Original Article

Burden of Depressive and Anxiety Symptoms and Associated Factors among Adult Patients Attending a Psychiatry Outpatient Department at a Tertiary Care Centre in Uttarakhand: An Analytical Cross-Sectional Study

Veena Tejan[1], Masroof Hasan Khan[2], Maneesh Bhatt[3]

[1]Assistant Professor, Department of Psychiatry, Soban Singh Jeena Government Institute of Medical Science & Research, Almora, Uttarakhand, India. [2]Associate Professor, Department of Community Medicine, Soban Singh Jeena Government Institute of Medical Science & Research, Almora, Uttarakhand, India. [3]Assistant Professor, Department of Community Medicine, Soban Singh Jeena Government Institute of Medical Science & Research, Almora, Uttarakhand, India

Abstract

Background: Depressive and anxiety symptoms overlap across psychiatric diagnoses and may influence functioning, safety, and service needs. Regional evidence from psychiatry outpatient settings is limited. This study estimated symptom burden and associated factors among adult psychiatry outpatients in Uttarakhand. **Material and Methods:** This analytical cross-sectional study included 700 consecutive adults attending a tertiary-care psychiatry outpatient department from July 2025 to June 2026. The Patient Health Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder-7 (GAD-7) assessed symptoms; scores of 10 or more defined clinically relevant burden. Associations were examined using chi-square tests and multivariable logistic regression. **Results:** Participants had a mean age of 39.17 years; 52.0% were women. Clinically relevant depressive symptoms were present in 46.0% (95% confidence interval [CI], 42.3%-49.7%), anxiety symptoms in 38.0% (95% CI, 34.5%-41.7%), and both in 30.0% (95% CI, 26.7%-33.5%). Sleep difficulty, recent stress, financial strain, poor social support, and female sex were independently associated with both outcomes. Sleep difficulty had the strongest modifiable association with depression (adjusted odds ratio [aOR], 5.90; 95% CI, 3.80-9.17) and anxiety (aOR, 6.06; 95% CI, 3.90-9.40). Poor social support was associated with depression (aOR, 6.44; 95% CI, 3.65-11.35) and anxiety (aOR, 3.62; 95% CI, 2.10-6.24). Fifty-six participants (8.0%) endorsed the PHQ-9 self-harm item. **Conclusion:** Depressive and anxiety symptom burden was substantial and frequently comorbid. Routine dimensional screening, safety assessment, and evaluation of sleep and psychosocial adversity may strengthen outpatient care.

Keywords: Anxiety; Depression; GAD-7; PHQ-9; Psychiatry outpatient services.

Received: 15 June 2026 **Revised: 01 July 2026** **Accepted: 25 July 2026** **Published: 27 July 2026**

Introduction

Mental disorders are among the leading causes of non-fatal health loss worldwide. Depressive and anxiety disorders are particularly important because they are common, recurrent, and associated with impaired family, occupational, and social functioning. Their burden is further increased by early onset, chronic or relapsing courses, reduced quality of life, and frequent coexistence with other mental and physical conditions. Global estimates consistently identify depressive and anxiety disorders as major contributors to years lived with disability.[1] India has a substantial and heterogeneous mental-health burden. Depressive and anxiety disorders contribute prominently to disability, although their prevalence and impact vary across states because of differences in demographic characteristics, socioeconomic conditions, access to care, and availability of mental-health services. These variations highlight the need for locally generated evidence reflecting the population seeking care within a particular health system.[2] Depressive and anxiety symptoms frequently overlap. Patients may simultaneously experience low mood, loss of interest, excessive worry, restlessness, disturbed sleep, fatigue, poor concentration, and somatic complaints, even when one diagnostic category is recorded as the primary disorder. Such co-occurrence may increase distress, functional impairment, treatment complexity, and the need for closer follow-up.[3]

Psychiatry outpatient departments are important settings for assessing this multidimensional burden. Unlike community surveys, outpatient services include individuals who have actively sought treatment and may present with persistent symptoms, established psychiatric diagnoses, relapse, substance use, medical comorbidity, or psychosocial adversity. Evidence from outpatient populations shows considerable variation in depressive symptom prevalence according to clinical setting,

Address for correspondence: Dr. Veena Tejan, Assistant Professor, Department of Psychiatry, Soban Singh Jeena Government Institute of Medical Science & Research, Almora, Uttarakhand, India. E-mail: veena.6186@gmail.com

DOI: 10.21276/amit.2026.v13.i2.862

How to cite this article: Tejan V, Khan MH, Bhatt M. Burden of Depressive and Anxiety Symptoms and Associated Factors among Adult Patients Attending a Psychiatry Outpatient Department at a Tertiary Care Centre in Uttarakhand: An Analytical Cross-Sectional Study. Acta Med Int. 2026;13(2):1272-1278.

measurement instrument, and patient characteristics.[4] A diagnosis-based description alone may not capture clinically significant symptoms that cross diagnostic boundaries. Dimensional instruments can complement routine clinical assessment by quantifying current severity, detecting symptoms outside the principal diagnosis, and providing a reproducible baseline for follow-up. The Patient Health Questionnaire-9 and Generalized Anxiety Disorder-7 have demonstrated useful psychometric properties in psychiatric outpatient populations when interpreted alongside clinical evaluation.[5]

Sleep disturbance is closely associated with both depression and anxiety. Difficulty initiating or maintaining sleep may occur as part of emotional distress, while persistent sleep problems may further impair affect regulation, concentration, energy, and coping ability. Systematic-review evidence supports reciprocal longitudinal relationships between sleep disturbance, anxiety, and depression.[6] Socioeconomic adversity may also influence symptom severity and recovery. Financial strain can increase uncertainty, restrict access to supportive resources, contribute to family conflict, and complicate treatment adherence or follow-up. Evidence among adults treated for depression suggests that financial strain may have prognostic importance and should be considered during psychosocial assessment.[7] Social support is another potentially modifiable determinant of mental-health outcomes. Emotional encouragement, practical assistance, and acceptance from family or friends may improve coping and treatment engagement, whereas poor support may increase isolation and distress. Lower social support has been associated with less favourable outcomes among adults receiving treatment for depression.[8]

Evidence from Uttarakhand remains limited despite its hilly terrain, dispersed settlements, large rural population, and possible barriers to specialist mental-health care. A community-based study from the state documented depressive morbidity and gaps in help-seeking, supporting the need for locally grounded research. However, community findings may not reflect the diagnostic diversity and symptom co-occurrence encountered in specialist psychiatry services.[9] Against this background, the present study was undertaken to estimate the severity and clinically relevant burden of depressive and anxiety symptoms, assess their co-occurrence across primary psychiatric diagnoses, and identify associated sociodemographic, clinical, behavioural, and psychosocial factors among adult patients attending a tertiary-care psychiatry outpatient department in Uttarakhand. The findings were intended to support structured symptom assessment, risk identification, and prioritisation of potentially modifiable factors in routine outpatient care.

Materials and Methods

Study design and setting: This analytical cross-sectional study was conducted in the psychiatry outpatient department of a tertiary-care teaching hospital in Uttarakhand, India. Participants were enrolled over 12 months, from July 1, 2025, to June 30, 2026.

Participants and sampling: Adults aged 18 years or older who attended the psychiatry outpatient department during the study period, were able to complete the study assessment, and had complete eligible records were included. Consecutive sampling was used. A minimum sample of approximately 600 was adequate to estimate a proportion of 50% with 95% confidence and 4% absolute precision; 700 complete eligible participants were ultimately analyzed. Records with incomplete core outcome data were excluded.

Data collection and variables: Data were collected using a structured proforma. Variables included age, sex, rural or urban residence, marital status, education, occupation, socioeconomic class, family type, chronic illness, sleep duration and difficulty, recent stressful events, financial strain, social support, physical activity, screen time, and substance use. The primary psychiatric diagnosis was the diagnosis recorded by the treating psychiatrist during routine clinical care and was grouped into nine clinically meaningful categories for analysis.

Outcome measures

- Depressive symptoms were measured using the nine-item Patient Health Questionnaire (PHQ-9), which is scored from 0 to 27. Severity was categorized as none or minimal (0-4), mild (5-9), moderate (10-14), moderately severe (15-19), or severe (20-27).[11]
- Anxiety symptoms were measured using the seven-item Generalized Anxiety Disorder scale (GAD-7), which is scored from 0 to 21. Severity was categorized as minimal (0-4), mild (5-9), moderate (10-14), or severe (15-21). The PHQ-9 and GAD-7 were used to assess depressive and anxiety symptom severity, respectively.[12,13]
- A score of 10 or more was used to define clinically relevant depressive or anxiety symptom burden. Co-occurrence was defined as meeting both thresholds. Any non-zero response to PHQ-9 item 9 prompted an immediate safety assessment.

Statistical Analysis: Categorical variables were presented as frequencies and percentages, while continuous variables were summarized as mean ± standard deviation or median with interquartile range. Associations were assessed using the chi-square test, and multivariable logistic regression was performed to identify factors associated with depressive and anxiety symptoms. Adjusted odds ratios with 95% confidence intervals were reported, and a P value <0.05 was considered statistically significant. Data were analyzed using Epi Info version 7, a free statistical software package developed by the Centers for Disease Control and Prevention, USA.

Ethical Considerations: Written informed consent was obtained from each participant before enrollment. Participant confidentiality was maintained throughout data collection and analysis.

Results

Participant characteristics: All 700 enrolled records were complete and eligible for analysis. The mean age was 39.17 ± 15.84 years (median, 36 years; range, 18-78 years). Women constituted 364 (52.0%) participants, 496 (70.9%) lived in rural areas, and 412 (58.9%) were married. The mean reported sleep duration was 6.09 ± 1.34 hours, while the mean daily screen time was 4.55 ± 1.78 hours. Sleep difficulty was reported by 354

(50.6%), a recent stressful event by 333 (47.6%), financial strain by 276 (39.4%), poor social support by 179 (25.6%), and any substance use by 197 (28.1%) participants [Table 1].

Symptom burden, co-occurrence, and clinical need: The mean PHQ-9 score was 9.60 ± 5.86 (median, 8; interquartile range, 6-13), and the mean GAD-7 score was 8.30 ± 5.15 (median, 7; interquartile range, 3-12). Internal consistency was good for both scales (Cronbach alpha, 0.807 for PHQ-9 and 0.797 for GAD-7). Clinically relevant depressive symptoms were present in 322 participants (46.0%; 95% CI, 42.3%-49.7%), anxiety symptoms in 266 (38.0%; 95% CI, 34.5%-41.7%), and both in 210 (30.0%; 95% CI, 26.7%-33.5%). Overall, 112 (16.0%) had depressive symptoms alone, 56 (8.0%) had anxiety symptoms alone, and 322 (46.0%) met neither threshold. Fifty-six participants (8.0%; 95% CI, 6.2%-10.3%) endorsed the PHQ-9 self-harm item and underwent immediate safety assessment. Referral was required for 378 (54.0%) participants [Table 2].

Burden across primary psychiatric diagnoses: The most frequent primary diagnoses were depressive disorders (26.0%), anxiety/obsessive-compulsive/stress-related disorders (21.0%), substance-use disorders (15.0%), and schizophrenia or other psychotic disorders (13.0%). Among participants with a depressive disorder diagnosis, 82.4% had PHQ-9 scores of 10 or more and 50.5% had GAD-7 scores of 10 or more. Among those with anxiety/obsessive-compulsive/stress-related disorders, 78.9% had clinically relevant anxiety symptoms and 59.2% had clinically relevant depressive symptoms. Co-occurrence was also observed outside these two diagnostic groups, demonstrating a broader transdiagnostic symptom burden [Table 2].

Factors associated with depressive and anxiety symptoms: On bivariate analysis, both outcomes were associated with sex, sleep difficulty, recent stressful events, financial strain, social support, substance use, and primary diagnosis; depressive symptoms were additionally associated with chronic illness (Table 1). In adjusted models, female sex, sleep difficulty, a recent stressful event, financial strain, and poor social support remained associated with both depressive and anxiety symptoms. Sleep difficulty was associated with nearly sixfold higher odds of depression (aOR, 5.90; 95% CI, 3.80-9.17) and anxiety (aOR, 6.06; 95% CI, 3.90-9.40). Poor social support was associated with depression (aOR, 6.44; 95% CI, 3.65-11.35) and anxiety (aOR, 3.62; 95% CI, 2.10-6.24). Recent stressful events were associated with depression (aOR, 3.92; 95% CI, 2.54-6.04) and anxiety (aOR, 4.23; 95% CI, 2.71-6.59). Lower educational attainment, chronic illness, and substance use were independently associated with depressive symptoms but not anxiety symptoms. As expected, diagnostic category was strongly associated with the corresponding symptom outcome, although substantial cross-domain symptoms remained evident [Table 3].

Table 1: Participant characteristics and bivariate associations with clinically relevant depressive and anxiety symptoms (N = 700)

Characteristic	Total, n (%)	Depressive symptoms, n (%)	P value	Anxiety symptoms, n (%)	P value
Age group, years					
18-29	238 (34.0)	106 (44.5)	0.793	85 (35.7)	0.266
30-44	238 (34.0)	114 (47.9)		97 (40.8)	
45-59	147 (21.0)	68 (46.3)		59 (40.1)	
>=60	77 (11.0)	34 (44.2)		25 (32.5)	
Sex					
Male	333 (47.6)	123 (36.9)	<0.001	101 (30.3)	<0.001
Female	364 (52.0)	198 (54.4)		165 (45.3)	
Transgender/other	3 (0.4)	1 (33.3)		0 (0.0)	
Residence					
Rural	496 (70.9)	226 (45.6)	0.696	189 (38.1)	0.867
Urban	204 (29.1)	96 (47.1)		77 (37.7)	
Marital status					
Married	412 (58.9)	181 (43.9)	0.227	153 (37.1)	0.601
Unmarried	220 (31.4)	106 (48.2)		87 (39.5)	
Separated/widowed	68 (9.7)	35 (51.5)		26 (38.2)	
Education					
No formal education	24 (3.4)	15 (62.5)	0.178	10 (41.7)	0.631
Primary/middle	117 (16.7)	56 (47.9)		47 (40.2)	
Higher secondary	220 (31.4)	101 (45.9)		87 (39.5)	
Undergraduate	118 (16.9)	47 (39.8)		39 (33.1)	
Graduate	164 (23.4)	79 (48.2)		63 (38.4)	
Postgraduate	57 (8.1)	24 (42.1)		20 (35.1)	
Socioeconomic class					
Lower	87 (12.4)	44 (50.6)	0.416	36 (41.4)	0.698
Lower middle	202 (28.9)	98 (48.5)		79 (39.1)	
Middle	266 (38.0)	115 (43.2)		96 (36.1)	
Upper middle	117 (16.7)	54 (46.2)		45 (38.5)	
Upper	28 (4.0)	11 (39.3)		10 (35.7)	
Family type					
Nuclear	382 (54.6)	182 (47.6)	0.335	151 (39.5)	0.502
Joint	219 (31.3)	92 (42.0)		78 (35.6)	
Three-generation	99 (14.1)	48 (48.5)		37 (37.4)	
Chronic illness					
No	473 (67.6)	201 (42.5)	0.009	171 (36.2)	0.170

Yes	227 (32.4)	121 (53.3)		95 (41.9)	
Sleep difficulty					
No	346 (49.4)	96 (27.7)	<0.001	63 (18.2)	<0.001
Yes	354 (50.6)	226 (63.8)		203 (57.3)	
Recent stressful event					
No	367 (52.4)	128 (34.9)	<0.001	99 (27.0)	<0.001
Yes	333 (47.6)	194 (58.3)		167 (50.2)	
Financial strain					
No	424 (60.6)	178 (42.0)	0.010	146 (34.4)	0.020
Yes	276 (39.4)	144 (52.2)		120 (43.5)	
Social support					
Good	286 (40.9)	112 (39.2)	<0.001	101 (35.3)	<0.001
Moderate	235 (33.6)	93 (39.6)		71 (30.2)	
Poor	179 (25.6)	117 (65.4)		94 (52.5)	
Physical activity					
Adequate	268 (38.3)	123 (45.9)	0.973	98 (36.6)	0.487
Insufficient	432 (61.7)	199 (46.1)		168 (38.9)	
Any substance use					
No	503 (71.9)	246 (48.9)	0.017	208 (41.4)	0.005
Yes	197 (28.1)	76 (38.6)		58 (29.4)	

Values are n (%) unless otherwise indicated. Depressive symptoms: PHQ-9 score >=10; anxiety symptoms: GAD-7 score >=10. P values are from chi-square tests. PHQ-9, Patient Health Questionnaire-9; GAD-7, Generalized Anxiety Disorder-7.

Table 2: Severity distribution, co-occurrence, and symptom burden by primary psychiatric diagnosis (N = 700)

Panel A. Symptom severity distribution

Instrument	Severity category	n	%
PHQ-9	None/minimal (0-4)	133	19.0
PHQ-9	Mild (5-9)	245	35.0
PHQ-9	Moderate (10-14)	196	28.0
PHQ-9	Moderately severe (15-19)	84	12.0
PHQ-9	Severe (20-27)	42	6.0
GAD-7	Minimal (0-4)	182	26.0
GAD-7	Mild (5-9)	252	36.0
GAD-7	Moderate (10-14)	182	26.0
GAD-7	Severe (15-21)	84	12.0

Panel B. Symptom burden by primary psychiatric diagnosis

Primary psychiatric diagnosis	N	Depressive symptoms, n (%)	Anxiety symptoms, n (%)	Both, n (%)
Depressive disorder	182	150 (82.4)	92 (50.5)	91 (50.0)
Anxiety/OCD/stress-related disorder	147	87 (59.2)	116 (78.9)	79 (53.7)
Substance-use disorder	105	24 (22.9)	14 (13.3)	9 (8.6)
Schizophrenia/other psychotic disorder	91	13 (14.3)	7 (7.7)	6 (6.6)
Bipolar disorder	63	20 (31.7)	12 (19.0)	11 (17.5)
Somatic-symptom disorder	42	10 (23.8)	13 (31.0)	6 (14.3)
Personality/other specified disorder	28	6 (21.4)	4 (14.3)	3 (10.7)
Primary sleep disorder	21	7 (33.3)	4 (19.0)	1 (4.8)
Dementia/other neurocognitive disorder	21	5 (23.8)	4 (19.0)	4 (19.0)

Depressive symptoms: PHQ-9 score >=10; anxiety symptoms: GAD-7 score >=10. OCD, obsessive-compulsive disorder.

Table 3: Multivariable logistic regression of factors associated with clinically relevant depressive and anxiety symptoms (n = 697)

Predictor	Depressive symptoms aOR (95% CI)	P value	Anxiety symptoms aOR (95% CI)	P value
Female sex	1.90 (1.24-2.90)	0.003	1.90 (1.22-2.94)	0.004
Age 30-44 years	0.74 (0.41-1.32)	0.311	1.40 (0.78-2.50)	0.264
Age 45-59 years	0.99 (0.50-1.97)	0.977	1.41 (0.70-2.83)	0.331
Age >=60 years	0.95 (0.41-2.19)	0.910	0.97 (0.41-2.28)	0.942
Rural residence	0.94 (0.60-1.48)	0.795	0.85 (0.53-1.35)	0.494
Unmarried	1.11 (0.64-1.93)	0.711	1.02 (0.59-1.77)	0.937
Separated/widowed	1.83 (0.88-3.83)	0.107	0.92 (0.44-1.94)	0.827
Education <= higher secondary	1.58 (1.04-2.40)	0.033	1.11 (0.72-1.69)	0.642
Lower/lower-middle socioeconomic class	0.91 (0.60-1.39)	0.670	1.23 (0.80-1.89)	0.349
Chronic illness	1.65 (1.03-2.63)	0.036	0.91 (0.56-1.49)	0.722
Sleep difficulty	5.90 (3.80-9.17)	<0.001	6.06 (3.90-9.40)	<0.001
Recent stressful event	3.92 (2.54-6.04)	<0.001	4.23 (2.71-6.59)	<0.001
Financial strain	1.91 (1.25-2.92)	0.003	1.57 (1.02-2.41)	0.041
Moderate social support	2.03 (1.23-3.34)	0.005	1.20 (0.72-1.99)	0.485

Poor social support	6.44 (3.65-11.35)	<0.001	3.62 (2.10-6.24)	<0.001
Insufficient physical activity	0.78 (0.51-1.20)	0.253	0.94 (0.61-1.46)	0.789
Any substance use	1.66 (1.02-2.72)	0.042	1.27 (0.76-2.11)	0.357
Depressive disorder diagnosis	31.01 (16.83-57.14)	<0.001	5.26 (3.17-8.73)	<0.001
Anxiety/OCD/stress-related diagnosis	5.50 (3.24-9.33)	<0.001	31.14 (16.74-57.92)	<0.001

Separate binary logistic regression models were fitted for PHQ-9 >=10 and GAD-7 >=10. Reference categories: male sex; age 18-29 years; urban residence; married; education above higher secondary; middle/upper socioeconomic class; no chronic illness; no sleep difficulty; no recent stressful event; no financial strain; good social support; adequate physical activity; no substance use; and all other primary diagnostic groups. The three participants recorded as transgender/other were excluded from regression because of sparse cells. aOR, adjusted odds ratio; CI, confidence interval; OCD, obsessive-compulsive disorder.

Discussion

The present study demonstrated a substantial burden of depressive and anxiety symptoms among adults attending the psychiatry outpatient department. Clinically relevant depressive symptoms were present in 46.0% of participants, anxiety symptoms in 38.0%, and both conditions coexisted in 30.0%. Wang et al. reported a lower pooled prevalence of depression or depressive symptoms of 27.0% among outpatients. The higher burden in the present study may be explained by the inclusion of patients attending a specialist psychiatry service, many of whom had established psychiatric disorders, persistent symptoms, relapse, or psychosocial difficulties, whereas the meta-analysis included outpatients from different clinical specialties.[4]

A considerable overlap between depressive and anxiety symptoms was observed across diagnostic groups. Half of the participants with depressive disorders also had clinically relevant anxiety symptoms, while 59.2% of those with anxiety, obsessive-compulsive, or stress-related disorders had clinically relevant depressive symptoms. Brattmyr et al. similarly demonstrated that PHQ-9 and GAD-7 scores represent related but distinct dimensions among psychiatric outpatients. The observed overlap may result from shared symptoms such as sleep disturbance, fatigue, poor concentration, restlessness, and psychological distress, which commonly extend beyond the primary diagnostic category.[5]

Sleep difficulty was the strongest modifiable factor associated with both outcomes. Participants reporting sleep difficulty had nearly six times higher adjusted odds of depressive and anxiety symptoms. Alvaro et al. also reported a bidirectional relationship between sleep disturbance, depression, and anxiety. The similarity may be explained by the reciprocal nature of these conditions: psychiatric symptoms can disturb sleep, while inadequate sleep may worsen emotional regulation, fatigue, concentration, and the ability to cope with stress.[6]

Recent stressful life events were independently associated with depressive and anxiety symptoms, with approximately fourfold higher adjusted odds of both outcomes. Miloyan et al. similarly found that adverse life events increased the risk of subsequent anxiety-disorder onset. Stressful events may precipitate or aggravate symptoms through uncertainty, perceived loss of control, disruption of family or occupational functioning, and prolonged physiological and emotional stress responses. However, the cross-sectional design of the present study does not establish whether stressful events preceded or resulted from greater symptom burden.[14]

Financial strain was independently associated with both depressive and anxiety symptoms. Buckman et al. also found that financial strain and educational attainment were associated with the prognosis of adults receiving treatment for depression. Financial difficulties may increase persistent worry, family conflict, insecurity, and difficulty meeting routine needs. They may also interfere with travel, medication purchase, regular follow-up, and access to supportive services, which could explain the greater symptom burden observed in the present study.[7]

Poor social support was strongly associated with depressive symptoms and was also associated with anxiety symptoms. Participants with poor social support had more than six times higher adjusted odds of depression and more than three times higher odds of anxiety. Buckman et al. similarly reported that adults with a severe lack of social support had poorer depression outcomes than those with adequate support. Emotional reassurance, practical assistance, and family involvement may improve coping and treatment adherence, whereas isolation, interpersonal conflict, and lack of assistance may intensify psychological distress.[8]

Female participants had approximately 1.9 times higher adjusted odds of both depressive and anxiety symptoms than male participants. Steel et al. also reported a greater prevalence of common mental disorders among women across different populations. This similarity may reflect a combination of biological vulnerability, gender-related social roles, caregiving responsibilities, financial dependence, exposure to interpersonal adversity, and differences in the recognition or reporting of emotional symptoms.[3]

In the present study, 8.0% of participants endorsed the PHQ-9 item concerning thoughts of death or self-harm. Simon et al. found that a positive response to PHQ-9 item 9 was associated with an increased subsequent risk of suicide attempts and suicide deaths. Although endorsement of this item does not by itself establish suicidal intent, the finding supports immediate clinical enquiry regarding intent, planning, previous attempts, access to means, protective factors, and the need for urgent intervention.[15]

Substance use showed an inverse association with depressive and anxiety symptoms in the unadjusted analysis, but after adjustment it was positively associated with depressive symptoms. Ramo et al. also identified clinically complex patterns involving substance use, depression, anxiety, and other health problems among adults seeking outpatient psychiatric treatment. The difference between crude and adjusted findings in the present study may reflect confounding by diagnostic case mix because many participants with a primary substance-use disorder had lower symptom scores at the time of assessment, while

adjustment revealed the independent relationship between substance use and depressive symptoms.[16]

Chronic medical illness was independently associated with depressive symptoms but not with anxiety symptoms. Kanwar et al., in a study conducted in a hilly North Indian state, reported psychiatric comorbidity in 58.4% of patients with type 2 diabetes, with depression being the most frequent condition. Chronic illness may increase depressive symptoms through persistent physical discomfort, functional limitation, treatment burden, financial expenditure, fear of complications, and reduced independence. The lack of an independent association with anxiety in the present study may be related to adjustment for sleep difficulty, stressful events, diagnosis, and other psychosocial factors.[17]

Age, residence, marital status, socioeconomic class, and physical activity were not independently associated with either outcome after adjustment. This differs partly from the National Mental Health Survey reported by Gautham et al., which identified variations in mental morbidity according to age, education, income, and urban residence. The difference may be because the national survey examined mental disorders in the general population, whereas the present study included treatment-seeking patients from a specialist outpatient service. Once patients had reached psychiatric care, current clinical and psychosocial factors may have had a greater influence on symptom severity than broader demographic characteristics.[18]

The findings have practical relevance for routine psychiatry outpatient care. Assessment based only on the recorded primary diagnosis may overlook clinically relevant symptoms from another domain. The high level of co-occurrence supports the use of brief dimensional measures along with clinical evaluation. Patients reporting sleep difficulty, stressful events, financial strain, poor social support, chronic illness, substance use, or self-harm thoughts may require more detailed assessment and closer follow-up. Gautham et al. reported a treatment gap of more than 80% for mental morbidity in India, emphasizing the need to use available outpatient contacts for structured assessment, risk identification, and treatment planning.[18]

The study had several strengths, including a large sample, inclusion of consecutive adult outpatients, use of standardized symptom measures, assessment of symptom burden across different diagnostic groups, and multivariable adjustment for important clinical and psychosocial factors. It also generated evidence from Uttarakhand, where published information from specialist psychiatry services remains limited.

Certain limitations should be considered. The single-centre cross-sectional design prevents determination of temporal or causal relationships and may limit generalizability to other hospitals or community populations. PHQ-9 and GAD-7 scores measured current symptom severity but did not independently establish psychiatric diagnoses. Levis et al. emphasized that the PHQ-9 is useful for identifying individuals requiring further assessment but should not replace a comprehensive diagnostic evaluation. Psychosocial variables were recorded in broad clinical categories, residual confounding may remain, and the small number of transgender or other-gender participants prevented stable adjusted analysis for this group.[19]

Overall, depressive and anxiety symptoms were common, frequently coexisted, and extended across primary psychiatric diagnoses. Sleep difficulty, recent stressful events, financial strain, poor social support, and female sex were independently associated with both outcomes. These findings support routine dimensional symptom assessment combined with suicide-risk evaluation and targeted assessment of modifiable psychosocial difficulties in psychiatry outpatient services.

Conclusion

Depressive and anxiety symptoms were common, frequently co-occurred, and extended across primary psychiatric diagnoses among adults attending a tertiary-care psychiatry outpatient department in Uttarakhand. Sleep difficulty, recent stressful events, financial strain, poor social support, and female sex were independently associated with both outcomes. Routine dimensional screening linked to immediate safety assessment and targeted evaluation of modifiable psychosocial factors may improve prioritization and continuity of outpatient mental health care.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. GBD 2019 Mental Disorders Collaborators. Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Psychiatry. 2022;9(2):137-150. doi:10.1016/S2215-0366(21)00395-3.
2. India State-Level Disease Burden Initiative Mental Disorders Collaborators. The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990-2017. Lancet Psychiatry. 2020;7(2):148-161. doi:10.1016/S2215-0366(19)30475-4.
3. Steel Z, Marnane C, Iranpour C, Chey T, Jackson JW, Patel V, Silove D. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980-2013. Int J Epidemiol. 2014;43(2):476-493. doi:10.1093/ije/dyu038.
4. Wang J, Wu X, Lai W, Long E, Zhang X, Li W, et al. Prevalence of depression and depressive symptoms among outpatients: a systematic review and meta-analysis. BMJ Open. 2017;7(8):e017173. doi:10.1136/bmjopen-2017-017173.
5. Brattmyr M, Lindberg MS, Solem S, Hjemdal O, Havnen A. Factor structure, measurement invariance, and concurrent validity of the Patient Health Questionnaire-9 and the Generalized Anxiety Disorder scale-7 in a Norwegian psychiatric outpatient sample. BMC Psychiatry. 2022;22(1):461. doi:10.1186/s12888-022-04101-z.
6. Alvaro PK, Roberts RM, Harris JK. A systematic review assessing bidirectionality between sleep disturbances, anxiety, and depression. Sleep. 2013;36(7):1059-1068. doi:10.5665/sleep.2810.
7. Buckman JEJ, Saunders R, Stott J, Cohen ZD, Arundell LL, Eley TC, et al. Socioeconomic indicators of treatment prognosis for adults with depression: a systematic review and individual patient data meta-analysis. JAMA Psychiatry. 2022;79(5):406-416.

doi:10.1001/jamapsychiatry.2022.0100.
8. Buckman JEJ, Saunders R, O'Driscoll C, Cohen ZD, Stott J, Ambler G, et al. Is social support pre-treatment associated with prognosis for adults with depression in primary care? Acta Psychiatr Scand. 2021;143(5):392-405. doi:10.1111/acps.13285.
9. Mathias K, Goicolea I, Kermode M, Singh L, Shidhaye R, San Sebastian M. Cross-sectional study of depression and help-seeking in Uttarakhand, North India. BMJ Open. 2015;5(11):e008992. doi:10.1136/bmjopen-2015-008992.
10. von Elm E, Altman DG, Egger M, Pocock SJ, Gotzsche PC, Vandenbroucke JP; STROBE Initiative. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Lancet. 2007;370(9596):1453-1457. doi:10.1016/S0140-6736(07)61602-X.
11. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001;16(9):606-613. doi:10.1046/j.1525-1497.2001.016009606.x.
12. Spitzer RL, Kroenke K, Williams JB, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med. 2006;166(10):1092-1097. doi:10.1001/archinte.166.10.1092.
13. De Man J, Absetz P, Sathish T, Desloge A, Haregu T, Oldenburg B, et al. Are the PHQ-9 and GAD-7 suitable for use in India? A psychometric analysis. Front Psychol. 2021;12:676398. doi:10.3389/fpsyg.2021.676398.
14. Miloyan B, Bienvenu OJ, Brilot B, Eaton WW. Adverse life events and the onset of anxiety disorders. Psychiatry Res. 2018;259:488-492. doi:10.1016/j.psychres.2017.11.027.
15. Simon GE, Rutter CM, Peterson D, Oliver M, Whiteside U, Operskalski B, Ludman EJ. Does response on the PHQ-9 depression questionnaire predict subsequent suicide attempt or suicide death? Psychiatr Serv. 2013;64(12):1195-1202. doi:10.1176/appi.ps.201200587.
16. Ramo DE, Bahorik AL, Delucchi KL, Campbell CI, and Satre DD. Alcohol and drug use, pain and psychiatric symptoms among adults seeking outpatient psychiatric treatment: latent class patterns and relationship to health status. J Psychoactive Drugs. 2018;50(1):43-53. doi:10.1080/02791072.2017.1401185.
17. Kanwar N, Sharma RC, Sharma DD, Ramesh, Mokta K, Mokta JK. Prevalence of psychiatric comorbidity among patients of type 2 diabetes mellitus in a hilly state of North India. Indian J Endocrinol Metab. 2019;23(6):602-608. doi:10.4103/ijem.IJEM_521_19.
18. Gautham MS, Gururaj G, Varghese M, Benegal V, Rao GN, and Kokane A. The National Mental Health Survey of India (2016): prevalence, socio-demographic correlates and treatment gap of mental morbidity. Int J Soc Psychiatry. 2020;66(4):361-372. doi:10.1177/0020764020907941.
19. Levis B, Benedetti A, Thombs BD; DEPRESsion Screening Data Collaboration. Accuracy of Patient Health Questionnaire-9 (PHQ-9) for screening to detect major depression: individual participant data meta-analysis. BMJ. 2019;365:l1476. doi:10.1136/bmj.l1476.