Policy Brief

Level of Self-Care Among Patients Suffering From Type II Diabetes - Implications for Primary Healthcare

Jerina Jaho, General Practitioner, Master Of Science In General Medicine, University "Ismail Qemali" Vlora, 2021

Context

In Albania and other parts of the world, the number of adults living with diabetes mellitus (DM) or type 2 diabetes is constantly rising. DM is one of the main causes of disabilities among people, and almost half of the deaths that occur before the age of 70 are due to the high levels of sugar in the blood (1). In Albania and other developing countries, the increasing prevalence of type 2 diabetes and other chronic diseases reflects the rapid social and economic changes along with changes in lifestyles and the poor management of the disease (2). Findings show that adapting some simple behaviours in the daily lifestyle, such as physical activity, keeping weight under control, a healthy diet with plenty of fruits and vegetables and avoiding the use of tobacco and alcohol, is very effective in preventing, treating, and reducing the burden of DM and complications that come with it (3). The management of chronic diseases, including DM, requires coordination, inclusion, guidance and evaluation by the patient and healthcare personnel (4-5) by cooperating with the community of healthcare providers; self-management represents a promising strategy for the treatment of chronic diseases. The self-management care model makes individuals suffering from chronic diseases an active part of healthcare by identifying problems related to their illnesses and providing a solution to them (4).

In the case of chronic diseases, self-management includes three main tasks: medical management, role management and emotional management and six self-management skills–problem solution, decision-making, exploiting resources, creating a patient-provider partnership, planning actions and self-efficacy (6). On a broader level, self-management is defined as the daily management of chronic diseases by individuals throughout the course of their disease (6-7).

Some self-care strategies among patients suffering from diabetes include showing more self-care for the disease and raising awareness with regards to controlling and managing the disease. This could also reduce individual and social costs caused by the disease (8). What's more, educating patients suffering from diabetes by promoting self-care is not only an effective tool to better control the disease, but it also reduces the level of emotional suffering caused by diabetes (9). The role of a nurse in preventive healthcare and the management of chronic diseases relating to diets, such as type 2 diabetes, hypertension, cardiovascular and renal diseases, is decisive (11). Many European countries are exploring different approaches to redesign healthcare providing systems focusing on supporting self-management, the model used to provide services, strategies used to support decisions, funding, availability and access (12). In the patient-based approach, patients have a more active role not only in self-managing their chronic disease but also in determining and reshaping healthcare (13).

In Albania, one of the main goals of the National Strategy for the Prevention and Control of Non-Communicable Diseases (NCD) 2016-2020 was to reduce the number of premature deaths and to reduce the number of non-communicable diseases through integrated actions by improving the quality of life and increasing longevity (14).

This policy brief examines the level of self-care and self-management of the disease among patients suffering from type 2 diabetes who receive primary healthcare services in the city of Vlora. The document investigates the main groups of self-care behaviours and provides recommendations on how to increase and improve the level of self-care among people with type 2 diabetes.

Methodology

A cross-sectional study was carried out from 15 November 2020 to 15 February 2021, including 5 Primary Healthcare Centres in the city of Vlora. The study included 400 patients suffering from type 2 diabetes, aged 40 to 65, who were being treated in these centres. The study was preceded by a pilot phase which aimed at validating the instrument used to collect data, the Summary of Diabetes Self-Care Activities Measure (SDSCA), in a cluster of 40 patients who were part of the target population and who were not included in the final analysis of data. The main groups of self-care activities were: diet, physical activity, measuring blood sugar, foot care and smoking.

In addition to questions on self-care activities that people suffering from type 2 diabetes have been involved in during the past 7 days, there's also been another questionnaire that relates to the recommendations made by healthcare personnel in relation to: diet, physical activity, measuring sugar in the blood, the type and the frequency of the medical treatment. The questionnaire was handled by nurses working in healthcare centres who had received training. The Ethical Permission to carry out the study was issued by the Ethics Committee at the Ministry of Health.

Findings

General findings on the socio-demographical characteristics of participants in the study

- The final analysis of the data included 400 patients suffering from type 2 diabetes, aged 40-65, who received treatment in five healthcare centres in the city of Vlora. The socio-democratic analysis showed that 53.0% of patients were women, and 47% of them were men.

- The number of people aged 60-65 (n=156) was higher than people aged 50-59 (n=150). Most patients who participated in the study were married (75.8%) and had completed high school (54.3%). The highest percentage, although by a narrow margin, were employed (43.8%). Muslims dominated with 54.50%, followed by Christians with 24.25%. 45.3% and 42.8% of patients lived alone and with children, respectively. 104 patients were from healthcare centres number 2 and 3, respectively.

- 22.0% had been diagnosed with type 2 diabetes in the past five years, followed by 16.8% who had been diagnosed with the disease in the past 5 to 10 years. All the patients who participated in the study, n=400, also had other chronic diseases. Having at least one chronic disease was one of the criteria for participating in the study.

- Other chronic diseases which had the highest prevalence were arterial hypertension (n=65), dyslipidemia (n=28), hypertension+dyslipidemia (n=21) and hypertension+rheumatiod arthritis (n=10). 63.0% of patients are overweight, and 27% have class I obesity.

The main findings on self-care

The main findings on the level of self-care among patients suffering from diabetes who participated in the study (as listed in figure 1).

- The level of self-care among patients suffering from diabetes in the study was above average. The rating was done according to the Likert scale from 1-8. Based on this scale, the average responses measured 4.0[1].

- **Diet.** Following a diet plan in the past seven days scored an average of 5.57 points. Participants in the study who had followed a diet in the past month scored 5.55 points. Participants who reported that they had eaten more than five portions of fruits and vegetables in the past seven days scored 5.80 points. Eating fatty food or red meat in the past seven days scored 4.34 points.

[1] The Linkert scale 1-8 was used for the past 7 days (0-7 days respectively in a scale from 1-8), including the assessment of self-care activities, where 1= never and 8 = always.

- **Physical exercise.** Participating in the past seven days in physical activity for at least 30 minutes scored an average of 5.19 points. Participation in the past 7 days in a specific physical exercise by participants in the study scored 4.22 points.
- **Measuring blood sugar.** Patients measuring their glycemic level on their own in the past seven days scored an average of 4.38 points. Patients measuring the glycemic level because this was recommended to them by the healthcare personnel scored on average 4.58 points.
- **Footcare.** Inspecting the feet in the past 7 days scored an average of 5.59 points. Inspecting the inside of the feet by the participants in the study scored an average of 4.38 points.
- **Smoking.** The average number of cigarettes smoked in the past seven days scored an average of 1.65 points.

Findings on the recommendations given by healthcare personnel with regards to: diet, physical activity, measuring blood sugar, the type and the frequency of the medical treatment (as stated in figure 2)

- Advice and recommendations focused more on diet and less on physical exercise, smoking and measuring glycemic level.
- Patients suffering from type 2 diabetes participating in the study have been advised on their diet by the doctor (46.0%), by the nurse (39.0%), the doctor and the nurse together (34.3%) and 32.5% have reported that they've been careful on their own.
- Advice on diet included following a low-fat diet (37.8%), a complex diet with carbohydrates (28.0%), cutting down on calories to lose weight (42.8%), eating more fibre (35.5%), eating more fruit and vegetable portions (40.5%), eating less sugar (41.0%). 1/6 of patients who participated in the study did not receive any advice on their eating habits.
- Advice given by healthcare personnel on physical exercises included walking everyday (44.0%), constant exercise for 20 minutes at least 3 times a week (40.5%), transforming daily routine to exercise (42.8%), spending a specific amount of time for physical activities (35.8%). 1/6 of patients who participated in the study did not receive any advice on physical activity.
- Advice was given to measure the level of blood sugar by using a blood droplet from the finger (37.5%), to measure the level of sugar blood by using a device that reads the result (58.8%), testing urine for sugar (36.8%). 1/5 of patients who participated in the study did not receive any advice on measuring glycemic level.
- Medical treatment prescribed by the doctor to treat type 2 diabetes consisted of: pills, which makes up the highest percentage (79.3%), insulin applied 1 or 2 times a day (23.0%), insulin applied three or more times a day (22.3%), while 3.3% of patients who participated in the study replied that they had not taken any medical treatment for diabetes.

Findings on extra self-care activities

- Extra self-care activities scored low average points in terms of diet and physical activities.
- Extra self-care activities that involved taking medications regularly and foot care scored higher average points.
- Extra self-care activities involving advice by medical personnel to quit smoking scored lower average points. Around 30%

of smoking patients who participated in the study said they were not given any advice to quit smoking.

Findings on self-care among patients suffering from diabetes included in the study and their connection with the socio-demographic characteristics:

- female gender,
- people aged 40-49
- being married,
- education level,
- employment,
- living with family,
- being diagnosed with diabetes for more than 5 years,
- treatment with oral medications and insulin together **were the main factors that affect self-care abilities among patients suffering from type 2 diabetes participating in the study.**

Main recommendations to address the findings

- The primary healthcare personnel must make advising on self-management and type 2 diabetes part of their daily work. The findings suggest that advice by the medical personnel on eating habits and physical activity were missing for 1/6 of patients who participated in the study.
- As far as boosting the ability to show self-care among diabetes patients, educational and training interventions are recommended, and they shouldn't only focus on patients but also on healthcare personnel.
- It's necessary to integrate innovative and cost-effective interventions to promote self-care among chronic patients suffering from type 2 diabetes.
- The creation of a health education module on self-care and self-management for type 2 diabetes in cooperation with primary healthcare nurses and academic staff, which could be included as part of the nursing school programmes or be provided as an extra-curricular course accredited by the National Centre of Continuing Education, (NCCE/QKEV),in-person or remotely,to support care plans based on the needs of the chronic patient suffering from type 2 diabetes.
- The creation of educational materials and videos to promote self-care, which could be distributed to chronic patients suffering from type 2 diabetes.
- Developing experimental studies to assess how education and healthcare affect the behaviour of patients suffering from type 2 diabetes in relation to their health, but also in changing key biochemical parameters.
- In each routine appointment, the medical personnel should promote to people suffering from type 2 diabetes the basic elements of self-care such as healthy eating, physical activity, regularmonitoring of the glycemic level in the blood, treatment with medications, decision-making, coping with the disease, refraining from that sort of behaviour which poses a threat to health and better-quality lifestyle.
- The healthcare personnel can apply a self-assessment model (during routine appointments in healthcare centres) as the most practical and cost-effective approach to evaluate self-care and self-management skills among patients suffering from type 2 diabetes, which could indicate performance and the quality of care provided.
- The healthcare personnel can apply practical models of chronic care tailored to the individual needs of patients suffering from type 2 diabetes, but they should also consider the local and socio-economic context.

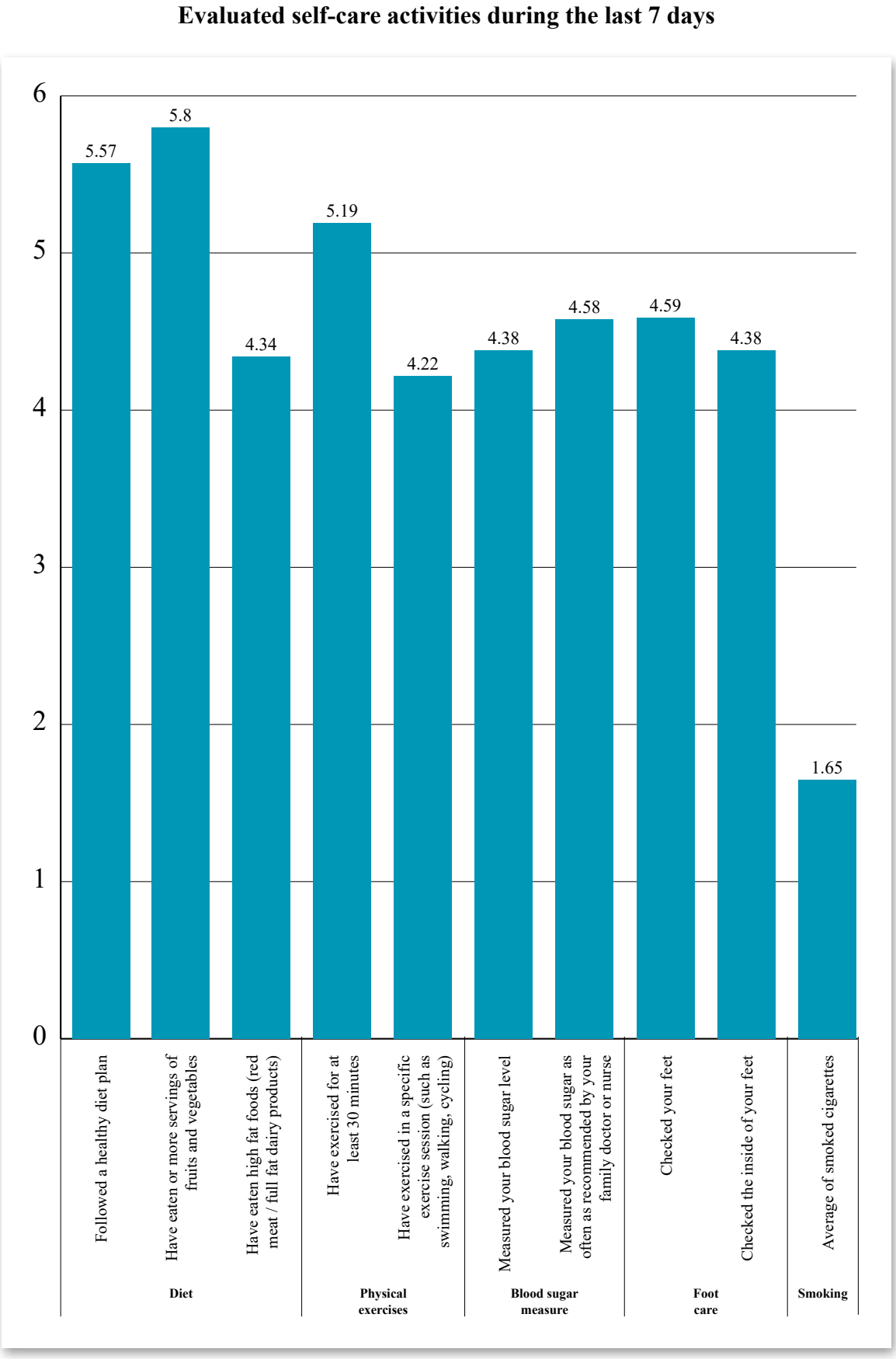

Figure 1: Distribution of self-care average score for evaluated activities (Measured according to the Likert scale 1-8)

Recommendations from health providers

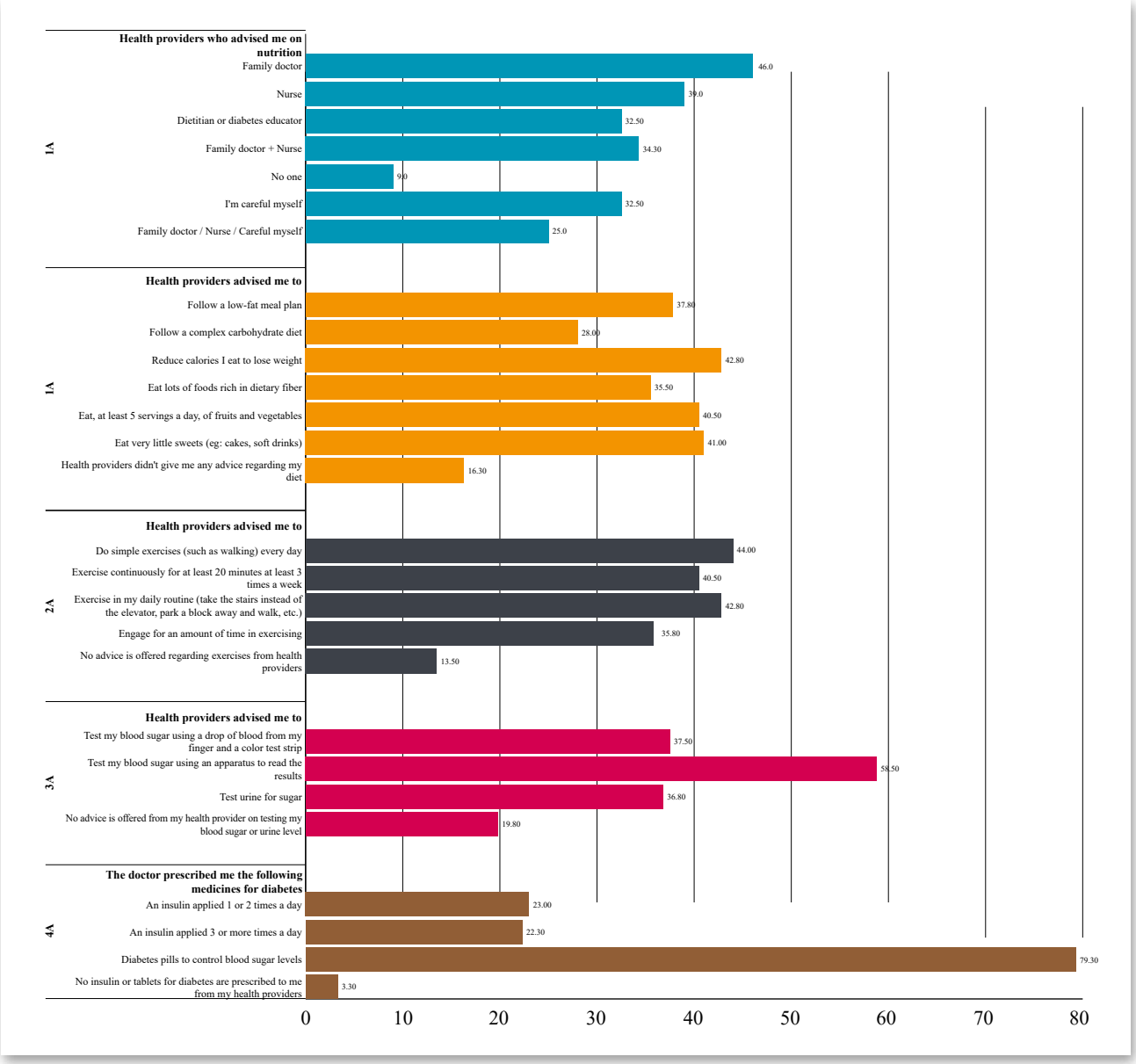

Figure 2: The distribution percentages of recommendations given by medical personnel on the different self-care activities which have been evaluated (food, physical exercise, measuring blood sugar, medication)

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Disclaimer

This document is based on the study "Level of self-care among patients suffering from type 2 diabetes-implications for primary healthcare" conducted by Jerina Jaho, Master of Science in General Medicine, with the support of "Health for All"-a project of the Swiss Agency for Development and Cooperation SDC, implemented by the Swiss Tropical and Public Health Institute (STPH).

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