

LIVING WITH DIABETES - CASE STUDY

Życie z cukrzycą – studium przypadku

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Key words: diabetes, case study.

Summary

Introduction. Diabetes is a chronic disorder of metabolism. It is caused by impaired insulin secretion and action. There are type 1 diabetes, type 2 diabetes, gestational diabetes and other specific types of diabetes. Risk factors for this disease include age (risk increases after 45 years of age), obesity, low physical activity, hypertension, lipid disorders genetics. Symptoms of the disease are frequent urination, excessive thirst, weakness, lethargy, emaciation, fungal infections, furunculosis. Patients have elevated blood glucose levels. Complications of diabetes can be divided into acute and chronic. Complications include acute hyperglycemia and hypoglycemia. Chronic complications is microangiopathy (retinopathy, nephropathy, neuropathy) and macrovascular disease (myocardial infarction, stroke, peripheral vascular disease). Diabetes occurs more frequently, is an important sociological and social problem. Her diagnosis always causes anxiety, uncertainty, sense of danger. Ill try to find answers to many questions.

Objective. The aim of this study was to determine the quality of life for patients with diabetes, diagnosis of care problems, patient education in terms of information essential for living with chronic disease.

Materials. Material - the subject of research was a woman aged 64 suffering from diabetes type II. Patient presented information about diabetes, we got to know her health problems and their solutions.

Methods. A Study of the individual case. Techniques: Observation, interview, examination of documents.

Research problems posed in the work are:

What are the health problems common in patients with diabetes?

The extent to which a patient with diabetes is capable of self-care and self-control?

As the nurse prepares the patient to change and lifestyle modification in chronic disease that is diabetes?

The paper presents a range of activities including patient self-care and self-control.

Results. The patient reported the following health problems relating to diabetes: the lack of insulin, inability to use the meter, the lack of sufficient knowledge about the complications of diabetes, skin abrasion on the foot and clammy skin between the toes, being overweight.

Conclusion. Patient is a walking, self-contained. All nursery operations performed alone. With the support of her daughter is trying to overcome all the difficulties associated with the disease. She uses medical care as a medical indication, every 6-8 weeks in primary exercise control study of blood glucose levels, use of medical visits, always ordered the hypoglycemic drugs, insulin, diabetic diet, was informed by a nurse for further care and self-control. The paper presents a range of activities including patient self-care and self-control.

The patient was informed of the need for lifestyle changes such as diet, avoidance of drugs, the constant control of blood glucose (glucometer training will be offered), a small regular exercise, etc.

First of all making clear to patient that diabetes is not cited, you can live with this disease, do not fall apart. The proper operation of treatment with a conscious discipline of the patient, can maintain good performance in life and personal life satisfaction.

She learned to use the same meter and examine the level of blood sugar at a specified time. She is aware of the problems associated with the disease. He is aware that only applies to the stringent requirements and restrictions, will allow it to avoid future complications. Despite an incurable disease is trying to discern the meaning of life and the meaning of their sacrifices. He believes in the fact that a positive attitude to the disease is part of the success on the road to quality of life.

Słowa kluczowe: cukrzyca, studium przypadku.

Streszczenie

Wstęp. Cukrzyca jest przewlekłą chorobą przemiany materii. Spowodowana jest zaburzeniami wydzielania insuliny i jej działania. Wyróżniamy cukrzycę typu 1, cukrzycę typu 2, cukrzycę ciężarnych oraz inne specyficzne typy cukrzycy. Do czynników ryzyka tej choroby należą: wiek (ryzyko wzrasta po 45 roku życia), otyłość, mała aktywność fizyczna, nadciśnienie tętnicze, zaburzenia gospodarki lipidowej uwarunkowania genetyczne. Objawy choroby to częste oddawanie moczu, nadmierne pragnienie, osłabienie, senność, wychudzenie, grzybice, czyracność. U pacjentów występuje podniesiony poziom glukozy we krwi. Powikłania cukrzycy dzielimy na ostre i przewlekłe. Do powikłań ostrych należą hiperglikemia i hipoglikemia. Powikłania przewlekłe to mikroangiopatie (retinopatia, nefropatia, neuropatia), oraz makroangiopatie (zawał serca, udar mózgu, choroby naczyń obwodowych). Cukrzyca występuje coraz częściej, stanowi ważny problem socjologiczno-społeczny. Jej rozpoznanie zawsze rodzi niepokój, niepewność, poczucie zagrożenia. Chory próbuje znaleźć odpowiedź na wiele nurtujących pytań.

Cel. Celem pracy było określenie jakości życia pacjentów z cukrzycą, rozpoznanie problemów pielęgnacyjnych, edukacja pacjenta w zakresie informacji niezbędnych do życia z chorobą przewlekłą.

Materiały. Materiałem – przedmiotem badań była kobieta lat 64 chora na cukrzycę typu II. Chorej zostały przedstawione informacje na temat cukrzycy, poznaliśmy jej problemy zdrowotne oraz sposoby ich rozwiązania.

Metody. Studium indywidualnego przypadku. Techniki: Obserwacja, wywiad, badanie dokumentów.

Problemy badawcze postawione w pracy to:

Jakie problemy zdrowotne występują u pacjentki z cukrzycą?

W jakim zakresie pacjent z cukrzycą jest zdolny do samoopieki i samokontroli?

Jak pielęgniarka przygotowuje pacjenta do zmiany i modyfikacji stylu życia w chorobie przewlekłej jaką jest cukrzyca?

W pracy przedstawiono zakres działań pacjentki obejmujący samoopiekę i samokontrolę.

Wyniki: Pacjentka zgłosiła następujące problemy zdrowotne dotyczące cukrzycy: niewiedza w zakresie insulinoterapii, nieumiejętność obsługi glukometru, brak dostatecznej wiedzy na temat powikłań cukrzycy, otarcie naskórka na stopie i wilgotna skóra pomiędzy palcami u stóp, nadwaga.

Wnioski: pacjentka jest osobą chodzącą, samodzielnie. Wszystkie czynności pielęgnacyjne wykonuje sama. Dzięki wsparciu córki stara się

pokonywać wszelkie trudności związane z chorobą. Pacjentka korzysta z opieki medycznej według wskazań lekarskich, co 6-8 tygodni wykonuje w POZ kontrolne badanie poziomu glukozy we krwi, korzysta z wizyt lekarskich, stale przyjmuje zlecone leki hipoglikemizujące, insulinę, stosuje dietę cukrzycową, została poinformowana przez pielęgniarkę w zakresie dalszej samoopieki i samokontroli. W pracy przedstawiono zakres działań pacjentki obejmujący samoopiekę i samokontrolę.

Pacjentka została poinformowana o potrzebie zmiany stylu życia tj. przestrzeganie diety, unikanie używek, stała kontrola poziomu glukozy (nauka obsługi glukometra), regularny niewielki wysiłek fizyczny itp.

Przed wszystkim uzmysłowiono choremu, że cukrzyca to nie wyrok, można żyć z tą chorobą, nie wolno się załamywać. Właściwe prowadzenie leczenia przy świadomym zdyscyplinowaniu pacjenta, umożliwi utrzymanie dobrej sprawności życiowej i indywidualnej satysfakcji z życia.

Pacjentka nauczyła się obsługi glukometru i sama bada poziom cukru we krwi o określonym czasie. Pacjentka zdaje sobie sprawę z problemów związanych z chorobą. Ma świadomość, że tylko zastosowanie się do rygorystycznych wymogów i ograniczeń, pozwoli jej w przyszłości uniknąć powikłań cukrzycy. Pomimo nieuleczalnej choroby stara się dostrzec sens życia oraz sens swoich wyrzeczeń. Wierzy w to, że pozytywne nastawienie do choroby jest częścią sukcesu na drodze do wysokiej jakości jej życia.

Introduction

Diabetes-Diabetes mellitus is a chronic metabolic disease. Proceeds from the initial disturbances of carbohydrate metabolism and secondary disorders of lipids and proteins. Impaired glucose are conditioned deficiency of insulin, produced by pancreatic islands of Langerhans. Insulin deficiency can be caused by insufficient production of insulin, excessive wear or impaired its use of insulin by the tissues. Insulin deficiency impairs whole system transformation of glucose in the body, a substance that is the main, easily accessible source of energy for life. Disturbances in carbohydrate metabolism have systemic consequences [1, 4, 12]. Complication of diabetes can be divided into acute (hypoglycemia, hyperglycemia) and chronic (microangiopathy, macroangiopathy) [9].

The aim of the study is to determine the quality of life for patients with diabetes. Diabetes brings with it a lot of dietary restrictions. Patients must learn to live with her. As these patients to cope with the onerous requirements of treatment, if they can enjoy life? The paper has been written about how patients cope with illness and difficulties connected with it. Showing what is the role of nurses in patient education on self care and self-control. It was stressed that diabetes is not a sentence that you can live with this disease, do not fall apart. Methods of treating diabetes is becoming more effective. Medicine then up to the goal of fully neutralize the negative impact of diabetes on quality and length of life of patients [8]. Diabetes is a complex metabolic disorder characterized by hyperglycemia resulting from defect for insulin secretion, or its activities or the existence of both defects simultaneously. Chronic hyperglycemia is associated with long-term damage, dysfunction and failure of various organs, especially the eyes, heart, blood vessels and nerves [1, 20, 22]. Diabetes is a disease of old as the hills. The oldest, dating from 1550 BC document on the disease is Ebers papyrus discovered in Egypt, now kept in the museum at the University of Leipzig. Medical writings of the Arabs, Chinese, Indians and give descriptions of the symptoms of diabetes, corresponding to [2]. As the first of the term "diabète" from the Greek meaning to "leak" has used the Turkish physician from Cappadocya Areteusz about the year 200 AD Later the name was added to the Latin term "mellitus", which means 'sweet', taste of honey "[2, 12]. Many researchers have dealt with over the centuries this entity, all with little success. Success started to bear fruit until the modern knowledge about diabetes. It began in 1869, when P. Langerhans defended his doctoral thesis in Berlin, which proved the existence of special cells in the pancreas in clusters scattered across the island as "insula" [3]. In 1889, scientists J. von Mering and O. Minkowski proved that the symptoms of diabetes occur after surgical removal of the pancreas in dogs. This allowed the lead further scientific work. We have detected that diabetes is the result of damage was arranged in the pancreas as islands of cells [3, 12]. In 1921, F. Banting and H. Ch. Best isolated extract, which contained a hormone called isletyne initially and later insulin. Injecting Insulin Diabetic patient exhausts the symptoms of diabetes, the former is a fundamental change in the history of the disease [4].

In Poland, the first time, the insulin produced by J. Celarek engineer in 1926 in the workshop held at the National Institute of Hygiene in Warsaw. Insulin eliminates the symptoms of its deficiency in the body. In Poland and around the world continue to research is designed to control diabetes, improve the quality of life for patients with diabetes. The most important of these is a comprehensive patient care, quality control results of treatment, construction of automatic dispensers - pens, personal pumps for continuous infusion of insulin pumps implanted, to create artificial beta cells, pancreatic transplantation, the possibility of determination of insulin, and anti-insulin, anti-island antibodies in the blood, to obtain highly purified human insulin, the detection of multiple genetic mechanisms of emergence of diabetes education on self-care and self-control [5]. Recent reports in May 2008, wrought by the Warsaw Institute of Transplantation, pancreatic islet transplantation own to the liver, the patient, who removed the pancreas, avoiding diabetes. A similar procedure can be performed either by using the patient's own cells (autograft) or using cells taken from cadavers (allograft). Successful pancreas transplantation leads to normalization of blood glucose within a few hours after transplantation. Over 75% of patients are alive with active pancreas transplant, and four years after transplantation occurs to reduce the symptoms of microvascular complications and improves the flow of the skin and thermoregulation. Successful transplantation provides constant control of glucose metabolism. In the future there will also be implemented in Poland a number of years in other countries-transplantation of pancreatic islets from cadavers for patients with diabetes. In this way patients will not have to have to inject themselves with insulin. Cell transplantation from cadavers is a relatively simple procedure and if necessary may be repeated several times. It is not known whether and when the Ministry of Health will approve such an operation as a highly specialized procedure refunded. At stake is not only the cost of the operation, but later drugs administered anti-transplant rejection [6]. The pancreas is located on the back wall of the abdomen, behind the stomach from the dorsal spine. It mass about 100 grams [1]. Much of the pancreas is a complex cystic gland produces pancreatic juice. Vesicles between different groups of

gland cells are called islands of Langerhans, which include the alpha cells, beta, delta producing various hormones [7]. Any normal pancreas contains approximately one million of the islands. Pancreatic Each island contains 80 - 400 of beta cells. Beta cells directly into the blood secrete insulin. They have the ability to sense blood glucose at a rate of 10 seconds. Since the activation stimulus, the beta cells may be able to release any physiologically necessary amount of insulin into the blood [7]. Alpha cells produce and secrete glucagon into the bloodstream. The main effects of this hormone is to increase blood glucose levels, especially during the famine. Glucagon is an antagonist of insulin. The balance between insulin and glucagon is a key mechanism for regulating and maintaining normal and stable blood glucose [10]. Delta cells produce somatostatin, which mediates between insulin and glucagon. In a healthy person, irrespective of meal composition, its size, there is never an excessive increase in blood glucose because the insulin reserve in the beta cells are very large [8]. The condition is life energy flows. Metabolism in humans is a liberating energy for its own functioning. Diabetes is a disorder of the essence of this delicate process [4].

In the human body and in foods can be distinguished group of major chemical compounds, which are both building blocks of cells and tissues, and their nutrients. They provide energy. Both the food people and materials in the construction of animals and humans are composed of protein, carbohydrates, fats, water, minerals and vitamins. They are subject to continuous exchange related to life and consumption, are also still being built again in the rehabilitation of the human organism. Simple building blocks of fats, carbohydrates, proteins are a source of energy, necessary to the creation and maintenance of life [4]. Carbohydrates are the easiest and fastest way used by the body. Glucose is absorbed into the bloodstream while the insulin secretion. It directs glucose and facilitates their crossing barrier, which is the cell membrane. With insulin, glucose better by getting inside the cells, which is burned to produce energy, storage as glycogen, or converted into fat. System can directly burn glucose during the meal, reaching the highest values at 60-90 minutes after ingestion or store it too if there is excess. Glucose may be so in the liver and muscles, be converted into glycogen, which is a form of glucose storage. Fairly large amounts of excess glucose is converted to fat, which in turn is a form of storage of glucose in adipose tissue. Another form of storage of glucose and protein synthesis, mainly in the muscles. Energy can be released from the barns in the form of glucose (from glycogen), fatty acids and glycerol (from fat stored in adipose tissue, and amino acids (from protein) to the blood and transform in the liver and other tissues, according to the needs of the body [2]. Provisions of energy the body uses during periods of no food intake. Then the blood glucose slightly decreases, and the fuel is stored in the form of glycogen, fat or protein reserves are released back into the blood to maintain normal metabolism. [12] In healthy individuals, there is balance between the concentration of glucose in the blood and in tissues of fuel in stocks. Absorption of glucose production and insulin stimulates the storage of energy [2]. In diabetes, insulin in the absence of this balance is disrupted, the fuel is excessively activated, but not used, lost in the urine - glucosuria, and rebellious stored. In the absence of insulin, incomplete metabolism, causes the release of large amounts of adipose tissue fatty acids, reduces the concentration of glucose in the cells, ketone bodies act as a poison causing acidosis, coma and death if the ketone does not provide in time of insulin. After a meal containing fat in the blood increases the amount of fatty acids and glycerol, and to some extent the secretion of insulin. Insulin increases the penetration of these substances into the fat cells where they are subject to ground stores for the period between meals, and a famine. The lack of insulin and fat storage hampers causes emaciation of the body [9].

In 1997, the American Diabetes Association (American Diabetes Association was - ADA), has introduced a new classification of diabetes [1]. This classification includes four types of trials: 1. Diabetes type 1 insulin-dependent, 2. Type 2 Diabetes, 3. Other specific types of diabetes (genetic beta cell damage, genetic defects in insulin action, diseases of the pancreas, endocrinopathies induced by drugs or chemicals, infections, rare forms of diabetes-induced immune process, genetic syndromes sometimes associated with diabetes), 4. Gestational diabetes. In recognition of diabetes consist of teams of symptoms, hyperglycemia and glycosuria [11, 19, 21]. Symptoms: frequent urination, excessive thirst, nausea, vomiting, weakness, physical and mental fatigue, sleepiness, weight loss, emaciation, increased, appetite, fungal infections, itching of the skin especially in the genitals and anus, urine and breath of the patient May fruity, blurred vision, frequent bacterial infections, furunculosis, periodontal disease, cramps and tingling, impotence in men, chronic inflammation of the vagina in women, as well as the ability to stop menstruation [11, 19, 21]. Determination of blood glucose levels. Denote the concentration of glucose in the fasting state, with a blood sample taken 8-14 hours after last meal, after a night of rest [11]. Normal concentration of glucose is 60-100 mg% 3,3-5,6 mmol / l Elevated glucose levels should be confirmed at least twice. Please note that the concentration of glucose in the blood is about 1.0 mmol / l (18 mg%) lower than in venous plasma [11]. Additionally, performed oral glucose tolerance test (oral glukose tolerance test OGTT). Should be carried out in the morning, after fasting for at least three days of unrestricted diet and regular physical activity. After collecting blood samples of fasting, the patient receives 75 grams of glucose orally, should I eat in 5 minutes. After two hours of the adoption of glucose takes a second blood sample, and mean blood sugar levels. Glycemia exceeding or equal to 200 mg% in the second hour of the test authorizes the diagnosis of diabetes. If the result is between 140-199 mg% talking about impaired glucose tolerance. In the case of fasting plasma glucose between 100-125mg%, while the second hour after load of less than 140mg% talking about abnormal fasting glucose. Both of these cases considered to be united before the sugar [11]. Sugar appears in urine after renal threshold is exceeded. This threshold is 180mg%. This threshold can be raised, then people with high blood glucose, they have no sugar in the urine, or the threshold for glucose can be lowered, then people with normal blood glucose in May glycosuria renal [8, 12]. Risk factors for diabetes. For people with diabetes often are taken: After 45 years, Obese, With little physical activity, Hypertension arterials, Lipid disorders, People who have

diabetes in the family appeared, Women who had gestational diabetes, Women who give birth to children than 4,500 grams, Women with polycystic ovary syndrome, Treatment with corticosteroids, beta-blockers, thiazides, Endocrinopathies (acromegaly, pheochromocytoma) [12, 19, 21].

Clinically, there are two types of diabetes: type 1 diabetes (primary, insulin-dependent) and type 2 diabetes (maturity onset). Type 2 diabetes accounts for 90% of all cases, the incidence increases with aging, the number of patients increases every year. It is estimated that currently about 200 million people worldwide. In Poland, ill about 2 million people [2, 9]. Her diagnosis always causes anxiety, impatience, sense of danger. Ill try to find answers to many questions. There is a problem of understanding diabetes, its causes and in danger of coming. Due to the prevalence of diabetes, and the observed incidence is still increasing, it is seen today as a social disease. Is relatively frequent, an important sociological and social problem, from the moment of diagnosis, diabetes treatment lasts virtually a lifetime. The proper operation of treatment with a conscious patient can maintain the discipline of good, full working life and personal life satisfaction [19, 20]. Complications of diabetes. Complication of diabetes can be divided into acute and chronic. Currently in clinical practice, often we have to deal with chronic complications [1]. Complications of diabetes prevention by: alignment of metabolic disorders, diet, insulin therapy, an adequate exercise, carrying out education, patient and family [11].

Treatment of diabetes should be the treatment complex, multidirectional and intense. This includes non-pharmacological and pharmacological interventions. The treatment of diabetes include: Conscious, controlled, and functional feeding, Treatment with physical exertion, ie, suitable work and exercises, The use of hypoglycaemic agents, such as reducing the amount of glucose in the blood, 1. Self-monitoring of blood glucose and adjustment of drug doses. 2. Keeping the patient's healthy lifestyle behaviors such as preference to promote health, and avoidance of anything which is harmful (alcohol, nicotine). 3. Paying special attention to preventing complications of diabetes. 4. Generation of proper attitude towards life, ability to cope with stress, what causes diabetes mellitus [9, 21, 22]. Non-pharmacological treatment is to optimize the use of life through proper diet and physical activity [12]. Patient's diet should be consistent with the objectives of a healthy human diet [12]. You should: Eat a mixed diet consisting of many different products, Maintain good body weight, Limit fats, particularly animal and cholesterol contained in oily products, Consuming adequate amounts of starch (corn) and fiber, Avoid sugar, Avoid excessive amounts of salt, Avoid alcohol. The energy value depends on many factors such as age, sex, mass, occupation, physical activity. Obese persons recommended reducing diet, about 1,000 kcal / day. The recommended diet, carbohydrates should provide 55-60 % energy, fat 30%, protein 15-20 % [12]. Physical exercise a beneficial influence on insulin sensitivity, should be undertaken regularly every day or every 2-3 days, and adapted to the patient. People with diabetes without complications, and well-controlled blood glucose can make physical activity of any intensity. People with type 2 diabetes, the elderly, the overweight should walk 3-5 times a week (about 2 hrs.) [4].

Pharmacological treatment is treatment with oral antidiabetic agents and insulin [13]. Treatment begins with oral antidiabetic agents in the absence of compensation, despite glycemic diet and physical activity for a period of 4-12 weeks. Antidiabetic agents reduce insulin resistance, stimulate insulin secretion. The choice of drugs determined by your doctor. Most of the preparations available on the market apply 1-3 times daily. Apply monotherapy or combination therapy (ie, drugs with combined therapy 2-3) Duration of oral antidiabetic drugs depends on the degree of "exhaustion" of pancreatic islet beta cells [9, 10, 13]. Antidiabetic drugs can be used together with insulin, increases the efficiency of such a combination of insulin and often can reduce the dose. The most important factors which prolong the efficacy of adherence to oral medications diabetic diet, getting healthy body weight and controlled exercise. The most important in the prevention of late complications of diabetes is to maintain satisfactory blood glucose levels. If oral medications provide satisfactory compensation of diabetes are as effective as insulin in the prevention of complications of the disease [9, 10, 13]. Among the oral antidiabetic agents we distinguish [12, 13]: 1. Derivatives of a biguanide (Metformin, Siofor, Glukophage, Gluformin). Medications that increase sensitivity to insulin, which decrease insulin resistance. 2. Sulfonylureas - PSM (Amaryl, Glinormax, Diaprel MR Glibenze, Euclamina). These drugs are used in therapy for about 50 years, increase the production of insulin. This is the most popular group of drugs, doctors give them in the first place. For patients without obesity: 1. Glinidy (NovoNorm, Starlix), 2. Glitazones (Avandia, Actos), 3. Alpha-glucosidase inhibitors (Glukobay), drugs that slow down the absorption of glucose. Insulin therapy. In Poland, for the first time produced insulin in 1926 at the National Institute of Hygiene in Warsaw under the direction of Dr. J. Celarka [12]. Insulin is a polypeptide that is a type of protein. Proteins are made up of amino acids, insulin is the 51st amino acid These are connected by chemical bonds, these 51 amino acids form two chains linked to sulfur bonds. Currently, insulin is obtained: 1. The pancreas of animals, and increasingly. 2. On the way biotechnology, and thus resulting in the production of human insulin by specific strains of bacteria (colon bacillus), or implanted with baker's yeast (formerly artificially prepared) genes of human insulin or insulin analogues genes. In terms of structure of the molecule, the closest human insulin is insulin pork. Highly purified preparations of human insulin and pork have similar therapeutic value [12, 14]. Human insulin preparations are obtained mainly through biotechnology. This method is cheaper and more efficient than extracting insulin from the pancreas of pigs. In Poland, consumption is now the treatment of diabetes, approximately 5 million vials of insulin per year [14]. The aim of insulin therapy is to enable the maintenance of life, prevention of complications of diabetes, longer life expectancy, standardized ability to work, sports and fun, allowing for a sense of quality of life [12]. Sometimes for the restoration of sensitivity to oral hypoglycemic agents with sulfonylurea [15]. Currently, patients have multiple types of insulin: short acting human insulin, intermediate-operation, a mixture of insulin, insulin

amalogii. This makes the treatment can be tailored to the individual needs of people with diabetes.

Quality of life in patients with diabetes. Diabetes is a chronic disease, after recognizing its treatment lasts a lifetime. The patient must accept the disease and learn to live with her. Currently, medical attention is drawn to the fact that not only prolong life but also improve its quality. It should be emphasized that the quality of life is a subjective concept, which reflects not only the objective health status of a person, but also how the person evaluates all aspects of his life. For some people the high quality of life is happiness, fulfillment, satisfaction with life, for others it will be education, formal employment, earnings [16]. Care should be taken by the disease in as little as possible impairs patient's life. The quality of life affects not only the health of the patient, but also how the person evaluates all aspects of his life. For some positive quality of life is the ability to have children, to function in the family, the feeling of happiness, satisfaction with life. For others, the quality of life affected by factors such as socioeconomic status, happy family life, satisfying work. Quality of life can be a subjective assessment made by the patient (a feeling of happiness, life satisfaction) and objective assessment of the degree of disability such as: poor results [2, 8, 12, 16, 18, 19]. As a result of chronic disease comes to the impairment of the biological organism, physical disability or mental, which can cause low self-esteem of the patient. For a person affected by an incurable disease which is very important to maintain or regain capacity to function independently. The idea is not to be a "burden" to others. It is important to how a patient copes with illness, life changes that caused this illness. Most people believe that chronic illness is something negative. Often, after hearing the diagnosis, the patient may feel helpless and angry with the situation. You may also feel a lack of satisfaction with their role in society, which affects the poor quality of life [2, 8, 17, 19, 29].

Diabetes is a disease that drastically changes the patient's family situation, causing a change in existing relationships between family members. This often involves the reorganization of the whole former life among the family of the patient's environment. The emergence of the disease in the family that put it in the face of new tasks, the primary goal is to help a sick person in maintaining blood glucose at a constant level, and the prevention of early and late complications of diabetes. Every family with a child or adult with diabetes must constantly resolve the conflict between the discipline imposed by the need for healing, and normal and expected by the patient's "free" way of life, school, work, play. The disease is one of the most stressful situations in life that may impede the fulfillment, and sometimes units can cause alienation from society. A very sick man can live emotions such as fear, anxiety, anger, despair, depression [2, 8, 12, 17]. The situation of the patient with diabetes is difficult due to the fact that the patient must be aware of the need to change the mode of life to diet, diabetic advised him to take medication to control blood glucose levels, learn to self-observation, self-control, to keep glucose levels stable. In addition to the problems of coping with their emotions affect patients with diabetes problems such as anxiety associated with staying in the hospital, frequent visits to the doctor, family problems associated with feelings of being a burden to family, worthlessness, or the fear of betrayal of a spouse, the problems associated with life sex, lifestyle and past habits, learning self-observation and self-control, often with financial questions (the cost of drugs, insulin, frequent travel to the medical center, etc.). Discomfort in which they live, patients can cause hostility and aggression towards the environment. Internal conflict is indicated by such emotions as sadness, feelings of helplessness and aggression [17, 18, 19]. Psychological problems of patients with diabetes. The fact that morbidity from diabetes promotes instability of moods, moving from hope to disappointment, from feeling a sense of independence to dependence. Variability of attitudes, from optimistic to pessimistic, and active, depression [18]. The patient must learn a disease break out of her addiction. This task is fraught with problems. This applies not only medication but also the style of life of the patient. Diabetes should lead to more work on themselves, to acquire greater information and skills in the knowledge of man, as well as art, literature, so that the richness of his personality to align certain physical limitations resulting from this disease, which can be extremely reduced by the appropriate behavior [18, 29, 30, 33]. The role and tasks of the nurse in teaching self-care and self-control patients. The nurse is a therapeutic team, which teaches self-care, self-control, educates the patient on lifestyle changes, diet, diabetic, glucose measurement, the use of drugs, insulin. Allows you to find answers to many questions regarding the physical, social receptions, travel, work, some of the problems posed by force of example operations. Tells about the influence of stimulants eg alcohol, nicotine from the disease. Education in the field of self and self-control is a very important component of the treatment of patients and improve their quality of life [2, 16-18, 28].

Objective. Each study is designed to achieve an objective. The aim of the research is striving to enrich the knowledge of people, things or phenomena that are the subject of research. For the purpose of research is to understand the type of effect, which we intend to obtain from the surveys, as well as the type of agents with which these effects will be linked. W. Zaczynski writing about the research says that it is a term "as envisaged by the researcher, which wants to achieve in its action" [23].

Aim of this study is to determine the quality of life of patients with diabetes care problems and ways of their implementation. Material. The subject of research by Z. Skorny is "a specific set of phenomena, objects or persons" [23]. Material - the subject of research is a woman aged 64 suffering from diabetes type II, her health problems and their solutions. Research problems. The condition of scientific research is taking place research problems in defining precisely as possible the purpose and scope of planned projects. S. Smith defines the research problem as: "The team have some question or questions that provide answers to the test" [24]. The research question by J. Pieter is "a question to which we seek answers through research" [25]. Due to the ambitious objective of work sformuowałam following research problems: 1. What are the problems of disease occurring in a patient with diabetes? 2. The extent to which a patient with diabetes is capable of self-care and self-control? 3. As the nurse prepares the patient to change and lifestyle

modification in chronic disease that is diabetes?

Methods, techniques and tools of measurement. A necessary condition for accurate and reliable research, in addition to correctly formulate research problems is the proper selection of appropriate methods and techniques, or specific kinds of behavior research. General approach is usually attributed to the research method and detailed engineering studies. Test method according to A. Kaminski is a "team theoretically justified conceptual and instrumental treatment, generally involving the whole procedure a researcher, aiming to address a specific scientific problem" [24]. In terms of M. Łobocki research method "refers to the general directives or standards of conduct of research, applicable regardless of the purpose of that task and the conditions under which it is used" [26]. T. Pilch distinguishes the following methods: pedagogical experiment, teaching monograph, method of individual cases, diagnosis nurse[27]. Case study method is to study the process of treatment a particular patient. Elaborated variant of the test method is a research technique. This is a "practical activity, regulated carefully proven directives allowing to obtain the optimal verifiable information, opinions, facts." Research technique is usually subordinated to a specific test method that acts as a servant [26]. The paper uses the following techniques: 1. Observation - this is a conscious perception of external appearance of the patient's behavior, the functioning of various systems and organs in health and disease in order to gather as much information about the patient and his environment. 2. Interview - this is planned or a spontaneous conversation with the patient progress toward the target in advance (usually obtain the largest possible range of information about the patient's family and the environment). 3. Examination of documents - analyzing, checking patient records. Research tool called every object used to implement the chosen research technique [27]. As a research tool selected modified guide to the collection of data about the patient [28]. Tab tips nursing.

Results. Description of the health situation of the patient. Personal details: Age: 64 years. Marital status: widow. Location: pensioner. Education: Professional. Medical Diagnosis: Diabetes mellitus type II treated with insulin. Previous illnesses and operations: Cholelithiasis. Comorbidities: Hypertension. Obesity. Allergy: It does not give. Previous history of disease. She is a person obese since childhood. From the interview that the patient's mother also suffered from diabetes. She gave birth to children with weights above 4,500 grams. In 1998, at age 53, during hospitalization (biliary colic, and eventually remove the stones from the gallbladder), the patient was diagnosed with diabetes type II. It recommended reducing diet and increased physical activity. After 4 weeks of observation of patients, in primary after the control study, glucose was still elevated levels of blood glucose and medication introduced drugs that increase sensitivity to insulin. She reported to the Health Centre every 6-8 weeks in order to perform control testing of fasting glucose levels, and to medical appointments. After a year of treatment, the patient's condition deteriorated, she was weak, sleepy, complained of cracks in the skin between the toes. Underwent fasting glucose result of 280 mg%, the patient was admitted to hospital, with the order-diabetes is not uniform. After weeks of hospitalization the patient was discharged home, made the order permanent and insulin therapy follow-up of the Centre for Health or Diabetes Clinic. She reports to primary care every 6-8 weeks and is under constant control of your diabetes. Data on the status of individual systems. The circulatory system. Pulse: Measuring. Heart rate: 70 / min. RR 160/90 mm Hg. Respiratory. Breath: the frequency of 18 breaths per minute. The nature of breathing: a valid. Tor breathing properly. Odor of exhaled air: a neutral. Shortness of breath: Exercise. The degree of breathlessness: Moderate. Airway: normal. Nervous system. State of consciousness: full. Contact the word: the correct. Sleep: difficulty falling asleep. Surface and deep feeling respected. Musculo-skeletal system. Physical fitness: good. Getting around: self. Mobility in the joints of normal. Posture: proper. The functioning of the senses: Sight: wears glasses for reading. Hearing: correct. Sensations of touch: correct. Feeling temperature corrections. The occurrence of pain: none. Digestive. Appetite: Excessive obesity. Thirst: increased. Oral health: occasional inflammatory. Elimination of stool: the correct. Dyspepsia (type): None. Appetite: increased. Nutritional status: overweight. Diet: Diabetic. Urinary system. Urinary incontinence: proper. The skin, subcutaneous tissue. Skin lesions on the feet. Hair, nails. Clean. Mental state. Lowered mood. Family and social situation. She lives in a one-story house: 3 rooms, kitchen, bathroom, CO, toilet, sanitation, shelter clean, dry and clear. Resides with her daughter and her family. It maintains a pension which is 900 zł. The patient every 6-8 weeks must be reported to the Health Centre to control glucose levels, regular visits to the doctor and family to continue the adoption of outsourced drug: NovoMix 50. NovoMix30. Glukophage 1000. Captopril 50 mg. Housing conditions: good. The person taking care of the patient: daughter.

Planning nursing care for a patient with diabetes [1, 2, 4, 5, 8, 9, 11-14, 16-22, 28-30, 32, 33].

Diagnosis 1. Ignorance about the patient's insulin therapy. Planning. The abolition of ignorance about the patient's insulin therapy, education. Implementation. Learning support pen. Learning the techniques of injection. Injection sites for insulin and the principle of rotation [12]. Education in the storage of insulin. Patient education and what should be a space between the insulin injection and meal. How to prevent hypoglycemia. How often and what times to perform glucose measurements alone. Common errors in the injections. Rating. Forwarded patient basic information about insulin therapy, available educational leaflets demonstrating injection site. She has a basic knowledge of insulin therapy.

Diagnosis 2. Inability to use the newly purchased meter. Planning. Learning manual meter. Implementation. Demonstrate patient service meter. Analysis of test result. Informing about where to donate blood. With information on how to donate blood. Informing the patient about appropriate parameters for glucose. Measurements of blood glucose performed according to the medical needs and order. Fasting and before the main meals 1.5 - 2 hours after breakfast, lunch, dinner before bed (which is particularly important in the prevention of nocturnal hypoglycemia), periodically (about 3 o'clock in the night), in addition, before and after vigorous physical exercise, if you are unwell, symptoms of

hypoglycemia, nausea, vomiting, while an additional disease. Rating. She knows the rules of meter and service plan for independent measurements.

Diagnosis 3. Lack of sufficient knowledge of the patient and family about the complications of diabetes. Planning. Providing information about the complications of diabetes, the inclusion of an active family to care for the sick [12]. Implementation. education on the symptoms of hypoglycemia, education on the treatment of hypoglycemia, education on symptoms of hyperglycemia, education on the treatment of hyperglycemia, discuss the prevention of the states, discussion of compliance with insulin, instruction need to eat a meal after the insulin injection. Rating. Family has shown interest in the topic.

Diagnosis 4. The discomfort caused by inflammation that appears in the oral cavity [1]. Planning. Abolition of discomfort. Implementation. Informed about hygiene with particular attention to cleaning teeth after meals and mouth rinse liquid to prevent the formation of inflammatory, in the absence of improvement of patient reports to the medical appointment, dentist to prescribe targeted drugs. Rating. The patient was informed of further proceedings.

Diagnosis 5. Abrasions of the skin on foot and clammy skin between the toes. Planning. Transmission of information on the treatment of diabetic foot. Implementation [12]. Transfer of patient information on foot care. Wash feet daily in warm water 37°C, not very long 3-5 minutes to prevent their maceration, use mild soap, wash in a circular motion from bottom to top, a sponge, with positive effects on circulation, dry thoroughly after washing the feet pointing out the spaces between your fingers, any skin abrasion disinfected gauze and secure, feet should be properly lubricate, into the spaces between your fingers used to prevent backfill from mycosis, should be changed daily socks, stockings, seamless, best-pressure, comfortable shoes are recommended, with soft skin, properly aligned, with a wide front of the foot. Do not wear shoes on bare feet, should take care of your nails, cut short after washing is best, straight, not too short, to prevent injuries (do not walk barefoot), recommended to strengthen the foot muscles, improve circulation circular motion in the event of persistent changes in the foot - contact your doctor.

Diagnosis 6. The patient must be physically fit but not very busy. Planning. To encourage patients to increase physical activity. Implementation. Conversation with the patient about the benefits of physical activity, informed about the positive side of physical activity, the recommendation of regular exercise, adequate to the possibilities: half-hour walks daily after main meals, work in the garden. Rating. She informed about the benefits of exercise, welcomed the introduction of elements of movement.

Diagnosis 7. Overweight. Planning. Reduction of body weight. Implementation. Diet modification, ensure that patient contact with dietary, provide information leaflets with examples of diets, carbohydrate exchangers, encouraging physical activity capacity adequate to the patient, enrichment of the patient with knowledge about the health benefits resulting from increased physical activity and weight reduction, discuss with you the beneficial effects of motion, movement therapy and diet in diabetes. Rating. The patient responded positively to the prescribed therapy.

Diabetes is a chronic disease which in its course can lead to organ damage hindering daily functioning. Awareness of chronic disease is a source of anxiety for the patient and anxiety, which becomes a factor in aggravation and disintegrate distorting his personality. Emotional tension, which can often accompany the diagnosis of the disease, can cause the patient and his family a sense of injustice, punishment, helplessness, shame and powerlessness. The disease can impair proper relationship with the environment and adversely affect the recovery of social and psychological quality of life. Constant threat of successive stays in the hospital, deterioration of health and fitness, increase disability and fear of pain, impair self-esteem and identity of the patient. Diabetes is the cause of constant anxiety and fear, but it can also be used to achieve their goal. The diagnosis of many disorders is necessary to an integrated therapeutic assistance, and cooperation between patients, family and medical staff. The ultimate goal of diabetes treatment is to correct metabolic and emotional stability, which is an important factor in improving the effectiveness of therapy and quality of life. Aim of the study was achieved the patient is aware of the problems associated with the disease, and that only applies to the stringent requirements and restrictions associated with it, allow it to avoid future complications. The patient, despite the disadvantages associated with the disease is trying to overcome them. Despite an incurable disease is trying to discern the meaning of life and the meaning of their sacrifices. He believes in the fact that only a positive attitude to the disease is part of the success on the road to quality of life.

Conclusion.

The work was brought closer to the problems of patients with diabetes as an example a patient with diabetes for 10 years. She is a walking, self-contained. All nursery operations performed alone. With the support of her daughter is trying to overcome all the difficulties associated with the disease. She uses medical care as a medical indication, every 6-8 weeks at the Centre for Health performs control study of blood glucose levels, use of medical visits, always takes commissioned hypoglycemics, insulin. Diabetic diet, was informed of further self-care and self-control by a nurse. She learned to use the same meter and examine the level of blood sugar at a specified time. Patient with the support of the immediate family, nurses and doctors managed to overcome, although some degree of difficulty associated with chronic disease which is diabetes.

References

1. J. Daniluk, G. Jurkowska *Zarys chorób wewnętrznych dla studentów pielęgniarstwa*; wyd. Czelej; Lublin 2005.
2. J. Tatoń *Jak żyć z cukrzycą*; wyd. PZWL; Warszawa 2001.
3. www.cukrzyca.akcjasos.pl
4. A. Czech, J. Tatoń, M. Bernas *Kompendium diabetologii*; wyd. Via Medica Gdańsk 2000.
5. M. Pustkowski *Podawanie insuliny*; mies.(7) *Żyjmy dłużej* 1998.

6. W. Rowiński, J. Wałaszewski, L. Pączka *Transplantologia kliniczna* ; wyd. PZWL; Warszawa 2004 .
7. P. Hoser *Anatomia i fizjologia człowieka*; wyd. Wydawnictwa Szkolne i Pedagogiczne, Warszawa 1999.
8. John L. Day *Jak żyć z cukrzycą?* Wyd. Via Medica, Gdańsk 1999.
9. J. Tatoń *Diabetologia*; wyd. PZWL; Warszawa 2001.
10. F. Kokot, L. Hyla-Klekot *Choroby wewnętrzne Dawidsona*; wyd. Elsevier Urban& Partner; Wrocław 2009.
11. D. Talarska, D. Zozulińska-Ziółkiewicz *Pielęgniarstwo internistyczne*; wyd. PZWL; Warszawa 2009.
12. J. Tatoń *Cukrzyca Poradnik dla pacjentów*; PZWL; 1993.
13. P.D. Sloane, L.M. Slatt, P. Curtis (red.) *Medycyna rodzinna* ; Wydawnictwo Medyczne, Wrocław 1998.
14. Przewodnik Lekarski, 2004(4); s:38-42
15. R. Brzozowski (red.) *Vademecum lekarza praktyka*, PZWL, Warszawa 2001.
16. S. Kowalik, A. Ratajska, A. Szans *W poszukiwaniu nowego wymiaru jakości życia związanego ze stanem zdrowia*, [w:] *Jakość życia w naukach medycznych*, wyd. AM, Poznań 2001.
17. Z. Krawczyńska-Butrym *Rodzinny kontekst zdrowia i choroby*, wyd. CEM, Warszawa 1995.
18. S. Kowalik *Użyteczność koncepcji jakości życia dla procesu rehabilitacji osób niepełnosprawnych*, [w:] *Jakość życia w naukach medycznych*, AM, Poznań 2001.
19. J. Tatoń *Cukrzyca*, Wiedza i Życie, Warszawa 2000.
20. D. Koch-Heintzeler, W. Puhl *Cukrzyca*, wyd. Astrum, Wrocław 1999.
21. R. W. Bilous *Cukrzyca*, Wiedza i Życie, Warszawa 2000.
22. E. Pańkowska, S. Pawełczak *Cukrzyca bez porażek*; wyd. PZWL, Warszawa 1999.
23. W. Dutkiewicz *Podstawy metodologii badań do pracy magisterskiej i licencjackiej z pedagogiki*; wyd. Stachurski, Kielce 2001.
24. S. Nowak *Metodologia badań socjologicznych*; PWN, Warszawa 1970.
25. J. Pieter *Ogólna metodologia pracy naukowej*; Ossolineum, Wrocław-Warszawa 1967.
26. M. Łobocki *Metody i techniki badań pedagogicznych*; wyd. PWN, Warszawa 1982.
27. T. Pilch *Zasady badań pedagogicznych*; wyd. ŻAK, Warszawa 1998.
28. M. Ślusarska, D. Zarzycka, K. Zahradniczek, *Podstawy pielęgniarstwa*, Wydawnictwo Czelej, Lublin 2004, t. I, s. 282.
29. Jarosz M. Sytuacje trudne oraz ich wpływ na stan psychiczny. W: Jarosz M. Red. *Psychologia lekarska*. PZWL, Warszawa 1983; 139–156.
30. Bradley C., Gamsu D.S. for the Psychological Well-being Working Group of the WHO/IDF St Vincent Declaration Action Programme for Diabetes: Guidelines for Encouraging Psychological Well-being. Report of a Working Group of the World Health Organization Regional Office for Europe and International Diabetes Federation European Region St Vincent Declaration Action Programme for Diabetes. *Diabetic Medicine* 1994; 11: 510–516.
31. Moczko A.J., Bręborowicz G.H., Tadeusiewicz R. *Statystyka w badaniach medycznych*. Springer PWN Warszawa 1998.
32. Tatoń J. *Cukrzyca. Nauczanie samoopieki*. Wydawnictwo Naukowe PWN, Warszawa 1998.
33. A Desktop Guide to Type 2 Diabetes Mellitus, European Diabetes Policy Group 1998–1999. *Diabetic Medicine* 1999, tom 16.