

PRIDD

Psychiatric comorbidities in patients with Atopic Dermatitis: The importance of the multidimensional impact of the disease

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The authors declare no Conflict of Interest.

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▶▶▶▶▶ While the prevalences for depression and anxiety disorders are estimated at 3.8% and 4% of the global population, these can ascend to 30% in the dermatology population, and particularly among patients with atopic dermatitis (AD).

▶▶▶▶▶ Variables related to disease and treatment play a proven, yet minor, role in explaining the high rates of psychiatric comorbidity, and, thus, additional psychological and social risk factors need to be identified.



Study aim

Using the new **Patient-Reported Impact of Dermatological Diseases (PRIDD)**, this study examined the associations between sociodemographic and clinical variables, disease impact, and anxiety and depression scores in participants with AD.

Methods

Study design: Cross-sectional data from the Global Research on the Impact of Dermatological Diseases (GRIDD) study was analyzed. The online survey was available in 17 different languages and conducted between June 2023 and January 2024. Participants were recruited through patient organizations and social media platforms.

Participants: 275 adult participants with self-reported AD (72.7% female, 39.4 ± 13.4 years of age, from 32 different countries).

Variables and measures:

Disease impact



total score range from 0 (no impact) to 64 (max. impact); 4 dimensions:



PHYSICAL



PSYCHOLOGICAL



LIFE RESPONSIBILITIES



SOCIAL

Depression

Patient Health Questionnaire (PHQ-9): score range from 0 to 27; higher scores indicate higher severity of depression

Anxiety

General Anxiety Disorder (GAD-7): score range from 0 to 21; higher scores indicate higher severity of anxiety

Psychiatric comorbidities among participants with AD

Patient Health Questionnaire (PHQ) – depression

PHQ-9 scores	Frequency	Percent
Minimal depression	107	38.9
Mild depression	69	25.1
Moderate depression	51	18.5
Moderately severe depression	32	11.6
Severe depression	16	5.8
Total	275	100.0

Using the cut-off point of 10 for the PHQ-9 score (sensitivity = 88% and specificity = 85%), **99 (36.0%) patients** had clinically significant depression.

General Anxiety Disorder (GAD) - anxiety

GAD-7 scores	Frequency	Percent
Minimal anxiety	104	37.8
Mild anxiety	98	35.6
Moderate anxiety	46	16.7
Severe anxiety	27	9.8
Total	275	100.0

Using the cut-off point of 10 for the GAD-7 score (sensitivity = 89% and specificity = 82%), **73 (26.5%) patients** had clinically significant anxiety.

Associations between PRIDD and mental health

PRIDD	PHQ-9	GAD-7
Total score	.549**	.501**
Physical impact	.504**	.403**
Life responsibilities impact	.402**	.360**
Psychological impact	.512**	.522**
Social impact	.541**	.497**

** Correlation is significant at the 0.01 level (2-tailed).

Pearson correlation coefficients:

0.9 to 1 = Very high correlation;

0.7 to 0.9 = High correlation;

0.5 to 0.7 = Moderate correlation;

0.3 to 0.5 = Low correlation;

0.0 to 0.3 = Negligible correlation.

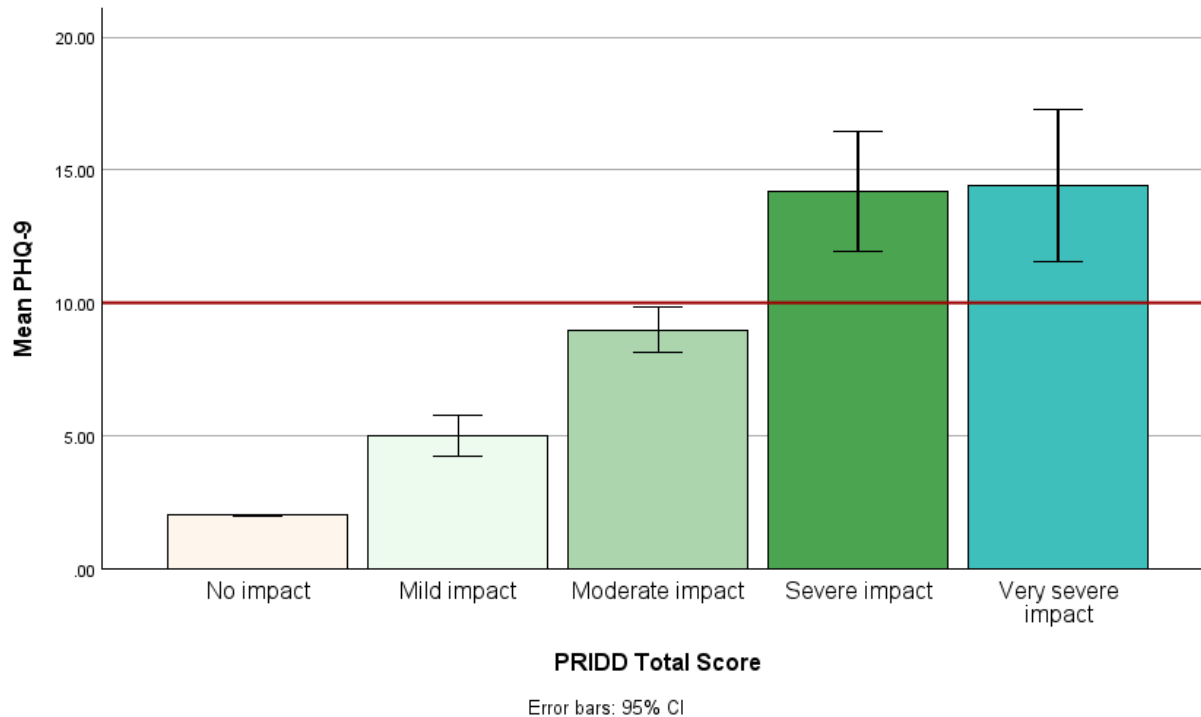
For all four PRIDD dimensions, higher impact of the dermatological condition on patients' lives was associated with higher severity of depression and anxiety symptoms.

Stronger correlations were observed for the psychological and social dimensions, and weaker correlations for the life responsibilities dimension.

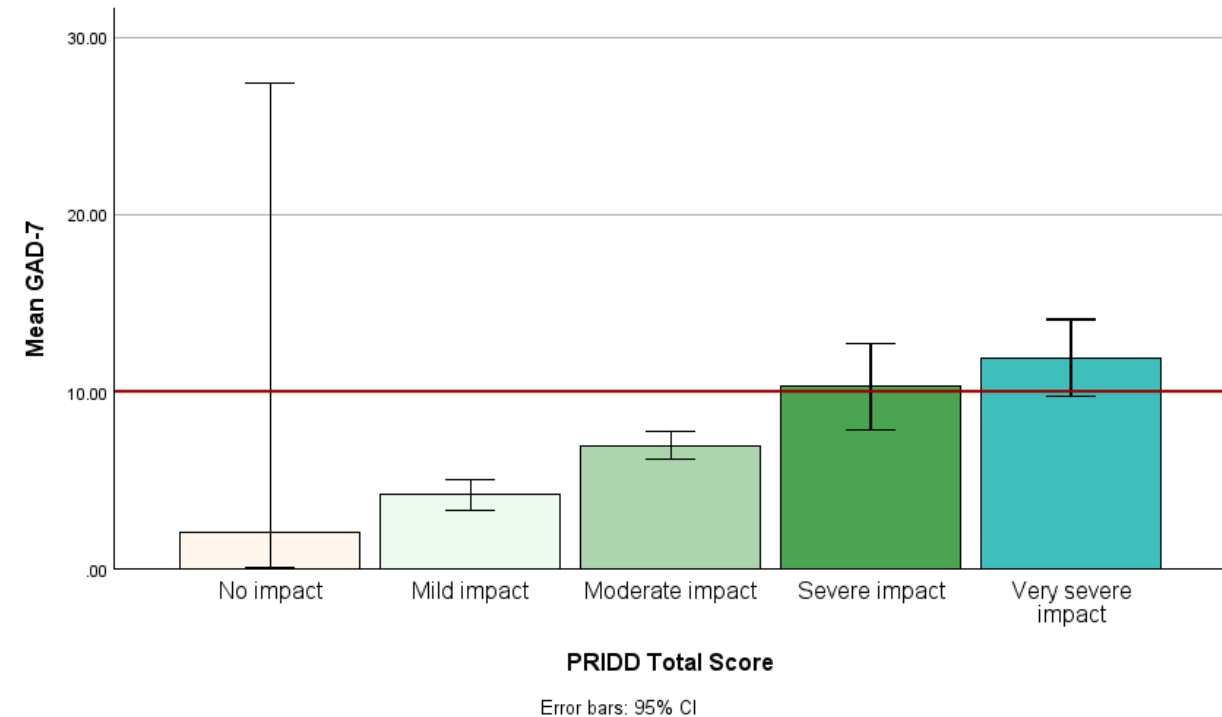
Associations between PRIDD and mental health

Patients who reported severe and very severe disease impact also reported depression and anxiety symptoms that are, on average, above the threshold for clinical significance.

Depression



Anxiety



Hierarchical regression analyses explaining depression symptoms

Sociodemographic characteristics (younger age, darker skin types) explained 10.2% of the variance in depression scores.

Clinical variables (higher disease severity and presence of comorbidities) explained 14.6% of depression scores.

PRIDD was the strongest correlate of depression. Higher physical and social impact explained an additional variance of 20% for depression.

	PHQ-9
Sociodemographic characteristics	$\Delta R^2 = .102^{***}$
Age	-.253 ^{***}
Biologic sex (1 = male vs. 0 = female)	-.061
Fitzpatrick skin type (0-6)	.159 [*]
Disease characteristics	$\Delta R^2 = .146^{***}$
Years lived with the condition	-.056
Disease severity (PGA 0-4)	.338 ^{***}
Visible areas affected (1 = yes vs. 0 = no)	0.016
Dermatological comorbidities (1 = yes vs. 0 = no)	.030
Physical or mental comorbidities (1 = yes vs. 0 = no)	.127 [*]
Patient organization membership (1 = yes vs. 0 = no)	-.031
Satisfaction with the current healthcare (0-4)	-.036
PRIDD	$\Delta R^2 = .200^{***}$
Physical impact	.299 ^{***}
Life responsibilities impact	-.103
Psychological impact	.043
Social impact	.292 ^{**}
Model Summary	$R^2 = .447^{***}$

PGA – Patient Global Assessment; PHQ – Patient Health Questionnaire; GAD – General Anxiety Disorder. Figures represent Standardized Coefficients (β); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Hierarchical regression analyses explaining anxiety symptoms

Sociodemographic characteristics (younger age, darker skin types) explained 10.4% of the variance in depression scores.

Clinical variables (higher disease severity and presence of comorbidities) explained 14.7% of depression scores.

PRIDD was the strongest correlate of anxiety. Higher psychological and social impact explained an additional variance of 15.8% of the variance in anxiety scores.

	GAD-7
Sociodemographic characteristics	$\Delta R^2 = .104^{***}$
Age	-.194 ^{**}
Biologic sex (1 = male vs. 0 = female)	-.120
Fitzpatrick skin type (0-6)	.215 ^{***}
Disease characteristics	$\Delta R^2 = .147^{***}$
Years lived with the condition	-.092
Disease severity (PGA 0-4)	.316 ^{***}
Visible areas affected (1 = yes vs. 0 = no)	-.090
Dermatological comorbidities (1 = yes vs. 0 = no)	.003
Physical or mental comorbidities (1 = yes vs. 0 = no)	.149 [*]
Patient organization membership (1 = yes vs. 0 = no)	-.029
Satisfaction with the current healthcare (0-4)	-.062
PRIDD	$\Delta R^2 = .158^{***}$
Physical impact	.026
Life responsibilities impact	-.101
Psychological impact	.195 [*]
Social impact	.325 ^{***}
Model Summary	$R^2 = .409^{***}$

PGA – Patient Global Assessment; PHQ – Patient Health Questionnaire; GAD – General Anxiety Disorder. Figures represent Standardized Coefficients (β); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The rates of clinically significant depression and anxiety are much higher among patients with AD, compared to the general population.

The results from this study emphasize the importance of capturing the multidimensional burden of AD, as an important risk factor for psychiatric comorbidity.

Using the PRIDD questionnaire can help identifying patients in need of in-depth assessment and management of mental health problems in primary and secondary dermatology care.

This helps inform the need for integrated psychological supports into overall treatment plans.



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