

21. Egypt. J. Med. Sci. 35 (1) June 2014: 403-421.

## **FOOT SELF CARE: KNOWLEDGE, PRACTICE AND BARRIERS AMONG DIABETIC PATIENTS**

By

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### **ABSTRACT**

**Background:** Diabetic foot is one of the most frightened complications of diabetes and is the leading cause of hospitalization among diabetic patients. **Aim:** This study was carried out to evaluate foot self care knowledge, practice, and barriers among diabetic patients.

**Subjects:** A purposive sample of 118 adult diabetic patients was chosen. **Setting:** The study was conducted at the outpatient clinics of diabetes and in patient medical ward at Ain Shams University Hospital. **Design:** Analytic design was used. **Tool:** A structured interview questionnaire was developed and utilized by the researchers. It included six parts.

**Results:** The mean age of subjects was  $47.63 \pm 9.66$  years. About two thirds of patients (63.6%) had no diabetic foot care education experiences. More than three fourths of subjects who had poor foot care practice (77.6%) didn't have complete information about foot care (80%). The majority (81%) of subjects who had poor foot care practice didn't have diabetic foot care education practice. 55% and 73.3% of subjects who had fair knowledge about diabetes ,

foot problem and care respectively had good foot care practice. 63.2% and 73.5% of subjects who had fair knowledge about diabetes, foot problems and care respectively, had good foot wear practice.

**Conclusion:** low level of education to foot care practice has significant association with current foot care practice. Incomplete information about foot care is the most important barrier associated with poor foot care practice.

**Recommendation:** A diabetes self care hand book about diabetes information, foot problems prevention and care should be available for all diabetic patients. Specialized team for diabetic foot care should be available in outpatient clinic to assess, prevent and manage any foot problems. Also this team should provide continuous education for diabetic patient about proper foot care.

### **INTRODUCTION**

Diabetes is a chronic debilitating condition that is associated with significant morbidity, mortality and increasing health care cost (National institute of health, 2003). It currently affects about 200 million people worldwide and is

expected to reach 333million by 2025, with most of the massive burden falling in developing countries (Karachi, 2013). Egypt is in the world's top 10 in terms of the highest number of people with diabetes(3.9 million) and this number is expected to increase to 7.8 million by 2025 (Heissam, 2014). While by the year 2030, Egypt will have at least 8.6 million adults with diabetes. It is estimated that 12 % of the adult Egyptian population who aged 10-79 years have diabetes (Shawky & EL Din Amin, 2013). However, because Egypt has a relatively young population, this is corrected to 15% when used to compare with other countries which give the alarming fact that Egypt has more diabetic individuals than any other country (Wild et al., 2004; International Diabetes Federation, 2012).

Diabetic foot is one of the most frightened complications of diabetes and is the leading cause of hospitalization among diabetic Patients. It is characterized by several pathological complications such as neuropathy, peripheral vascular disease, foot ulceration, and infection with or without osteomyelitis, leading to the development of gangrene and even necessitating limb amputation (Anandi et al., 2004; Khanolkar, Brain & Stephens, 2008).

Diabetic foot problems are responsible for nearly 50 % of all diabetes related hospital admission, amputation and mortality in diabetic Patients (Kumar & Clark, 2005). In addition to causing pain and mortality, foot lesions in diabetic Patients have substantial economic consequences, beside the direct costs of foot complications. Also, there are indirect costs relating to loss of productivity, individual patient's and family costs and

loss of health related quality of life (International Diabetes Federation, 2005).

Foot ulceration occurs in approximately 15-25% of people with diabetes while amputation prevalence ranges between 0.2 - 4.8%, worldwide (Boulton et al., 2005). The lifetime risk of a person with diabetes developing a foot ulcer could be as high as 25% and it is believed that every 30 seconds a lower limb is lost somewhere in the world as a consequence of diabetes (Shankar et al., 2005).

In Egypt, the incidence of foot problems and amputations remains very high, accounting for up to 20% of diabetes-related hospital admissions. This can be easily attributed to several practices prevalent such as barefoot walking, inadequate facilities for diabetes care, low socioeconomic status and illiteracy (Shankar et al., 2005).

Globally, diabetic foot lesion is a result of peripheral vascular disease and neuropathy which is the major contributing factor that is preventable in most cases in developing countries. The peripheral neuropathy is one of the most important factors for diabetic foot problems because it eventually causes loss of protective sensation, foot deformity, dry skin, crackling or fissure that easily results in foot ulceration. Moreover, some of the patients' daily activities, such as walking bare foot or trimming nails are potential causes of foot problems (Calle-Pascual et al., 2001).

It is possible to reduce amputation rates to 49%-85% through a care strategy that combines: prevention; the multi-disciplinary treatment of foot ulcers; ap-

propriate organization; close monitoring, and the educating diabetic people and healthcare professionals (International Diabetes Federation, 2005).

Daily foot care and inspection can prevent the development of foot ulcers and the subsequent complications that may lead to amputation which is considered one of the biggest threats to adults with diabetes especially for patient decrease extremity sensation. In order to control the foot ulcer complications, patient's knowledge and practice may contribute to prevent foot ulcer. Foot care is the most important factor for prevention of foot ulcer and preventive strategies will decrease the burden of foot problems in the patients suffering from diabetes (Pollock, Unwin & Connolly, 2003).

Self-care in diabetes has been defined as an evolutionary process of development of knowledge or awareness by learning to survive with the complex nature of the diabetes in a social context. The vast majority of day-to-day care in diabetes is handled by patients and/or families; there is an important need for self-management of diabetes (Cooper, Booth & Gill, 2003; Glasgow & Strycker, 2000).

Foot self-care activities refer to behaviors such as daily foot examination by patients or caregivers including the use of mirrors to examine the sole of the feet where necessary, daily washing and careful drying on feet, use of moisturizing lotion on the feet but not between the toes, avoiding corn removal with chemical agents, wearing well-fitting shoes and avoidance of walking barefooted (Apelqvist, Bakker, 2007; American Diabetes Association, 2012).

Moreover patient's foot care practices that may prevent foot ulcer focus on avoiding barefoot, performing and/or receiving proper foot care, and wearing properly fitting shoes, foot hygiene, proper toenails care, skin care, daily inspection of feet and legs and proper footwear (Pollock, Unwin & Connolly, 2003; Sayeed et al., 2005).

The role of healthcare providers in care of diabetic patients has been well recognized. Socio-demographic and cultural barriers such as poor access to drugs, high cost, patient satisfaction with their medical care, patient provider relationship, degree of symptoms, unequal distribution of health providers between urban and rural areas that have restricted self-care activities in developing countries (Norris et al., 2002). So, the aim of this study was to evaluate foot self care knowledge, practices and barriers among diabetic Patients.

#### **Significance of the Study:**

Diabetic foot is a serious complication of diabetes and is the leading cause of hospitalization in diabetic patients with great morbidity and mortality and impact on the patient, family, and health care system. Daily foot care and inspection can prevent the development of foot problems and the subsequent complications that may lead to amputation (Anandi et al., 2004; Khanolkar, Brain & Stephens, 2008). Therefore we hoped that ulceration and its complications can be largely prevented and the rate of amputation greatly reduced by increasing the awareness and self care of the foot among diabetic patients especially in low income community.

**Aim of the Study:**

The aim of this study was to evaluate foot self care knowledge, practice, and barriers among diabetic patients.

**Research Questions:**

- What is the level of knowledge of diabetic Patients about foot self-care?
- What is the level of actual self-care foot practices among diabetic patients?
- Are the foot self-care practices among diabetic patients satisfactory?
- What are barriers preventing diabetic patient from practicing the correct foot self care?

**SUBJECT AND METHODS****Design:**

Analytic research design was used in carrying out this study.

**Setting:**

The study was conducted at the outpatient clinics of diabetes and inpatient medical ward at Ain Shams University Hospital.

**Subjects:**

A purposive sample of 118 adult diabetic patients was chosen for the purpose of this study. The sample was drawn from all patients admitted to the above mentioned Hospitals with a diagnosis of diabetes during the period of the study. Sample was selected according to the following criteria: conscious, adult diabetic patients of both sexes and who were diagnosed for diabetes for at least 5 years ago.

**Study tool:**

One tool was developed and utilized by the researchers based on review of related literature.

**Structured interview questionnaire:** It included six parts:

- **Part(1): personal characteristics:**
  - It comprised of data related to patients' age, sex and level of education.
- **Part (2): Medical history and clinical data:**
  - It comprised of data related to duration of diabetes, family history of diabetes, presence of other chronic disease, diabetic foot care education experiences, a history of foot ulcer, risk factors for foot ulcer, foot examination for each foot and foot problem.
- **Part(3):Self reported patient knowledge about diabetes:**
  - It was comprised of four questions related to: definition of diabetes, treatment complication of diabetes and predisposing factors to foot ulcer among diabetic patients.
- **Scoring system:**
  - Each question was given a score from one to three in which one indicated good knowledge score, 2 indicate fair knowledge score, while score 3 indicated poor knowledge as follow: A score from 4 to 6 indicated good total score, A score from 7 to 9 indicated fair total score and a score from 10 to 12 indicated poor total score.
- **Part (4): Self reported patient knowledge about foot problems and care:**

It was comprised of twelve questions related to: knowledge about smoking, nail cutting, importance of taking medication regularly, signs of diabetic foot infection, does patients look after their feet, precautions made before exercise related to foot care, knowledge about diabetic shoes characteristics, frequency of inspecting feet, first thing to do with presence of redness or bleeding between toes, frequency of washing feet, degree of water temperature for washing and frequency of inspecting inside the foot wear.

#### **Scoring system:**

Each question was given a score from one to three in which one indicated good knowledge score, 2 indicate fair knowledge score, while score 3 indicated poor knowledge score. A score were summed with lower score indicated good knowledge as follow: A score from 12 to 18 indicated good total score, A score from 19 to 27 indicated fair total score and a score from 28 to 36 indicated poor total score.

#### • **Part (5): Self reported practices about foot care and foot wear:**

It was comprised of two parts:

##### **a. Current foot care practice:**

It was comprised of eighteen questions to be checked if it is done by patient or not such as inspecting feet daily, use a mirror to see the bottom of feet, washing feet daily and dry feet especially between the toes, putting moisturizing lotion, wear socks every day, cut toenails, wear shoes, not walking bare-foot at any time, use footwear in the shower, test water temperature, check shoes for objects, regular follow up, not using

sharp instrument for cleaning nails, exercise and visiting to doctor.

#### **Scoring system:**

Each statement was given a score of one if the action is done and 2 if it is not done. The total score were summed with a lower score indicated good practice and higher score indicate poor practice as follow: A score from 18 to 27 indicated good total score while a score from 28 to 36 indicated poor score.

##### **b. Current foot wear practice:**

It was comprised of seven questions to be checked if it is carried out by patient or not such as wear special shoes, wear protective inserts in shoes, wear shoes without socks, type of heel used, type of shoes, forepart of shoes and shoes material.

#### **Scoring system:**

Each statement was given a score of one if the reported correct action and 2 if the patient reported incorrect action. The total score were summed with a lower score indicated good practice and higher score indicate poor practice as follow: A score from 7 to 10 indicated good total score while a score from 11 to 14 indicated poor total score.

#### • **Part(6):Barriers to good foot care:**

It was comprised of five questions such as not seeing well enough, not reaching the feet, thinking it is not important, not having complete information about foot care and didn't know how to care.

#### **Content validity and reliability:**

The tool was constructed by the researcher after extensive reviewing the

relevant literatures and tested for content validity by 5 expertises in nursing and medical field. To ascertain relevance and completeness modification was done. The researcher used a test – retest methods to test the internal consistency of the tool, by the administration of the same tool to the same subjects under similar conditions on 2 occasions .It was reliable at 0.86.

#### **A pilot study:**

The study tools were piloted on 10% of the study sample (11 diabetic patients) to test clarity and applicability of the tools and the necessary modifications were carried out accordingly. Data obtained from those patients were not included in the current study.

#### **Field work:**

The study was started at June 2013 until June 2014. Patients who agreed to participate into study and fulfilling the inclusion criteria were included in the study .The researcher initiated data collection by assessing demographic and medical data through interviewing each participant using the questionnaire part one and two. The patients` knowledge about foot problems foot care were assessed using the questionnaire part 3 and 4.Each participant was asked about his or her foot care and foot wear practices using the questionnaire part 5(a, b). Then

each participant was asked about his or her barriers to perform good foot care using the questionnaire part 6.

#### **Administrative design and Ethical Consideration:**

An official letter from the Faculty of Nursing was delivered to responsible authority of hospitals (Ain Shams University hospital), and approval to conduct this study was obtained after explanation of study aim. The researchers introduced themselves to every participant, explain the purpose of the study and assured them that confidentiality would be maintained throughout the study then a verbal consent was obtained from each participant.

#### **Statistical Analysis:**

The collected data were tabulated and analyzed by SPSS (statistical package for social science) version 17.0 on IBM compatible computer. Two types of statistics were done: Descriptive statistics: e.g. percentage (%), mean(X) and standard deviation (SD).Analytic statistic: e.g. Chi- square test ( $\chi^2$ ): Was used to study association between two qualitative variables. Fisher exact test for 2×2 tables when expected cell count of more than 25% of cases was less than P- value <0.05 was considered significant. A p-value of <0.05 was considered statistically significant.

Table (1): Distribution of the studied sample by demographic characteristics and medical data.

Biosociodemographic data	The studied sample (N=118)	
<b>Age</b> Mean± SD	47.63±9.66	
<b>Sex</b>		
• Male	60	50.8
• Female	58	49.2
<b>Educational level</b>		
• Illiterate	35	29.7
• Read and write	36	30.5
• Primary& secondary	29	24.6
• University	18	15.3
<b>Duration of DM</b>		
• <5years	37	31.4
• 5-10	44	37.3
• 10 years	37	31.4
<b>Family history DM</b>		
• Yes	81	68.6
• No	37	31.4
<b>Diabetic foot care education Experiences</b>		
• Yes	43	36.4
• No	75	63.6
<b>Other chronic disease*</b>		
• Heart disease	7	5.9
• Osteoarthritis	12	10.2
• Bronchial asthma	36	30.5
• Hypertension	52	44.1
• Cancer	2	1.7
• No	9	7.6

\*Some subjects chose more than one answer

Table (2): Distribution of the studied sample by the results of foot assessment.

Foot assessment	The studied sample(N=118)	
	No	%
<b>Past history of foot ulcer</b>		
• Yes	37	31.4
• No	81	68.6
<b>Risk factors for foot ulcer*</b>		
• Foot deformity	9	6.7
• Poor vision	20	16.9
• Previous ulcer	24	20.3
• Defective circulation	35	29.7
• Neuropathy	2	1.7
• None	39	33.1
<b>Action taken with ulcer*(N=37)</b>		
• Nothing	2	5.4
• Dressing	20	54.1
• Consulting doctor	22	59.4
• Taking medication	7	18.9
<b>Foot examination for each foot</b>		
<b>Nails</b>		
• Normal	83	70.3
• Ingrown	35	29.7
<b>Sensation</b>		
• Present	100	84.8
• Absent	18	15.3
<b>Skin of foot*</b>		
• Dry	66	55.9
• Fissure	37	31.4
• Normal	27	22.9
<b>Skin between toes</b>		
• Normal	57	48.3
• Inflamed	61	51.7
<b>Present foot problems</b>		
• Wound	8	6.8
• Swelling	50	42.4
• Redness	25	21.2
• No	35	29.7

\*Some subjects chose more than one answer

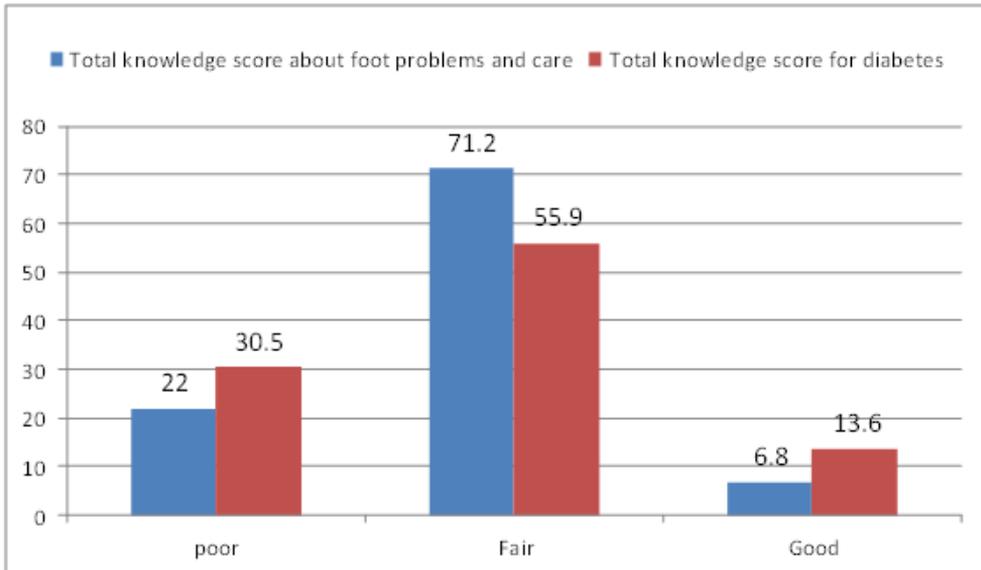


Figure (1): Distribution of total knowledge score about diabetes and foot problems and care of the studied sample.

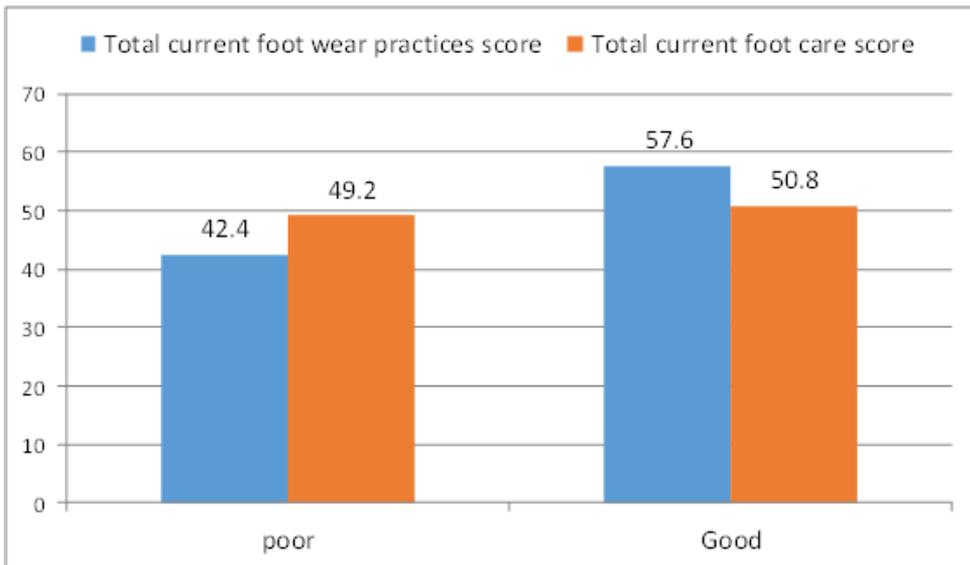


Figure (2): Distribution of total scores of current foot care practices and the current foot wear practice of the studied sample.

Table (3): Relation between total current foot care practices and the barriers for not following these practices among studied sample.

Barriers	Total current foot care practices(N=118)				X <sup>2</sup>	p-value
	Good N=60		Poor N=58			
	No	%	No	%		
• Not seeing well	33	55.0	26	44.8	1.22	0.27
• Not reach the feet	28	46.7	32	55.2	0.85	0.35
• Thinking it is not important	43	71.7	25	43.1	9.85	0.002
• Not have complete information about foot care	48	80.0	45	77.6	0.10	0.75
• Didn't know how to do the care	20	33.3	28	48.3	2.73	0.10

Table (4): Relation between current foot care practices and the educational level of the studied sample.

Educational level	Current foot care practice (N=118)				Test of significance	p-value
	Good		Poor			
	No	%	No	%		
Illiterate	12	20.0	23	39.7	10.59	0.01**
Read and write	16	26.7	20	34.5		
Primary & secondary	21	35.0	8	13.8		
University	11	18.3	7	12.1		

\*\*Significant result

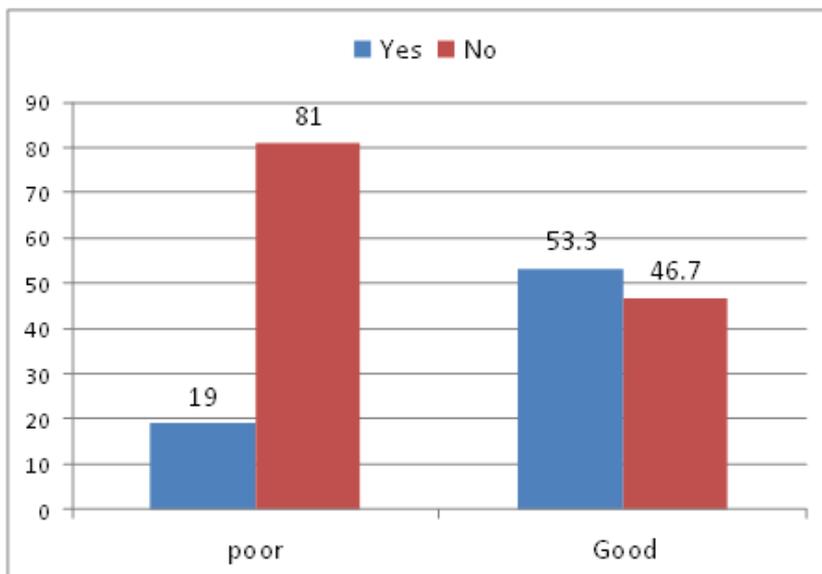


Figure (3): Relation between current foot care practices and the diabetic foot education experiences among studied sample.

Test of significance=15.04 p-value<0.001  
 Current foot care practices →YES /NO

Table (5): Relation between current foot care practices with knowledge scores of studied sample.

Patients` knowledge score	Current foot care practice(N=118)				X <sup>2</sup>	p-value
	Good N=60		Poor N=58			
	No	%	No	%		
<b>Patients` knowledge about diabetes</b>						
Good	15	25.0	1	1.7	16.2 2	*0.00 1
Fair	33	55.0	33	56.9		
Poor	12	20.0	24	41.1		
<b>Patients` knowledge about foot problems and care</b>						
Good	5	8.3	3	5.2	1.27	0.53
Fair	44	73.3	40	69.0		
Poor	11	18.3	15	25.9		

Table (6): Relation between current foot wear practices with knowledge scores of studied sample.

Patients` knowledge score	Current foot wear practice(N=118)				X <sup>2</sup>	p-value
	Good N=68		Poor N=50			
	No	%	No	%		
<b>Patients` knowledge about diabetes</b>						
Good	12	17.6	4	8.0	10.33	*0.006
Fair	43	63.2	23	46.0		
Poor	13	19.1	23	46.0		
<b>Patients` knowledge about foot problems and care</b>						
Good	6	8.8	2	4	1.27	0.53
Fair	50	73.5	34	68.0		
Poor	12	17.6	14	28.0		

## RESULTS

Table (1): Showed that, the mean age of subjects was 47.63 ±9.66 years. About half of the studied sample (50.8%) was male. In relation to duration of the disease, more than one third of them (37.3%) diagnosed from 5 to 10 years. More than two third of them (68.6%) had family history of DM. about two thirds of patients (63.6%) had no diabetic foot care education experiences.

Table (2): Showed that, more than two thirds of subjects (68.6%) didn't have foot ulcer before. About (33.1%) one third of them didn't have risk factors for foot ulcer. Majority of them had normal nails and normal sensation in the leg (70.3% and 84.8% respectively). More than half of them had dry foot skin and inflamed skin between toes (55.9% and 51.7% respectively). Regarding present foot problems, less than half of studied sample (42.4%) had foot swelling .

Figure (1): Revealed that more than half of subjects (55.9) had fair knowledge score about diabetes .Also

less than three fourth of them (71.2%) had fair knowledge about foot problems and care.

Figure (2): presented that, more than half of subjects (50.8% and 57.6%) had good practice scores about current foot care and wear respectively.

Table (3): There is no significant relation between the total current foot practices with the barrier for not following these practices.

Table (4): Showed that, more than one third of the subjects (39.7% and 34.5%) who had poor foot care practice were illiterate or can read and write respectively. While more than one third (35%) of studied sample that had good foot care practice had primary or secondary education.

Figure (3): Illustrated that, the majority of subjects (81%) who had poor foot care practice didn't have diabetic foot are education practice.

Table (5): Revealed that 55% and 73.3% of subjects who had fair

knowledge about diabetes and foot problem and care respectively had good foot care practice.

Table (6): Demonstrated that 63.2% and 73.5% of subjects, who had fair knowledge about diabetes and foot problem and care respectively, had good foot wear practice.

### DISCUSSION

Foot problems are one of the most important complications of DM. increasing public health problems and are a leading cause of admission, amputation and mortality among diabetic patients (Desalu et al., 2011).

The finding of the present study revealed that, the mean age of studied subjects was  $47.63 \pm 9.66$  years. This was near the result of Milenkovic & Gavrilovic, (2004) who reported that the mean age of their subjects was  $49.12 \pm 10.32$  years. Also Fareed, (2012), reported that the mean age of her sample was around fifty years ( $49.9 \pm 14.39$  years). Regarding sex, Fareed, (2012) and Venmans et al., (2008) found that more than half of their participants were male. This supports the findings of the current study.

Ali, (2011) reported that more than two thirds of studied subjects had a family history of diabetes. This is the exact result of the present study. With respect to other patients' chronic diseases, results of this study reported that less than half of the studied subjects had hypertension. This is supported by the finding of Grant et al., (2002) who stated that patients with diabetes often have hypertension, hyperlipidemia and other comorbidities.

In relation to risk factors for foot ulcer, it was observed that, more than two thirds of studied subjects had one or more of certain risk factors. This was near the result of Desalu et al., (2011) who reported that more than half of their subjects had some risk factors of diabetic foot. Regarding foot examination, the present study revealed that, less than 15.3% of studied subjects had decreased foot sensation and more than half of them had inflamed skin between toes. These results wear near the results of Fareed, (2012) study who reported that 18% of her subjects had decreased foot sensation and less than half of them had inflamed skin between toes.

With respect to subjects' knowledge about diabetes, the current study demonstrated that about one third of the study subjects had poor knowledge score about diabetes. This is lower than the result of Fareed, (2012) who illustrated that more than three fourth of studied sample had poor knowledge score for diabetes. This may be attributed to the differences between Fareed' score of knowledge and the present study knowledge score. On classifying the knowledge score of study participants, about diabetes foot care, Desalu et al., (2011) found that about one third had good knowledge, less than three fourth had satisfactory than three fourth had satisfactory knowledge and less than half had poor knowledge scores. These results are completely different from the current result that stated that less than one tenth had good knowledge, about three fourth had fair knowledge and less than one fourth had poor knowledge scores. This may be due to change of research setting of both researches that may affect the results.

Concerning practice score of subjects about foot care and wear practices, the present study reported that less than half of the studied subjects had poor foot care and wear practice. These results were in line with Desalu et al., (2011) who found that less than half of the sample had poor foot care practice. Also the results were near the result of Hasnain and Sheikh, (2009) who revealed that about one third of their subjects had poor practice. This poor practice of foot care in this study may be attributed to the lack of knowledge among the respondent as more than three fourth of studied sample who had poor foot care practice didn't have complete information about foot care.

In relation to self reported barriers for foot care practice, the current study revealed that the most important barrier for bad practice was the lack of information. This in line with Desalu et al. (2011) who reported that lack of knowledge about foot care was reported as the first barrier for practice. Moreover Ali, (2011) concluded that lack of training such skills contributes to inadequate self care skill. This is in agreement with the result of the present study which presented that less than half of subjects who had poor practice didn't know to do the care. From the researcher point of view this is due to there is a relation between good information and good practice due to the fact that the patients with good information about foot care were able to good practice.

As regard the relation between current foot care practice with diabetic foot care education, it was found that the majority of subjects who had poor foot care practice didn't have diabetic foot

care education experience. The relationship between education experience and foot care among diabetic patients has been observed in similar studies in India, Iran and Pakistan where illiterate patients were the least knowledgeable (Hasnain and Sheikh, 2009). It might be due to the association between education and knowledge may be due to the fact that, educated patient were able to read and understand some off educational supportive materials and also use information technology to obtain more information about the disease.

Diabetic patient behavior toward foot care was improved after educational intervention (Venmans et al., 2008). This is in agreement with the result of our study which found that more than half and about three fourth of studied subject who had fair knowledge about diabetes and foot care and problem respectively had good foot care practice. But Hasnain and Sheikh, (2009) showed in their study that there was a gap in the knowledge and practice of diabetic patient regarding foot care in diabetic clinics. Also, Milenkovic and Gavrilovic, (2004) emphasized that diabetes related knowledge not necessary mean appropriate behavior practice.

## CONCLUSION

Based on the results of this study, it can be concluded that:

The knowledge of diabetes and diabetes foot problems and care among studied subjects were fair among than half of them, while their practice about foot care and wear were good among half of them. Low level of diabetic foot care education practice has significant association with current foot care prac-

tice .Incomplete information about foot care is the most important barrier associated with poor foot care practice.

### RECOMMENDATIONS

- Based on the findings of the current study the following recommendations can be suggested:
- A diabetes self care hand book about information, foot problems, prevention and care should be available for all diabetic patients.
- Specialized team for diabetic foot care should be available in outpatient clinic to assess, prevent and manage any foot problems. Also this team should provide continuous education for diabetic patient about proper foot care.
- Long term study would be desirable to ensure long term self management behavior and improve knowledge about diabetes care with careful consideration about presence of control group.
- A replication of the study using a large probability sample from different geographical areas to attain more generalization of the results was recommended.

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## العناية الذاتية للقدم: المعلومات والممارسات والمعوقات بين مرضى السكري

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### مقدمة:

القدم السكري هي واحدة من أكثر مضاعفات مرض السكري وهي السبب الرئيسي في دخول المستشفى بينهم، وتعتبر مشاكل القدم السكري هي المسؤلة عن ما يقرب من ٥٠% من كل مرضى السكري لدخول المستشفى وبتر الاطراف و الوفيات.

### هدف البحث:

أجريت هذه الدراسة لتقييم العناية الذاتية للقدم: المعلومات والممارسات والمعوقات بين مرضى السكري.

### طرق وأدوات البحث:

### عينة ومكان الدراسة:

أجريت هذه الدراسة على العينة المتاحة والتي تكونت من ١١٨ مريض سكر بالغ من الذكور و الإناث لغرض هذه الدراسة. و قد أجريت الدراسة في العيادات الخارجية و القسم الداخلي في مستشفى عين شمس الجامعي.

### أدوات جمع البيانات:

تم جمع البيانات باستخدام أداة واحدة وتضمنت ستة اجزاء:

- البيانات الشخصية والاجتماعية.
- التاريخ الطبي و البيانات الطبية.
- معلومات المريض عن مرض السكري.
- معلومات المريض عن مشاكل القدم و كيفية العناية بالقدم و رداء القدم.
- معوقات العناية الجيدة بالقدم.

**النتائج:**

أسفرت نتائج الدراسة عن الآتي:

- متوسط العمر للمرضى  $47.63 \pm 9.66$  سنة. ما يقرب من نصف العينة (٥٠.٨%) ذكور.
- حوالي ثلثي المرضى (٦٣.٦%) لا توجد عندهم تجارب تعليمية عن كيفية العناية بالقدم السكري.
- أكثر من ثلاثة أرباع المرضى (٧٧.٦%) الذين كان لديهم قلة في ممارسة العناية بالقدم وليس لديهم معلومات كاملة عن كيفية العناية بالقدم (٨٠%).
- العالوية من المرضى (٨١%) الذين كان لديهم فقر في ممارسة العناية بالقدم السكري لم يكن لديهم معلومات عن كيفية ممارسة العناية بالقدم.
- ٥٥% و ٧٣.٣% من المرضى الذين كانوا على علم كافي حول مرض السكري و مشاكل القدم و العناية به كان عندهم ممارسة و عناية جيدة بالقدم.
- ٦٣.٢% و ٧٣.٥% من المرضى الذين لديهم معلومات كافية حول مرض السكري و مشاكله و العناية بالقدم على التوالي , كان لديهم حسن ممارسة رداء القدم.

**الخلاصة**

انخفاض مستوى تعلم كيفية ممارسة العناية بالقدم له ارتباط احصائي كبير بممارسة العناية بالقدم. المعلومات الغير كاملة عن العناية بالقدم هو المعوق الاكثر اهمية و ارتباط بسوء الممارسة بالعناية بالقدم.

**التوصيات:**

في ضوء النتائج الرئيسية للدراسة الحالية تم اقتراح التوصيات التالية:

- يجب توفير كتيب تعليمي لمرضى السكر يحتوي على معلومات عن مرض السكر, مشاكل القدم و طرق وقايتها و العناية بها.
- يجب توافر فريق رمتخصص في العيادات الخارجية لتقييم و منع و علاج أي مشاكل للقدم. و ينبغي لهذا الفريق أن يوفر التعليم المستمر لمرضى السكر حول العناية المناسبة للقدم.

٢١. المجلة المصرية للعلوم الطبية ٣٥ (١) يونيو ٢٠١٤: ٤٠٣-٤٢١.