

APPLICATION OF THE PRINCIPLES OF INTEGRATED CARE IN THE DEPARTMENT OF ENDOCRINOLOGY AND METABOLIC DISEASES AT THE HOSPITAL “ST. MARINA” VARNA

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ABSTRACT

The article presents the results from a research on the principles of integrated care applied for patients with diabetes at the Department of Endocrinology and Metabolism Diseases at University Hospital for Active Treatment “St. Marina” Varna. An important point in the treatment of diabetes is customer orientation. The increased life expectancy, the aging population and the cost of treatment of patients with diabetes, both globally and in Bulgaria, prompted the need for the development of integrated care. Integrated care focuses on ensuring continuous care for patients with diabetes by multidisciplinary teams.

Keywords: *integrated care, type 2 diabetes, multidisciplinary team, endocrinology*

INTRODUCTION

Diabetes mellitus is one of the most common diseases, with increased incidence observed for this type of disease over the last decade. The prevalence of the disease depends on demographic, geographic and social factors. The disease usually affects people exposed to various stress factors and people involved in intellectual work. The disease may affect patients of all ages, it can even occur during the first years of the patient's life (2). The prevalence of the disease among people from both genders is almost identical.

According to statistics, the people suffering from diabetes mellitus in Bulgaria are already more than 703 000. In terms of percentages, this means that 9.6 percent of all Bulgarians suffer from this serious disease. The data is obtained from a team of Bulgarian endocrinologists, who have collected up-to-date statistics for year 2012. According to the Diabetes Association, Bulgaria ranks sixth in the world in terms of people suffering from diabetes (3). Integrated care for patients with diabetes is related to provision of support in the self-management of the disease in order to satisfy the specific needs through coordinated care starting from diagnosing and going all the way to the management and control of the disease (1).

The Department of Endocrinology and metabolism diseases at the University Hospital for Active Treatment “St. Marina” EAD provides services to patients from North-East Bulgaria and is the only specialised department and training facility. The department is visited by 150-160 patients on average every month. It also contains a “Diabetic Foot” office

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for prevention, treatment and follow-up of diabetic wounds (4).

MATERIALS AND METHODS

The study applied sociological (direct anonymous questionnaire) and statistical methods. The questionnaire survey was carried out at the University Hospital for Active Treatment “St. Marina” Varna in the period May 1st-24th, 2013. 20 physicians from the Department of Endocrinology and Metabolism Diseases at the hospital and 50 patients were interviewed.

RESULTS AND DISCUSSION

Half of the professionals replied that the frequency of visits of patients with type 2 diabetes is once per month (50%), 30% of the patients visits a health professional once per 3 months, and only 20% of patients visits a health professional once per year (Fig. 1).

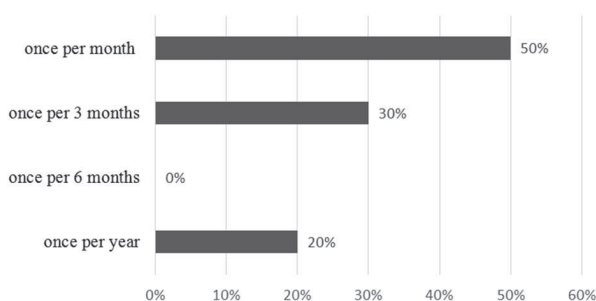


Fig. 1. Frequency of visits of patients with diabetes

The professional involved in the treatment of the patients with diabetes is the endocrinologist (90%); in case of complications from the disease, other professionals are also included, such as ophthalmologist (70%), neurologist (60%), cardiologist (40%). The results were obtained from respondents with more than one answer (Fig. 2).

Blood sugar control is the necessary condition for management of the disease. In order to achieve this, it is necessary to focus on patient training, according to 56% of the hospital professionals. Other conditions include more frequent examinations from professionals (31%) and rehabilitation (13%).

The assumption that patients with chronic diseases should be only monitored by their general prac-

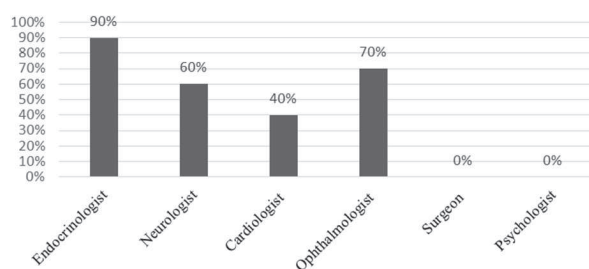


Fig. 2. Professionals that usually provide care for patients with diabetes

itioner (35%) or by a specific professional, depending on the disease, where the endocrinologist is mentioned in this case (30%) continues to be the underlying conviction of Bulgarian health professionals (Fig. 3).

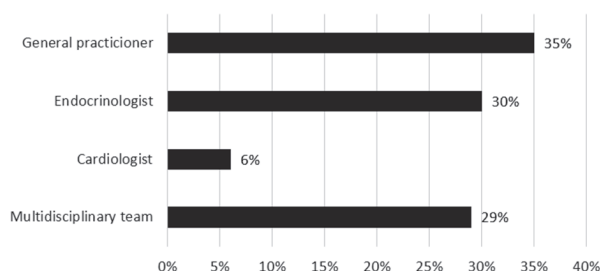


Fig. 3. Professionals involved in treatment of patients with diabetes

According to the respondents, the team of professionals to be involved in an integrated care model for patients with diabetes should include an endocrinologist, a cardiologist, the general practitioner and ophthalmologist. The general practitioner and endocrinologist are mentioned as the main professionals to be involved, whereas the others are primarily related to controlling the complications of the disease (Fig. 4).

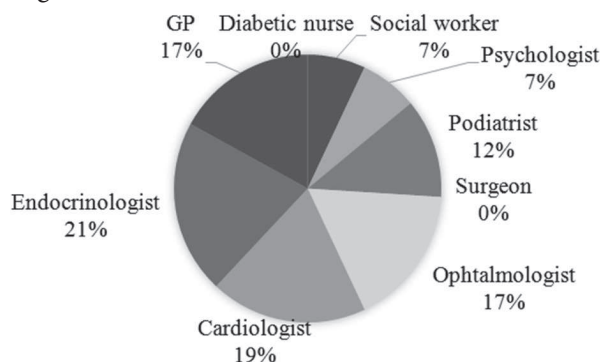


Fig. 4. Professionals involved in integrated care model for type 2 diabetes patients

Patients learn about their diabetes disease from routine examinations from their general practitioners (60%). None of the patients has mentioned learning about their disease from an examination that is part of a screening programme (Fig. 5).

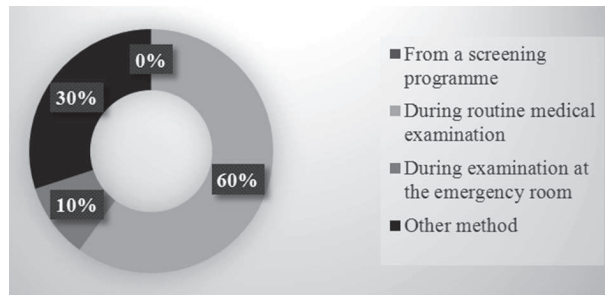


Fig. 5. Disease diagnosing

Most of the patients have been diagnosed more than five years ago (50%) and 10% of the people interviewed have been diagnosed over the past year (Fig. 6).

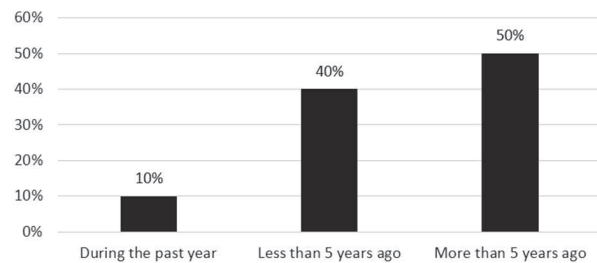


Fig. 6. The time period of patients' diagnosing

The main sources of information for patients regarding diabetes treatment and control are information provided by their general practitioner (41%) and reference materials on diabetes (33%). Many of the patients (24%) obtain information from the Internet (Fig. 7).

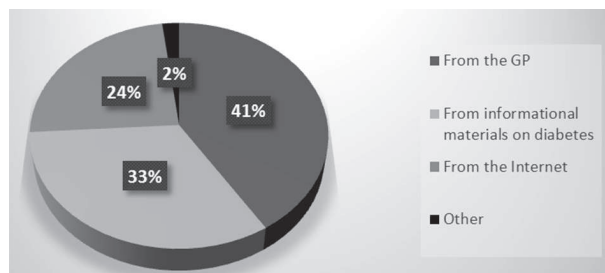
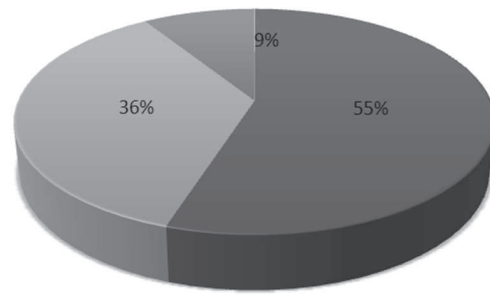


Fig. 7. Information sources

The results from the survey among patients indicate that most patients visit their general practitioner once per month (55%) (Fig. 8). Only 9% of the patients suffering from diabetes visit their GP once per year.



■ Once per month ■ Once per three months ■ Once per year

Fig. 8. Frequency of visit to General practitioner

Patients finance their treatment on their own (80%) and are sometimes supported by their entire family (50%). Approximately 20% of the patients indicated that they rely on funds from the National Health Insurance Fund, which, however, is insufficient to cover all costs related to the tests and therefore these patients miss a large part of the procedures required, which may later lead to complications (Fig. 9).

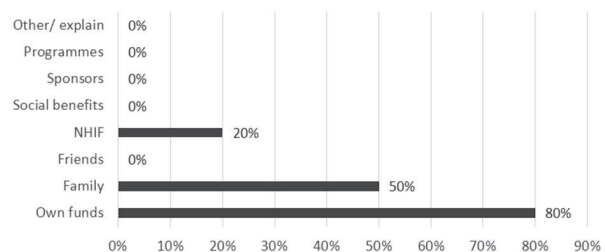


Fig. 9. Sources of funding

Both groups of respondents (professionals and patients) believe that the disease can be controlled first by training the patients, followed by regular examinations (Fig. 10).

Some of the most common problems for patients in the course of treatment are: the time-consuming visits to different institutions and professionals (29%), the lack of medical referrals to a pro-

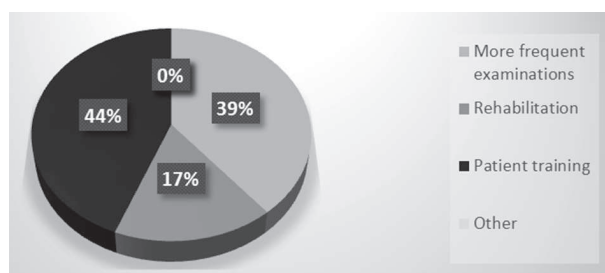


Fig. 10. Blood sugar control and limitation of complications

professional (28%), omissions in the treatment process (14%), the high fees for examinations and tests (14%) (Fig. 11).

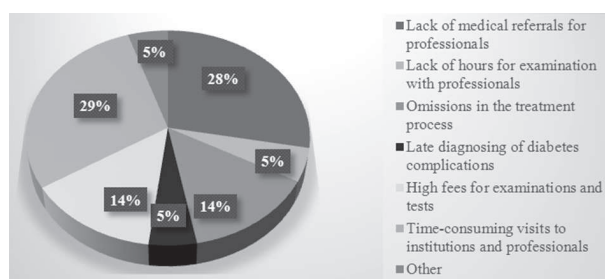


Fig. 11. Common problems in the treatment of patients

These problems could be avoided by the presence of regulated functioning of a multidisciplinary team and by offering integrated care. The results from the survey show that effective measures for diagnosing and managing the disease are necessary (Fig. 12).

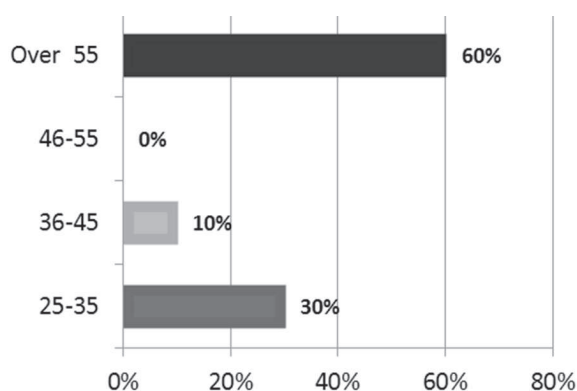


Fig. 12. Patients' age

The following main conclusion can be drawn from the analysis of the results: The increasing number of patients with type 2 diabetes requires an in-

tegrated and multidisciplinary combination of well-coordinated services, which shall include diagnosis, monitoring and supportive care.

Three of the key elements of quality services for patients with diabetes are:

- ❖ diagnosing (registering) the patient
- ❖ control examinations and
- ❖ periodical examinations.

The principles of integrated care applied in the Department of Endocrinology and Metabolism Diseases at University Hospital for Active Treatment "St. Marina" are related to:

- ❖ establishing communication and partnerships in developing multidisciplinary teams for treatment of diabetes;
- ❖ regular examinations and monitoring;
- ❖ provision of training for patients on the disease, the risk factors and the necessary diet and exercise regime;
- ❖ control and self-management of the condition by the patients.

CONCLUSION

In order to ensure the further development of integrated care in Bulgaria for patients with diabetes, the legal framework in the field of chronic diseases needs to be supplemented and updated and needs to become a priority for the health policy in Bulgaria. The control, prevention and treatment of diabetes in Bulgaria should be in line with the current recommendations, initiatives undertaken and guidelines of the global and European organisations working in the field of healthcare. The process of introduction of integrated care for patients with diabetes in Bulgaria should be preceded by the development and adoption of an integrated information system and a register for patients with diabetes.

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