

PAID-PL—The Polish Version of the Problem Areas in Diabetes Scale: Perfect Reliability and a One-Factor Structure

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Purpose: The aim of this study was to assess the structure and validate the Polish version of the Problem Areas in Diabetes (PAID) scale, as the current translations of the original English version significantly vary in their psychometric properties.

Patients and Methods: Two hundred and sixteen consecutive Polish outpatients were invited to participate in this international cross-sectional study on depression in diabetes. The research was based on the demographic and clinical characteristics of the study population, including the level of glycated hemoglobin (HbA_{1c}) and scores obtained in the Polish versions of the following questionnaires: PAID, World Health Organization-Five Well-Being Index (WHO-5), Patient Health Questionnaire 9 (PHQ-9). The psychiatric diagnosis was conducted with the use of Mini-International Neuropsychiatric Interview (M.I.N.I.).

Results: Exploratory factor analyses yielded a 1-factor structure that included all 20 items. The internal consistency of the Polish version of PAID was high (Cronbach $\alpha = 0.97$). There were significant positive correlation between PAID and PHQ-9 and a negative correlation between PAID and WHO-5. We also observed a negative association between PAID scores and age and a positive correlation between PAID and HbA_{1c} levels. Patients with depression reported significantly higher PAID scores as compared with those without depressive symptoms.

Conclusion: The Polish version of PAID has a one-factor structure and is a reliable, valid outcome measure for Polish outpatients with type 2 diabetes and it may constitute a useful instrument for screening for psychologic issues in diabetic patients during their appointments at the diabetes clinic.

Keywords: diabetes mellitus, type 2, emotional stress, depression, quality of life, problem areas in diabetes scale

Introduction

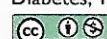
In 2017, 451 million people suffered from diabetes, and it is expected that 693 million individuals will be affected by diabetes in 2045.^{1,2} Diabetes frequently leads to serious, life-threatening, and often lethal cardiovascular complications, such as heart attack, stroke, neuropathy (nerve damage), nephropathy (kidney damage), and retinopathy (eye damage).^{3–5} The management of diabetes requires the daily monitoring of blood glucose levels and modification of the patient's life style, which mainly means maintaining a healthy diet and doing regular physical exercise. Ultimately, adhering to these requirements poses a problem to many patients with diabetes.

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