Knowledge of Disease Among Patients with Type 2 Diabetes and Hypertension in Slovenia

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INTRODUCTION

Chronic diseases, such as diabetes and hypertension, represent a substantial burden for the patients. In order to accomplish good self-care, patients need to be qualified and able to accept decisions in order to self-manage the disease on a daily basis. A high level of knowledge about the disease empowers the patient to act as an equal partner in the management of the disease. Previous research[1], conducted on elderly population of patients with diabetes type 2 in North-East Slovenia showed relatively low knowledge: out of 14 points the average score was 8.0 ± 2.4. Not a single subject responded correctly to all 14 questions. The knowledge was higher among men, there was no significant difference between the elderly living in urban and rural areas, and the level of education was the most important predictor for better results.

The objective of our research was to explore the level of knowledge among patients aged 65+ with type 2 diabetes (T2D) and/or arterial hypertension (AH) in Slovenia. Furthermore, we wanted to explore the differences in knowledge reagrding gender, education and rural/urban area.

1 Turk E, Palfy M, Prevolnik Rupel V, Isola A. General knowledge about diabetes in the elderly diabetic population in Slovenia. ZdravVestn 2012;81(7-8).

METHODOLOGY

A survey was conducted on a convenience sample of 235 patients with AH and 192 patients with T2D, aged 65 or more, from Community Health Center Ljubljana and Community Health Center Ravne na Koroškem. The questionnaire used for measuring the level of knowledge in patients with T2D was 14-question Brief Diabetes Knowledge Test (DKT); in patients with AH the first 11 questions of the Hypertension Knowledge Test (HKT) were used. While the Slovenian version of DKT was readily available, HKT was translated within the project, following the Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures[2]. Each question was worth 1 point. The research was conducted within the EU-funded H2020 SCUBY project.

[2] Wild, D, Grove, A, Martin, M, Eremenco, S, McElroy, S, Verjee-Lorenz, A, Erikson, P. Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures: Report of the ISPOR Task Force for Translation and Cultural Adaptation. Value in Health, 2005, 8(2): 94-104.

RESULTS

In T2D patients, the average score was 7.5±3.0 (max: 14 points) (men: 7.6±2.8, women: 7.4±3.1). Not a single subject responded correctly to all 14 questions. In comparison to previous research in Slovenia from 2012, using same knowledge test, the results were similar (previously 8.0±2.4), indicating that the knowledge has not improved in the last eight years. The highest score was achieved in the category Activity (88% of the asnwers correct), the lowest in Management (38% of the answers correct). On average, women achieved 7.4 and men 7.6 points: there were no significant differences in knowledge between women and men (p=0.725). Similarly, the knowledge did not differ among the rural (7.4 points) and urban area (7.5 points) (p=0.928). Education and age were the most significant predictor of the knowledge level.

Figure 1: Boxplot of knowledge distribution according to sex and rurality of the area, T2D patients, 2019

In AH patients, the average score was 6.9±1.5 (men: 6.9±1.6, woman: 6.9±1.5). Not a single subject responded correctly to all 11 questions. There were no significant differences in knowledge between women and men (p=0.388). Similarly, the knowledge did not differ among the rural and urban area (6.9 points in both areas, p=0.444). Education was the most significant predictor of the knowledge level.

Figure 2: Boxplot of knowledge distribution according to sex and rurality of the area, HT patients, 2019

DISCUSSION AND PRACTICAL IMPLICATIONS

Despite the various points and organized preventive workshops where information about the T2D/AH and their management is available, the elderly patient population in Slovenia shows a low level of general knowledge about both diseases.

More emphasis should be put on systematic and continuous education and empowerment of newly diagnosed as well as the existing patients with T2D/AH, especially in the area of disease management in T2D, where the share of correct answers (38%) is very low. Education and age were the most significant predictors of knowledge in T2D; education was the most significant predictor of knowledge in AH.