

Evaluation of Nurses' Practices Regards Diabetic Foot Care Management at Teaching Hospitals in Al- Nasiriya city

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ABSTRACT

Background: A foot with a constellation of pathologic changes affecting the lower extremity in diabetics, often leading to amputation or death due to complications; the common initial lesion leading to amputation is a non-healing skin ulcer, induced by regional pressure, pathogenically linked to sensory neuropathy, ischemia, infection.

Objective: to evaluate the nurse's practices care management for patients with diabetic foot at Teaching Hospitals in Nasiriyah City.

الخلاصة:

خلفية البحث: قدم مع مجموعة من التغيرات المرضية التي تؤثر على الأطراف السفلية في مرضى السكري، غالباً ما يؤدي إلى البتر أو الوفاة بسبب المضاعفات، الآفة الأولية الشائعة التي تؤدي إلى البتر هي تقرحات جلدية غير قابلة للشفاء الناجم عن الضغط الإقليمي، المرتبط بشكل مرضي بالاعتلال العصبي الحسي، نقص التروية، العدوى.

الهدف: لتقييم اداء الممرضين في العناية وادارة حالات قدم السكري في المستشفيات التعليمية في مدينة الناصرية.

المنهجية: تم تنفيذ التصميم التحليلي الوصفي بمستشفى الناصرية التعليمي للفترة من 21 / ديسمبر / 2020 إلى 1 / فبراير / 2021، على عينة تتكون من (100 ممرض) يعملون في وحدات الجراحة ووحدات الكسور.

النتائج: تظهر نتائج هذه الدراسة أن ممارسات الممرضين للمرضى الذين يعانون من حالات القدم السكرية كانت متوسطة تم العثور على علاقة ذات دلالة إحصائية بين الممارسة وبعض الخصائص الديموغرافية وهي: العمر وسنوات الخدمة في التمريض ومكان العمل، ولم توجد علاقة بين الممارسة والتأهيل التعليمي والجنس.

الاستنتاجات: كانت ممارسة الممرضين المتعلقة بإدارة القدم السكرية متوسطة المستوى، ووجد أن هناك علاقة بين الممارسة والعمر وخدمة التمريض ومكان العمل.

التوصيات: أوصت الدراسة بوضع برامج لفحص وتنظيف الممرضين في المجال الصحي لتحسين ممارساتهم وتحسين الرعاية الصحية، حيث يلعب التعليم دوراً مهماً في الوقاية من القدم السكرية. لذلك، يجب على الممرضين المشاركة في إعداد وتنفيذ البرامج التعليمية.

الكلمات المفتاحية: ممارسات الممرضين، القدم السكري.

Methodology: A cross-sectional descriptive study evaluation of nurses' practices regards diabetic foot Care management at teaching hospitals in Al-Nasiriya city is conducted through the period from 21th \ December \ 2020 to 1st \ February \ 2021, on a total population sample consisting of (100 nurses) working in Surgical units and fracture units.

Results: The results of this study show that nurses' Practices for Patients with Diabetic Foot were moderate. A statistically significant relationship was found between practice and some demographic characteristics: age, years of service in nursing and

workplace, and there was no relationship between practice, educational qualification and gender.

Conclusion: nurses' practice related to diabetic foot management was moderate level and it was found that there is a relationship between practice, age, nursing service and workplace.

Recommendation: The study recommended that can Developing programs for examining and

INTRODUCTION

Diabetes mellitus of among the chronic diseases, with increased mortality rate every year. Therefore, it is necessary for health care providers for diabetes patients Attention and quality health care this is because the poor of control and control in the increase in blood sugar level leads to many dangerous complications, including nephropathy, retinopathy, neuropathy, coronary artery disease and peripheral vascular disease. One of the most common complications is diabetic foot, where patients lose pain and temperature as a result of neuropathy and other contributing factor to diabetic foot is Peripheral nervous system, vascular Peripheral disease, limited movement of the joints and repeated shocks from the distribution of abnormal load on the foot, and this will lead to one of the main problems that force diabetic patients to enter hospitals, which is diabetic foot, feared to occur because it leads to amputation in particular ⁽¹⁾.

Surgical treatment, antibiotic treatment, wound care, treatment of metabolic and co-morbid problems, and more regular evaluation of treatment response, patient education, prevention and orthotics / prosthetic management are the tenets of treatment for diabetic foot infections. A multidisciplinary approach to teams is imagined. Diabetes is a lifelong epidemic. With the length of the condition, the incidence of diabetic foot complications increases. Patients must also be educated to recognize that a lifetime monitoring program is needed to avoid

educating nurses in the field of health in order to improve their practices and improve health care, as education plays an important role in preventing diabetic foot. Therefore, nurses must participate in the preparation and implementation of educational programs.

Keyword: Nurses' Practices, Diabetic Foot.

repeated episodes of any of these complications. Aspects of a program for diabetic foot prevention include ⁽²⁾.

Among the factors that increase the risk of developing diabetic foot are high blood pressure, alcohol, smoking, hyperlipidemia and obesity, as well as visual impairment must be examined in patients, as the assessment of the foot and its treatments aim to prevent cases of foot ulceration and amputation. There are other factors that increase the risk of developing diabetic foot, deformation of the foot, previous foot ulceration, amputation of the foot or leg, chronic recurrent erosion, slight erosion, irritation of various bubbles, improper cutting of the toenails, fungal infection, poor foot hygiene and wearing unsuitable shoes for use and thus There are social, psychological and financial impacts on the patient through studies it was found that diabetic foot is responsible for about 50% of all lower limb amputations, as foot ulcers cause infection, gangrene, amputation and death if good health care is not provided and taken into consideration bearing in mind that nurses have a basic and important role in reducing and preventing foot ulcers and lower limb amputations through educational interventions, examining people at high risk and providing health care, as diabetic foot increases the rate of mortality and disease, and diabetic foot problems cause patients to lose work / income and hinder their endeavors. Educational and harm to social relations

and also cause psychological damage to patients as wound healing is less and slowly .Therefore, risk factors must be controlled. All diabetic patients must be examined at least once every year. If one of the potential factors for diabetic foot is found, the examination must be repeated from 3-6 Educate patients and caregivers it is expected that the prevalence of diabetes in all parts of the world will increase from 2.8% in 2000 to 4.4% in 2030, which means that 366 million people will be affected through this study. An assessment of the responsible nurses was conducted. This study aimed to assess the role of good education provided by the experienced nurses in about diabetic foot cases in order to know their practices and knowledge about diabetic foot and provide them with sufficient and good information in order to perform their work well and provide good health care to patients ⁽³⁾.

AIMS OF THE STUDY

To evaluate the nurse's practices care management for patients with diabetic foot at Teaching Hospitals in Nasiriyah City. To find out the relationship between nurse's practices care management for patients with Diabetic foot and Sociodemographic Characteristics among nurses working in the Teaching Hospital in Nasiriyah city.

METHODOLOGY

- **Study Design:** A cross-sectional descriptive study evaluation of nurses' practices regards diabetic foot Care management at teaching hospitals in Al-Nasiriya city is conducted through the period from 21th \ December \ 2020 to 1st \ February 2021, on a total population sample consisting of (100 nurses) working in Surgical units and fracture units.
- **Study Setting:** The current study was conducted on the nurses who are working at teaching hospital in AL- Nasiriyah City, which is Al- Habbobi teaching hospital. This hospital includes different units and departments as follows: Surgical units and fracture units. The reason for taking one Teaching Hospital in where the decision was to take Al-Hussein Teaching Hospital and Al-Haboubi Teaching Hospital, but because of the Corona pandemic, as Al Hussein Teaching Hospital was a place to isolate Corona patients and did not receive any patient's only Corona patients.

RESULTS

Table (1): Study Sample Demographic Data (N= 100)

Basic Information	Groups	Frequency	Percent
Age groups	20 – 25	43	43.0
	26 – 30	32	32.0
	31 – 35	6	6.0
	36 – 40	9	9.0
	41 and more*	10	10.0
	Total	100	100.0
	$\bar{x} \pm S.D.$	21.1 ± 1.325	
Gender	Male	23	33.0

	Female	77	77.0
	Total	100	100.0
Social status	Single	39	39.0
	Married	58	58.0
	Widower	2	2.0
	Absolute	1	1.0
	Total	100	100.0
Nursing qualification	Nursing School	37	37.0
	Diploma	32	32.0
	Bachelors	31	31.0
	Postgraduate	0	0.00
	Total	100	100
Years of Nursing Service	1-5	69	69.0
	6-10	15	15.0
	11-15	4	4.0
	16-20	5	5.0
	21 and more	7	7.0
	Total	100	100.0
Place of Work (Department or Hall):	Medical Wards	60	60.0
	Surgical Wards	40	40.0
	Total	100	100.0
Shift work	Day	91	91.0
	Night	6	6.0
	Both	3	3.0

This table indicated that 43 (43.0 %) of the nurses within age group of (20-25) years with mean of (21.1) years. Concerning to the gender, the greater number of study sample are 77 females and account for (77.0 %).

The social status the most of study sample were 58 married and account for (58.0 %) of all study sample. Regarding to the level of education, the greater number of them with nursing school graduated and they are accounted for 37 (37.0 %) of the sample. With respect to the working shift, the majority of the sample were work at day time shift and they accounted for 91 (91.0 %) of the whole sample.

In regarding to the years of nursing service the majority of study sample were have (1-5) and account for 69 (69.0%) of all study sample.

In relation to the place of working of nurses who were cooperative in the study was work at medical wards account for 60 with (60.0 %) among all studies.

Table (2): Distribution the Evaluation of Nurses' Practice Level on Diabetic Foot Management Study Group

Knowledge	MS	Level of Evaluation	Frequency	Percent
Nurses' Practice Level on Diabetic Foot Management Study Group	20	Good	0	0
	(20.1 –40)	Fair	87	87.0
	(40.1-60)	Poor	13	13.0
	Total		100	100.0

Table 2 shows the Evaluation of Nurses' Practice Level on Diabetic Foot Management to the mean of score 87 (87.0 %) of Study Sample.

Table (3): Evaluation of Nurses' Practice Level on Diabetic Foot Management Study Group

No.	Items Related To Nurses' knowledge	Statistics		
		M.S.		
1	The nurse checks the feet daily with eyes, hands and mirrors (redness, blister, open wound, etc.)	2.09	0.753	M
2	The nurse washes the feet with warm water every day	1.88	0.742	M
3	The nurse checks the temperature of the water used to wash the feet with a special thermometer.	1.48	0.559	M
4	The nurse dries the feet, especially the spaces between the toes, well after each wash in order to keep the toes dry to protect them from the growth of fungi	2.06	0.763	M
5	The nurse puts a moisturizing cream on the feet in an appropriate proportion.	1.95	0.500	M
6	The nurse teaches the patient how to take medicines regularly	2.36	0.523	M
7	The nurse does not use cutting tools and chemicals to remove corns or skin areas	2.00	0.636	M
8	The nurse selects the appropriate and appropriate shoes	1.93	0.782	M
9	The nurse performs exercises in the form of twisting and extending the toes several times a day to prevent corns from forming.	1.48	0.502	L
10	The nurses put on the socks to warm the feet, and the socks are soft and cotton exclusively.	1.47	0.540	L

High (mean 2.34-3.00), moderate (mean 1.68-2.33), low (mean 1-1.67).

Table 3 shows that information of study sample were presented moderate level of practice toward the diabetic foot management in about more than half of study sample except items (9 ,10 and 13) were presented as moderate level of practice toward management of diabetic foot.

DISCUSSION

- Part I: Discussion of the Nurses' Demographic Characteristics of the Study Sample, as Shown in Table (1)

results of the data analysis shown in Table (4-1) indicate that the majority of the nurses were Females, compared to other studies. Supportive evidence was found that the nurses were more than half of the research sample and the percentage of married participants was the highest percentage than the rest, as the number of married participants was 58, the researcher's belief that the reason is that the

participations rate of the females were higher than of the males, because the acceptance of females to participate in the research was more than males which is similar to the findings (4).

Looking at the results in relation to the age of the participants, where the average age was between 20-60 years, and about 43 nurses were aged between 20-25 years, and about 32 nurses were aged 26-30 years and this indicates that the Nasiriyah community is young and this may reflect that many nurses have retired from work and new nurses have enlisted to

word in the field of nursing which is similar to the findings ⁽⁵⁾.

As for the nursing qualification, the percentage of participants was close in terms of nursing qualification, as the nursing school was 37%, diploma 32% and bachelor's degree 31%, and the researcher believes that the reason for this is the close ratio, as it was in the city of Nasiriyah, a nursing school, which later was closed and graduates with a diploma and a bachelor's degree. Upon analyzing the results related to years of experience, it was found that most of the participants are those whose service in nursing ranges 1-5 years. In the opinion of the researcher, these participants are considered at the beginning of their service in nursing and wish to gain any information or any experience that would help them develop their career in nursing and in order to provide the best care to the patient. Also, this finding was in consistent with ⁽⁶⁾.

- Part II: Discussion of the Overall Nurse's Practices for Patients With Diabetic Foot Care Management, as Show in Tables (2and 3)

The results of the data analysis showed. That studies the practice of nurses towards the diabetic foot, as it was found that most of the paragraphs were of a moderate level in terms of the nurses 'practice towards the diabetic foot. The researcher's belief

during observation that this level is low because some nurses do not apply these practices and leave them to the patient's relative to perform them because most of the hospital's policy allows the patient's relative to apply most of the practices that are required by them. This finding was similar with ⁽⁷⁾.

CONCLUSION

Nurses' practice related to diabetic foot management was moderate level and it was found that there is a relationship between practice, age, nursing service and workplace. The percentage of female participants was more than males, as well as that most of the participants ranged in age from 20-30 and most of them graduated from the nursing school.

RECOMMENDATIONS

Developing programs for examining and educating nurses in the field of health in order to improve their practices and improve health care, as education plays an important role in preventing diabetic foot. Therefore, nurses must participate in the preparation and implementation of educational programs.

REFERENCES:

1. Chimney, S., & Pout, R., N. (2015). Diabetes in Nigeria – A translational medicine approach, *African journal of diabetes medicine*. 23(1): 7 – 9.
2. Boulton, A., M., Meneses, P., & Ennis, W., J. (2017). Diabetic foot ulcers, a framework for prevention and care, *Wound Rep. Reg.* 7:7- 17.
3. Rahim, P., J. (2017). A study to assess the knowledge regarding foot care among diabetic patients attending OPD'S at selected hospitals of Luck now, *International Journal of Nursing and Health Science*. 3(2), 7-9.
4. Kim, Y. K., Park, K. H., Lee, J. J. J., Kim, J. H., & Song, H. J. (2020). Knowledge and Practice Regarding Diabetic Foot Prevention Care among Care Helpers in Long Term Care Facilities, *Journal of muscle and joint health*. 27(2), 160-168.
5. Burggren, A. C., Siddarth, P., Eyre, H. A., Small, G. W., & Merrill, D. A. (2018). Sedentary behavior associated with reduced medial temporal lobe

- thickness in middle-aged and older adults. *PloS one*, 13(4), e0195549.
6. Bus, S., A., Van Netten, J., J., & Lavery, L., A. (2016). Guidance on the prevention of foot ulcers in at-risk patients with diabetes. *Diabetes / Metabolism Research and Reviews*, vol. 32, 1, p.p. 16–24.
7. Heyes, S., Kasiya, M., M., & Mang, G., D. (2017). The challenge of diabetic foot care: Review of the literature and experience at Queen Elizabeth Central Hospital in Blantyre, Malawi, *Malawi Medical Journal*. vol. 29, no. 2, p.p. 218–223.