



RESPONSE TO COMMENT ON HERMANN'S ET AL.

## The Effect of a Diabetes-Specific Cognitive Behavioral Treatment Program (DIAMOS) for Patients With Diabetes and Subclinical Depression: Results of a Randomized Controlled Trial.

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In the comment by Tulu et al. (1), a high proportion of people with diabetes and elevated diabetes-related distress were reported in a Turkish sample. In light of their findings, the authors stressed the importance of intervention concepts, such as the diabetes-specific cognitive behavioral treatment program (DIAMOS) (2) for people with diabetes suffering from diabetes-related distress. In this comment, the relevance of such intervention concepts for addressing elevated diabetes-related distress and subthreshold depression is also emphasized.

The high prevalence of diabetes-related distress in Turkish people with diabetes is in line with findings of the multinational second Diabetes Attitudes, Wishes and Needs (DAWN2) study, which showed that prevalence of diabetes-related distress was significantly higher in Turkey (43.8%) than the mean prevalence (33.7%) of the other 16 participating countries (3). Turkish people with diabetes had the third highest prevalence rate of elevated diabetes-related distress out of 17 countries. The DAWN2 study further demonstrated a remarkably high rate of people with diabetes in Turkey (19.2%) who reported such a low psychological well-being that depression was likely. This rate was 4.4

percentage points higher than the multinational mean prevalence of “likely depression” (14.8%) in people with diabetes (3). Thus, people with diabetes living in Turkey seem to be overexposed to diabetes-related distress and low well-being compared with other countries. This highlights the importance of addressing diabetes-related distress as well as depression in clinical care.

Elevated diabetes-related distress is not only an indicator for emotional problems in living with the chronic condition of diabetes but also a risk factor for depression in diabetes. People with diabetes reporting elevated diabetes-related distress had a higher risk for the incidence of elevated depressive symptoms (4). In addition, if elevated diabetes-related distress and depressive symptoms were simultaneously present, the likelihood for persistent depression was increased (4). Depression in diabetes has been found to be associated with poorer diabetes self-management and a poorer long-term prognosis of diabetes. Furthermore, there is also evidence that elevated diabetes-related distress might mediate the negative effects of depression on diabetes outcomes, such as glycemic control (5).

In summary, addressing diabetes-related distress in clinical care could

lead to an improvement of the long-term outcomes of diabetes and to the prevention of depression in diabetes. One option for addressing distress is the DIAMOS program (2), a group intervention for people with diabetes with elevated depressive symptoms or diabetes-related distress. This program consists of five group sessions and focuses on coping with diabetes-related stressors. It was demonstrated that depressive symptoms as well as elevated diabetes-related distress could be significantly reduced in participants of DIAMOS compared with people with diabetes participating in an active control condition. Reductions of the initial distress and depression scores were 25% and 33%, respectively, in the 12-month follow-up. In addition, participation in DIAMOS was associated with a 37% lower incidence rate of major depression. Results of the DIAMOS program indicate that emotional problems in people with diabetes can be successfully addressed in clinical care.

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