

Diabetes Distress and Depression during COVID-19: Response to Breznoscakova et al. Uncovering the Untold Emotional Toll of Living with Diabetes in the COVID-19 Era

Andreas Schmitt^{a, b} Bernhard Kulzer^{a, b, c} Dominic Ehrmann^{a, b, c}
Thomas Haak^a Norbert Hermanns^{a, b, c}

^aResearch Institute of the Diabetes Academy Mergentheim, Diabetes Center Mergentheim, Bad Mergentheim, Germany; ^bGerman Center for Diabetes Research (DZD), Muenchen-Neuherberg, Germany; ^cDepartment for Psychology, Otto-Friedrich-University of Bamberg, Bamberg, Germany

Dear Editor,

We thank Breznoscakova and Pallayova [1] for their highlighting of our ECCE HOMO trial evaluating stepped care for depression in patients with diabetes (PWD). The observed improvements in depression, well-being, and acceptance support stepped care (i.e., continued treatment and stepwise raised intensity until targets are reached in the individual) as useful approach for managing depression in routine care [2]. However, while stepped care provides tailored treatment, particularly for patients with mild to moderate mental conditions (preventing overtreatment), patients in need of intensive mental (e.g., psychiatric) care may be undertreated initially. Precision medicine is not reached.

Breznoscakova and Pallayova [1] stress the need for improved mental health care for PWD, both with type 1 (T1D) and type 2 diabetes (T2D), particularly during the pandemic. The prevalence of depression is about twice as high in PWD as in those without diabetes. A recent meta-analysis of controlled studies found that 16% of PWD was affected by clinical depression and further 10% by sub-clinical depression (depressive symptoms not meeting criteria for diagnosis) [3]. It was estimated that PWD's risk of developing depression was increased by 33% [4].

Correspondingly, in our screening of 2,523 PWD (1,427 with T1D, 1,037 with T2D, and 59 with other types) at a specialized center for the trial [2], we identified 1,154 persons with elevated depressive symptoms (CES-D ≥ 16) (T1D 44.6%, T2D 46.6%); 770 had symptom scores ≥ 22 , suggesting likely clinical depression (T1D 30.0%, T2D 31.0%). Furthermore, 778 persons reported diabetes distress (PAID ≥ 40 ; T1D 29.6%, T2D 32.2%) – 82.0% with concomitant depressive symptoms – which can increase incidence and persistence of depression [5]. These data from before the pandemic indicate demands for mental healthcare in large proportions of PWD and suggest consideration of both clinical and subclinical mental health problems.

COVID-19 has posed severe burdens and threats on the general population and the rates of depressive and anxiety disorders have increased by 27.6% and 25.6%, respectively [6]. People with preexisting diseases, such as diabetes and its complications, are at particular risk of a severe course of COVID-19, posing additional burdens on PWD specifically. We suppose that mental health risks may have risen in this group particularly, and findings of substantially increased depression and anxiety symptoms and sleep problems during the pandemic seem to support this [7].

Now, 2 years after the pandemic's beginning, COVID-19-related risks can be better controlled and a certain level of normality has been regained. However, the severe impacts of the pandemic, socially and economically, will be felt for a long time and will continue to affect mental health. The pandemic has increased our need to strengthen mental healthcare [6] and shown that new ways of care are needed. Breznoscakova and Pallayova [1] have outlined the potential of telehealth. In addition, we recommend internet- and mobile-based interventions, which can treat mild, moderate, and even severe (non-suicidal) depression in PWD [8]. Mobile health apps offering mood diaries, exercises, and momentary interventions have been developed and constitute a promising approach where face-to-face contact is not available.

Finally, we agree with Breznoscakova and Pallayova [1] that "more individually tailored treatment strategies to mitigate the negative psychological impact of the COVID-19 pandemic on diabetes are critically needed." These strategies could involve precision monitoring to detect worsening glycemic and/or mental health outcomes, recognizing individual patterns, and triggering

early, personalized interventions [9]. This approach would constitute a great step towards achieving precision mental healthcare for diabetes.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

A.S., B.K., D.E., T.H., and N.H. substantially contributed to the conception of the article and the article preparation. A.S. and D.E. selected relevant studies. A.S. interpreted the data and drafted the manuscript. All the authors critically revised the manuscript for important intellectual content and approved the final version.

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