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RESEARCH PAPER

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

[1]Smaira Nawaz*, [2]Riffat Mushtaq and [3]Amna Akhtar

1. MSN Scholar, Lahore School of Nursing, The University of Lahore, Punjab, Pakistan
2. Charge Nurse, Lahore General Hospital, Lahore, Punjab, Pakistan
3. Charge Nurse, Lahore General Hospital, Lahore, Punjab, Pakistan

***Corresponding Author:** Smairanawaz9@gmail.com

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, is 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

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

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 02
Knowledge of participants regarding foot care

Level of Knowledge	Frequency	Percentage	Valid Percent	Cumulative Percent
Poor Knowledge	90	86.5	86.5	86.5
Good Knowledge	14	13.5	13.5	100.0

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

Level of Practice	Frequency	Percentage	Valid Percent	Cumulative Percent
Incompetent	60	57.6	57.6	100.0
Competent	44	42.4	42.4	100.0

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 etal (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

Al-Gaows, F. S., & Al-Zahrani, A. M. (2019). Knowledge and practice of foot care among diabetic patients attending diabetic care center in Jeddah City. *Int J Med Rev Case Rep, 3*(11), 664-670.

Ansari, R. M., Harris, M. F., Hosseinzadeh, H., & Zwar, N. (2022). Experiences of diabetes self-management: A focus group study among the middle-aged population of rural pakistan with type 2 diabetes. *Diabetology, 3*(1), 17-29.

Assem, A. S., Tegegne, M. M., Alemu, D. S., Woredekal, A. T., & Tefera, T. K. (2020). Knowledge about diabetic retinopathy, eye check-up practice and associated factors among adult patients with diabetes mellitus attending at debark hospital, Northwest Ethiopia. *BMC ophthalmology, 20*(1), 1-11.

Cheloni, R., Gandolfi, S. A., Signorelli, C., & Odone, A. (2019). Global prevalence of diabetic retinopathy: protocol for a systematic review and meta-analysis. *BMJ open, 9*(3).1-5.

Desalu, O., Salawu, F., Jimoh, A., Adekoya, A., Busari, O., & Olokoba, A. (2011). Diabetic foot care: self reported knowledge and practice among patients attending three tertiary hospital in Nigeria. *Ghana medical journal, 45*(2).60-65.

Hakeem, R., Awan, Z., Memon, S., Gillani, M., Shaikh, S. A., Sheikh, M. A., & Ilyas, S. (2017). Diabetic retinopathy awareness and practices in a low-income suburban population in Karachi, Pakistan. *Journal of Diabetology, 8*(2), 49-55.

Jayaweerabandara, N. (2017). Awareness and practices of foot care among patients with diabetes attending Colombo South Teaching hospital, prior to the onset of diabetic foot.

Jia, H., Wang, X., & Cheng, J. (2023). Knowledge, Attitudes, and Practices Associated With Diabetic Foot Prevention Among Rural Adults With Diabetes in North China. Front. *Health literacy and diseas e prevention, 10*, 105.

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].

Lin, X., Xu, Y., Pan, X., Xu, J., Ding, Y., Sun, X., Song, X., Ren, Y., & Shan, P.-F. (2020). Global, regional, and national burden and trend of diabetes in 195 countries and territories: an analysis from 1990 to 2025. *Scientific reports, 10*(1), 14790.

Mersha, G. A., Alimaw, Y. A., Woredekal, A. T., Assaye, A. K., & Zeleke, T. C. (2021). Awareness and knowledge of diabetic retinopathy in diabetic patients at a General Hospital in Northwest Ethiopia. *SAGE Open Medicine, 9*, 20503121211054994.

Moh'd Al-Qaddah, R., Abdallah Al Eyadeh, M., Ma'en Zaid Abu-Qamar, D., Younes, N., Al-Ryalat, D., & Haddad, F. (2016). Knowledge and practice of foot care among diabetics at King Hussein Medical Center, Jordan. *JRMS, 23*(3), 55-63.

Mohammed, M. A., & Rahman, N. (2018). Knowledge, attitude, and practice of foot care among type 2 diabetic patients attending diabetic clinic Al Ribat Teaching Hospital in Sudanese patients. *Advances in Diabetes and Metabolism, 6*(3), 34-53.

Suryasa, I. W., Rodríguez-Gámez, M., & Koldoris, T. (2021). Health and treatment of diabetes mellitus. *International Journal of Health Sciences, 5*(1).1-5

Tuglo, L. S., Nyande, F. K., Agordoh, P. D., Nartey, E. B., Pan, Z., Logosu, L., Dei-Hlorlewu, A. E., Haligah, D. K., Osafo, L., & Taful, S. (2022). Knowledge and practice of diabetic foot care and the prevalence of diabetic foot ulcers among diabetic patients of selected hospitals in the Volta Region, Ghana. *International Wound Journal, 19*(3), 601-614.

Wickramasinghe, I., Siritunga, T., & Gayathri, H. (2017). Practices related to foot care among type ll diabetes mellitus patients who attend diabetes clinics in General Hospital Kurunegala, Sri Lanka. International Journal of Scientific and Research Publications, 7(1), 46-50.

Zhao, M., Gillani, A. H., Amirul Islam, F. M., Ji, W., Hayat, K., Li, Z., Akbar, J., Ahmed, A. B., Azam, A., & Masood, I. (2019). Factors associated with knowledge, attitude and practices of common eye diseases in general population: a multicenter cross-sectional study from Pakistan. *International journal of environmental research and public health, 16*(9), 1568.

Zheng, Y., Ley, S. H., & Hu, F. B. (2018). Global aetiology and epidemiology of type 2 diabetes mellitus and its complications. *Nature reviews endocrinology, 14*(2), 88-98.

Zou, W., Ni, L., Lu, Q., Zou, C., Zhao, M., Xu, X., Chen, H., & Zheng, Z. (2016). Diabetes onset at 31–45 years of age is associated with an increased risk of diabetic retinopathy in type 2 diabetes. *Scientific reports, 6*(1), 38113.