

UNIVERSITY OF GJAKOVA "FEHMI AGANI"

Diabetic Foot and Nursing Care

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Abstract: Diabetic foot is a collection of various phenomena and disorders that appear on the feet in people with diabetes, mainly as a result of damage to peripheral nerves and blood vessels. According to the WHO, diabetic foot occurs as a result of disruption of the functional integrity of the damage caused by infection, wound and destruction of tissues, nerve fibers, as well as diseases of the blood vessels of the feet. Diabetic foot is an important medical, social and economic problem which significantly reduces the quality of life of the diabetic patient.

Aim of the paper- The aim of this paper is to measure the knowledge of patients with hospitalized and non-hospitalized diabetes regarding diabetic foot.

Material and methods - Prospective method was used to conduct this research. For the realization of the work was used the questionnaire for patients about their knowledge about diabetic foot, the questionnaire is compiled in accordance with the problems of patients related to diabetic foot. The research was conducted in the Vascular Clinic, the Endocrinology Clinic and in the specialist ambulant of both Clinics in UCKK-Prishtina in a period of time from 01.09.2016 to 30.09.2016.

Results- The average age of patients was $56 \pm$ years. Test results show that patients with diabetes over the age of 50 have more self-care skills compared to patients up to the age of 50. There are no gender differences in self-care skills. Whereas, at the level of education, patients with high school and bachelor level undertake more self-care activities than patients who have only primary school.

Conclusion- Patients through nursing counseling and education, can be trained in self-care and self-management of diabetes which will affect the prevention and reduction of complications of this disease.

Keywords: Diabetes, diabetic foot, patient education, nursing care.

1. Introduction

1.1 Diabetes - Diabetes Mellitus (Terminology)

Diabetes is known since ancient times from the symptoms discovered in an Egyptian text [1], Ebers Papyrus in 1500. The word mellitus (mɛlɪtəs) comes from the classical Latin word meaning "melite" [2] which comes from "Mel" (honey) and the suffix "tius", the meaning of which is the same as that of the English suffix "ium" [3]. Thomas Willis added in 1675 "mellitus" to the word "diabetes" as a definition of the disease, when he noticed that the urine of diabetics, had a sweet taste (glycosuria). In 1860, in Berlin, Paul Langerhans observed several differentiated pancreatic retained clumps separated from each other by tissues. In 1889, Oskar Minkowski and Joseph von Mering, wanting to know that it was the pancreas necessary for life, at one time the pancreas and after surgery appeared to him all the symptoms of a severe diabetes with polyuria and hyperphagia [4.]. Langerhans cells were described in 1893 by a Belgian physician, Edouard Laguesse, and suggested that these held clusters be called "Langerhans Islands". His ideas were the conclusion of Jean de Meyer, who called "insulin" a substance from the island (Latin - insulin).

In 1910, Edward Albert Sharpe of Edinburgh christened him "Insulin". Banting, Best and their collaborators (especially the chemist Kolip), managed to isolate insulin from the bovine pancreas at the University of Toronto, in 1922, and this enabled its application in the treatment of diabetes [6].

1.2 Definition of diabetes

Diabetes is a disorder that occurs due to the accumulation of glucose in the blood and occurs when the pancreas produces insufficient amounts of insulin. Insulin enables blood sugar to pass to muscles and other energy-producing cells [7]. According to the WHO: "Diabetes mellitus is a chronic progressive disease, which is characterized by hyperglycemia and other metabolic disorders, due to insufficient production or insufficient action of insulin, which controls the metabolism of glucose, fats and proteins" [8].

1.3 Complications of diabetes

Diabetes is the cause of many complications leading to disability, increased morbidity and mortality. All forms of diabetes increase the risk of chronic complications. These usually develop after many years (10-20 years), but may be the first symptoms in those who have not been diagnosed before this time. We have acute and chronic complications. Chronic complications from SSH are: Vascular Complications (Microvascular - Retinopathy and Nephropathy and Macro vascular - Coronary Artery Diseases, Peripheral Vascular Diseases and Cerebrovascular Diseases) [9]. and macro vascular can cause premature death and disability. [10] Major chronic complications are associated with vascular damage. SSH doubles the risk of cardiovascular disease [11] and about 75% of diabetic deaths are due to arterial disease. coronary [12].

1.4 Diabetic foot and chronic complications

One of the side effects of diabetic is poor blood circulation. When they do not get enough blood, which carries oxygen, then wounds and infections can develop. This is known as diabetic foot which if left untreated can have serious consequences. Diabetic foot (Df) is one of the most common chronic complications of diabetic illness that depends on the duration and success of its treatment. Treatment and

care are long-term, expensive, worldwide, and the result uncertain and often with a poor prognosis - an amputated limb [13]. The first problems of diabetic foot are the reduction of blood circulation, defense and regenerative mechanisms of the foot on one side and the causes of the aggravation of the severity of the foot injury on the other side [14].

There is a lot of talk about diabetes as a disease that is growing enormously worldwide, but very little or no talk about foot care in diabetics. It is a matter of concern that a large number of people with diabetes are very little informed about this problem of great vital importance to them. To emphasize the importance of foot care for diabetics, it is always said: "Big problems for diabetics start with small sores on the foot." Df is a collection of various phenomena and disorders that occur in people with diabetes, mainly as a result of damage to peripheral nerves and blood vessels.

According to the World Health Organization (WHO), diabetic foot occurs as a result of disruption of the functional integrity of the damage caused by infection, wound and destruction of tissues, nerve fibers, and vascular diseases of the feet [15].

Df is the result of neuro-ischemic changes, which can be complicated by the onset of infection. Reporting leg ulcer, gangrene recurrence, and subsequent amputation are important causes of morbidity and disability in patients with diabetics. These complications pose a major medical, social and economic problem and significantly reduce the quality of life of patients.

1.5 Clinical presentation

Df is clinically manifested as: ulcers (with or without infection), with typical deformities of the foot, the appearance of chronic swelling, ischemic changes and the formation of necrosis (touching different parts of the foot on both sides) and gangrene [16]. A combination of peripheral neuropathy (nerve damage to the limb) and micro macroangiopathy (damage to large and small blood vessels) of the lower limb area resulting in the creation of conditions for skin damage, infection, and gangrene in the foot.

1.6 Risk assessment for diabetic foot

Diabetic foot occurs as a result of damage to blood vessels and nerves caused by high blood sugar levels for a long time. Inadequate maintenance of blood sugar levels within normal limits, accelerates the process of atherosclerosis and at the same time affects large and small blood vessels. 15% of people with diabetes are at risk for developing foot ulcers (American Diabetes Association Consensus Development Conference on Diabetic Foot Wound Care, 1999). Previous ulcer (or amputation) is a predisposition for the ulcer to recur in the same leg or the other leg (ADA, 1999). In assessing the risk of diabetic foot (ulcer or amputation) it is important to assess five key risk factors: Existence of a previous history of foot ulcer; Sensitivity assessment; Presence of deformations; Turnover assessment; and Assessing knowledge about self-care and behavior.

1.6.1 Screening and prevention

There is a lot of talk about diabetes as a disease that is growing enormously worldwide, but very little or no talk about foot care in diabetics. It is a matter of concern that a large number of people with diabetes are very little informed about this problem of great vital importance to them. To emphasize the importance of foot care for diabetics, it is always said: "Big problems for diabetics start with small sores on the foot." In the medical literature, but also in everyday life, it has become a common term "diabetic foot" which is a

medical, social, economic, social and personal problem, so prevention is the best "medicine". The old saying, "better to prevent than to cure". If they are aware of these dangers and act accordingly, it is not very difficult to prevent any serious problems. First of all, they need to take care of the daily regulation of their blood sugar level and keep their blood pressure and cholesterol under control. They should have regular check-ups with their doctor and should talk to him about any unusual signs, symptoms or problems they may have. He will do everything possible to keep these complications to a minimum and to be in the best possible health. Educating the patient and his family is very important (especially for diabetic foot) and the need to advise patients to perform a thorough foot examination every day and if necessary a mirror should be used for inaccessible parts; daily washing of feet with mild soap and warm water, nails should be cut and gently removed calluses and skin thickening and protection of feet with suitable shoes and smearing with proper cream with nutrients.

Nurses have an important role in implementing promotion and prevention in their daily work with patients suffering from diabetes as well as their families. Acquiring the knowledge and skills that should be owned by the person affected by diabetes, can greatly help the nurse / technician, in providing effective education and counseling to patients.

1.7. Foot care

Every diabetic should take care of their feet, shoes, body hygiene. They need to be educated by the medical staff and especially the nurses on how to do this in a good and simple way. Advice is welcome for these patients because it is simple and in principle very important to them. They need to be educated about washing, drying, underwear and the activities they need to do to escape the worst - diabetic foot. They should be told that it is important to wash, dye and cut the nails [17].

-Feet should be washed daily with warm-lukewarm water and neutral soap, water temperature should not be higher than 28°C. Dry skin with a towel or soft cloth (without rubbing) especially in the areas between the fingers.

-Every day they should check the bottom of the foot using a mirror or magnifier (magnifying glass), if they do not have the opportunity to control it themselves, please ask the family for help.

- Do not let the nails grow too much they should be cut regularly (but also not too short), transverse, leaving no sharp edges at the ends of the nails. Nail trimming is best done when the feet are washed because they are softer [18].

-Sock socks should be made of wool during the winter and cotton during the summer, it is not preferable to wear socks made of synthetic materials, such as nylon, etc. They should be appropriate in size, not tight and should be changed daily. The American Diabetes Association recommended the design of special socks, without elastic bands and sutures, for patients with polyneuropathy [19].

-Shoes should be made of soft leather, wide enough at the front, tight enough to keep warm and protect the feet from the cold in winter. Shoes should always be bought in the afternoon or evening, when the feet are tired and the feet have increased in volume (they are swollen). If they buy in the morning they should be a larger number. They should not be worn without socks and every time before wearing they should be checked for the presence of any pebbles, nails or tools that may hurt the foot. Shoes should have strong and durable heels to provide support to the ankles and the height of the heel should not exceed 3 cm. Shoes should be with laces or adhesive, to fit well on the toe. They should be "bent or broken" only at the toes

(front) and not at length. A good shoe is shoes that are very comfortable and comfortable on the toes. This means not advising brands because advice is given on how the patient himself should look for the quality of the shoe and how it should be appropriate.

-Diabetic patients are never good to walk barefoot at home, outside, or on the sea beaches on summer days. Even on summer vacations they should take care of their feet and enter the water with underwear intended for washing.

-Even at night when they wake up for any reason, slippers should be worn. The bed should not be smaller than the patient, because the legs should not protrude beyond the bed as this causes a blockage of blood circulation. Sleep is important for the diabetic and the bed should be comfortable, cozy as well as the pillow. Good sleep helps them to spend the next day relaxed.

-When they have cold feet, do not use anything for heating if they wear hot woolen socks. They should not use hot water bottles, electric blankets and other tools, as reduced sensitivity and poor circulation may cause burns and not investigate it.

-Even when sitting, the patient should make leg movements up and down, left-right, because in this way they promote and maintain blood circulation.

-If he is a smoker, he should stop this habit because smoking affects the reduction of blood circulation.

-Diabetic patients should be careful when they see calluses, cuts, ingrown toenails, deformed joints or sores on the feet and should consult a doctor or have them professionally removed by a podiatrist.

-The placement of medicinal plants and different combinations of medications should be avoided. If they notice injuries - sores on their foot - never put anything other than a sterile gauze and contact a doctor [17].

Treatment of Df requires a large number of experts, experience and teamwork for timely and accurate diagnosis, knowledge of the physiology and pathophysiology of the wound stage, as well as finding a modern doctrine of healing protocol [20]. Given the nature, consequences of diabetic foot, it is directly dependent on the daily behavior of diabetics and falls into special groups of importance of implementing health education activities and teamwork in the management of diabetic foot syndrome (Stojiljkovic M. (1983)). The social relationship between the patient and the doctor should be in line with the possibilities and often during treatment they should accept what is less harmful and more beneficial [21]. A convenient way to understand the onset of diabetic foot is to know the risk factors. Of course, the most important factor is the presence of diabetes, but also all the possible accompanying disorders that contribute to this disease [22].

1.7.1. The role of nurses in education

It has been observed that nurses have an effective role in preventing foot ulcers and in reducing lower limb amputations, through educational interventions, examination of high-risk cases and provision of health care [23]. It is essential that all diabetic patients, especially those at risk for foot ulcers, have the necessary knowledge of foot care. Some studies show that educating the patient about diabetic foot care is effective in preventing diabetic ulcers [23].

Nurses can teach patients how to perform the physical examination of the foot and take care of their feet regularly egg they can encourage patients to perform some simple actions in order to help prevent or

recurrence of foot ulcers, checking shoes before footwear, keeping feet clean and constantly taking care of skin and nails [24]. Nursing educators can assess patient requirements and design a specific education program for each of the patients and their families [25]. They can facilitate the active participation of patients and family members in care and can teach patients about the importance of regular clinic visits, laboratory tests at regular intervals, and key principles of diabetes care and prevention of its complications. Since hyperglycemia is a risk factor for diabetic neuropathy, blood sugar control tests are needed to reduce the risk and improve the quality of life of patients with diabetes. Therefore, patients with poor control of blood sugar levels should be given special attention during practical education [26]. This shows the importance of the role of nurses in developing a comprehensive educational program. In addition to the appropriate education style, patients should be trained according to the severity of diabetic foot problems [27]. Nurses educate patients about the course of the disease, treatment methods, complication prevention, and remediation of existing complications in order to increase the patient's quality of life [28]. Given the above facts, educating healthcare providers is an important issue. In most cases they do not have enough knowledge, so in addition to educating patients, nurses' education should be developed to improve their skills regarding the prevention, risk of spreading and treatment of diabetic foot ulcers. [29]

2. Purpose of the paper-

The purpose of this paper is to measure the knowledge of hospitalized and non-hospitalized patients with diabetes, regarding diabetic foot.

3. Material and methods-

Prospective method was used for conducting this research. The questionnaire was used for patients with 11 closed questions about their knowledge about diabetic foot, the questionnaire is compiled in accordance with the problems of patients related to diabetic foot. A total of 126 patients participated in the survey, of which 61 were hospitalized and 65 were outpatient.

Respondents were informed - for the purpose of the research and the procedure for completing the questionnaires.

They are informed of confidentiality at the time of submission of results.

For receiving answers from respondents regarding their education about diabetes the Liqueur Scale from (never, rarely, sometimes and always) was used

The research was conducted in the Vascular Clinic, Endocrinology Clinic and Specialist Outpatient Clinics of both Clinics, in UCK-Prishtina in a period of time from 01.09.2016 to 30.09.2016.

4. Results

Demographic results of participants

According to the age group, patients under the age of 30 were 5 or (4%); from 31- 40 years 14 patients (11.1%); from 41- 50 years 26 patients (20.6%); 51- 60 years 21 patients (16.7%); 61-70 years 45 patients (35.7%) and over 71 years were 15 patients (11.9%).

Table 1: Distribution of patients by age group

Age group of patients	Number	Percent
<30 years old	5	4%
31-40 years old	14	11.1%
41-50 years old	26	20.6%
51-60 years old	21	16.7%
61-70 years old	45	35.7%
>71 years old	15	11.9%
Total	126	100.0%

The female patients were 57 (45.2%), while the male patients were 69 (54.8%).

Table 2: Distribution of participants by gender

Gender of participants	Patients	
Female	57	45.2%
Male	69	54.8%
Total	126	100.0%

Patients with primary school were 48 (38.1%), with secondary school 62 patients (49.2%) and with bachelor were 16 patients (12.7%),

Table 3: Distribution of patients by level of education

Level of education of patients	Number	Percent
Primary school	48	38.1%
High school	62	49.2%
University	16	12.7%
Total	126	100.0%

In this table we have the results about the education of respondents, 39 patients (31%) were employed, while 87 patients (69%) were unemployed

Table 4: Distribution of patients by employment status

Employment Status	Number	Percent
Yes	39	31%
No	87	69%
Total	126	100.0%

With a duration of diabetes of 1-10 years were 66 patients (52.4%), 11-20 years were 52 patients (41.3%) and of 21-30 years with diabetes were 8 patients (6.3%).

Table 5: Distribution of patients by duration of diabetes

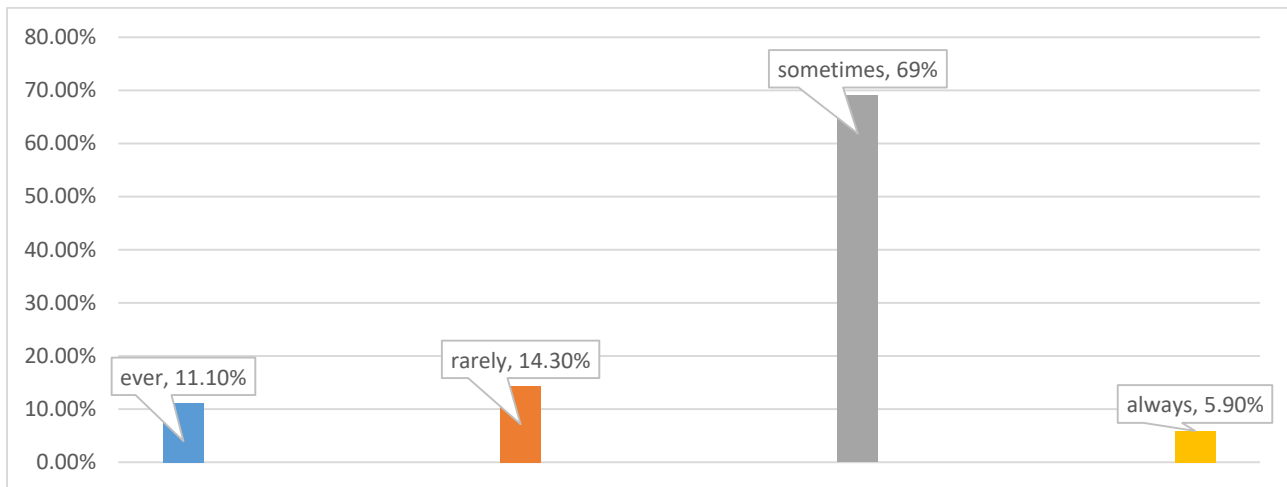
Duration of Diabetes	Number	Percent
1-10 years	66	52.4%
11-20 years	52	41.3%
21-30 years	8	6.3%
Total	126	100.0%

In terms of treatment status, hospitalized patients were 61 (48.4%), while outpatients with diabetes were 65 (51.6%).

Table 6: Distribution of patients by treatment status

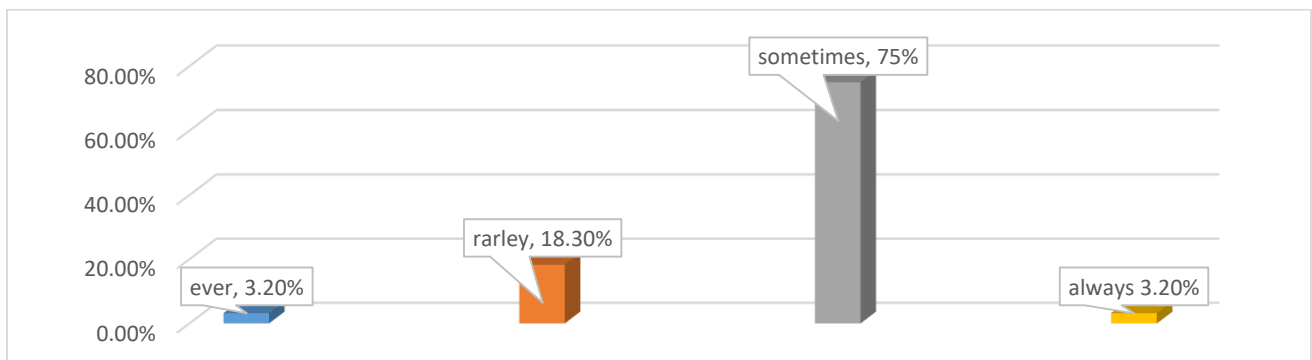
Treatment Status	Number	Percent
Hospital	61	48.4%
No-Hospital	65	51.6%
Total	126	100.0%

Patient survey results



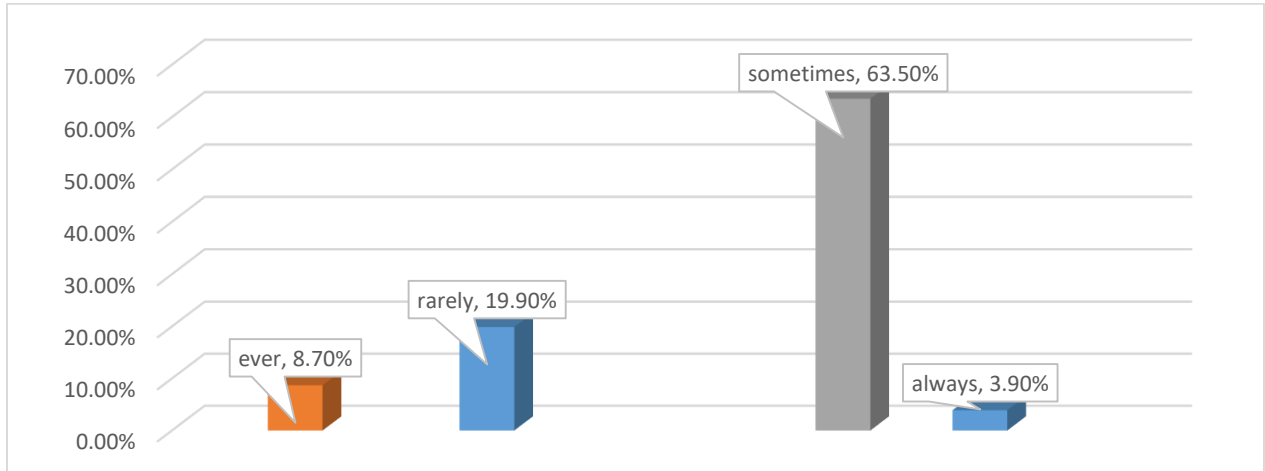
Graph 1. Take antidiabetic therapy regularly and check your blood sugar level every day?

Regarding regular antidiabetic therapy, 11.1% of patients are not advised by nursing health personnel; rarely advised 14.3%; sometimes 69%; while 5.6% are always advised.



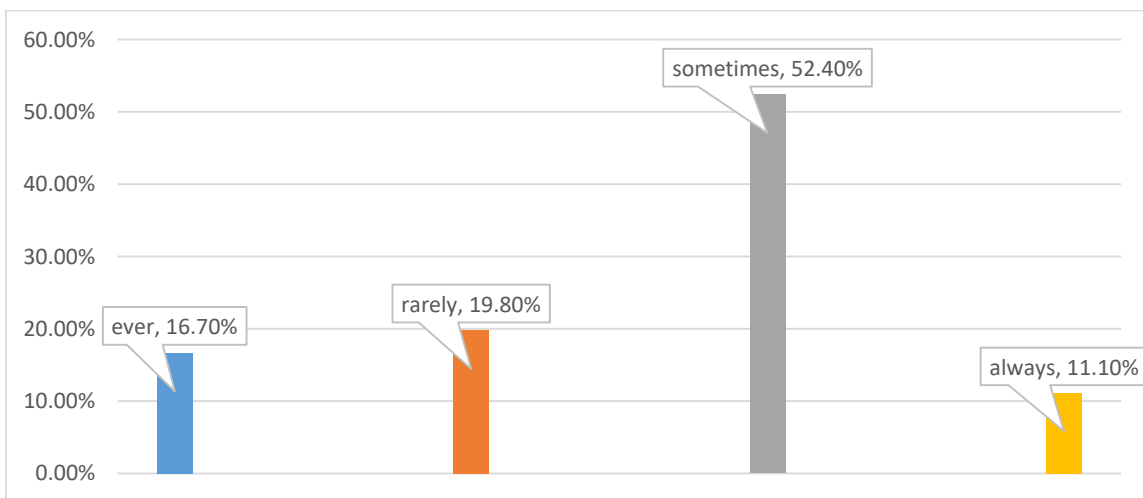
Graph 2. Stick to a diabetic diet and do physical activity every day?

In graph number 2. We present results, 3.2% of patient's state that they are not advised to maintain a diabetic diet and develop daily physical activities; 18.3% are rarely advised; sometimes 75.3%; and 3.2% of patients are always advised.



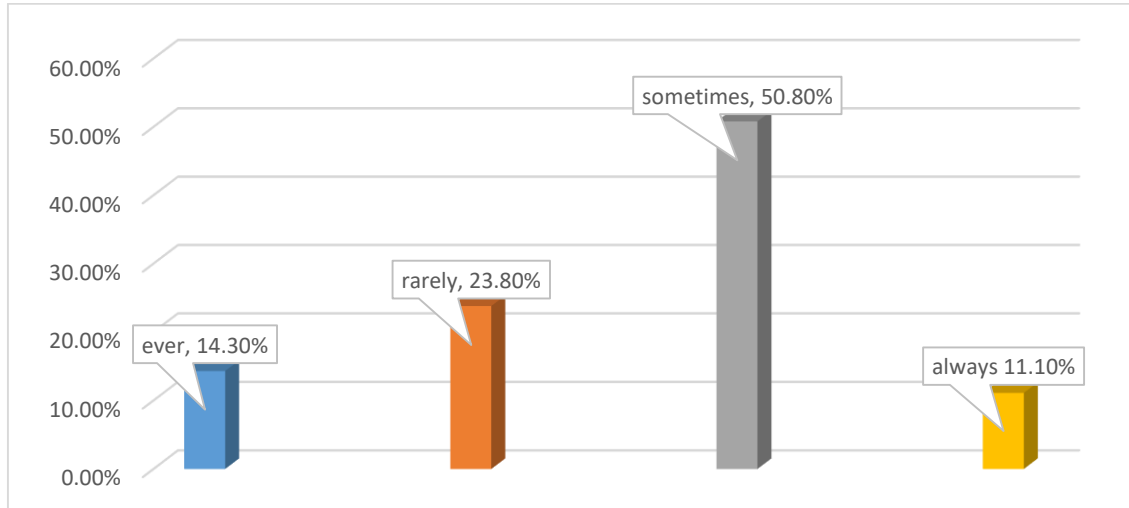
Graph 3. Carefully check your feet daily for calluses, cracks and other possible changes?

In Graph. 3 we have the results of the respondents, based on the results we see that 8.7% of patients have never been advised to check their feet for calluses, cracks and other possible changes; rarely 19.9%; sometimes 63.5%; and 7.9% of patients are always advised.



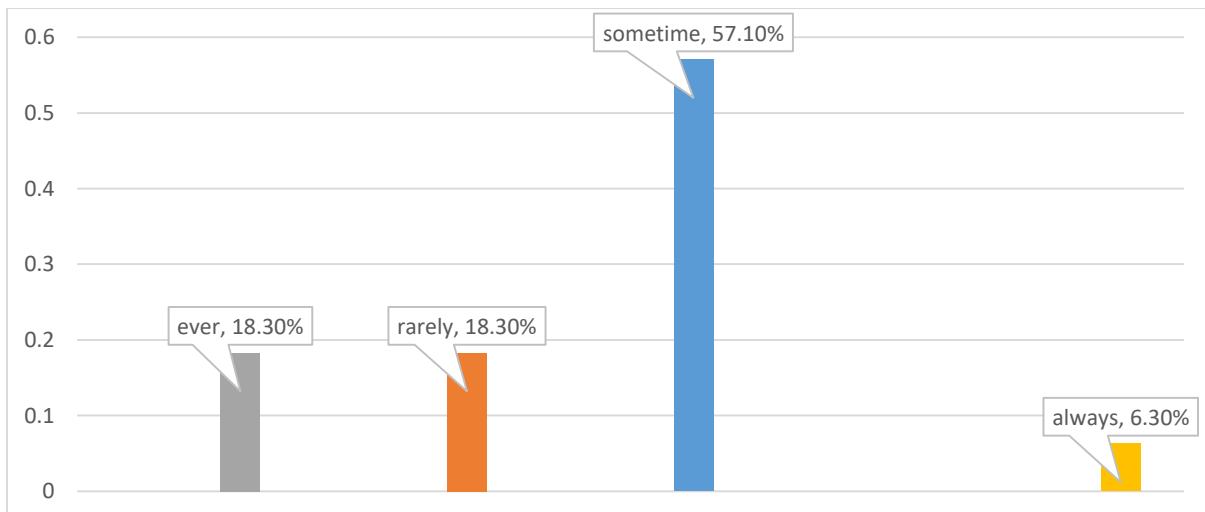
Graph 4. Wear shoes that fit your feet and buy them in the afternoon because your feet are more swollen?

In graph no. 4 we have the results of the respondents presented about the knowledge about shoe wear, 16.7% of patients have never been advised to wear shoes suitable for the feet and do not buy them in the afternoon when the feet are more swollen; rarely 19.8%; sometimes 52.4%; 11.1% are always advised.



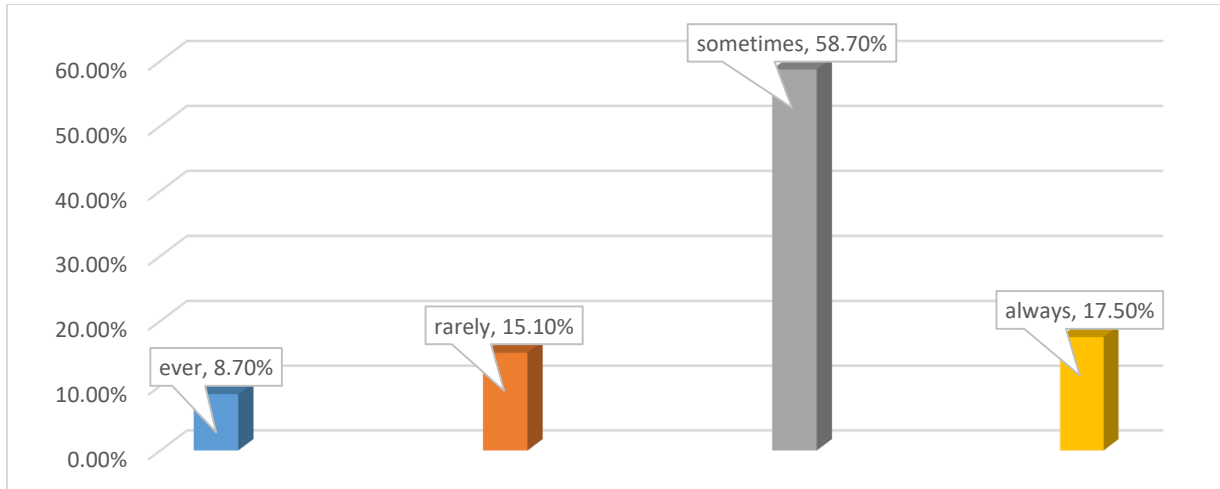
Graph 5. Do not walk barefoot to prevent foot injury and check shoes inside before running for sharp objects or stones?

In graph no. 5 we have the answers 14.3% of patients have never been advised to act towards injury prevention; rarely 23.8%; sometimes 50.8%; 11.1% of patients are always advised not to walk barefoot, this to prevent injury and to check their shoes inside before running for sharp objects or stones.



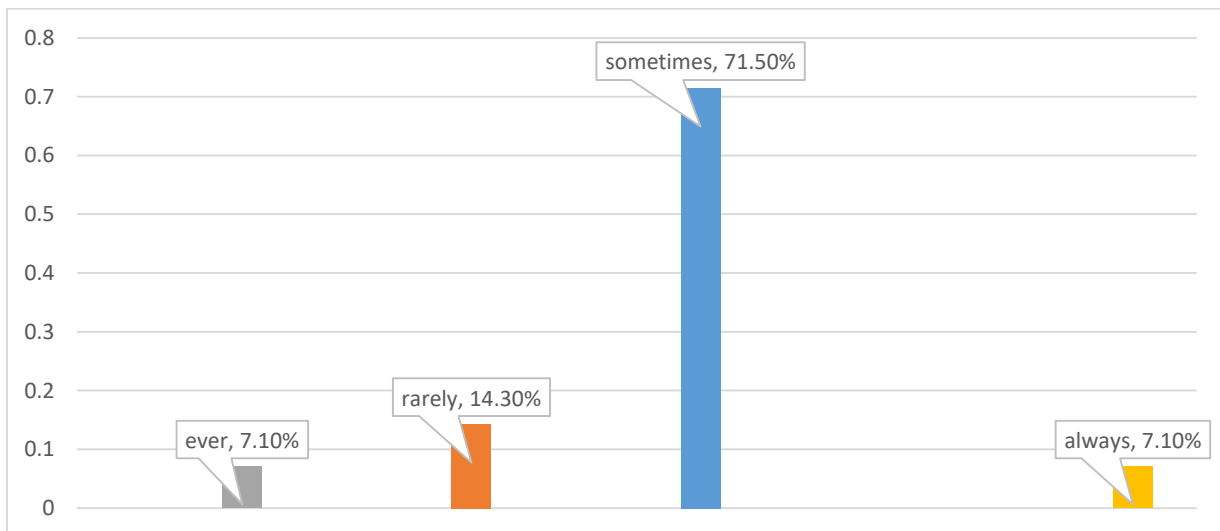
Graph 6. Use warm water and soap to wash your feet, cut your toenails straight, and change your socks every day by choosing cotton ones?

In graph no. 6 we have presented the answers about foot hygiene the respondents answered that in order to maintain foot hygiene, 18.3% were never advised; rarely 18.3%; sometimes 57.1%; always 6.3%.



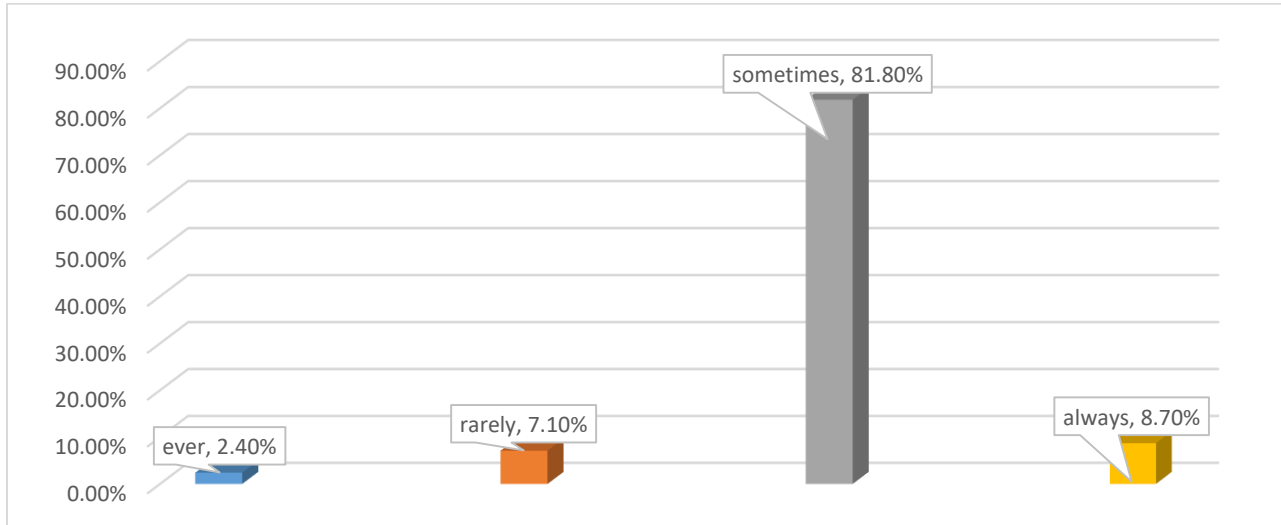
Graph 7. Do not use hot water bottles and thermophores to keep your feet warm?

In graph no. 7 we present the answers of the respondents regarding their education about the use of hot water, 8.7% have never been advised not to use hot water bottles and thermophores to warm their feet; rarely 15.1%; sometimes 58.7%; 17.5% of patients with diabetes are always advised.



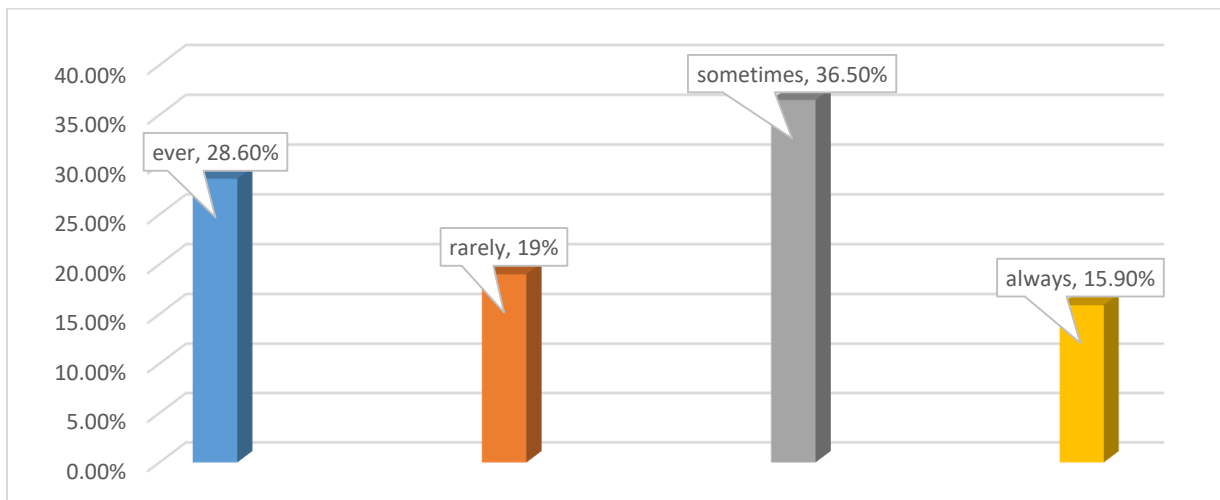
Graph 8. See a doctor if you notice changes in the skin of your feet?

Graph no.8 shows the knowledge of patients about changes in their skin and their education, 7.1% stated that they were never advised to contact a doctor if they notice changes in the skin of the feet; rarely 14.3%; sometimes 71.5%; and always 7.1%.



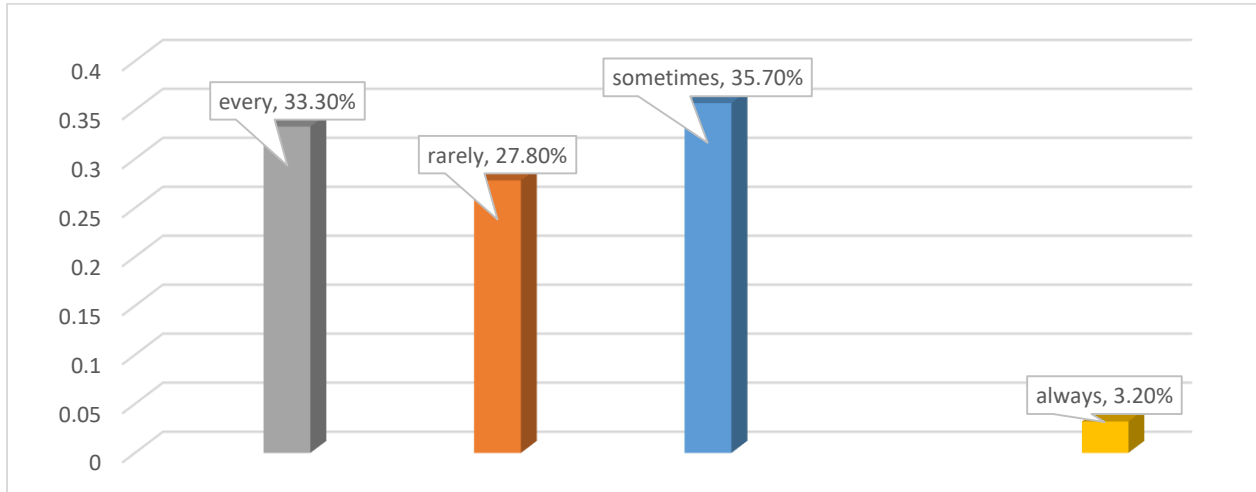
Graph 9. Smoking negatively affects the reduction of the amount of blood circulating in your legs?

For the negative effects of smoking in reducing the amount of blood circulating in the legs, 2.4% of patients have never been advised; rarely 7.1%; sometimes 81.8%; 8.7% are always advised.



Graph 10. Attend diabetic foot maintenance education lectures and always adhere to the advice you receive during education sessions?

Regarding the need to participate in lectures on the topic of diabetic foot maintenance, 28.6% of patients have never been advised; rarely advised 19%; sometimes 36.5%; 15.9% of patients have always been advised in this regard.



Graph 11. What is the most appropriate method for patient education?

When asked what is the most appropriate method of patient education, 33.3% of patients answered none; 27.8% are in favor of the individual method; 35.7% prefer the group method and 3.2% declare for both methods.

5. Discussion

Demographic results show that the age group of 61-70 years were 45 out of 126 or 35.7%, more were men 69 or 54.8%, more were those with completed high school 62 or 49.2%, unemployed were 87 out of 126 or 69% and 66 or 52.4% were with diabetes duration from 1-10 years and before 126 patients who were questionnaire 65 or 51.6% were outpatients. Outcomes Results Patients up to the age of 50 have less of their own diabetes skills compared to those over the age of 50. Studies on external demographic effects on the knowledge and practices of patients with diabetes have shown that any differences are not in the relationship between the age of patients with diabetes and the practices of diabetes care practices [30]. In our study there are no significant differences in diabetes self-care between the sexes. Whereas, studies found that they had found known improvements of patients compared to female patients behind their diabetic foot prevention program [31].

The results of the relationship between the level of education and knowledge of care practices in people with diabetes were significant for the fact that patients with higher education had more skills in practicing self-care. Subjects with higher levels of education can increase their ability to learn more about diabetes [32].

The results of patients regarding the advice they received from nursing healthcare professionals show that 69% of them had ever been advised to take antidiabetic therapy and control their blood glucose level and only 5.6% always; 75.3% of them sometimes adhered to the diabetic diet and regularly exercised while only 3.2% always; 63.5% checked their feet sometimes for calluses, cracks and other possible changes while only 7.9% always; 52.4% sometimes wore shoes suitable for their feet and 11.1% always; 50.8% of patients sometimes acted towards the prevention of foot injuries and 11.1% always; 57.1% sometimes observe foot hygiene and only 6.3% always; 58.7% are sometimes educated not to use hot water bottles and thermophores to keep their feet warm and 17.5% always; 71.5% stated that they were sometimes educated to report to the doctor with noticeable changes in the skin of the feet and 7.1% always; 81.8% said they were sometimes educated about the negative effects of smoking on reducing blood flow to the legs and 8.7% have always been educated; 36.5% were sometimes educated attending lectures related to diabetic foot maintenance and 35.7% identified the group method as among the most appropriate for educating patients with diabetes, 3.2% both.

Complications of the foot in people with diabetes are one of the leading causes of amputation and problems of a physical and emotional nature. This complication is one of the main reasons for admitting diabetic patients to the hospital and billions of dollars in medical expenses worldwide. Advising and educating diabetic patients about proper diabetic foot care is a nursing intervention that can prevent costly, painful complications and major adverse effects. Preventive care of diabetic foot begins with careful and daily evaluation of the feet [33].

The risk of limb loss in diabetic patients is about 1 percent per year worldwide. According to the WHO, about one million amputations are performed each year and every thirty seconds of so-called lower limb amputation due to gangrene caused by diabetic foot. A previous ulcer (or amputation) on a diabetic foot cured in people with diabetes has a predisposition to recur in the same or opposite foot [34]. In India it is estimated that about 40,000 legs are amputated each year, of which 75% are neuropathic with secondary infection, which can potentially be prevented. Several factors, such as barefoot walking, illiteracy, low socioeconomic status, delayed treatment by patients to the doctor, ignorance about diabetic foot care among primary care physicians, and reliance on alternative medicine systems, contribute to this high prevalence [35]. Diabetic foot, as the most common cause of hospitalization of diabetic patients is a serious concern for the health systems of many developed and developing countries. Thus, health care providers for diabetes have devoted considerable time to the prevention and diagnosis of diabetic foot complications [36].

In this regard, nurses as members of the diabetic care team should not only play their role in health care, education, management, patient care and quality of life, but should also participate in special training to utilize the latest knowledge about diabetic care in order to provide effective services to facilitate the promotion of healthcare to diabetic patients.

In our country, despite the number of patients with diabetes and the numerous complications they face, the specializations of nurses in this field have not yet been opened. There are no nursing guidelines and clinical protocols for diabetes care but they exist only in the field of medicine.

The importance of these results lies in the fact that patients through nursing counseling and education can be trained for self-care and self-management of diabetes, which in turn affect the prevention and reduction of complications of this disease.

6. Recommendation

Recommendations for patients:

- Every patient with diabetes, from the beginning of the disease should be informed about the risk of eventual complications, along with the development of diabetic foot;
- Patients should be constantly counseled and trained on diabetes self-management;
- Do not avoid insulin treatment if recommended;
- Inspect their feet daily for discoloration, swelling, cracks, pain, convulsions, numbness, blisters, etc.;
- Ensure that the toes are clean and that there are no cracks or bulges between them;
- Do not put "tape" or glue, but only sterile gauze and bandage;
- Seek help if they have vision problems for foot inspection;
- Know about self-help in foot examination, such as using a mirror;
- Clean their feet every day, take care of the water temperature, dry the feet and apply cream (not powder, because they dried the skin), always wear clean socks made of cotton or wool that do not tighten the toe, nails rest carefully straight and avoid walking barefoot and wearing shoes without socks;
- Do not use laces, "straps" made of elastic to hold socks;
- Avoid irritating the skin of lesions and blisters;
- Do not heat their feet with heaters or hot bottles;
- Wear appropriate shoes, with the right size and adequate material;
- Respect medical visits, advice on receiving therapy and strictly implement prevention measures for the development of diabetic foot;
- Report any changes to the doctor;
- Do not put alcohol, any disinfectant or chemicals on the skin, as they may damage it;
- Attend training sessions for foot maintenance;
- In the therapy plan it is necessary to change bad diet habits, with therapy to achieve optimal regulation of blood sugar levels, correction of high blood pressure and blood fat levels;
- Smoking is strictly forbidden;
- Regular check-ups besides the Endocrinologist are also necessary for the Neurologist, Cardiologist, Ophthalmologist, Vascular Surgeon, Orthopedist, Dietitian, etc.

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