Section A -Research paper

Social support and patterns of diabetic foot ulcer Among Elderly patients

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Abstract

Background: Diabetic foot ulcer is one of the frightened complications of diabetes and is the leading cause of hospitalization among diabetic patients. Social support has a direct effect on wellbeing, promoting the improvement of the psycho-emotional aspects of individuals in the health disease. **Aim:** The present study aimed to assess was to assess social support and patterns of diabetic foot ulcer among elderly diabetic foot ulcer patients. **Design:** A descriptive design was utilized to conduct the present study. **Setting:** The present study will be conducted at surgery and diabetic foot outpatient clinics at Zagazig university hospitals. **Sample:** A purposive sample composed of 200 elderly patients with diabetic foot ulcer. **Tools:** Two tools were used in the present study. Tool (I): A structured interview questionnaire which composed of three parts **Part one:** Sociodemographic characteristics of the studied elderly, **Part two:** Clinical profile of the studied elderly. **Part three:** Self-care practices before ulceration. Tool **II:** Social support subscale. **Results:** The present study results revealed that 59.5% of the elderly DFU patients had moderate level of social support. 43%) of the studied patients had a foot ulcer with partial thickness wound up to but not through the dermis grade. The majority (83.5%&83%) of them had one ulcer. or an ulcer for five to seven months respectively. Almost two third (67%) had the ulcer in the plantar surface of foot. **Conclusion:** Pertaining to social support, it tended to be moderately received by elderly diabetic foot ulcer patients, a statistically significant positive correlation was found between the studied patients` total diabetic foot ulcer classification and their total social support. **Recommendations:** Counseling sessions to provide emotional support to elderly DFU patients.

Keywords: Social support, Patterns, Diabetic foot ulcer, Elderly.

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Introduction:

people worldwide are living longer. Today most people can expect to live into their sixties and beyond. By 2030, 1 in 6 people in the world will be aged 60 years or over. By 2050, the world's population of people aged 60 years and older will double (2.1 billion). The number of persons aged 80 years or older is expected to triple between 2020 and 2050 to reach 426 million **(World Health organization [WHO], 2022).**

Egypt's elderly people account 6.9 million which represents 6.6% of total population [3.7 million males, which represents about 6.9% of total male population and 3.2 million females, which represents about 6.4% of total female population] **(Central agency for public mobilization and statistics [CAPMAS], 2022).**

Diabetes mellitus (DM) is a major endocrine -related disorder and constitutes a public health problem affecting older people and the leading cause of morbidity and mortality worldwide. Global diabetes incidence is increasing rapidly, this rise in prevalence of DM is likely to bring a concomitant increase in its complications among diabetic patients. One important complication of DM is Diabetic foot ulcer (DFU); this complication constitutes an increasing public health problem and is a leading cause of hospital admission, amputation and mortality **(Desalu et al., 2022).**

The prevalence of foot ulcers among diabetic elderly is 4% to 10%, the annual population-based incidence is 1.0% to 4.1%, and the lifetime incidence may be as high as 25%. In Egypt, 6.1% to 29.3% of diabetes patients have DFU. It is difficult to manage ulcers in the diabetic foot without a standardized classification system. There are numerous existing classifications, but none is universally accepted. Classification systems grade ulcers according to the presence and extent of various physical characteristics, such as size, depth, appearance and location. They can help in the planning and monitoring of treatment and in predicting outcome **(Frykberg, 2022).**

Senior is a distinctive experience, with possible health hazards such as an increased risk of chronic diseases and lack of social support. There are four categories of diabetes-related social support, Instrumental (tangible), emotional, informational, and appraisal. For patients with chronic diseases, daily activities and social support (supplied by family members, neighbors, and friends and institutions) are of great importance for maintaining a satisfactory quality of life. Social support and integration in the community are important factors, which help patients to be adjusted to a chronic illness including DFU **(Cohen et al., 2023)**.

Nursing care of diabetic foot involves a variety of unique functions, skills and responsibilities that are essential in assessing, understanding and safety supporting elderly patients and their families. Using the therapeutic relationship, Geriatric nurse can provide a range of services including education, research and knowledge sharing, evidence informed practices; system navigation and communication. Geriatric Nurses must anticipate problems and systematically evaluate DFU patients to identify any new problems as early as possible. Previous research linking perceived social support and DFU self-care illustrated that that better social support is associated to better patient, better medical adherence, and improved glycemic control **(Ikeda et al.,2022)**. approaches and procedures **(Game, 2023).**

Significance of the study;

Diabetic foot ulcer is considered a prominent cause of death in seniors. Diabetes foot ulcers accounted for 85% of lower limb amputations followed by a mortality rate ranging from 24.6% within five years to 45.4% within ten years in elderly, so it may have negative impacts on the patients, family and community in large **(Adam et al., 2020)**.

DFU is complex to treat, take months to heal, result in poorer quality of life, and place patients at high risk of hospitalization and amputation. Thus, understanding the influence that different factors have on healing of DFUs is vital **(Zhang et al.,**

2021). Management of changes that accompany chronic disease states requires specific care and sometimes additional social support (SS) from family members, health professionals or others **(Figueira et al., 2021).**

The current study aimed to assess social support and patterns of diabetic foot ulcer among elderly.

Research Questions:

1-What are patterns of diabetic foot ulcer among elderly diabetic patients?

2-What are the categories of social support among elderly patients with diabetic foot ulcer?

3.What is the relation between social support, self-care practices and pattern of diabetic foot ulcer?

- **Research design:** The current study aimed to assess social support, self-care practices and patterns of diabetic foot ulcer among elderly patients. **Setting:** The study was conducted at surgery and diabetic foot outpatient clinics at Zagazig university hospitals.

Subject: A purposive sample of 200 elderly patients with diabetic foot ulcer attending the above-mentioned outpatient clinics and fulfill the following inclusion criteria:

- 60years old and more, able to communicate
- Agree to participate in the study.
- Independent in activity of daily living

Tools for data collection:

Two tools were utilized to collect the required data:

Part 1: Tool 1: a structured interview questionnaire which consisted of three parts;

Part one: Tool I: Sociodemographic characteristics. It included data about age, sex, residence, income, educational level, marital status, number of family members, monthly income, ...etc

Part two: Patients' clinical profile It included patients' clinical characteristics as comorbid conditions, medications, family history of diabetes, habits including smoking ……. etc

Part three: Self-care habits before ulceration. This part is divided into five main subitems they are: Foot care, Wound care, Follow up, Previous history of foot problems, Current history of foot problems.

Tool 11: Tool II: Diabetic foot ulcer Classification by **Wagner (1981**)

The Wagner classification is one of the most famous valid classifications for diabetic foot ulcers. Foot ulcer grades are as follows:

• 0= pre-ulcerative or post ulcerative site (no ulcer).

• 1= Partial -thickness wound up to but not through the dermis. (superficial ulcer).

• 2= Full thickness wound extending to tendon or deeper subcutaneous tissue but without bony involvement or osteomyelitis (ulcer with deep infection but no bone involvement).

• 3= Full thickness wound extending to and involving bone (ulcer with osteomyelitis).

• 4=localized gangrene.

Scoring system: There are four grades of wound severity according to Meggitt Wagner system: Grade 1 ulcers was scored with 1 point, grade 2 with 2 points, grade 3 with 3 points, and grade 4 with 4 points. Except gangrene of the whole foot was excluded.

Tool III: Social Support subscale

It was developed by **Krause and Markides (1990),** based on Inventory of Socially

Supported Behaviors (ISSB) of Barrera (1983). It includes nineteen questions related to family and friend social support. This part was categorized into four domains they are:

•Emotional/ Informational support variables (question 1-8) as Someone you can count on to listen to you when you need to talk, someone to turn to for suggestions about how to deal with a personal problem, etc.,)

•Tangible support variables (question 9-12) as someone to help you if you were confined to bed, someone to prepare your meals if you were unable to do it yourself)

• Affectionate support variables (question 13-15) as someone who shows you love and affection, someone to love and make you feel wanted, etc.)

•Positive social interaction variables (question 16-18) as Someone to have a good time with, someone to get together with for relaxation etc.)

•Additional item (question 19) as someone to do things with to help you get your mind off things). These questions (Q1 to 19) were in the form of closed ended questions (multiple choice questions). Scoring system: The level of social support was assessed using three-point Likert scale ranging from:

•None of the time :1

•A little of the time: 2

•Most of the time: 3

A total score was estimated using the 19 general items; where applicable, a 19-item total score including the optional items was calculated. The total score of the total scale was the sum of the five dimensions. The total score ranged from 19 to 57. The higher score indicated higher level of social support. Level of support was categorized as follow:

•High social support: >70% (> 40 point)

•Moderate social support: 50-70% (28 to 40 point)

•Low social support: <50% (< 28 point)

Administrative design and Ethical considerations:

Firstly, the study proposal was approved by the Research Ethics Committee (REC) and Postgraduate Committee of the Faculty of Nursing at Zagazig University (Appendix VI). Then, oral informed consent for participation was obtained from each subject after full explanation of the aim of the study. Participants were given the opportunity to refuse participation, and they were notified that they could withdraw at any time of filling out the questionnaire. Anonymity of each elderly was protected by the allocation of code number for each elderly. They were assured that the information would be confidential and used for research purpose only. Before starting any step in the study, an official letter containing the aim of the study was issued from post graduates affairs at faculty of nursing Zagazig University to the director of out-patient clinics in Zagazig University Hospitals explaining the nature and aim of this study and seeking cooperation facilitating the role of researcher in data collection.

Pilot study:

A pilot study was carried on 20 elderly patients at diabetic foot outpatient clinic in Zagazig University Hospitals. The purposes of the pilot study were to test applicability, feasibility and practicability of the tools. It also, helped to estimate the time needed to fill out tools of data collection. According to the results of pilot study no modification was made. so, those who shared in the pilot study were involved in the study sample.

Validity and Reliability:

The tools were revised by three experts in the field of community health nursing, Faculty of Nursing in Zagazig University and community medicine, Faculty of medicine Zagazig University, where the panel reviewed the tools content for relevance, clarity, comprehensiveness and understandability. All recommended modifications were done.

reliability of the items of the tools was assessed using Cronbach's alpha test, it' s results was 0.901 for elderly social support which indicate an accepted reliability of the tool.

Statistical analysis:

Data collected from the studied sample was revised, coded and entered using Personal Computer (PC). Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages and Mean ±SD. A correlation coefficient "Pearson correlation" was used to measure the relationship between two variables. Chi-square (χ^2) was used to determine the relationship between categorical variables. Linear regression analysis was used to predict the value of a variable based on the value of another variable.

Result

Table (1) Table (1): Sociodemographic characteristics of elderly diabetic foot ulcer patients the studied patients., (n=200) revealed that the studied elderly` mean age was 64.82±3.57 and 53% of them their ages ranged from 60 to less than 65 years old. Also, 67% of them were males and 60.5% of them were married. As regards education level, 42.5% of them had secondary education and 21% of them read and write. Concerning professions before retirement, 57% of them were employees and all of them reported not working currently. Regarding their monthly income, 91% of them reported that it is not enough.

Table (1b) declares that 69.5% of the studied patients reported pension as a current source of income. Moreover, 72.5% of them reported living with the family and 84% of them had 3 to 4 family members. Also, 69% of them lived in rental house with less than four rooms and 64.5% of them lived in house with room from 2 to 4. As regards source of receiving health care, 68% of them reported governmental health. Concerning the persons caring for them, 83% and 57.5% of them reported sons and spouses respectively. Also, 44.5% of them reported that the person who provides them with care reside in the same house.

Figure (1) depicts that 59.5% of the studied elderly had moderate social support while 26.5% of them had high social support, and 14% of them had low social support

Table (2): demonstrates that 41% of the studied patients reported suffering from diseases rather than diabetes and 64.6% & 47.6% of them suffered from hypertension and cardiac diseases respectively. Regarding mean time of suffering from it since diabetes, it was $\bar{x}$ S.D 17.32±1.93 and 63.5% of them suffered from 15 to less than 20 years. Additionally, 23% of them reported having family member with diabetic foot with a degree of kinship father (76.1%). Furthermore, 94.5% of them had insulin as a diabetic treatment and 30.5% of them were smokers.

Table (3): shows that 50.5% of the studied patients reported cleaning the wound with warm water if having a wound on foot or when trimming nails and only 28.5% of them followed up with the doctor on a regular basis. Moreover, 93.5% of them went for a foot exam once a year, only

28.5% of them visited the diabetes clinic periodically and 71% of them took diabetes treatment on time.

Table (4): shows that 85.5% of the studied patients got a foot wound and it took more than two weeks to heal, 73.7% of them reported washing wound with warm water and applying disinfectant, and 48.5% of them reported that the wound turned into a sore when getting a foot wound. Furthermore, 84.5% of them reported washing the wound with warm water and applying disinfectant when it was discovered and 42.5% of them went to the doctor when they discovered the wound after 10 days. Also, 69% of them had their wound worsen. Additionally, 57.5% of them had a history foot ulcer with frequency of 1 to 2 times (80.9%).

Table (5) declares that 43% of the studied patients had a foot ulcer with partial thickness wound up to but not through the dermis grade. Moreover, 83.5% of them had one ulcer, 67% of them had an ulcer at planter surface of foot and 83% of them had an ulcer for five to seven months.

Table (6) clears that the studied elderly received mainly moderate social support (59.5%) totally. While they had high Affectionate support, and tangible support (30.5% & 28%) respectively, they had moderate emotional /informational support (61.5%).

Table (7) indicates that female gender, age, and being married are independent positive predictors of total social support. the results of r-square shows that the model accounts for 38% of the variation in this score.

Table (8) reveals a statistically significant relation between the studied elderly patient ` total social support and their age (p= 0.003**), gender at (p= 0.001**), and marital status (p= 0.021*). Conversely, there is no statistically significant relation between the studied patients` total social support and their educational level and monthly income (p> 0.05). This means that those aged 65-<70 years received high total social support, also those females, married, having secondary education, and not enough income

Table (9) clarifies a significant statistical positive correlation between the studied patients` total diabetic foot ulcer classification and their total social support (p = .001)

Discussion

Diabetic foot ulcer (DFU) is a major medical, socioeconomic problem and a leading cause of morbidity and mortality, especially in the developing countries. Following a diagnosis of diabetic foot ulcer, more intensive surveillance and aggressive care by a multidisciplinary team involved in diabetic foot care may improve patient's outcome and reduce risk of the amputation **(Zubair, et al., 2023)**. Self-care practice (SCP) is necessary therapeutic treatment that aims to improve the pathological, psychological, emotional and social domain, in order to cure chronic disease patients **(Mayberry & Osborn, 2022).**

On the other hand, a good social support can provide protection from bad disease prognosis. in addition, people with positive self-care practices value the accessibility to social and familial support. When patients are more likely to openly communicate with their families about their emotional and physical needs, this behavior further improves the adjustment to DFU **(Blanco et al, 2023)**. Therefore, the aim of this study was to assess social support, self-care practices and patterns of diabetic foot ulcer among Elderly patients.

Concerning age, the present study revealed that studied elderly mean age 64.82±3.57 years. This result might be attributed to the fact that diabetic foot

problems are unusual in young age patients, and occur most commonly in those aged 60 years and older. However, **(Charles & Thomas, 2022)** reported that duration and control of diabetes are greater predictors of diabetic foot problems than chronological age. This finding is in agreement with **Al-Sayah et al. (2022)**, in Canada, who studied experience in diabetic foot management, and stated that the mean age of the patients presented with diabetic foot ulcer in the study was 64.75 ± 3.53years years.

Concerning duration of being diabetic, the present study results revealed that, slightly less than two third of patients included in the study were diabetic since 15 to less than 20 years with mean 17.32±1.93 years. This long disease duration could explain the relatively DM-related complications among them. It is known that the complications of diabetes, especially the neuro vascular problems (e.g. DFU) increase with advancing age. This result agrees with the result of **Baye et al. (2022)** in Babol, North of Iran: who found that 65% of patients in their study were diabetic for 11-20 years and in accordance with **Abd Elrazak (2021)** in Tanta, Egypt, who reported that about one half of patients had diabetes of more than five years, and this finding might be due to the chronicity of the disease.

Concerning the answer of research question regarding pattern of DFU (wound grade), according to Wagner's classification, the present study results showed that less than one third of the patients in the study had wound grade two. This might be attributed to poorly managed diabetes, advancing age, long history of diabetes, changing shoes when slippers are damaged, ill-fitting foot wear (only 1% wear diabetes socks), commonly loss of sensation, poor circulation, poor foot care, this may increase the risk for recurrence of DFU with bad pattern, unsatisfactory self-care practices or lack of social support.

This result disagrees with **Kaewloet (2022)**, who found that 57.3% of the sample had grade two but this result disagrees with **Phillipo et al. (2021)**, in United Kingdom (UK), who found that Wagner's grade 4 and 5 ulcers (gangrenous diabetic foot ulcers) were the 89,5% prevalent at 29.4% and 23.5% respectively.

As for wound duration, the present study revealed that the duration of wound for the majority of the elderly patients in the study ranged from 5 to7 months. This might be attributed to start caring for wound at a delayed stage, advanced age and having other comorbidities that affect wound healing. This result is inconsistent with **Soliman (2022)** at Ain shams, Egypt, who found that 82% of the elderly patients' DFU wound duration was >7 days- 1 month.

Regarding wound location, the results of the present study revealed that the location of wound was on the planter surface of foot among around two third of the elderly patients in the study. Possible explanation is that this area is the most common site which encounters repetitive trauma and pressure sensation. This result was in agreement with **Schie et al. (2022)**, who reported that 100% of the elderly patients had ulcers at the plantar surface of the foot.

Concerning the answer of research question regarding categories of social support, the results revealed that more than half of patients reported receiving moderate level of social support. Possible explanation is life concerns that make caregivers unable to communicate and share their psychological stress and feeling about social support need, for instance maybe due to heavy work obligations or frequent absence from home. In the same line, **Al Dawish et al. (2022)**, in Saudi Arabia, studied quality of life among elderly DFU patients and clarified that elderly DFU patients with low social or a weak social network have been

found to be less likely to receive proper help and social support was at a moderate level.

Concerning answering question regarding categories of social support, the results revealed that that more than half of elderly patients received moderate level of emotional /informational, positive social interaction, affectionate support, tangible support and additional item. A possible explanation is low economic status of caregivers and highly disease costs. In this context, **Emerenziani et al. (2021)**, in Italy, studied quality of life among elderly DFU patients, clarified that DFU patients with low social or a weak social network have been found to be less likely to receive proper help and emotional /informational social support, positive social interaction and were at a moderate level.

Social support and sociodemographic characteristics:

I. Gender and social support:

The present study revealed significant relation between social support of elderly DFU patients and their gender .it was found that female gender was an independent positive significant predictor for social support. A possible explanation is that female patients sought more support in their social surroundings than male patients. Furthermore, **Bi et al. (2020)** showed that elderly female patients have relatively richer social activities, thus have more social support.

II. Age and Social support:

The present study revealed significant positive relation between social support of elderly DFU patients and their age. The patient's age was independent positive predictor for social support. This might be due to increasing in age lead to receiving more support through social resources. Congruently, **Abbasi et al (2021)** investigated the relationship between social support and coping with stress in elderly patients with DFU and determined that increasing in age lead to more use of social resources that lead to higher social support and younger patients had lower level of social support.

III. Marital status and social support

The present study revealed significant positive relation between social support of elderly DFU patients and their marital status. This indicated that relationships as marriage can provide more sources of support, As having family is considered the most common source of support. In this context, **AlKaabi et al. (2023)** study about coping strategies among young adults and the elderly with DFU, found that married patients sought more support in their social surroundings than unmarried patients.

IIII. Educational level and social support:

The present study revealed no significant relation between social support of elderly DFU patients and their educational level. Possible explanation is that social support is considered a gift from others irrespective of anything. In accordance with this result, **Song et al. (2022)** in Shanghai, China, found that educational level of elderly DFU patients has no influence on social support. On the other hand, this result is in contrast with **Ahmady et al. (2022)** in Rasht, Iran who found that level of education can affect social support among elderly DFU patients.

V. Monthly income and social support:

The present study revealed no significant relation between social support of elderly DFU patients and their monthly income. This might be due to the impact of social support on income may vary across different cultures, social connections and support networks may play a more

significant role in determining financial success, while in others, individual effort and qualifications may be influential, in addition social support and monthly income may be independent variables, meaning that one's level of social support doesn't directly influence their monthly income. While social support can have various positive effects on well-being and mental health, it may not necessarily result in increase in income. in addition to social support is important for the everyday survival of low - income families, but is of limited value as a means of economic mobility.

On the contrary a study of **Ayfer and Sureyya. (2022)** in the United States revealed that socioeconomic status is considered one of the positive factors in elderly patients of DFU successful social support.

Correlation between the studied variable:

I. Correlation between social support, self-care practices:

Concerning the answer of research question regarding correlation between social support and self-care practices, a statistically significant positive correlation between social support and self-care practices. Moreover, living with family is a factor that has a positive influence on patient's practice. This might be explained by support that the patients get from their families in adhering to healthy practices and instructions. Social support also helps patients in the management of their disease through reminding about medications as well as in the various aspects of foot care. In congruence with this, a study in India by **(Chavan et al., 2021)** revealed low adherence to DFU management among diabetic elderly patients, and this was attributed to their lack of social support.

In agreement with this, a study in Iran provided evidence on the impact of social support in improving the health behavior and adherence of elderly patients with DFU **(Tabasi et al., 2022)**. Moreover, **Mayberry and Osborn. (2022)** in the United States of America showed the positive effect of social support in elderly DFU patients' self-care practices. In the same line, **Santos et al. (2021)** study in Tres Lagoas, Brazil reported a significant positive

study conducted in Bengbu, China by **Bai et al. (2020)** revealed a significant association was found between self-care and social support.

II. Correlation between social support and patterns of diabetic foot ulcer:

Concerning the answer of research question regarding correlation between social support and patterns of diabetic foot ulcer, it was found a statistically significant positive correlation was found between social support and patterns of diabetic foot ulcer. This might be attributed to empathy from others with their state. In agreement with this, **Ayfer and Sureyya. (2022)** in the United States of America showed a significant positive correlation between the total social support and wound pattern

Conclusion

Based on the findings of the present study, it was concluded that, elderly patients mostly had diabetic foot ulcer at the plantar surface of foot since five to seven months. Diabetic foot ulcer among elderly patients mostly graded as partial thickness wound up to but not through the dermis. Pertaining to social support, it tended to be moderately received by elderly diabetic foot ulcer patients.

Recommendations

- Empowerment program about self-care practices should be directed to diabetic elderly patients at an early-stage to tackle the occurrence of DFU.

- Counseling sessions to provide emotional support to elderly DFU patients.
- Further researches are proposed to assess the impact of elderly empowerment on improving self-care practices, social support and DFU patterns.
  - Replicate the study on larger sample to permit for generalization.

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Table 1: Distribution of the studied elderly diabetic foot ulcer patients according to their sociodemographic characteristics (n=200).

Personal information	**N**	**%**
Age (years)		
60 - < 65 years	106	53
65 - < 70 years	75	37.5
70 - 75 years	19	9.5
Mean± SD 64.82±3.57		
Gender		
Male	134	67.0
Female	66	33.0
Marital status		
Single	3	1.5
Married	121	60.5
Divorced	7	3.5
Widow / widower	69	34.5
Educational level		
Uneducated	5	2.5
Read & write	42	21.0
Primary education	37	18.5
Preparatory education	19	9.5
Secondary education	85	42.5
University / postgraduate education	12	6.0
Profession before retirement		

Crafts man	12	6.0
Farmer	29	14.5
Merchant	10	5.0
Employee	114	57.0
Housewife	35	17.5
Current work		
Work	0	0
Not work	200	100.0
Monthly income		
Not enough	182	91.0
Enough	18	9.0
Enough and save	0	0

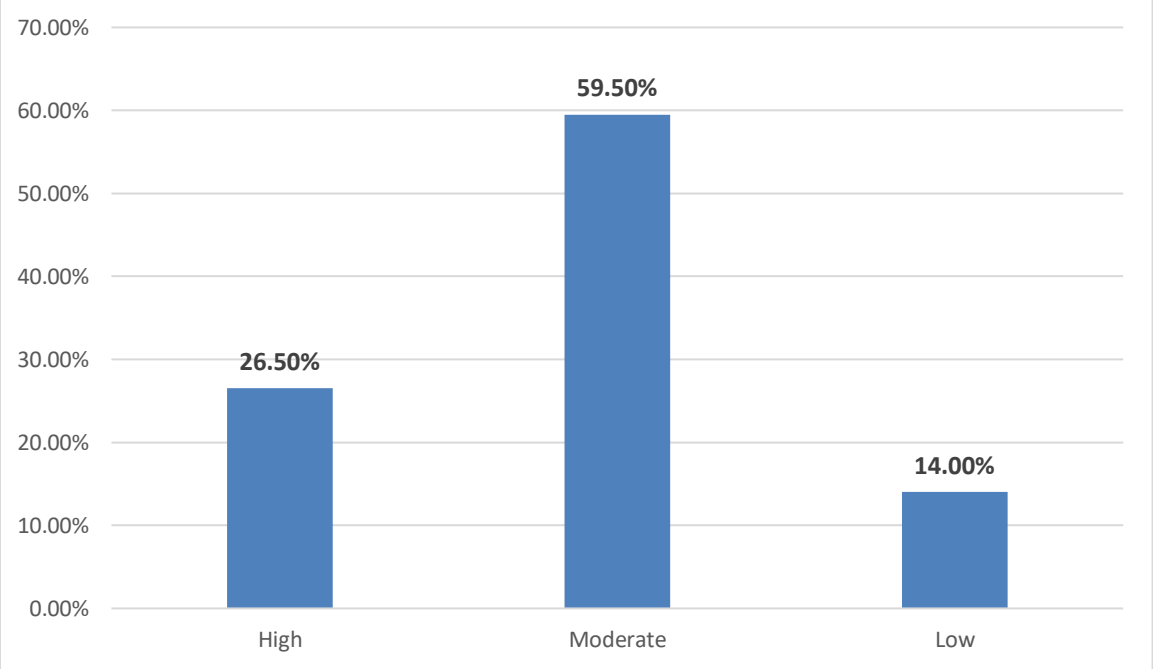

Figure 1: Distribution of the studied elderly patients according to their total social support (n=200).

Table (2): Distribution of the elderly diabetic foot ulcer patients according to their sociodemographic characteristics and their caregivers. (n=200).

Personal information	**N**	**%**
Current Source of Income		
Pension	139	69.5
From children	61	30.5
Still working	0	0
Property revenue	0	0
Live with		
The family	145	72.5
Alone	55	27.5
Number of family member		
1-2	32	16.0
3-4	168	84.0
Number of rooms		
1-2	71	35.5
3-4	129	64.5
Type of house		
Ownership and more than four rooms	0	0
Ownership and less than four rooms	53	26.5
Rental and more than four rooms	9	4.5
Rental and less than four rooms	138	69.0
There is no place to live	0	0
Receive health care from		
Private clinics	17	8.5
Health services	3	1.5
Government health	136	68.0
More than one source treat yourself	44	22.0
***Who cares for you**		
Son/daughter	166	83.0
Sister	2	1.0

Spouse	115	57.5
Person who provides care reside in		
In the same house	89	44.5
In the same street	31	15.5
In the same village	65	32.5
Outside the village	15	7.5

Table (3): Distribution of the studied elderly patients according to their clinical profile (n=200).

Items	**N**	**%**
Yes	82	41.0
Hypertension	53	64.6
Cardiac disease	39	47.6
Liver disease	5	6.1
Blockage of the arteries of the foot	19	23.2
10 - <15 year	50	25.0
15 - <20 year	127	63.5
≥20 year	23	11.5
Mean± SD 17.32±1.93		
Yes	46	23.0
Degree of kinship		
Brother	6	13.0
Father	35	76.1
Mother	5	10.9

Diabetes treatment		
Tablets	0	0
Insulin	189	94.5
Tablets and insulin	11	5.5
Smoking		
Yes	61	30.5

Table (4): Distribution of the studied diabetic foot ulcer elderly diabetic foot ulcer patients according to their past history "wound care & follow up" (n=200).

Items	**N**	**%**
Wound care of feet or after trimming nails		
Clean the wound with warm water	101	50.5
Apply disinfectant	28	14.0
Follow the blood sugar strongly	29	14.5
Go to the doctor	0	0
Notice wound healing	42	21.0
Nothing	0	0
Follow up with the doctor on a regular basis		
Yes	57	28.5
How often do you go for a foot exam		
Once a month	0	0
Once every six months	13	6.5
Once a year	187	93.5
Visit the diabetes clinic periodically		
Yes	57	28.5
Take diabetes treatment on time		
Yes	142	71.0
No	3	1.5
When remember	55	27.5

Table (5): Distribution of the studied diabetic foot ulcer elderly patients according to their past and current history of foot problems (n=200).

Past history	**N**	**%**
History of a foot wound that took more than two weeks to heal		
Yes	171	85.5
The first care done		
Washing with warm water and applying disinfectant	126	73.7
Applying disinfectant	45	26.3
Wound turned into a sore		
Yes	83	48.5
Current history		
The first care done		
Washing with warm water and applying disinfectant	169	84.5
Applying disinfectant	31	15.5
Visiting doctor for wound care		
Immediatly	6	3.0
Next day	7	3.5
After 2 days	29	14.5
After 5 days	73	36.5
After 10 days	85	42.5
The wound healed or worsen than it was		
Healed	62	31.0
Worsen	138	69.0
History of foot ulcer		
Yes	115	57.5
Frequency		
1-2 times	93	80.9
3-4 times	22	19.1

Table (6): Distribution of the studied elderly patients according to their level of ulcer (n=200).

Grade	**N**	**%**
Pre-ulcerative or post ulcerative site	41	20.5
Partial thickness wound up to but not through the dermis.	86	43.0
Full thickness wound extending to tendon or deeper subcutaneous tissue but without bony involvement or osteomyelitis	59	29.5
Full thickness wound extending to and involving bone	11	5.5
Localized gangrene	3	1.5
Gangrene of the whole foot	0	0
Number of ulcers		
1	167	83.5
2	18	9.0
3	15	7.5
Area		
Plantar surface of foot	134	67.0
Big toe	12	6.0
Plantar surface of foot + big toe	54	27.0
Duration		
5 – 7 months	166	83.0
8 – 10 months	25	12.5
≥10 months	9	4.5

Table (7): Distribution of the elderly patients according to their total domains of social support (n=200).

Items	High		Moderate		Low	
	No	%	No	%	No	%
Emotional/ informational support	53	26.5	123	61.5	24	12.0
Tangible support	56	28.0	113	56.5	31	15.5
Affectionate support	61	30.5	120	60.0	19	9.5
Positive social interaction	49	24.5	116	58.0	35	17.5
Additional item	45	22.5	128	64.0	27	13.5
Total	**53**	**26.5**	**119**	**59.5**	**28**	**14.0**

Table (8): Relationship between socio-demographic characteristics of studied patients and their total social support (n=200).

Items		Total social support						X2 P-Value
		High N=53		Moderate N=119		Low N=28		
		N	%	N	%	N	%	
Age	60 - < 65	4	7.5	84	70.6	18	64.3	7.581 .003**
	65 - < 70	32	60.4	34	28.6	9	32.1	
	70 – 80	17	32.1	1	0.8	1	3.6	
Gender	Male	3	5.7	108	90.8	23	82.1	6.887 .001**
	Female	50	94.3	11	9.2	5	17.9	
Marital status	Single	1	1.9	0	0	2	7.1	3.546 .021*
	Married	45	84.9	73	61.3	3	10.7	
	Divorced	2	3.8	1	0.8	4	14.3	
	Widow	5	9.4	45	37.9	19	67.9	
Educational level	Uneducated	1	1.9	2	1.7	2	7.1	1.140 .062
	Read & write	12	22.6	25	21.0	5	17.9	
	Primary education	15	28.3	19	16.0	3	10.7	
	Preparatory education	6	11.3	11	9.2	2	7.1	
	Secondary education	16	30.2	55	46.2	14	50.0	
	University/postgraduate	3	5.7	7	5.9	2	7.1	
Monthly income	Not enough	47	88.7	111	93.3	24	85.7	.926 .058

Table (9): Correlation Matrix between study variables (n=200).

		1	2	3
1. Total Diabetic foot ulcer Classification	**r** **p**			
2. Total social support	**r** **p**	.549 .001**		

(**) Statistically significant at p<0.01. r Pearson correlation