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## Taking care of a patient with type 2 diabetes as part of visiting nurse's work Opieka nad pacjentem z cukrzycą typu 2 w praktyce pielęgniarstwa rodzinnej

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## Abstract

**Introduction.** Type II diabetes is a disease whose range of influence is very large. Currently, over 3 million people suffer from diabetes in Poland, of which approximately 2,1 million suffer from type II diabetes. Type II diabetes is a commonly occurring disease and the somewhat responsible lifestyle of the patient is responsible for its development. Her treatment is based not only on pharmacotherapy, which allows to maintain the state of normoglycemia, but also on non-pharmacological methods that enable healthy life. Due to range of influence and the possibility of care in the patient's environment, the family nurse plays an important role. Her professionalism and preparation of the patient for self-care, can affect the beneficial effect of treatment and adapt the patient to live with the disease at home.

**Aim of the study.** The aim of the study is to discuss the care problems of a patient with type II diabetes in a home environment, including the care of a family nurse.

**Case description.** The work was based on the individual case method. The data collected about the patient come from own observations, conversations with the patient, analysis of medical records, measurements, and interview with the patient and his family.

**Discussion.** Patients diagnosed with type 2 diabetes often feel confused, they do not know where to go for help. It happens that they do not follow the recommendations, especially those regarding the diet. In addition, patients rarely attempt to change behaviors aimed at preventing complications of diabetes. It is also influenced by their fitness level and age. The role of the nurse at this moment is large. Thanks to the observations and methods used, the nurse allows the patient to meet the deficits in self-care.

**Conclusions.** The effort undertaken by the family nurse brought benefits but did not cause immediate results. Although in most cases the patient was willing to change, he required frequent reminding, instruction and control of the activities undertaken.

**Key words:** type 2 diabetes, nursing care, family nurse

## Streszczenie

**Wstęp.** Cukrzyca typu 2 jest chorobą przewlekłą, występującą powszechnie. Obecnie na cukrzycę w Polsce choruje ponad 3 mln osób, w tym około 2,1 mln chorych cierpi na cukrzycę typu 2. Jej leczenie opiera się nie tylko na farmakoterapii, pozwalającej utrzymać stan normoglikemii, ale także na niefarmakologicznych metodach umożliwiających życie w zdrowiu. Sprawowanie opieki nad pacjentem z cukrzycą w środowisku domowym w dużej mierze spoczywa na pielęgniarce podstawowej opieki zdrowotnej, która planuje i realizuje kompleksową opiekę pielęgniarską nad świadczeniobiorcą w miejscu zamieszkania. Oferowane świadczenia obejmują promocję zdrowia i profilaktykę chorób, świadczenia pielęgnacyjne, diagnostyczne, lecznicze i rehabilitacyjne.

**Cel pracy.** Celem pracy jest omówienie problemów pielęgnacyjnych pacjenta z cukrzycą typu 2 w środowisku domowym, z uwzględnieniem opieki pielęgniarki rodzinnej.

**Prezentacja przypadku.** W pracy posłużono się metodą indywidualnego przypadku. Zebrane dane o pacjencie pochodzą z własnych obserwacji, rozmowy z pacjentem, analizie dokumentacji medycznej, pomiarów, wywiadu z pacjentem i jego rodziną. Badaniem objęto pacjenta w grudniu 2017 roku z rozpoznaną cukrzycą typu 2. Chory ma 73 lata. W pracy posłużono się modelem opieki według Dorothy Orem. W wyniku analizy zebranych danych sformułowano 11 diagnoz pielęgniarskich.

**Wnioski.** Podjęte działania w opiece nad chorym przyniosły korzyści, ale nie wywołały natychmiastowych efektów. Pacjent choć w większości przypadków był chętny do zmian, wymagał częstej uwagi, przypominania, instruktażu i nadzorowania podejmowanych czynności. Zakłada się, że współdziałanie z chorym i jego rodziną w dłuższej perspektywie czasowej przyniesie wymierne korzyści w zakresie samoopieki i samopielęgnacji.

**Słowa kluczowe:** cukrzyca typu 2, opieka pielęgniarska, pielęgniarka rodzinna

## **1. Introduction**

Type 2 diabetes is the most common type of diabetes in the world. Its history goes back to antiquity [1]. In the past, this disease was fatal. Diabetes is a progressive disease, its development is progressive, strict control is necessary. Already in the nineteenth century, it was noticed that a properly selected diet prolonged the lives of patients, and maintaining normal glycemia allows to avoid complications that are dangerous for health and life [1]. Type 2 diabetes is a widespread disease throughout the world. According to the World Health Organization (WHO), in 1980 there were 108 million people suffering from diabetes in the world, while in 2014 their number increased to 422 million [2]. According to WHO, in 2030 diabetes will become the seventh cause of death in the world [2]. Similar upward trends can also be observed in Poland. Currently, over 3 million people suffer from diabetes in Poland, of which approximately 2.1 million suffer from type 2 diabetes, about 200,000 he suffers from type 1 diabetes. Over 750,000 patients are not aware of the disease [3]. As can be seen from the literature review "in a group of people over 60, every fourth person suffers from diabetes, and among people over 80 years old, diabetes is found in half of the respondents. People with pre-diabetes are 2-4 times more than patients with diabetes "[3]. In the WHO report on diabetes, it is advisable that diabetes is the cause of 2% of all deaths in Poland [4].

Type 2 diabetes is a common disease, and the lifestyle of the patient is responsible for its development. Diabetes as a chronic disease adversely affects the functioning of many systems and organs, can cause adverse effects on human health. Its treatment is based not only on pharmacotherapy, which allows to maintain the state of normoglycaemia, but also on non-pharmacological methods that enable life in health [5]. Taking care of a diabetic patient in a home environment is largely the responsibility of a primary care nurse. Her holistic approach to the patient allows us to recognize the most important needs and to plan nursery interventions. It performs its functions towards the family, its members, the local community, in their living environment, in the situation of health, illness and disability [6]. It is expected

from her not only to help the patient at the beginning of the illness, during hospitalization, but also to provide further professional care after returning home [6]. Her patients are healthy, ill, disabled people, persons in the terminal state, with the exception of the newborn and the infant up to the second month of life [7]. As part of the health care provided, a family nurse cooperates with a primary care physician, midwife, nurse of the teaching and education environment or a school hygienist, long-term home care nurse, family or guardians of the patient, representatives and institutions acting for health, as well as other healthcare providers [7]. The family nurse, due to the nature of her work, has a big overview of the everyday life of both the patient and his relatives. Thanks to the knowledge of housing, social and living conditions, he can determine the family's health situation, possible pathology and addictions. Knowledge of these conditions allows also to assess the care and nurturing capacity of the family, which should take an active part in caring for the patient [8]. The Regulation of the Minister of Health of September 21, 2016 defines the scope of tasks of a primary care doctor, a primary care nurse and primary care midwife (Journal of Laws of 28 September 2016 item 1567).

The primary care nurse plans and realizes comprehensive nursing care for the beneficiary in the place of residence in the area of:

- 1) health promotion and disease prevention;
- 2) nursing benefits;
- 3) diagnostic benefits;
- 4) therapeutic benefits;
- 5) rehabilitation benefits [7].

### **Aim of the study**

The aim of the work is to present the problems faced by patients with type 2 diabetes, as well as to discuss the scope and model of nursing care for patients over the patient with chronic disease in the home environment.

## **2. Materials and methods**

The work uses the individual case study, which consists in illustrating a given case and its in-depth analysis. It allows the presentation of a phenomenon that deviates from the norm, which is extreme and deviates from the rule [9]. It gives the opportunity to enrich the scope of

knowledge about a given case, which makes it more understandable [9]. According to Bromley, the case study is a constant search for specific events that explain the cause and illustrate the phenomenon [9]. The subject of the research can be both an individual and a group. Most often, the subject under analysis is subjected to the unit, and the case study shows its main patterns of behavior according to which it lives [9]. The research techniques such as: intelligence were used to collect the empirical material with the patient and his family, observation, measurement of basic vital parameters. The history of the disease was reviewed, the results of diagnostic tests were analyzed, the observation cards and self-checks were familiarized.

The research used research tools such as: standardized ADL scale questionnaires and the IADL scale for the assessment of basic and complex life activities, the Barthel International Scale assessing the patient's physical function and the scale of MNA nutritional status evaluation. The patient was presented with the purpose and course of the study. The patient had the opportunity to ask questions and obtain additional explanations, and to resign from the study at any time. The patient gave informed consent to participate in the study.

## **2.1. Case study**

The study included a patient in December 2017 with diagnosed type 2 diabetes. The patient is 73 years old, he was born in Bezdany, a small town in Lithuania. He grew up in a full family as the oldest of five children. He graduated from a vocational school, obtained the qualification of a welder and worked in the profession for retirement. Two sisters besides two sisters in the family he did not suffer from type 2 diabetes. The patient is married and has three children. He currently lives in Pieniężno. Maintains constant contact with family and loved ones. The patient has been suffering from obesity, hypercholesterolemia, hypertension for many years. He feels pain in the knee joints, which limits his mobility. Additionally, he has constipation. At the age of twenty-three he underwent appendectomy without complications. In 1993, he was hospitalized for ischemic stroke. The complication of the stroke was left-sided paresis, which after the implemented rehabilitation subsided to a large extent. Stroke stiffened after the stroke. In 2006 cholecystomy was performed in the patient due to cholelithiasis.

In 2011, however, he was treated for myocardial infarction. During the stay in the hospital, coronary angiography was performed with the implantation of the coated stent. In

good general condition, the patient was discharged home with the recommendation to visit the ward again. In 2012, the patient underwent LAD angioplasty with implantation of a coated stent and LCx with implantation of a coated stent. Hospitalization without complications. Two months after the procedure, the next stage of treatment was performed - right angioplasty of the right coronary artery. Since 2012, after diagnosing prostatic hypertrophy, the patient uses the advice of a urologist. The consequence of the disease is incontinence. Pharmacological recommendations: Metocard ZK 47.5 mg 1-0-0, Vanatex 80mg 1-0-0, Atorvasterol 20mg 0-0-1, Polocard 75 mg 0-0-1, Hyplafin 5mg 1-0-0.

The patient claims that type 2 diabetes developed over the years, and her symptoms were unnoticeable. The first signs of the disease worried the man in 2017, in the autumn time, during the trip to the mushrooms. The patient remembers that walking through the forest felt a great weakness, shaking hands and feeling hungry. After rest, worried, he returned home, and the next day he reported to the family doctor. In addition, the patient was prone to skin itching, recurrent infections of the urinary tract. Often he felt excessive urge to urinate, a burning sensation with micturition. After the diagnostic tests, the patient was diagnosed with type 2 diabetes. Immediate treatment was instituted, further urging him to change his lifestyle. Pharmacological recommendations after diagnosing type 2 diabetes: Formetic 850 mg 1-1-1, Glibetic 2 mg 0.5 tabl. 1-0-0. The patient is under the constant care of a family doctor and a family nurse. The family who takes care of the well-being and health of the patient turned out to be helpful.

The patient has many passions, interests, among others, he deals with mushrooming and growing the garden. He loves pigeon farming. In free time, the patient develops his literary skills, writes poems. Despite the help from the family is not able to give up the current lifestyle. He has a tendency to eat fatty, fried dishes. He likes to eat sweets and meals in the evening. He runs morning gymnastics lasting about 10 minutes.

Good contact with the patient, no word restrictions. Speech is clear, the form is correct. The content of logical expression. The patient has poor facial expressions. Visually eye contact. The patient adopts an open posture during a conversation. He is nice and friendly to the interlocutor.

### **2.1.1. Physical condition assessment**

The external appearance indicates signs of hygienic neglect. The patient wears contaminated clothing, he feels unpleasant smell resulting from increased sweating and incontinence by the patient. The patient is obese. Excess fat accumulates around the stomach. The oral hygiene condition is low, there are missing teeth and recurrent inflammations of the corners of the mouth. Dry mucosa. A neglected hygienic condition of the feet was observed. Nails not cut at the foot, on the feet found calluses, rubbing the skin, especially in the heel area. The man has an excessive appetite, eats too many dishes containing animal fats. Frying is the most commonly used cooking method. He does not feel thirsty, he consumes a small amount of fluids. Body posture inclined, the patient does not raise his feet while making steps, he stumbles. There is a large stiff neck. He has hearing problems, he usually asks you to repeat the question several times.

Assessment of vital signs:

Heart rate - 74 bts/min;

Blood pressure - 141/89 mm Hg;

Half-glycemia was assessed:

- in the morning on an empty stomach - 130 mg/dl;
- 2 hours after breakfast - 141 mg/dl;
- 2 hours after lunch - 153 mg/dl;
- 2 hours after dinner - 147 mg/dl.

Body weight - 95 kg

Height - 168 cm

Body mass index BMI - 33.7

Waist - hip ratio WHR - 1.08.

The patient's ability to function at home was determined using the Barthel scale, the result was 95/100 points. This means that the patient does not require constant care. According to the Daily Activity Scale (ADL), the patient received 6/6 points, while according to the Complex Activity Scale (IADL), he received 21/24 points. In the assessment of nutritional status, MNA received 13/14 points.

### **2.1.2. Mental state assessment**

The patient maintains good contact with family and friends, but reluctantly participates



in meetings in a larger group. Then it can be isolated, it does not take up conversations, it prefers to listen. It happens that during the meeting he falls asleep. He focuses his attention on pigeon breeding. He is stubborn, he does not like changes, he does not tolerate family advice on lifestyle modifications. He is often embarrassed by the discomfort of incontinence, but he does not want to use men's sanitary towels. In addition, he often suffers from discomfort due to constipation. Has difficulty falling asleep. The patient's mood was described as good. Auto and allopsychic orientation preserved. Psychomotor drive slightly lowered.

### **2.1.3. Living and housing conditions assessment**

The patient assesses his own material and living situation as good. He lives with his wife in an apartment with an area of 60 m<sup>2</sup>, on the second floor, which has 3 rooms, hall, bathroom, toilet, central heating, access to hot water. It is well-equipped, contains basic household appliances. The patient has his own room with access to the balcony. The flat is well cared for. The patient's wife cares for cleanliness at home. He does not take any corrective or corrective actions. He maintains his retirement, he says is quite economical. He does not use social assistance.

The patient has three children with whom he maintains constant contact. Their relationships are very good, family meetings are often held, due to the close distance that separates them from each other. The patient receives a lot of support from a family who is worried about his health and inappropriate lifestyle. In addition, they help him in his daily duties and remind him of planned medical visits.

### **3. Nursing diagnosis**

A nursing diagnosis is called diagnosing the state of health and changed patient interactions resulting from the assessment of symptoms that the nurse can identify and take appropriate actions based on them [10]. Establishing a nursing diagnosis is therefore crucial to plan and take appropriate interventions aimed at maintaining health, removing or preventing adverse changes [10]. The work was based on a care model according to Dorothy Orem. Her model of care emphasizes the special role of the nurse's cooperation with the patient and his family. It assumes that everyone should take care for his own health as much as his bio-

psycho-social status allows [11]. Dysfunction of one of the states makes the patient unable to self-care, and the nurse supports him in maintaining health [11].

As a result of the analysis of the patient data collected, the following nursing diagnoses were formulated:

1. The risk of developing the diabetic foot syndrome.
2. The risk of hypoglycaemia due to decompensated diabetes.
3. The risk of urinary tract infections in the course of type 2 diabetes.
4. Deficiency of knowledge in the use of diet in the course of diabetes.
5. Deficiency of knowledge in the field of physical effort in the course of diabetes.
6. Discomfort caused by urinary incontinence.
7. Difficult communication caused by hearing loss resulting from the retention of cerumen in the auditory ducts.
8. Malaise due to the occurrence of constipation.
9. Risk of dehydration due to lack of thirst.
10. Depressed mood caused by sleep disorders.
11. Low hygiene due to lack of care for it.

**Nursing diagnosis I:** Risk of developing diabetic foot syndrome.

Care objectives: Prevent the development of diabetic foot syndrome.

Care plan:

- paying the patient special attention to foot hygiene;
- learning simple rules regarding the care of the feet in the course of diabetes (thorough drying with a foot towel after bathing, accurate assessment of the skin of the feet in the direction of skin abrasions, short nail clipping, proper skin hydration);
- to indicate to the patient not to underestimate light skin cuts and to secure them with a sterile dressing;
- proposing to the patient to wear shoes with a stable sole, larger than the size of the foot;
- offering the patient to wear socks with a loose welt;

- inform the patient about the prohibition of long soaking feet, barefoot walking, heating the legs with a hot water bottle and a heater;
- demonstration of the relationship between poorly treated diabetes and the development of diabetic foot syndrome.

The result: The patient became interested in the hygienic condition of the feet. He tries to take care of their appearance, but constantly requires instruction and assistance in their care.

**Nursing diagnosis II:** The risk of hypoglycaemia due to decompensated diabetes.

Care objectives: Prevention of hypoglycaemia.

Care plan:

- teaching the patient to recognize the early symptoms of low blood glucose;
- a reminder that the patient always had a snack with him, eg candy, a sweet drink, a sandwich;
- a reminder that the patient should be equipped with a special bracelet or identification card with the annotation that he is suffering from type 2 diabetes;
- inform you that if you notice symptoms of low blood glucose, you should immediately take your blood glucose;
- teaching the patient's family how they should respond to the symptoms of hypoglycaemia in the patient.

The result: The patient equipped himself with a special bracelet for a person suffering from diabetes, which was purchased by his family. In addition, the patient can already recognize the symptoms of hypoglycaemia and intervene properly. He put candy in the pocket of each trouser, which may help him in hypoglycaemia.

**Nursing diagnosis III:** The risk of urinary tract infection in the course of type 2 diabetes.

Care objectives: Prevention of urinary tract infection.

Care plan:

- explaining to the patient the causes of recurrent urinary tract infections in the course of type 2 diabetes;
- explaining to the patient how important it is to maintain the correct glucose values in the blood in the prevention of urinary tract infections;

- an explanation of the importance of regular drinking water in the prevention of urinary tract infections;
- a reminder about the exact crotch toilet;
- encouraging the patient to take preparations containing cranberry;
- a reminder of regular emptying of the urinary bladder;
- avoiding excessive cooling of the feet, abdomen and lumbar region;
- to encourage the patient to check the general urine.

The result: The patient is used for indications of urinary tract prophylaxis, but he must constantly be reminded about fluid intake. Prophylactically takes preparations containing cranberry and dresses adequately to the weather.

**Nursing diagnosis IV:** Deficiency of knowledge in the use of diet in the course of diabetes.

Care objectives: Learning the correct eating habits.

Care plan:

- presenting to the patient the benefits of using a diet in the course of diabetes to control the level of glycaemia;
- presentation of products indicated and contraindicated for consumption in diabetes;
- informing the patient about indicated and contraindicated methods of thermal treatment of products;
- presenting to the patient an alternative to sugar, which are sweeteners;
- reminding the patient about the need to drink liquids in the amount of 1.5 liters of water per day;
- paying attention to regularity of meals;
- presenting the patient with products with a high glycemic index.

The result: The patient pays attention to the meals he consumes. His wife helps him in the preparation of meals. The patient increased the amount of vegetables in the diet, began using sweetener as an alternative solution. However, he still has a tendency to eat fatty foods and eat them in large quantities.

**Nursing diagnosis V:** Deficiency of knowledge in the field of physical exercise in the course of diabetes.

Care objectives: Increase the patient's awareness of physical activity, reduce weight, improve fitness.

Care plan:

- showing the patient the benefits of taking systematic physical activity in the course of diabetes;
- to remind the patient to always check the level of glucose in the blood before and after taking physical effort;
- presenting to the patient safe forms of physical exertion, eg initially 15 minutes of walking, cycling on flat terrain;
- indication of this activity, which the patient should not undertake, for example, a forceful effort;
- a reminder that you should not: exercise on an empty stomach, take physical activity when the glucose is below 100 mg/dl or above 300 mg/dl, take physical effort
- during colds, undertake physical activity at very high ambient temperature on hot days;
- a reminder to drink water during physical activity about 120-200 ml every 20 minutes;
- encouraging the patient to keep an activity diary that will allow you to plan your activity during the day and better control it;
- encouraging the patient to wear a comfortable suit before starting physical exercise, it is best to wear several thin layers instead of one warm one as you exercise, be able to undress.

The result: The patient started his activity with his wife from a 20-minute walk, four times a week. His well-being improved significantly, he feels more energy, thanks to which he is easier to function during the day. He gradually decided to increase the distance of the march. The patient also remembers about the measurement of glycaemia before and after physical exertion.

**Nursing diagnosis VI:** Discomfort caused by urinary incontinence.

Care objectives: Improve the patient's physical and mental comfort.

Care plan:

- improvement of the patient's self-assessment by showing him support and understanding in a shameful problem;

- awareness of the incidence of urinary incontinence among men;
- encouraging the patient to use hygienic insoles for men, showing how to use them;
- encouraging the patient to put on clothes that are easy to take off, eg pants on an elastic band;
- showing the patient the need for a frequent crotch toilet;
- indicating to the patient the need to change the personal underwear in case of contamination;
- encouraging the patient to limit the consumption of carbonated beverages and drinks with caffeine.

The result: The patient gradually began to accept the problem of urinary incontinence. His self-acceptance increased, which improved his general well-being. He tries to follow the instructions, exchanging uncomfortable clothes for those that allow him to quickly take them off during the micturition. In addition, he decided to use hygienic inserts for men, but he does so reluctantly.

**Nursing diagnosis VII:** Difficult communication caused by hearing loss resulting from the retention of cerumen in the auditory tract.

Care objectives: Improvement of communication between the patient and the environment, reducing the retention of cerumen in the auditory tract.

Care plan:

- a reminder to the patient about regular washing of the ears;
- assessment of the ear for the presence of residual earwax;
- pay attention that the patient does not use ear-cleaning sticks or other sharp objects;
- encouraging the patient to house methods of rinsing their ears with warm water and a drink from chamomile;
- a reminder to the patient that he would use non-prescription spray preparations for ear hygiene;
- in the absence of improvement, encourage the patient to visit a doctor to rinse the ears.

The result: The patient did not express the will to rinse his ears in the doctor's office, so he started using non-prescription spray preparations for ear hygiene. He followed the instructions and stopped using ear sticks and objects that caused the cerumen to be pressed into the ear canal. The patient noticed a slight improvement in hearing.

**Nursing diagnosis VIII:** Malaise caused by the occurrence of constipation.

Care objectives: Improvement of the patient's mental and physical comfort, lack of constipation.

Care plan:

- conversation with the patient regarding the duration of constipation, the frequency of defecation, stool consistency, symptoms associated with passing stool;
- encouraging the patient to change the way he feeds;
- convincing the patient about the necessity of using a diet rich in fiber and drinking lots of fluids;
- encouraging the patient to moderate physical activity;
- applying abdominal massage several times a day with stroking movements clockwise;
- encouraging the patient to drink herbal teas, eg with the addition of mint;
- encouraging the patient to regularly empty by attempting to give a stool 10-15 minutes after a meal.

Result: The problem of constipation in the patient has changed, however, the number of rendered stools during the week varies in the borderline of 1-2. The patient follows the recommendations and enriches his diet for fiber, eagerly performs abdominal massage.

**Nursing diagnosis IX:** Risk of dehydration due to lack of thirst.

Care objectives: Proper hydration of the patient, preventing dehydration.

Care plan:

- explaining to the patient the need to drink water;
- explaining to the patient that drinking coffee and tea does not irritate the body;
- assessment of the patient towards the occurrence of dehydration symptoms, eg dry, cracked lips, loss of skin elasticity, sunken eyes;
- providing the patient with daily water needs;
- encouraging the patient to prepare bottles of water containing the daily water requirement that the patient should drink;
- encouraging the patient's family to always drink water in his company, which will remind him of his desire;
- encouraging the patient to eat more vegetables;

- encouraging the patient's family to more frequently prepare soups for lunch.

The result: In addition to drinking tea, the patient also included water for each meal. The patient prepares daily bottles of water with a total capacity of 1.5 l - 2 l, but he is not always able to drink them. Requires more frequent recall of drinking water.

**Nursing diagnosis X:** Lowered mood due to sleep disorders.

Care objectives: Improve well-being and quality of sleep.

Care plan:

- conversation with the patient about his lifestyle, which significantly affects the quality of sleep;
- encouraging the patient to avoid naps during the day;
- an attempt to enter a regular time of sleep and getting up;
- showing the patient the negative impact of watching TV at bedtime on its quality;
- proposing to the patient not to eat before bedtime, and last two hours before bedtime;
- encouraging the patient to ventilate the room before going to bed at night;
- proposing that the patient go for a walk before going to sleep;
- an indication of the patient to limit coffee intake.

The result: The patient reluctantly gave up afternoons. He did not try to sleep before bedtime and limited his watching TV before going to bed. The room airing and short walks were very good at falling asleep. Sleep disorder decreased, which improved the patient's well-being and increased the better functioning during the day.

**Nursing diagnosis XI:** Low hygiene due to lack of care for it.

Care objectives: Improving the hygiene and appearance of the patient.

Care plan:

- interviewing the patient about the importance of personal hygiene and care for her;
- presenting the patient with the importance of appearance in interpersonal contacts;
- presenting the patient with hazards resulting from hygienic neglect;
- giving simple advice to the patient in maintaining proper body hygiene through: regular washing, regular change of personal underwear, the need to brush the teeth / dentures, applying body cosmetics to improve its fragrance, learning proper body washing, learning to care for hair and nails;



- recognizing changes in the patient's external appearance and praising them.

The result: The patient noticed the positive importance of body hygiene. He began to pay more attention to the external appearance, however, he has no educated hygiene habits and constantly requires motivation in this area. The patient performs a double full body toilet during the day but forgets to change clothes when they are dirty or smell bad. The patient also needs reminding about shaving beard and cutting off nails.

#### **4. Discussion**

The problem of type 2 diabetes is becoming more and more common. Almost obese and adults suffer from it [12]. Their treatment is complicated due to the complex aetiology of diabetes and the variety of complications [12]. Patients diagnosed with type 2 diabetes often feel confused, they do not know where to go for help. It happens that they do not follow the recommendations, especially those concerning the diet [12]. They do not realize what products they should eat and what to avoid [12]. In addition, patients rarely attempt to change behaviors aimed at preventing complications of diabetes. It is also influenced by their fitness level and age. As results from the research, the age of the patients is affected by their functional status [13]. The older the patient's age, the more the functional efficiency deteriorates [13]. The role of the nurse at this moment is large. It plays the informational and educational role. Its task is to provide knowledge and information necessary to function with the disease, to inspire it to take the effort associated with a change in lifestyle [12]. Thanks to the observations and methods used, the nurse allows the patient to meet the deficits in self-care and self-care. Research shows that more than half of respondents consider it the primary source of information about the disease is the nurse [14]. What is more, people informed about diabetes by a nurse are more aware of expanding knowledge about diabetes [14]. In order for the nurse to reach the goals set at the beginning, he must have multidisciplinary knowledge [12]. Her multi-faceted education allows us to look at the patient in a holistic dimension [12].

#### **5. Summary**

The paper attempts to indicate the role of a family nurse in patient care with type 2 diabetes in the living environment. The undertaken activities were dependent on the patient's care problems and his needs. It was only on their basis that it was possible to formulate

nursing diagnoses and plan interventions. The care of the family nurse consisted mainly in the education of the patient in the non-pharmacological treatment of diabetes through: weight reduction, diet modification, attention to foot hygiene, urinary tract, learning self-help methods in hypoglycaemia. In addition, the family nurse, due to the holistic approach to the patient and his needs, took interventions to change the patient's low level of hygiene, bad mood associated with sleep disorders, constipation and incontinence. The assessment of nursing activities undertaken is ambiguous. The effort taken by the family nurse brought benefits, but it did not cause immediate results. Patient education and the science of self-care required a great effort and commitment from the family nurse. Although in most cases the patient was willing to change, he required frequent reminding, instruction and control of the activities undertaken. Every effort made by the patient contributed to increasing the control of the disease

and improving self-care. Positive effects on the patient's functioning were also due to his family, who motivated the patient and encouraged further changes leading to maintaining health and improving the lifestyle.

## References

1. Duda – Sobczak A., Gawrecki A., Juruć A., Karbowska S.: Cukrzyca typu 2. Przewodnik dla chorych. Wydaw. PZWL, Warszawa 2016: 7-14.
2. [https://journals.viamedica.pl/clinical\\_diabetology/article/view/44915/30986](https://journals.viamedica.pl/clinical_diabetology/article/view/44915/30986)  
(dostęp 09.01.2018 g.13:40)
3. Czupryniak L., Strojek K.: Diabetologia 2017. Wydaw. Via Medica, Gdańsk 2017.
4. Strojek K.: Diabetologia. Praktyczny Poradnik. Wydaw. Termedia, Poznań 2014: 9-39.
5. Strojek K.: Diabetologia. Praktyczny Poradnik. Wydaw. Termedia, Poznań 2014: 9-39.
6. Sulewska M., Mikulska A.: *Pamiętać o problemach chorego na cukrzycę*. Med. Rodz. 2007; 2: 34-35.
7. Rozporządzenie Ministra Zdrowia z dnia 21 września 2016 r. w sprawie zakresu zadań lekarza podstawowej opieki zdrowotnej, pielęgniarki podstawowej opieki zdrowotnej i położnej podstawowej opieki zdrowotnej. (Dz. U. z 2015 r. poz. 581, z późn. zm.).
8. Pluta A., Basińska - Drozd H., Feleńczyk K., Budnik - Szymoniuk M.: *Udział pielęgniarki rodzinnej w opiece nad pacjentem geriatrycznym*. Med. Rodz. 2014; 1: 27-30.

9. Lenartowicz H., Kózka M.: *Metodologia badań naukowych w pielęgniarstwie*. Wydaw. PZWL, Warszawa 2010,2011: 72-103.
10. Lesińska-Sawicka M.: *Metoda Case Study w Pielęgniarstwie*. Wydaw. Borgis, Warszawa 2009: 9-10, 25-35.
11. Dobińska Ż.: *Opieka pielęgniarska – wybrane zagadnienia teoretyczne*. Pol. Prz. Nauk. Zdr. 2014; 1: 61.
12. Lisowska A., Ulanowska J., Twardak I., Kraińska A.: *Opieka pielęgniarska nad pacjentem z cukrzycą typu 2*. Gerontologia Współczesna. 2015; 3: 113-114, 116-117.
13. Humańska M., Felsmann M., Sopalska J.: *Sprawność funkcjonalna osób starszych chorujących na cukrzycę – doniesienia wstępne*. Gerontol. Pol. 2016; 24: 98-101.
14. Kosicka B., Wrońska I.: *Rola pielęgniarki w edukacji chorego na cukrzycę*. Probl. Pielęg. 2007;2-3(3): 188-190.