

Depression levels in relation to glycaemic control in patients with type 1 and type 2 diabetes mellitus

Borskoviča Linda¹, Beskrovnijs Romāns²

¹Rīga Stradiņš University, Riga, Latvia

²Department of Psychosomatic Medicine and Psychotherapy, Rīga Stradiņš University, Riga, Latvia

Background. Currently, there are 422 million people in the world suffering from diabetes. The International Diabetes Federation predicts that in 2030 the amount of people living with diabetes will account for 643 million, and in 2045 this number will reach 783 million. In 2021 there were 94,448 people living with diabetes in Latvia which has increased by 19,933 since 2011. It has been proven that depression is associated with the development of diabetes, and that people with diabetes are at a higher risk of having depression. However, research on associations between depression and glycaemic control is lacking.

Aim. The aim of this study was to determine whether there are correlations between glycaemic control and levels of depression.

Methods. This was a cross-sectional study including adults aged 18 or older with the diagnosis of diabetes presenting in a hospital or clinical setting. PHQ-9 which is a self-report questionnaire was used to measure levels of depression. HbA1c was used to determine glycaemic control. Spearman's rank correlation and descriptive data analysis were used to interpret the data.

Results. The participants of this study were 21 women (50%) and 21 men (50%) either with type 1 (19%) or type 2 (78.6%) diabetes, and the mean age of 58.39 years (± 17.75). The duration of diabetes was 10.63 years (± 8.43) on average. Mean HbA1c was 7.90% (± 2.34) and the average PHQ-9 score was 5.90 (± 5.69). The correlation between PHQ-9 score and HbA1c was not statistically significant ($r=0.248$, $p=0.123$).

Conclusions. A higher HbA1c was not associated with a higher level of depression, vice versa. This could indicate that poor glycaemic control does not affect nor is caused by high levels of depression.

Acknowledgements. There are no relevant conflicts of interest to disclose. Ethical approval was obtained from Rīga Stradiņš University Research Ethics Committee. There was no funding for this study.