



EVALUATION OF NURSES' PERFORMANCE IN PRIMARY PREVENTION OF DIABETES MELLITUS

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Abstract

Type 2 diabetes mellitus is one of the most pressing public health problems of the 21st century, the prevalence of which continues to grow rapidly. In conditions of high morbidity, primary prevention aimed at preventing the development of the disease in individuals from risk groups is of particular importance. This article examines the role of a nurse in the primary prevention of diabetes mellitus. The areas of activity, functions, difficulties and prospects are analyzed, and practical recommendations for improving nursing preventive work in outpatient services are given. Particular attention is paid to the educational, screening and motivational functions of the nurse, as well as the effectiveness of her interaction with patients.

Keywords: type 2 diabetes mellitus, primary prevention, nurse, risk factors, nursing care, behavioral correction, screening, risk groups.

Introduction

Diabetes mellitus is a chronic metabolic disease characterized by persistent hyperglycemia that develops as a result of impaired secretion or action of insulin. According to the World Health Organization (WHO), by 2023, more than 540 million people worldwide suffered from diabetes, and this number continues to grow. Particularly alarming is the fact that a significant proportion of patients are diagnosed with the disease at the stage of complications, when the possibilities for full recovery are limited.

In these conditions, primary prevention of diabetes mellitus is of particular importance, which is aimed at preventing the development of the disease in individuals at high risk - people with excess body weight, low physical activity, hereditary predisposition or metabolic syndrome.

The nurse plays a key role in this system, especially a home care or district nurse, who is in direct contact with the population. The nurse acts as a primary consultant, a healthy lifestyle guide, and a coordinator for monitoring patients from risk groups. Through regular monitoring, educational work, and close interaction with patients, she becomes a key link in preventing the disease at its earliest stages.

The purpose of this article is to analyze the directions and effectiveness of nurses' activities in the system of primary prevention of diabetes mellitus, to highlight successful practices and to identify possible ways to increase the role of nursing personnel in the preventive link of healthcare.

Risk factors and the role of primary prevention in diabetes mellitus

Diabetes mellitus, especially type II, is a disease whose development largely depends on lifestyle and environmental conditions. This makes it one of the most manageable chronic diseases in terms





of prevention. Primary prevention is aimed at preventing the development of the disease in clinically healthy individuals, but with predisposing factors.

Major risk factors for type 2 diabetes include:

- Hereditary predisposition (especially if the parents have the disease);
- Overweight and obesity (especially abdominal);
- Hypodynamia is a sedentary lifestyle;
- Unhealthy diet (overeating, excess of refined carbohydrates and fats);
- Chronic stress and lack of sleep;
- Arterial hypertension, dyslipidemia , metabolic syndrome;
- Age over 40 years;
- History of gestational diabetes or birth of a baby weighing more than 4 kg.

It is important to understand that most of these factors are modifiable, meaning they can be controlled and adjusted. This is where primary prevention comes into play , with the goal of developing sustainable behavior patterns in the population that reduce the risk of developing diabetes.

Tasks of primary prevention:

- Informing the population about risk factors and possible complications;
- Screening and early detection of carbohydrate metabolism disorders (eg, prediabetes);
- Formation of a healthy lifestyle , including nutrition, physical activity, quitting smoking and alcohol;
- Psychological support and motivation to change behavior;
- Weight loss in overweight patients;
- Regular monitoring of glycemia in people at risk.

The implementation of these tasks is possible only with the coordinated work of all levels of medical care, including the active participation of nurses , especially in outpatient and home care services.

Functions and areas of activity of a nurse in the primary prevention system

A nurse in a primary health care setting is not just a follower of a doctor's orders, but a full participant in the preventive process, with a unique opportunity to influence the formation of healthy lifestyle skills in the population. In the context of diabetes prevention, her activities cover several areas at once.

The main functions of a nurse:

1. Educational activities
Conducting individual and group discussions with patients about diabetes, its causes, risks and prevention methods. Creating information stands, booklets, presentations.
2. Screening and early detection
Organization of population surveys, measurement of body mass index, blood pressure levels, rapid measurement of blood glucose (as indicated) and identification of risk factors.
3. Lifestyle control
Assessing the diet and level of physical activity of patients, providing individual recommendations for behavior correction.
4. Support for risk groups



Regular monitoring of people with prediabetes, obesity, hypertension - with keeping self-monitoring diaries, referrals for examinations.

5. Motivation and support

Formation of motivation in the patient to lose weight, increase physical activity, and give up bad habits - using methods of medical psychology and counseling.

Table 1. Main areas of activity of a nurse in primary prevention of type 2 diabetes

Direction of activity	Specific actions of the nurse
Education	Information sessions, individual conversations, distribution of brochures
Screening	Measuring BMI, glucose, pressure, questionnaire
Behavioral correction	Preparation of recommendations on nutrition and physical activity
Risk group management	Registration, accounting, monitoring of body weight and glycemia
Documentation and reporting	Maintaining preventive maintenance logs, compiling statistical reports

The experience of a number of medical institutions shows that with the active participation of nurses, the coverage of the population with preventive measures increases by 2–2.5 times, and early diagnosis of prediabetes can prevent the development of the disease in 60–70% of cases (Ivanova T.A., 2020).

Thus, the role of the nurse goes far beyond formal prevention and turns into a systemic activity that can influence the epidemiological situation in the region.

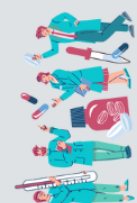
Conclusions

The conducted analysis shows that the nurse is an indispensable link in the system of primary prevention of diabetes mellitus, especially in the conditions of outpatient service and primary health care. Her daily activities aimed at identifying risk factors, educating patients, monitoring lifestyle and regularly monitoring risk groups allow not only to delay the development of the disease, but also to significantly reduce the burden on medical institutions.

One of the most significant achievements is the development of an active position in patients regarding their own health - the desire to lose weight, increase physical activity, and control nutrition. These results are largely due to the work of nurses who have communication, counseling, and motivation skills.

However, the effectiveness of preventive work can be significantly increased by following these suggestions:

- Organization of regular training courses on diabetes, modern methods of prevention, behavioral correction and counseling.
- Creation of clear algorithms for nurses' actions when working with patients from risk groups, including questionnaires, screening algorithms and reporting forms.
- Providing nurses with educational materials, visual aids, brochures and electronic platforms for communication with patients.
- Transition to electronic forms of accounting to simplify monitoring of observed patients, organize reminders, and analyze data.





Including nurses in decision-making teams, empowering them in prevention programs and recognizing their key role in the public health structure.

Thus, with proper organizational and educational support, the nurse can become a central figure in the successful implementation of national strategies to reduce the prevalence of diabetes and improve public health.

References

1. O'Flynn S. Nurses' role in diabetes management and prevention in community care // British Journal of Community Nursing. — 2022. — Vol. 27, No. 8. - P. 374–376.
2. Yates T., Davies M., Khunti K. Preventing type 2 diabetes: applying the evidence in nursing practice // Nursing Times. - 2009. - Vol. 105, No. 41. - P. 10–14.
3. Hill J. Preventing type 2 diabetes: a role for every practitioner // Community Practitioner. - 2012. - Vol. 85, No. 10. - P. 34–36.
4. World Health Organization. Global Report on Diabetes. - Geneva: WHO, 2016. - 88 p.
5. World Health Organization. Tackling diabetes: how nurses can make the difference // Eastern Mediterranean Health Journal. — 2020. — Vol. 26, No. 11. - P. 1318–1319.
6. Jansink R., Braspenning J., van der Weijden T., Elwyn G., Grol R. Primary care nurses struggle with lifestyle counseling in diabetes care // Diabetes Research and Clinical Practice. - 2010. - Vol. 88, No. 2. - P. 203–209.
7. Cho MK, Kang Y. Effectiveness of self-management nursing interventions on glycemic control in patients with type 2 diabetes: A systematic review and meta-analysis // Journal of Clinical Nursing. — 2021. — Vol. 30, No. 15–16. — P. 2348–2365.

