Knowledge, Attitude and Practice in Diabetic Patients About Diabetic Foot Disease

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Abstract

Background: Diabetic foot disease (DFD) is a major challenge for the healthcare system, with enormous economic consequences for people living with diabetes, their families and society and it affects both quality of life and quality of care in the diabetic patients. This study was conducted to know about the knowledge, attitude and practices about diabetic foot disease in diabetic patients.

Methodology: The study of knowledge, attitude and practices about DFD was done at the different areas in Lahore and at Bhutta Clinical Lab, Multan. Duration of this study was about 6 months. Questionnaire was designed and filled. Sample size of this study was 380. Data was collected and analysed by using SPSS.

Results: In this study, 67.9% diabetic patients had poor knowledge, 30% had satisfactory knowledge whereas only 2.1% patients had good knowledge. Regarding attitude towards the DFD, 98.7% patients had good attitude, 1.3% patients had satisfactory attitude and poor attitude had not showed by any patient. In practices score, 47.4% were doing satisfactory practices, 42.9% patients were doing good practices and 9.7% patients were doing poor practices regarding DFD.

Conclusion: In this study, awareness of the diabetic foot disease in diabetic patients was poor that may cause increase in the frequency of the diabetic foot disease that may ultimately cause amputation of the lower limb and even cause death due to sepsis. But attitude towards the disease was good in majority of the diabetic patients and practices regarding disease were also satisfactory therefore by increasing the knowledge regarding disease and knowledge of the good practices, reduction of the severe cases of disease and prevention of the disease should be done.

Keywords: Diabetes mellitus, Diabetic foot disease

Introduction

Diabetes mellitus is a syndrome of chronic hyperglycemia that may be occur due to insulin deficiency, resistance or both. (1) Diabetes is one of the most frequent metabolic disorders affecting an estimate of 371 million people. (2) The acute and chronic complications of DM are the main causes of hospital admissions, blindness, renal failure, amputations, stroke and coronary heart disease in the Asia-Pacific region. (3) It is estimated that 50% of people with DM are undiagnosed. WHO estimates that DM will be the seventh leading cause of death in the next 15years. (4) DM is a disease known for its various complications and Diabetic feet ulcer (DFU) is the most common. (5) Foot ulcer is defined as a break in continuity of full thickness of foot skin. (6) DFU is a full thickness wound which is present at a level

distal to the ankle in diabetic patients. DFD involve vascular and neurological pathologic changes that are the direct result of diabetes that cause local tissue destruction by sensory neuropathy and compromise of the vascular system of the affected lower extremities in diabetics. (4) Diabetic neuropathy and peripheral vascular disease are the main cause of foot ulceration and may act alone, together or in combination with other factors such as micro-vascular disease, biomechanical abnormalities, limited joint mobility and increased susceptibility to infection. (8) Epidemiological studies have shown that every year 2.5% of patients with diabetes are affected by DFU and 15% of patients with diabetes will ultimately be affected by DFU. (9) The usage of insulin overcame the acute problems of ketoacidosis and infection but could not prevent the vascular and neurological complications. Foot is at the high risk in the diabetic patients. It is exposed to frequent trauma and requires a sensitive sensory protection that may be diminished in a diabetic patient. The foot is far away from the central nervous system (CNS) and hemodynamically disadvantageously common site of complicated lesions. Foot ulceration in diabetics is the most frequent precursor that may cause amputation. (8) It is estimated that 15% of patients with diabetes will suffer from DFU during their life. Although accurate figures are difficult to obtain for the prevalence of DFU, it ranges from 4% to 27%. It is estimated that about 20% of hospital admissions among patients with diabetes are due to the DFU. (10)

Diabetologists started identifying diabetic foot problems in United Kingdom in 1980 and in other European countries in 1990. This group later became known as International Working Group on Diabetic Foot and it is affiliated with International Diabeted Federation. Pakistan was included in this group in 2006, during an international diabetic conference held in Karachi. Realizing the importance of diabetic foot problems, IDF also chose DFU as theme of World Diabetes Day in 2005. (1)

Education of people with diabetes is widely recommended and applied in standard practice. There is little scientific evidence that limited patient education alone is ineffective in prevention of DFU and amputation. (11) The rationale of this study is to know about quality management of the diabetic foot patients, to improve the better management of the diabetic foot patients and acknowledge victims about diabetic foot managements.

Materials and Methods

This cross-sectional study was conducted at different wards, emergency department and OPD of Gulab Devi Chest Hospital Lahore, Surgery OPD of Services Hospital Lahore, Emergency department of Mayo Hospital Lahore, Diabetic Management Clinic of Children Hospital Lahore and Bhutta Clinical Lab Multan. Sample size was calculated 380 statistically. Non-probability purposive sampling technique was employed for 6 months to collect study data. Both diagnosed & un-diagnosed DFD patients with diagnosed diabetes mellitus (type I and type II) were included in study. Gestational diabetic patients were excluded to participate in study.

Data collection procedure: Patients who fulfilled inclusion criteria were registered in the study. All basic demographic information (name, age, gender, address and contact) was obtained. The close-ended questions containing questionnaire was used to assess the diabetic patients about diabetic foot

disease. 5 questions each regarding knowledge, attitude and practices regarding DFD contained in the questionnaire. The respondents were interviewed on questionnaire after their verbal consent. Questions were read out by the researcher and the responses were noted on the questionnaire.

Data analysis procedure: The collected data was entered and analyzed by using SPSS version 16.0. Quantitative variable like age was presented in the form of mean±SD. Qualitative variables like gender and questions of knowledge, attitude and practices were presented in the form of table(s) and pie chart(s). Percentage scoring for 5 questions regarding knowledge, attitude and practices about DFD are as Poor: If score is 0-20% (0-1), Satisfactory: If score is 40-60% (2-3), Good: If score 80-100% (4-5).

Operational Definitions:

Knowledge: What is known and is gained either by experience, learning and perception regarding DFD in diabetic patients.

Attitude: The views, perceptions and thoughts of diabetic patients regarding DFD.

Practices: The actual application or use of the perception and knowledge regarding DFD in the diabetic patients for foot care.

Diabetes: Diagnosed diabetes (both type-1 and type-2) patients with fasting blood glucose level (BSF) more than 126mg/dL or random blood glucose level (BSR) more than 200mg/dL or HbA1c more than 6.5.

Diabetic Foot Disease:

Presence of several characteristics of diabetic foot pathologies such as diabetic foot infection, diabetic foot ulcer and neurovascular diseases related to diabetes are called diabetic foot disease.

Result

The mean age 380 DM patients was 51.29±14 years. Out of the 380 respondents, 201 (47.11%) respondents were female and 179 (52.89%) respondents were male.

In the knowledge assessment, less than 20% patients had knowledge that smoking can reduce blood in the feet. Less than 2% patients were known that loss of sensation and reduced blood flow in the foot can increase the chance to have foot ulcers. But more than 50% patients had knowledge that foot infection can cause foot wounds. Regarding the foot care more than 60% patients had not provided any information. In the attitude assessment, more than 90% patients showed good attitude towards the disease and replied yes in all the questions. Whereas less than 6% patients were replied as no. In the practices assessment, more than 85% patients were washed their feet daily. Less than 30% patients were moisturized dry areas of the feet and checked their feet. For the management of the any abnormality on the foot, less than 40% patients consult a doctor whereas about 60% patients were managed the problem on the feet by themselves. In the percentage scoring of the knowledge, attitude and practices regarding DFD among respondents, 258 (67.9%) patients had poor knowledge, 114 (30%) patients had satisfactory knowledge and only 8 (2.1%) patients had good knowledge about DFD. In the scoring of the attitude, 375 (98.7%) patients showed good attitude, 5 (1.3%) patients showed satisfactory attitude whereas no respondents showed poor attitude towards the disease. Regarding the practices, 180 (47.4%) patients had done satisfactory practices, 163 (42.9%) patients had done poor practices and 37 (9.7%) patients had done good practices for foot care.

Discussion

In this study, few numbers of the respondents had good knowledge and had done satisfactory practices about the diabetic foot disease even though the attitude toward the disease was good. In the knowledge assessment, only 1.84% respondents were known that smoking can reduce the blood flow toward the lower extremity. And those patients who said yes were medical related professionals and due to this reason, they were known about the effects of the smoking. Remaining 98.16% patients were not known anything about it. Similar question was asked in a study that conducted in the regional hospital Durban (South Africa) in which 62.5% respondents said yes and 37.5% said no. In Durban study, more than 60% patients were aware that smoking can reduce the blood flow towards the foot. (4) And in another study which was conducted in the Nigeria discussed that 75% diabetic patients were unaware that smoking causes poor circulation of the feet. (12) In a study that conducted in the Kingdom of Saudi Arabia different result was shown that was 89.9% diabetic patients were known that smoking can cause reduced blood flow towards feet whereas 7.5% only reported for not to know about it. (13)

When asked to the patients that reduced blood flow may cause increases the chance of the formation of the foot ulcer, only 2.11% respondents were replied that they were known that if we have reduced blood flow may prone to have foot ulcers in this study. But in a study conducted in a regional hospital in South Africa reported 35% patients awared about it. (4) An another study conducted in Saudi Arabia reported awareness in 50.5% diabetics. (13)

Among 5 questions of the knowledge in current study, only one question obtained more than 50% positive scoring that was "foot infection can develop foot wounds". If compare with a study conducted in the South Africa there is smaller difference between the result in current study which revealed 57.1% respondents with similar response. (4) And in another previous study conducted in the Saudi Arabia when asked this question, 65.9% respondents out of 229 respondents were replied that infection can cause foot ulcer, 4.9% respondents said that not cause foot ulcer and 29.2% patients were responded that they did not know about it.(13)

It was most critical thing in this study that less than 30% diabetic patients have information regarding the foot care. Foot care information is very important for the diabetic patients to reduce the risks of the DFD and to prevent the amputation of the lower extremity.

In a study conducted in Jinnah Hospital (Lahore) regarding knowledge of the foot care, only 29% respondents had good information about foot care.(1)

In a study conducted in the Saudi Arabia it was revealed that in the less educated patients, knowledge regarding foot care was lower than the average out of 350 diabetic patients.(14)

Furthermore, a study that conducted in China, it was discussed that knowledge regarding the foot care in the diabetic patient was satisfactory.(15)

Poor knowledge may be related to lack of provision of diabetic foot care education as well as the short period from the time that the diagnosis of diabetes was made etc.(4)

In this way overall result related to knowledge regarding DFD, 67.9% patients had poor knowledge, 30% patients had satisfactory knowledge and 2.1% patients had good knowledge out of 380 patients in this study whereas the previous study that was conducted in the regional hospital

Durban, South Africa less than 50% patients had satisfactory knowledge, less than 30% patients had poor knowledge and about 40% patients had good knowledge out of 214 patients who had diabetes and current numbness and tightness in the lower limb. Furthermore, a study that was conducted in the Jinnah hospital Lahore, Pakistan in which 40% patients had satisfactory knowledge, 30.7% patients had poor knowledge and 29.3% patients had good knowledge.

Causes of poor knowledge in our country may be due to illiteracy and furthermore diabetic patients were careless with their disease that they take easy the diabetes and not given proper attention to their disease due to which they do not try to know about their own disease. Foot care information is very important for the diabetic patients to reduce the risks of the diabetic foot disease and to prevent the amputation of the lower extremity but attention towards this matter is less in our country.

About the attitude in the diabetic patients toward the diabetic foot disease and the complication of the diabetes more than 90% yes is obtained in this study.

In a study conducted in Durban, South Africa more than 80% diabetic patients were responded as yes regarding the attitude question mention in the questionnaire.(4)

In a previous study that conducted in Saudi Arabia, few attitude related questions were in which more than 80% respondents showed good attitude related their disease.(13)

In this study, the question related to the attitude in wearing of the special footwear was asked, 2.37% respondents said no due to financial problem that they cannot buy the special footwear.

Counseling on the use of appropriate footwear is easy to implement in clinical practice but the only problem remain left that the non-compliance with the prescribed footwear owing due to poor socio-economic circumstances or personal preference.(4)

In the question about wear the footwear in the indoor, 5.53% patients responded as no because they did not want to wear footwear inside the house due to the reason that they did not have the habit of wear the footwear inside the house, in the house carpet is placed or were not comfortable with indoor footwear etc.

The previous studies had shown that there are reduced rates of diabetic foot disease in patients when several intervention programs like the advice of the wearing of special footwear etc. are implemented.(4)

In last question of the attitude, 3.16% patients said no due to some reasons like long term of the diabetic diseased life cause desperation, in early childhood diagnosis of the diabetes cause hopelessness and many complications or old age group patients due to which patients were think that they cannot live normal life even they take appropriate measures regarding the diabetes because it could not be completely cured.

In a study conducted in South Africa, 11.4% patients were replied that they cannot lead a normal life even they take appropriate measures to control their diabetes.(4)

Ongoing integrated motivation and education leading to behavior change should be given to diabetic patients at the first onset of symptoms of foot disease, as the risk of developing diabetic foot disease is significantly high so that further complication can be reduced by prevention of this disease.(4)

About the practice, 47.4% patients had taken satisfactory measures, 42.9% patients had done poor practices and 9.7% patients had done good practices for foot care in this study.

In a study conducted in Lahore, 54% of the respondents had satisfactory practices regarding foot care, 32% had poor practices and only 14% had good practices. (Hasnain and Sheikh, 2009)

When asked about the foot washing, in this study about 90% patients were said that they were washed their feet daily.

In a study conducted in South Africa, when asked same question to the respondents more than 95% patients were washed their feet daily.(4)

Whereas a study conducted in Lahore, more than 80% patients were said that they wash their feet daily. (Hasnain and Sheikh, 2009)

A study conducted in Nigeria about 82% patients were responded that they were wash their feet regulary.(12)

In a previous study that conducted in the Eastren Province of the Kingdom of Saudi Arabia revealed that more than about 90% diabetic patients were wash their feet daily properly.(13)

In another previous study that was also conducted in the Saudi Arabia showed that 88.6% patients said that they wash their feet daily.(14)

These results showed that there was less difference between in this study and their study.

Regarding the examination of the foot, in a study conducted in regional hospital Durban, South Africa about 65% patients were said that examine daily. (4)

Whereas study conducted in Jinnah hospital, Lahore more than 40% patients were said that they examine their feet once in a day.(1)

In a study conducted in China, about 41% diabetic patients were said that they check their feet daily.(15)

In the Nigeria, a study was conducted in which asked about 40% diabetic patients were replied that they inspect their feet regularly.(12)

And in this study about 20% diabetic patients were replied that they were inspected their feet for any injury. There were slight difference in the result of this study and the other studies.

When asked about a question for use of cream on feet to moisturize the skin, about 35% diabetic patients were replied as yes in a study conducted in South Africa (4)

In a study that conducted in the Kingdom of Saudi Arabia, about 41% patients were said that they were used the cream or lotion to apply on the feet.(13)

In this study, about 26% patients were said that they were moisturized their feet.

It shows smaller difference between the result of this study and their study.

In this study, 39% patients were said that they managed by their own self first and if problem not relieved then go to the doctor. Most of the patients were tried home remedies at home or use the pyodine like medicine by their own self without consult the doctor. And in few patients this act caused the diabetic foot disease later on.

In a study that conducted in the Jinnah hospital it was revealed that, 40% of the diabetic patients had satisfactory knowledge whereas 54% of the diabetic patients had satisfactory practices regarding foot care. This 14% increase in practices with less knowledge shows that patients are doing good practices without knowing that they are good for health and preventive measure of the diabetic foot disease. They are performing good practices religiously without knowing that some of these activities are a part of good foot care practices e.g. 83.3% respondents had the knowledge of washing feet daily and 88.7% of the respondents were practicing washing of the feet as they did purification

before offering prayers. (Hasnain and Sheikh, 2009)

Same reason was found in this study that although about 90% patients were wash their feet daily but they did not know the significance of the foot washing. They washed the feet only before offering prayers for purification purpose not for foot care. They were performed their practices religiously.

Whereas in a study conducted in the China, it was revealed that most of the patients have good knowledge, but the practices of the patients were not good. In this study 70.9% patients know about the daily foot checking but about 41% patients did it daily. This showed that knowledge was good but practice was not good.(15)

In the study conducted in the Kingdom of Saudi Arabia, it was revealed that diabetic patients have good knowledge and the favorable practice.(13)

Daily foot inspection by patients can prevent diabetic foot disease and its fatal complications. The importance of good knowledge and practice should be emphasized in diabetic patients who have established peripheral neuropathy so that reduce the number of diabetic amputations and improve survival of the patients without amputation. Much tighter glycaemic control and subject to more intensive foot care education programs, with regular scheduled follow-up visits should be done to prevent the diabetic foot disease.(4)

Diabetic foot disease is one of the fatal complications of diabetes that is characterized by foot lesions and finally leg amputation in most of the cases if properly not treated. Foot care education is the most important thing for preventing lower leg amputation. Therefore, low cost - low technology evaluation and preventive processes are enough to substantially reduce the rates of risk. An individualized educational intervention can lead to improved foot care knowledge; self care practices and confidence in performing foot related self care. There is a need to re-orient and motivate health personnel in educating diabetics about self care and also practicing by themselves proper foot examination when and where required. Print and electronic media must be engaged in order to enhance the public awareness of diabetes and its complications.

Conclusion

This study showed that awareness of diabetic foot disease was suboptimal. To minimize the burden of this disease, improve the screening and prevention programs as well as patient education should be provided to diabetic patients. Furthermore, maintaining an aggressive approach to risk factor modifications, footwear and identifying the at-risk foot should be done.

Diabetic foot disease causes deterioration in quality of life and affects the quality of care for diabetic patients. It causes a serious medical, social and economic challenge for the healthcare system. Poor knowledge combined with poor self-care practices even though the good attitude can compromise the patient care. Many of the foot problems can be reduced if primary and secondary prevention were prioritized in routine clinical care. The patient with diabetes plays a important role in preventing foot disease. However, the healthcare system should qualify the diabetic patients with knowledge, skills and own foot care practices.

References

1. Hasnain S, Sheikh NH. Knowledge and practices regarding foot care in diabetic patients visiting diabetic clinic in Jinnah

Hospital, Lahore. JPMA The journal of the Pakistan Medical Association. 2009;59(10):687.
2. Martins-Mendes D, Monteiro-Soares M, Boyko EJ, Ribeiro M, Barata P, Lima J, et al. The independent contribution of diabetic foot ulcer on lower extremity amputation and mortality risk. J Diabetes Complications. 2014;28(5):632-8.
3. Leung G, Lam K. Diabetic complications and their implications on health care in Asia. Hong Kong medical journal= Xianggang yi xue za zhi/Hong Kong Academy of Medicine. 2000.
4. Goie TT, Naidoo M. Awareness of diabetic foot disease amongst patients with type 2 diabetes mellitus attending the chronic outpatients department at a regional hospital in Durban, South Africa. African Journal of Primary Health Care and Family Medicine. 2016;8(1):1-8.
5. Wu SC, Driver VR, Wrobel JS, Armstrong DG. Foot ulcers in the diabetic patient, prevention and treatment. Vascular health and risk management. 2007;3(1):65.
6. Wang DD, Jamjoom RA, Alzahrani AH, Hu FB, Alzahrani HA. Prevalence and Correlates of Lower-Extremity Amputation in Patients With Diabetic Foot Ulcer in Jeddah, Saudi Arabia. Int J Low Extrem Wounds. 2016;15(1):26-33.
7. Amin N, Doupis J. Diabetic foot disease: From the evaluation of the "foot at risk" to the novel diabetic ulcer treatment modalities. World J Diabetes. 2016;7(7):153-64.
8. Sinwar PD. The diabetic foot management–Recent advance. International Journal of Surgery. 2015;15:27-30.
9. Kogani M, Mansournia MA, Doosti-Irani A, Holakouie-Naieni K. Risk factors for amputation in patients with diabetic foot ulcer in southwest Iran: a matched case-control study. Epidemiol Health. 2015;37:e2015044.
10. Yazdanpanah L, Nasiri M, Adarvishi S. Literature review on the management of diabetic foot ulcer. World J Diabetes. 2015;6(1):37-53.
11. Dorresteijn JA, Valk GD. Patient education for preventing diabetic foot ulceration. Diabetes/metabolism research and reviews. 2012;28(S1):101-6.
12. Desalu O, Salawu F, Jimoh A, Adekoya A, Busari O, Olokoba A. Diabetic foot care: self reported knowledge and practice among patients attending three tertiary hospital in Nigeria. Ghana medical journal. 2011;45(2).
13. Al-Hariri MT, Al-Enazi AS, Alshammari DM, Bahamdan AS, AL-Khtani SM, Al-Abdulwahab AA. Descriptive study on the knowledge, attitudes and practices regarding the diabetic foot. Journal of Taibah University Medical Sciences. 2017;12(6):492-6.
14. Al Odhayani AA, Tayel SAS, Al-Madi F. Foot care practices of diabetic patients in Saudi Arabia. Saudi Journal of Biological Sciences. 2015.
15. Li R, Yuan L, Guo X-H, Lou Q-Q, Zhao F, Shen L, et al. The current status of foot self-care knowledge, behaviours, and analysis of influencing factors in patients with type 2 diabetes mellitus in China. International Journal of Nursing Sciences. 2014;1(3):266-71.

Table 1. Knowledge Assessment in Study Population

Knowledge	Yes	No
1. Were you given any information regarding foot care?	128(33.68%)	252(66.32%)
2. Are you aware that smoking can reduce blood flow in your feet?	7(1.84%)	373(98.16%)
3. Do you know that if you have loss of sensation in your foot, you are more prone to have foot ulcers?	68(17.89%)	312(82.11%)
4. Do you know that if you have reduced blood flow in your foot, you are more prone to get foot ulcers?	8(2.11%)	372(97.89%)
5. Do you know that if you have foot infection, you can develop foot wounds?	207(54.47%)	173(45.53%)

Table 2. Attitude Assessment in Study Population

Attitude	Yes	No
1. Are you willing to change food habits & do regular exercise to prevent further complications due to diabetes?	379(99.74%)	1(0.26%)
2. Do you think people with diabetes should take responsibility of the self-foot examination like checking of sole of the foot daily, wearing doctor's prescribed footwear & consulting doctor regularly etc?	380(100%)	0(0%)
3. Are you willing to use special footwear prescribed your doctor?	371(97.63%)	9(2.37%)
4. Will you wear footwear indoor as advised by your doctor?	359(94.47%)	21(5.53%)

5. Do you think you can lead a normal life if you take appropriate measures for diabetes?	368(96.84%)	12(3.16%)

Table 3. Practice Assessment in Study Population

Practices	Yes	No
1. Do you wash your feet daily?	341(89.74%)	39(10.26%)
2. Do you moisturize dry areas of your feet daily?	100(26.32%)	280(73.68%)
3. Do you check your feet daily for any injury?	78(20.53%)	302(79.47%)
	Doctor	**Yourself**
4. Would you do if you find any abnormality on your feet? You manage yourself or consult a doctor?	150(39.47%)	230(60.53%)
	Yes	**No**
5. Do you check whether your shoes/socks leave marks on your feet?	59(14.74%)	324(85.26%)

Table 4. Scoring of Study Population in Knowledge, Practice and Attitude

Remarks	Scoring (Out of 5)	Knowledge (Out of 380 patients)	Attitude (Out of 380 patients)	Practices (Out of 380 patients)
Poor	0-20% (0-1)	258(67.9%)	0(0%)	163(42.9%)
Satisfactory	40-60% (2-3)	114(30.0%)	5(1.3%)	180(47.4%)
Good	80-100% (4-5)	8(2.1%)	375(98.7%)	37(9.7%)

Supplementary File 1:

Questionnaire

Knowledge, Attitude and Practices in Diabetic Patients About Diabetic Foot Disease

Name: _____ S/O, D/O, W/O:_____ Age: _____ Gender: _____

CNIC#_____ Phone#_____

Address_____ City: _____

Knowledge Assessment

1. Were you given any information regarding foot care?

Yes	No

2. Are you aware that smoking can reduce blood flow in your feet?

Yes	No

3. Do you know that if you have loss of sensation in your foot, you are more prone to have foot ulcers?

Yes **No**

4. Do you know that if you have reduced blood flow in your foot, you are more prone to get foot ulcers?

Yes **No**

5. Do you know that if you have foot infection, you can develop foot wounds?

Yes **No**

Attitude Assessment

1. Are you willing to change your food habits and do regular exercise to prevent further complications due to diabetes?

Yes **No**

2. Do you think people with diabetes should take the responsibility of self foot examinations like checking sole of foot daily, wearing doctor's prescribed footwear and consulting doctor regularly etc.?

Yes **No**

3. Are you willing to use special footwear prescribed your doctor?

Yes **No**

4. Will you wear footwear indoors as advised by your doctor?

Yes **No**

5. Do you think you can lead a normal life if you take appropriate measures for diabetes?

Yes **No**

Practices Assessment

1. Do you wash your feet daily?

Yes **No**

2. Do you moisturize dry areas of your feet daily?

Yes **No**

3. Do you check your feet daily for any injury?

Yes **No**

4. What would you do if you find any abnormality on your feet? You manage yourself or consult a doctor?

Yes **No**

5. Do you check whether your shoes/socks leave marks on your feet?

Yes **No**