), followed by those aged above 60 years (23.8%) as seen in **Table 1**. Majority were males (59.3%) and lived in nuclear families (76.7%). Regarding education, 41.3% were graduates, and 27.3% had completed secondary schooling. More than one-fourth (27.9%) belonged to socio-economic Class I, and most of the participants were married (86.0%). The most common occupations were self-employed (27.9%) and private sector employment (26.7%). The majority of participants (44.8%) had diabetes for 1–5 years, while 18.6% had a disease duration of over 10 years. Oral hypoglycemic agents were the most common form of treatment (53.5%), followed by insulin (29.7%). Symptoms suggestive of peripheral neuropathy were common, including numbness (43.6%), burning sensation (27.3%), and pricking sensation (15.7%).

Knowledge and Practices of Diabetic Foot Care:

A high level of awareness regarding diabetic foot care was observed **(Table 2).** Nearly all participants (96.5%) acknowledged the importance of regular medication to avoid complications. Similarly, 93.6% were aware that foot injuries might go unnoticed in diabetic patients, and 89.5% understood that wounds may heal slowly.

In terms of foot care practices, 96.5% of participants reported washing their feet regularly, and 88.4% inspected their feet routinely. However, risky behaviors

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were also noted. Around 33.1% did not measure foot size while purchasing footwear, and 32.6% used sharp instruments to clean nails. Only 9.9% reported using irritants during foot washing, and just 7.6% wore elasticated hosiery.

Association of Risk Factors with Diabetic Peripheral Neuropathy (DPN):

The overall prevalence of Diabetic Peripheral Neuropathy among the study participants was 37.7%. Duration of diabetes ($p<0.001$), occupation ($p=0.011$), type of medication ($p=0.041$), alcohol consumption ($p=0.006$), and presence of other comorbidities ($p<0.001$) were significantly associated with DPN as evident by the p value (< 0.0.5) as shown in **Table 3**. Participants with diabetes for over 10 years had the highest proportion of neuropathy (71.9%). Retired individuals (70.6%) and those consuming alcohol (60.0%) also showed increased prevalence of type 2 diabetes.

Predictors of Diabetic Peripheral Neuropathy:

Binary logistic regression analysis was conducted to identify the predictors of diabetic peripheral neuropathy (DPN), as presented in **Table 4.** Patients with a duration of diabetes exceeding 10 years had significantly higher odds of developing DPN (AOR = 3.938; 95% CI: 1.028–18.735) compared to those with a shorter duration. The use of both oral hypoglycaemic agents and insulin was associated with increased odds of DPN (AOR = 8.047; 95% CI: 1.983–3.265), when compared to patients receiving a single mode of treatment. Furthermore, an abnormal body mass index (AOR = 2.864; 95% CI: 1.203–6.819) and the presence of other comorbidities (AOR = 4.299; 95% CI: 1.612–11.463) were found to be statistically significant predictors of diabetic peripheral neuropathy.

Reasons for not practising foot care:

The qualitative analysis of in-depth interviews with diabetic patients identified three primary themes explaining poor adherence to foot care practices as shown in **Table 5**. First, participants frequently used symptom-based justification, rationalizing their lack of foot care by the absence of pain or other symptoms. This indicated a low perceived seriousness of complications and a denial of potential risks. Second, personal and social barriers were highlighted, including physical limitations, feelings of neglect or resignation, and financial constraints. These barriers, which echo themes of denial and affordability seen in other studies, present significant practical and psychological challenges. Finally, a consistent finding was knowledge and resource deficits, as many participants reported never having been properly educated on the importance of foot care beyond basic daily washing. This highlights a critical need for targeted and comprehensive patient education to improve adherence.

Table: 1 – Basic Demographic details of the study participants (n =172)

S.No	Basic Characteristic	Frequency	Percentage
1.	**Age:** Below 30	4	2.3
	31-40	33	19.2
	41-50	40	23.3
	51-60	54	31.4
	Above 60	41	23.8
2.	**Gender:** Female	70	40.7
	Male	102	59.3
3.	**Occupation:** Government	29	16.9
	Homemaker	29	16.9
	Private	46	26.7
	Retired	17	9.9
	Self-Employed	48	27.9
	Others	3	1.7
4.	**Education:** Illiterate	24	14.0
	Primary	30	17.4
	Secondary	47	27.3
	Graduate	71	41.3
5.	**Socio-economic class:** Class-I	48	27.9

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	Class-II	42	24.4
	Class-III	26	15.1
	Class-IV	31	18.0
	Class-V	25	14.5
6.	**Marital Status:** Married	148	86.0
	Unmarried	5	2.9
	Widowed	19	11.0
7.	**Types of Family:** 3-Generation	6	3.5
	Joint Family	34	19.8
	Nuclear	132	76.7
8.	**Duration of T2 Diabetes:** < 1 Year	19	11.0
	1-5 Years	77	44.8
	6-10 Years	44	25.6
	>10 Years	32	18.6
9.	**Types of Medication:** Oral drugs	92	53.5
	Insulin	51	29.7
	Both	8	4.7
	Others	16	9.3
	None	5	2.9
10.	**Symptoms in Foot:** Burning sensation	47	27.3
	Numbness	75	43.6
	Pricking Sensation	27	15.7
	No Symptoms	23	13.4

Table: 2 – Knowledge and practices of Foot care among the study participants (n =172)

S.No	Knowledge & Foot care Practice	Frequency (%) Correct	Frequency (%) Incorrect
	Knowledge of Foot care		
1.	DM patients should take medication regularly because they liable to get DM complication	166 (96.5)	6 (3.5)
2.	DM patients should look after their feet because they may not feel a minor injury to their feet	161 (93.6)	11 (6.4)
3.	DM patients should look after their feet because wounds and infection may not heal quickly	154 (89.5)	18 (10.5)
4.	DM patients should look after their feet because they may get a foot ulcer	151 (87.8)	21 (12.2)
5.	If you found redness/bleeding between your toes what is the first thing you do	137 (79.7)	35 (20.3)
6.	How often do you think your feet should be washed	124 (72.1)	48 (27.9)
	Foot care practices		
1.	Do you wash feet regularly	166 (96.5)	6 (3.5)
2.	Do you Inspect feet regularly	152 (88.4)	20 (11.6)

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3.	Do you trim toe nails straight across	145 (84.3)	27 (15.7)
4.	Did you ever inspect inside of footwear	135 (78.5)	37 (21.5)
5.	Do you clean nails with sharp instrument	116 (67.4)	56 (32.6)
6.	Do you measure your feet size when	115 (66.9)	57 (33.1)
	last you bought footwear		
7.	Do you add irritants to water before feet cleaning	17 (9.9)	155 (90.1)
8.	Do you wear elasticated hosiery	13 (7.6)	159 (92.4)

Table: 3 Association between Basic characteristics and diabetic peripheral neuropathy (n=172)

S.No	Risk Factors	Diabetic Peripheral Neuropathy		Total n (%)	p-Value
		Absent n (%)	Present n (%)		
1	**Age:** Below 30	3 (75.0)	1 (25.0)	4 (100.0)	0.354
	31-40	23 (69.7)	10 (30.3)	33 (100.0)	
	41-50	28 (70.0)	12 (30.0)	40 (100.0)	
	51-60	32 (59.3)	22 (40.7)	54 (100.0)	
	Above 60	21 (51.2)	20 (48.8)	41 (100.0)	
2	**Gender:** Female	46 (65.7)	24 (34.3)	70 (100.0)	0.432
	Male	61 (59.8)	41 (40.2)	102 (100.0)	
3	**Occupation:** Government	20 (69.0)	9 (31.0)	29 (100.0)	0.011*
	Homemaker	17 (58.6)	12 (41.4)	29 (100.0)	
	Private	36 (78.3)	10 (21.7)	46 (100.0)	
	Retired	5 (29.4)	12 (70.6)	17 (100.0)	
	Self-Employed	28 (58.3)	20 (41.7)	48 (100.0)	
	Others	1 (33.3)	2 (66.7)	3 (100.0)	
4	**Socio-economic class:** Class-I	29 (60.4)	19 (39.6)	48 (100.0)	0.825
	Class-II	25 (59.5)	17 (40.5)	42 (100.0)	
	Class-III	15 (57.7)	11 (42.3)	26 (100.0)	
	Class-IV	20 (64.5)	11 (35.5)	31 (100.0)	
	Class-V	18 (72.0)	7 (28.0)	25 (100.0)	
5	**Duration of T2 Diabetes** < 1 Year	13 (68.4)	6 (31.6)	19 (100.0)	0.000*
	1-5 Years	54 (70.1)	23 (29.9)	77 (100.0)	

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	6-10 Years	31 (70.5)	13 (29.5)	44 (100.0)	
	>10 Years	9 (28.1)	23 (71.9)	32 (100.0)	
6	**Types of Medication:** Oral Drugs	54 (58.7)	38 (41.3)	92 (100.0)	0.041*
	Insulin	33 (64.7)	18 (35.3)	51 (100.0)	
	Both	15 (62.5)	9 (37.5)	24 (100.0)	
	None	5 (100.0)	0 (0.0)	5 (100.0)	
8	**Body Mass Index (BMI):** Abnormal	46 (68.7)	21 (31.3)	67 (100.0)	0.164
	Normal	61 (58.1)	44 (41.9)	105 (100.0)	
9	**Alcohol:** Absent	95 (66.9)	47 (33.1)	142 (100.0)	0.006*
	Present	12 (40.0)	18 (60.0)	30 (100.0)	
10	**Smoking:** Absent	87 (63.5)	50 (36.5)	137 (100.0)	0.489
	Present	20 (57.1)	15 (42.9)	35 (100.0)	
11	**Other Comorbities:** Absent	92 (69.7)	40 (30.3)	132 (100.0)	0.000*
	Present	15 (37.5)	25 (62.5)	40 (100.0)	

***Chi-square test @95% Significance Level; p < 0.05 - statistically significant**

Table: 4 - Predictors of diabetic peripheral neuropathy among the study participants (172)

Characteristics	Total Number (n) and Percentage (%)	Number (n)and percentage (%) of participants with DPN	Odds Ratio (95% CI)*
Age: Below 30	4 (2.3)	1 (25.0)	-
31-40	33 (19.2)	10 (30.3)	1.786 (0.143-22.315)
41-50	40 (23.2)	12 (30.0)	1.441 (0.121-17.112)
51-60	54 (31.5)	22 (40.7)	1.215 (0.99-14.858)
Above 60	41 (23.8)	20 (48.8)	2.372 (1.186-30.272)*
Gender: Female	70 (40.6)	24 (34.3)	-
Male	102 (59.4)	41 (40.2)	1.528 (0.662-3.527)
Knowledge Score: Good	115 (66.9)	45 (69.2)	-
Poor	16 (9.3)	4 (6.2)	1.200 (0.475-3.034)
Satisfactory	41 (23.8)	16 (24.6)	0.295 (0.58-1.510)
Practice Score: Good	34 (19.8)	12 (18.5)	-
Poor	52 (30.2)	22 (33.8)	0.518 (0.188-1.427)
Satisfactory	86 (50.0)	31 (47.7)	1.428 (0.551-3.699)

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Duration of T2 DM: < 1 Year	19 (11.2)	6 (31.6)	-
1-5 Years	77 (44.7)	23 (29.9)	0.447 (0.120-1.670)
6-10 Years	44 (25.5)	13 (29.5)	0.432 (0.110-1.689)
>10 Years	32 (18.6)	23 (71.9)	3.938 (1.028-18.735)*
Types of Medication: Oral drugs	92 (53.5)	38 (41.3)	-
Insulin	51 (29.6)	18 (35.3)	7.061 (1.864-2.674)
Both	8 (4.6)	6 (75.0)	8.047 (1.983-3.265)*
None	21 (12.3)	3 (18.8)	3.124 (3.124-3.124)
Body Mass Index: Abnormal	67 (38.9)	21 (31.3)	2.864 (1.203-6.819)*
Normal	105 (61.1)	44 (41.9)	-
Alcohol: Present	30 (17.4)	18 (60.0)	0.422 (0.147-1.212)
Absent	142 (82.6)	47 (31.9)	-
Smoking: Present	35 (20.3)	15 (42.9)	0.697 (0.255-1.908)
Absent	137 (79.7)	50 (36.4)	-
Comorbidities: Present	40 (23.2)	25 (62.5)	4.299 (1.612-11.463)*
Absent	132 (76.8)	40 (30.3)	-
Total	**172 (100.0)**	**65 (37.7)**	

***p < 0.05, Binary Logistic Regression; CI - Confidence Interval**

Table: 5 Reasons for not practicing foot care obtained by In-depth interview (n=10)

S.No	Reasons	Participants' statements
1	**Lack of symptoms**	*I am having diabetes for years, but I've never had any problem with my feet till now. So, I don't think I have do all the foot care."*
2	**Physical limitation**	*"I can't check frequently because of my knee, bending is difficult for my age also. I can't do because of my poor eye sight"*
3	**Denial**	*"I've seen my neighbor who lost his limbs even after doing all care. Then, why special care? Whatever is to happen, will happen"*
4	**Neglect**	*At this age, what care will I do. What I am going to benefit by this in this age madam.*
5	**Lack of knowledge**	*"I've never been told about this. I only know how to use insulin injection for my diabetes for all these days."*
6	**Financial**	*"I'm already doing so much for my sugar., I've allergies for the government issuing tablets …so I've to buy tablets monthly and go*

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		for checkups. So, in this footcare and getting sugar slippers are costl. I can't spend so much; all we have is pension money."
7	**Lack of education**	*"I only know about using soap and washing it daily. I thought that's enough. I didn't know about foot care practices."*
8	**Ageing**	*"I live alone in my home madam. If someone is there, they will cut my nails and take care. Also, I have severe back pain and I cannot bend down madam"*

Discussion:

In this study involving 172 patients with Type 2 Diabetes Mellitus (T2DM), we observed a high prevalence of Diabetic Peripheral Neuropathy (DPN) at 37.8%, which is consistent with the study conducted by Muhammad Adil et al., where the overall prevalence of DPN was reported as 36.7% among 99 patients.[10] However, our observed prevalence (37.8%) was slightly lower than that reported in a Western study by Pop-Busui et al., which documented a prevalence of 50%.[11]

Despite an encouragingly high level of foot care knowledge (96.5%), actual practice was markedly lacking, with only 19.8% demonstrating good foot care practices. This stark knowledge-practice gap has similarly been reported by Desalu et al., where the majority (78.4%) of patients with poor practice also had poor foot care knowledge.[5]

Our findings identified duration of diabetes, occupation, medication regimen, alcohol consumption, and presence of comorbidities as statistically significant risk factors associated with DPN. Notably, individuals with diabetes for more than 10 years were nearly four times more likely to develop DPN (OR = 3.938; 95% CI: 0.828–18.735), supporting the cumulative nerve damage hypothesis due to chronic hyperglycaemia, as proposed by the American Diabetes Association. [11]

Although over 90% of participants correctly recognized the importance of medication adherence and foot injury surveillance, only 66.9% inspected their footwear, 67.4% avoided sharp instruments, and just 7.6% avoided tight hosiery — all of which are critical foot care behaviours. This discrepancy mirrors the findings of Desalu et al., who also reported inadequate practices despite good knowledge among participants. [5]

Although BMI was not statistically significant in our study (p = 0.164), the study by Vinik et al. reported mixed findings regarding the role of obesity in the pathogenesis of neuropathy. [12] Our results also resonate with a South Indian study by Mandal et al., which reported high knowledge scores but found that less than 30% of participants engaged in satisfactory foot care practices. [9]

In our study, significant predictors for DPN included age above 60 years (OR = 2.372; 95% CI: 1.186–30.272), longer duration of diabetes (OR = 3.938; 95% CI: 1.028-18.735), and abnormal BMI (OR = 2.864; 95% CI: 1.203–6.819). These findings are comparable to those reported by Tao et al., where significant risk factors included older age (OR = 1.02; 95% CI: 1.01–1.04), abnormal BMI (OR = 1.62; 95% CI: 1.43–1.83), and longer diabetes duration (OR = 1.05; 95% CI: 1.01–1.08). [13]

This study also highlights a complex interplay of personal beliefs, physical limitations, social context, and knowledge deficits that contribute to poor adherence to foot care practices among diabetic patients. Consistent with reports by Chiwanga and Njelekela [14], low health literacy, denial, and poor symptom awareness shows delaying in foot care and care-seeking behavior among people with diabetes. Many participants in this study misunderstood the importance of early foot care and deferred preventive actions, waiting until more severe complications emerged.

Denial was a prominent reason as described by Desalu et al., [5] where several diabetic patients believed that if they hadn't experienced problems yet, foot care was unnecessary, a trend also where a significant proportion of diabetic patients did not perceive themselves at risk and therefore neglected preventive foot self-care. Additionally, physical disability and old age hindered

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self-care, especially in patients living alone aligns with findings by Formosa et al., [15] who reported that elderly diabetic patients face multiple barriers to foot care, including reduced mobility, vision impairment, and lack of assistance at home.

As described by Al Khashan et al., [16] a major underlying issue was lack of awareness and education. Low literacy and limited access to health education remained critical reasons for neglecting early self-care or symptom management. Health care providers must therefore take active roles in educating patients about daily foot care and offering practical support, especially among the elderly, those facing financial strain, and those with physical limitations.

Conclusion: The study highlights a substantial burden of Diabetic Peripheral Neuropathy (DPN) among individuals with Type 2 Diabetes Mellitus, with significant associations observed for longer disease duration, combined pharmacologic therapy, abnormal BMI, and comorbidities. While awareness and basic foot care practices were satisfactory, certain risky behaviours persist. Primary care physicians play a pivotal role in early identification of at-risk individuals, patient education, and implementation of preventive strategies to mitigate the progression and complications of DPN.

Limitations: Our study did not have a larger sample size decreasing the generalizability of the findings. The knowledge of foot care was based on the understanding capability of the participants during data collection. Moreover, the study was cross-sectional and hence conclusion on causality was not possible.

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