RESEARCH PAPER

Awareness and Practices of Foot Care among Diabetic Patients: A Study at Lahore General Hospital, Lahore

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ABSTRACT

Diabetes mellitus, a persistent metabolic condition commonly known as diabetes, comprises a cluster of metabolic disorders arising from the body’s incapacity to generate an adequate amount of insulin or efficiently utilize the insulin it produces. Among the various complications associated with diabetes, diabetic foot complications constitute a serious threat to the well-being of affected individuals. Aim of study is to assess the awareness and practices of foot care among diabetic patients: a study at Lahore General Hospital, Lahore. A descriptive cross-sectional study design was employed for this research, conducted at the diabetic clinic of Lahore General Hospital. A sample size of 104 was determined with a 95% confidence interval and a 5% margin of error. Convenient sampling technique was utilized for participant selection. A structured knowledge assessment tool and practice checklist was used to collect data from participants. Following data collection, the analysis was performed using the Statistical Package for the Social Sciences (SPSS) Version 24. Among the 104 participants, 32.7% were male, and 67.3% were female, and majority of participants, constituting 59.6%, fell within the age range of 40-60 years. About 90(86.5%) participants had poor knowledge and awareness regarding foot care and 14(13.5%) had good knowledge regarding foot care. Majority of participants 57.6% had incompetent practices. It is concluded that majority of diabetic patients who participated in research had poor knowledge and incompetent practices regarding foot care.

KEYWORDS: Awareness, Diabetic Patients, Foot Care, Practices

Introduction

Diabetes mellitus, a persistent metabolic condition marked by heightened levels of blood glucose, has become a worldwide health issue, significantly affecting individuals, communities, and healthcare systems (Cheloni et al., 2019). With the escalating prevalence of diabetes, the complications linked to the disease present notable challenges. Among these, diabetic foot complications emerge as a key factor contributing to both morbidity and mortality (Zheng et al., 2018). Acknowledging the vital significance of preventive measures and informed self-care practices, this study aims to explore the specific domain of diabetic foot care among individuals with diabetes at Lahore General Hospital, Lahore.

Diabetes mellitus, commonly known as diabetes, comprises a cluster of metabolic disorders arising from the body’s incapacity to generate an adequate amount of insulin or efficiently utilize the insulin it produces (Lin et al., 2020). According to the World Health Organization, around 422 million individuals globally are living with diabetes, and this figure is anticipated to increase in the upcoming years (Assem et al., 2020). Among the various complications associated with diabetes, diabetic foot complications constitute a serious threat to the well-being of affected individuals (Zhao et al., 2019).
The diabetic foot, a term used to describe a spectrum of foot problems in individuals with diabetes, arises from a combination of factors such as neuropathy, peripheral arterial disease, and susceptibility to infections (Mersha et al., 2021). If left unattended, these complications can lead to severe consequences, including non-healing ulcers, infections, and, in extreme cases, lower limb amputations (Suryasa et al., 2021). The successful management and prevention of diabetic foot complications depend on the awareness and adherence of diabetic patients to proper foot care practices (Kavinguha, 2017).

The setting for this study is Lahore General Hospital, a prominent healthcare institution that caters to a diverse population, including a significant number of individuals grappling with diabetes. The distinctive healthcare environment in Lahore offers a valuable context for examining the knowledge and practices associated with diabetic foot care among individuals with diabetes.

Understanding the awareness and practices of diabetic patients in the context of foot care is paramount for designing targeted interventions and improving health outcomes (Tuglo et al., 2022). While healthcare professionals play a crucial role in providing guidance and education, patients themselves contribute significantly to their own well-being through informed self-care practices (Jia et al., 2023). This research seeks to bridge the gap between theoretical knowledge and practical implementation by investigating the current state of awareness and practices among diabetic patients at Lahore General Hospital, Lahore.

Literature Review

Diabetes, as a prevalent chronic condition, frequently presents complications that require careful consideration, with diabetic foot problems standing out as particularly significant. Peripheral neuropathy and compromised blood circulation are common consequences of diabetes, leading to serious foot complications. This research seeks to synthesize and analyze the current body of knowledge to provide valuable insights into interventions and educational strategies. The goal is to enhance awareness and practices related to foot care among individuals with diabetes, addressing the specific challenges posed by this condition and ultimately mitigating the risk of severe complications. As a descriptive cross-sectional study conducted to assess the knowledge and practices of foot care among diabetic patients in Sri Lanka. The study results revealed that majority of participants were aware about diabetic foot care but their practices were not satisfactory (Jayaweerabandara, 2017). Similarly a study conducted in Sudan to assess the knowledge, attitude, and practice of foot care among type 2 diabetic patients. Results of study revealed that majority of patients had poor knowledge, attitude, and practices regarding foot care. There is a need to assess knowledge and practices of patients to improve their awareness (Mohammed & Rahman, 2018).

Material and Methods

A descriptive cross-sectional study design was employed for this research, conducted at the diabetic clinic of Lahore General Hospital. Data collection took place from January 20th, 2020, to June 21st, 2020, involving diabetic patients. A sample size of 104 was determined with a 95% confidence interval and a 5% margin of error. Convenient sampling technique was utilized for participant selection. The study encompassed male and female individuals diagnosed with Type-2 diabetes, falling within the age range of 20 to 60 years. Exclusions from the study were made for patients with any mental disorder and those with additional comorbidities such as hypertension, renal failure, tumors, tuberculosis, and other mental disorders. In accordance with the established inclusion and exclusion criteria, diabetic patients meeting the study’s eligibility requirements were recruited upon securing informed consent. Prior to
participation, participants were thoroughly briefed on the study's objectives, potential risks, and anticipated benefits. In a thorough effort to establish rapport with the participants, informed consent was acquired. A structured knowledge assessment tool and practice checklist was used to collect data from participants. Following data collection, the analysis was performed using the Statistical Package for the Social Sciences (SPSS) Version 24. Quantitative variables were succinctly presented in frequencies and percentages to facilitate a clear representation.

Results and Discussion

This results section represents the analysis, interpretation and comparison of data related to demographic variables, the study variables knowledge and practice.

Table 1
Demographic characteristics of respondents

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-40 years</td>
<td>18</td>
<td>17.8</td>
</tr>
<tr>
<td>41-60 years</td>
<td>62</td>
<td>59.6</td>
</tr>
<tr>
<td>&gt; 60 years</td>
<td>24</td>
<td>22.6</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>32.7</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>67.3</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Education</td>
<td>15</td>
<td>14.9</td>
</tr>
<tr>
<td>Intermediate</td>
<td>35</td>
<td>33.2</td>
</tr>
<tr>
<td>Primary middle and matric</td>
<td>39</td>
<td>37.0</td>
</tr>
<tr>
<td>Can't read and write</td>
<td>15</td>
<td>14.9</td>
</tr>
<tr>
<td>Area of respondent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>86</td>
<td>82.7</td>
</tr>
<tr>
<td>Rural</td>
<td>18</td>
<td>17.3</td>
</tr>
</tbody>
</table>

Table 1 provides a comprehensive overview of the study participants, totaling 104 individuals. The majority of participants, constituting 59.6%, fell within the age range of 40-60 years, while 22.6% were aged 60 or above, and 17.8% were between 20-40 years old. Among the 104 participants, 32.7% were male, and 67.3% were female. Examining the educational background of the respondents, the data reveals that 37% had attained middle and matric level education, 33.2% had completed intermediate studies, 14.9% held a university education, and an additional 14.9% were unable to read and write. Geographically, the majority of respondents, comprising 82.7%, resided in urban areas, whereas only 17.3% lived in rural areas. This information provides a coherent snapshot of the demographic distribution within the study participants.

Table 2
Knowledge of participants regarding foot care

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Knowledge</td>
<td>90</td>
<td>86.5</td>
<td>86.5</td>
<td>86.5</td>
</tr>
<tr>
<td>Good Knowledge</td>
<td>14</td>
<td>13.5</td>
<td>13.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2 showed that 90 (86.5%) participants had poor knowledge and awareness regarding foot care and 14 (13.5%) had good knowledge regarding foot care.
Table 3
Practices of participants towards foot care

<table>
<thead>
<tr>
<th>Level of Practice</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompetent</td>
<td>60</td>
<td>57.6</td>
<td>57.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Competent</td>
<td>44</td>
<td>42.4</td>
<td>42.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The table 3 summarizes the distribution of participants based on their levels of practice: "Incompetent" (57.6%, n=60) and "Competent" (42.4%, n=44) out of a total of 104 respondents. The majority falls into the "Incompetent" category, providing a concise overview of the participants' practice levels.

Discussion

This chapter encompasses the discussion on the knowledge and self-care practices of diabetic patients in relation to foot care. In this study, majority of diabetic patients were having age ranging from 41-60 year. These findings are consistent with Ansari et al. (2022) who reported that majority of diabetic patients were between 41-65 year old (Ansari et al., 2022). Similarly, (Zou et al., 2016) conducted a cross sectional study and reported that majority of study participants were above 40 year. In term of gender, majority 67.3% of diabetic patients were female and living in urban areas (Al-Gaows & Al-Zahrani, 2019). A study conducted in Bahrain also reported that majority (55.3%) of diabetic patients were females (Mohammed & Rahman, 2018). Regarding the level of education, the findings of the current study revealed that majority of participants were having middle and matric level education. This finding was similar to a study conducted in Nigeria that reported that majority of participants were middle and intermediate pass (Desalu et al., 2011).

In terms of patients' overall knowledge score regarding diabetic retinopathy, the present study's findings indicated that a majority of diabetic patients (86.5%) exhibited poor knowledge about foot care. This observation could be attributed to the fact that the highest percentage of the surveyed patients were illiterate, married, and housewives. Furthermore, this may be a result of insufficient time for healthcare providers to offer comprehensive health education on foot care. The deficiency might also be associated with the prevailing lack of holistic care for diabetic patients, primarily emphasizing glycemic control rather than addressing issues like nephropathy, neuropathy, and foot problems. This finding corresponds with the results reported by (Desalu et al., 2011), who noted that participants had inadequate knowledge about foot care before the initiation of their educational program. Similarly, (Hakeem et al., 2017) documented poor knowledge and practices among diabetic patients concerning foot care. In contrast, (Jayaweerabandara, 2017) found satisfactory knowledge among participants regarding foot care. Additionally, (Mohammed & Rahman, 2018) reported that the majority of diabetic patients exhibited good knowledge about foot care.

In terms of the self-care practices of diabetic patients concerning foot care, majority of participants had incompetent practices. This may be due to limited awareness, insufficient education, lower health literacy, and financial constraints. These results align with (Wickramasinghe et al.), who similarly reported inadequate practices among participants regarding foot care. Furthermore, a study by (Al-Gaows & Al-Zahrani, 2019) also documented poor practices of diabetic patients concerning foot care. In contrast, (Moh'd Al-Qaddah et al., 2016) reported that majority of diabetic patients had satisfactory practices regarding foot care.

Conclusion

The study concluded that majority of diabetic patients were female and aged between 41 to 60 year. Almost two third (86.5%) of screened Type 2 Diabetes mellitus
patients had poor knowledge about foot care and only 13.5% had good knowledge about foot care. Similarly, self-care practices of majority diabetic patients were poor. There is a need to improve the knowledge and self-care practices of patients regarding foot care.

**Recommendations**

The research suggests introducing focused educational programs at Lahore General Hospital to improve awareness of foot care among diabetic patients. It emphasizes the active dissemination of information by healthcare providers during consultations and recommends the establishment of specialized foot care clinics within the hospital. Collaborating with community outreach initiatives can broaden the reach of awareness campaigns. To guarantee effectiveness and tailor interventions to the unique needs of diabetic patients at Lahore General Hospital, ongoing monitoring and evaluation of these initiatives are crucial.
Reference


Kavinguha, L. K. (2017). *Diabetes Self Management Knowledge And Foot Complications Among Type 2 Diabetes Patients At Jaramogi Oginga Odinga Teaching And Referral Hospital, Kisumu County, Kenya. Lucy Kageha Mmust*.


