## ANNALES

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# The tasks of a community nurse in the process of an early detection of type 2 diabetes

Type 1 diabetes affects 3,000 individuals annually, whereas type 2 diabetes attacks about 60,000 people, which qualifies the illness to be the number 9 "killer" among Polish citizens. World health organisation prognoses that in the years 2000–2025 the number of type 2 diabetes patients will double. This prognosis gives rise to a conclusion that diabetes prevention is becoming one of the priority tasks of all medical professionals and requires the necessity of changing and elaborating effective, interdisciplinary prevention programs.

The illness affects people of different ages and results in worsening of their quality of life. The complications occurring in the course of the illness generate high costs of treatment. In such a situation, medical professionals in different areas of health care face the following tasks: 1. Lowering of the number of individuals endangered with the risk of diabetes by improving prevention, early diagnosing and treatment; 2. Lowering of the number of complications in individuals affected by the illness (1). This results in the change of the hierarchy of the tasks to be realized by nurses in the system of the primary health care. Community nurse regarding her professional preparation and the place she takes in health organization system is a member of a group of professionals responsible for early diagnosis and prevention of diabetes complications. Taking advantage of one's competences she has the possibility of working with the patient in his natural dwelling place. She takes care of single persons as well as of families in their different stages of life in the periods of their being healthy, in their illness or disability. It serves the needs of the population of about 2,500 by realizing tasks of health promotion and disease prophylaxis.

Today we recognize a number of risk factors for diabetes among which we can speak about: age, sex, family predisposal, obesity, arterial hypertension, quantitative and qualitative nutrition mistakes, low physical activity, excessive alcohol drinking, tobacco smoking, stress, pregnancies, pregnancy-related diabetes, hormones and diabetogenic drugs, viral infections, low level of vitamin D3, social situation and hygienic conditions (1). Community nurse realizing her own tasks can and has to choose from among her charges a population endangered with the risk factors of diabetes. For this reason she conducts community interview and evaluates the levels of some biochemical indicators as: glycemia, glycosuria or ketonuria.

#### MATERIAL AND METHODS

In the research, the analysis of selected information is included in the community nurse documentation – a family questionnaire. This is a card in which nurses register the data obtained during the community interview and the results of the basic study values as well as the plan of the conduct designed together with the patient's family which also includes evaluation scheme.

The main aim of the study was describing of the range of the tasks that await the community nurse in the process of an early diagnosis of diabetes.

#### RESULTS

The community questionnaire involved 55 families from the Lublin city area – a total of 106 persons in the period of March – June 2003. The age range of the families was as follows: 20 people (18.9%) at the age of 31–40 years, 41(38.7%) at the age of 41–50 years, 24 (22.6%) at the age of 51–60 and 21 individuals (19.8) above 61 years of age. There was a prevalence of women in the group examined.

The carried out study showed that the most common risk factors in 55 families were: quantitative and qualitative nutrition mistakes, cigarette smoking, low physical activity, being overweight, excessive alcohol drinking, unsystematically treated hypertension. Furthermore, the family members studied were burdened with the familial occurrence of the illnesses such as: hypertension – 62 persons, diabetes – 20 persons, thyroid gland illnesses – 11 persons and neoplastic diseases – 11 people. The characteristics of the most common risk factors for diabetes is presented in Table 1.

Risk factors for diabetes	Number of persons	%
1. Active tobacco smoking	92	86.7%
2. Quantitative and qualitative nutrition mistakes	90	84.9 %
3. Low physical activity	80	75.4%
4. Stress	52	40.0%
5. Excessive alcohol consumption	28	26.4%
6. Being overweight	85	80.2%
7. Unsystematically treated hypertension	14	13.2%

Persons examined were declaring that they were systematically treated because of the arterial hypertension – 25 people (23.6%), the fact of being overweight – 15 people (14.1%), diabetes –12 persons (11.3), varicose veins in lower extremities – 10 persons (9.4%) and allergies – 6 cases (5.7%). 86 persons above the age of 41 were evaluated as far as their "incidental glycaemia" in the capillary blood under "not on an empty stomach" examination was concerned. From all the persons studied, 21 individuals presented with "incidental glycaemia" values greater than 140 mg% (7.8 mmol/l); these people also claimed that it was the first time in two years that they were having their blood level tested for "incidental glycaemia" in their capillary blood. It also should be stressed that only in 8 (8.3%) of the people among the members of the 55 families no risk factors were noted.

#### CONCLUSIONS

The community questionnaire conducted by the community nurse comprised 106 persons and only 8 persons were diagnosed with no risk factors for diabetes. Ninety-eight persons had at least one risk factor. In 21 persons "incidental glycaemia" greater than 140 mg% (7.8 mmol/l) was noted. The priority risk factors in this

population were active tobacco smoking, quantitative and qualitative nutrition mistakes and low physical activity. The information obtained in the questionnaire was the starting point of some proper action for elaborating family health programs for the community nurse in early diagnosing of diabetes. These tasks encompass: evoking trust and the feeling of safety of the family member and his family; recognizing pro- and anti-health activities of the family member and his family; collecting data for evaluating diabetes risk among the population charges disregarding age, sex or the health conditions; planning prophylactic, prophylactic-educational tasks together with the family member and his family as well as providing support and therapy in co-operation with the GP; constant monitoring of the observance of the elaborated prophylactic algorithm as well as the evaluation of the work done with the family member and his family in the sphere of plan realization.

The community nurse, through her health counselling, education and the individual care at patient's home as well as partnership with a GP and diabetologist, is able to add to the quicker diagnosis of diabetes and to the lowering of the number of complications.

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### **SUMMARY**

Type 1 diabetes affects 3,000 individuals annually, whereas type 2 diabetes attacks about 60,000 people, which qualifies the illness to be the number 9 "killer" among Polish citizens. World health organisation prognoses that in the years of 2000–2025 the number of type 2 diabetes patients is going to double. This prognosis gives rise to a conclusion that diabetes prevention is becoming one of the priority tasks of all medical professionals and requires the necessity of changing and elaborating of effective, interdisciplinary prevention programs. The main aim of the study was a description of the tasks awaiting the community nurse in the process of an early diagnosis of diabetes. In the research, the analysis of the data included in the community nurse documentation – the family questionnaire, was used. The questionnaire is the document in which nurses in charge register the data concerning patients acquired in the community interview as well as the results of basic study values.

Zadania pielęgniarki rodzinnej we wczesnym wykrywaniu cukrzycy typu 2

W Polsce na cukrzycę typu 1 zapada rocznie około 3000 osób, zaś na cukrzycę typu 2 około 60 000, przez co schorzenie to zajmuje dziewiąte miejsce na liście zabójców Polaków. Światowa Organizacja Zdrowia prognozuje, że w latach 2000–2025 nastąpi na świecie podwojenie liczby chorych

głównie na cukrzycę typu 2. Przytoczone prognozy dają podstawę do stwierdzenia, iż zapobieganie cukrzycy staje się jednym z priorytetowych zadań wszystkich środowisk medycznych i wymusza konieczność dokonania zmian i opracowania efektywnych, interdyscyplinarnych programów prewencyjnych. Celem pracy było określenie zakresu zadań stojących przed pielęgniarką rodzinną w procesie wczesnego wykrywania cukrzycy. W badaniach zastosowano analizę informacji zawartych w dokumentacji pielęgniarskiej – karcie środowiskowej rodziny. Karta jest dokumentacją, w której pielęgniarki rejestrują dane uzyskane w wywiadzie środowiskowym oraz wyniki podstawowych pomiarów.