

# Whether the use of a multidisciplinary approach may increase the adherence and effectiveness of treating patients with type 1 diabetes and type 2 diabetes?

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Significance and evaluation of the impact of psychosocial factors on the treatment adherence of patients with Diabetes Mellitus type 1 and type 2 and the importance of a multidisciplinary approach to improving the efficacy of treatment.

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## Background

Diabetes mellitus (DM) type 1 (DM1) and type 2 (DM2) are complex systematic diseases that have required high-quality medical and social care. According to increase in the prevalence and incidence of these diseases among the population, there is a need for improving the process and quality of treatment. Glycemic control significantly depends on patients' compliance with treatment and lifestyle. Therefore, it could be stated that the reason for their non-effective therapy - low level of commitment to treatment, which directly depends on psychological status and quality of life[1-5].

## The aim of the study

The improvement of the treatment efficiency for patients with DM1 and DM2 in the process of researching the influence of psychosocial factors on their adherence to treatment.

## Method

Study population (n=60) consists of patients with DM type 1, 2 and newly diagnosed DM type 1, 2. Comparable groups consists of two research groups of patients with DM1 (n=16) and DM2 (n=33). Comparable groups (CG) of DM1 and DM2 were equivalent to age, demographic data, body mass index, level of glucose & HbA1c results. The study data have been collected with the Patient Information Form (demographic data), including: Medication Compliance Scale (MCS), Chaban Quality of Life Scale (CQLS), Holmes and Rahe Stress Scale (HRSS), Dysfunctional attitudes Scale (DAS), The Depression, Anxiety and Stress Scale (DASS-21) and Toronto Alexithymia Scale (TAS-20). Glycemic control was based on glycated haemoglobin (HbA1c) laboratory results. The statistics analysis has been performed using Pearson's correlation and descriptive statistics with MS Excel and SPSS Statistics 22.0.

## Results

During the study there was found statistically significant difference of the results, according to MCS: between groups of patients with high (HC), middle (MC) and low level of compliance (LC). Patients with HC had higher quality of life level according to CQLS ( $r=0,37$ ) by the results on level ( $p=0,004$ ) and low rates of the DAS ( $r=-0,28$ ), TAS-20 ( $r=-0,29$ ), DASS-21(stress ( $r=-0,52$ ), anxiety ( $r=-0,42$ ) and depression ( $r=-0,55$ )) and HRSS ( $r=-0,5$ ) results on general level ( $p=0,0001$ ). The average values according to MCS results for CG - DM1 (M=19) and DM2 (M=18) present MC in patients at the same level. The average values by HbA1c results for CG - DM1 (M=10) and DM2 (M=10) have identical indicators. Based on the results of research - no statistically significant difference has been found between DM1 and DM2 in CG.

## Conclusions

Indicators of the psychological status of DM patients that have been determined by the results of psychometric scales, such as: the level of stress resistance and social adaptation, quality of life, cognitive distortions, alexithymia, depression, anxiety and stress - as probable psychosocial factors affecting the adherence to the treatment of patients with diabetes as 1 type and type 2, regardless of the diagnosis. Patients with LC have higher risk of ineffective treatment as a result and require qualified assistance from the specialists in mental health care and endocrinology to insure multidisciplinary approach to treatment of the patients with DM1 and DM2.

## References

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