



Prevalence and severity of stress, anxiety, and depression among unemployed workers in Tier 2 & Tier 3 cities of Uttar Pradesh, India: A cross-sectional study with implications for Psychological intervention

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Abstract: The present investigation examined the prevalence, severity, and gender-wise distribution of depression, anxiety, and stress among unemployed workers in Uttar Pradesh using the Depression Anxiety Stress Scale-21. A cross-sectional descriptive study was undertaken with 341 unemployed workers aged 17-40 years. The results demonstrate that 57.2% of participants reported depressive symptoms, 53.4% experienced anxiety symptoms and 34.9% experienced stress symptoms. Depression and stress were more common among female workers, while male participants were more likely to experience to anxiety. The findings indicate a substantial burden of psychological distress among unemployed workers, with notable gender-wise differences across the three outcomes. The study underscores the necessity of ensuring access to psychological evaluation, counselling, and employment-oriented support to enhance the psychological well-being of unemployed individuals.

Keywords: *Unemployment, Depression, Anxiety, Stress, Psychological distress, Gender differences*

1. Introduction

Unemployment is a constant global concern with substantial socio-economic impact affecting nearly one in five people worldwide. Beyond financial and productivity losses, it is inextricably linked with psychological health problems such as anxiety, depression, and bipolar disorder. Thus, unemployment can worsen psychological distress and create broader social and economic burdens (Yang et. al, 2024). Employment is central to modern society, delivering financial assistance alongside psychosocial benefits that enhance mental well-being by providing structure, opportunities for interpersonal relationships, a feeling of purpose, and social standing (Sterud et. al, 2025). Unemployment can undermine psychological and physical well-being by depriving individuals of the financial security, social connection, daily structure, and sense of purpose often provided by employment (Warr, 1987). According to the PLFS and the Ministry of Statistics and Programme Implementation, the unemployment rate among young people aged 15-29 is approximately 27-28% (National Statistical Office, Ministry of Statistics and Programme Implementation, GOI, 2021). Beyond effecting economically, unemployment may also disrupt identity development and leave young people with the feelings of hopelessness, socially withdrawn and uncertain about their future (Dipela, 2025). Unemployment not only affects youth but has significant effect across the life course. Middle-aged adults may be particularly vulnerable as they carry substantial family and financial responsibilities making employment an important aspect for household stability. In contrast, younger and older adults may face fewer economic constraints as compared to middle aged, however, can have serious effects (Paul & Moser, 2009). Among older adults, researched has found that unemployment is associated with depressive symptoms and depression in later life (Badrasawi, 2021; Park, 2018; Goldsmith et al., 1997) Drawing on the perspectives of social psychologists such as Erikson, Seligman, and Jahoda, suggested that experiences such as joblessness can negatively affect psychological well-being. People may suffer diminished self-esteem, decreased motivation, and diminished cognitive performance when mental health deteriorates, which might damage their productivity and connection to the workforce. Youth unemployment can also have long term “scarring effects” that negatively impact future earnings and career advancement. An extended period of unemployment may results in lower pay, lower professional progression options, fever job opportunities, and smaller pension benefits in later life for young people. Young people frequently have little money, and those who are economically disadvantage are especially susceptible to falling below the poverty line when their income falls short or estimated. Several aspects of their lives. Such as their capacity to find accommodation and pay back educational loan, may be impact by this financial hardship

(OECD, 2020). Studies, such as those conducted by (Khokhar & Nagar, 2014). indicate that both men and women may report similar levels of dissatisfaction when they are unemployed. Some research also suggest that part-time employment is linked to lower life satisfaction among men. Traditionally, studies on unemployment have hypothesised that men experience higher psychological distress since paid employment has been regarded as central to male identity. Additionally, most of the studies have been concentrated on married men showcasing the traditional role of the primary breadwinner. However, as more women enter the workforce and begin to share the responsibility for household income, unemployment may affect women just as significant as it affects men (Ensminger & Celentano, 1990). Individuals with pre-existing mental health conditions may be more vulnerable to unemployment, making it harder for them to secure new jobs (Fryer, 1997). As a result, it has become increasingly important to develop interventions that address these vulnerabilities, especially in rural areas. These efforts aim to raise awareness and prevent the worsening of existing mental health conditions, as well as the emergence of new ones stemming from unemployment. Unemployment is a major problem, but it is an explored factor as one of the major psychological stressors in Tier 2 & Tier 3 cities of Uttar Pradesh. Where limited research has been conducted to examine its mental health consequences among unemployed individuals.

The present study aims to assess the prevalence and severity of stress, anxiety, and depression among unemployed people of Tier 2 & Tier 3 cities of Uttar Pradesh, examine the outcomes based on gender differences, and highlight the need for mental health interventions among this vulnerable population.

1.2 Research Objective

- i. To assess the prevalence and severity of depression, anxiety, and stress among unemployed workers in Uttar Pradesh using the DASS-21.
- ii. To examine the gender-wise distribution of depression, anxiety, and stress among unemployed workers.

2. Methodology

2.1 Study Design

A cross-sectional descriptive study was conducted to determine the prevalence and severity of stress, anxiety and depression among unemployed participants in Tier 2 & Tier 3 cities of Uttar Pradesh, India.

2.2 Study Setting and Participants

A total of 341 unemployed participants in the study, including 209 males and 132

females. The participants were recruited from Tier 2 & Tier 3 cities of Uttar Pradesh

2.3 Sampling Technique and Sample Size

Participants were recruited using convenience sampling. The final sample comprised 341 unemployed participants who met the eligibility criteria and voluntarily consented to participate in the study.

2.4 Inclusion criteria

- Participants aged between 17 and 40 years
- Participants who were unemployed during the data-collection period
- Participants residing in Tier 2 & Tier 3 cities of Uttar Pradesh
- Participants who voluntarily agreed to participate in the study and provide informed consent
- Participants who were able to comprehend and complete the DASS-21 questionnaire

2.5 Exclusion Criteria

- Participants who were employed during the Data-collection period
- Participants who did not provide informed consent to participate in the study
- Participants who submitted incomplete or incorrectly completed questionnaires
- Participants who were unable to understand or complete the DASS-21 questionnaire

2.6 Tools

The Depression Anxiety Stress Scale-21 (DASS-21), developed by Lovibond and Lovibond, consists of 21 items that assess three key areas: Depression, Anxiety, and Stress. Each area contains seven items that participants rate on a 4-point Likert scale based on their experiences over the previous week. The DASS-21 has shown strong reliability and validity, with reported Cronbach's alpha coefficients of approximately 0.88 for Depression, 0.82 for Anxiety, and 0.90 for Stress. Its overall internal consistency is about 0.93, indicating that it is a highly reliable measure of psychological distress.

2.7 Statistical Analysis

Data were entered and analysed using SPSS version 20.0. Depression statistics, such as frequencies and percentages, were calculated to describe the prevalence and severity of depression, anxiety and stress among the participants, as well as the gender-based distribution of scores.

2.8 Procedure

The present study explored the prevalence and severity of stress, anxiety, and depression among Unemployed workers in Uttar Pradesh, India. Initially, informed consent

was obtained from the participants, followed by the administration of the Depression Anxiety Stress Scale (DASS-21). The participants were given a brief overview of the study, which included its purpose and the significance of the assessment. They were instructed to complete the scale based on their experiences and encouraged to respond to each item honestly and independently. Clarifications regarding the instructions were provided as needed.

3. Result

The prevalence and severity of depression, anxiety, and stress among unemployed participants were assessed using the Depression, Anxiety, and Stress Scale-21 (DASS-21). Tables 1- 3 present the distribution of participants across the five severity categories for each psychological condition.

Table 1: *Distribution of Depression Severity among Unemployed Workers*

Severity Level	Frequency (n)	Percent (%)
Normal	146	42.8%
Mild	59	17.3%
Moderate	64	18.8%
Severe	39	11.4%
Extremely Severe	33	9.7%
Total	341	100%

Table 1 indicates that 42.8% of participants fell within the normal range. Among those exhibiting depressive symptoms, 17.3% had mild depression. 18.8% had moderate depression, 11.4% had severe depression, and 9.7% had extremely severe depression. Overall, the prevalence of depression among unemployed workers was 57.2%.

Table 2: *Distribution of Anxiety Severity among Unemployed Workers*

Severity Level	Frequency (n)	Percent (%)
Normal	159	46.6%
Mild	32	9.4%
Moderate	62	18.2%
Severe	34	10.0%
Extremely Severe	54	15.8%
Total	341	100%

Table 2 indicates that 46.6% of the participants had normal anxiety levels. However, 9.4% reported mild anxiety, 18.2% had moderate anxiety, 10.0% had severe anxiety, and 15.8% had extremely severe anxiety. Overall anxiety symptoms were observed in 53.4% of the participants.

Table 3: *Distribution of Stress Severity among Unemployed Workers*

Severity Level	Frequency (n)	Percent (%)
Normal	222	65.1%
Mild	45	13.2%
Moderate	27	7.9%
Severe	29	8.5%
Extremely Severe	18	5.3%
Total	341	100%

The distribution of stress severity is presented in Table 3. 65.1% of the participants were within the normal range for stress. Among those with stress symptoms, 13.2% had mild stress, 7.9% had moderate stress, 8.5% had severe stress, and 5.3% had extremely severe stress. Overall stress symptoms were observed in 34.9% of the participants.

Table 4: *Prevalence of Depression Severity by Gender among Unemployed Workers*

Depression Severity	Male (n=209), (%)	Female (n=132), (%)	Total (N=341), (%)
Normal	92 (44.0%)	54 (40.9%)	146 (42.8%)
Mild	35 (16.7%)	24 (18.2%)	59 (17.3%)
Moderate	38 (18.2%)	26 (19.7%)	64 (18.8%)
Severe	21 (10.0%)	18 (13.6%)	39 (11.4%)
Extremely severe	23 (11.0%)	10 (7.6%)	33 (9.7%)
Total	209 (100.0%)	132 (100.0%)	341 (100.0%)

Table 4 presents the gender-wise distribution of depression severity among 341 unemployed workers, including 209 (61.3%) males and 132 (38.7%) Females. Overall, 42.8% of workers had a normal score, while 57.2% experienced depressive symptoms ranging from mild to extremely severe. Moderate depression (18.8%) was the most common category among the affected group. Overall, 117(56.0%) male workers and 78 (59.1%) female workers experienced depressive symptoms, indicating a slightly higher prevalence of depression among females.

Table 5: *Prevalence of Anxiety Severity by Gender among Unemployed Workers*

Anxiety Severity	Male (n=209), (%)	Female (n=132), (%)	Total (N=341), (%)
Normal	92 (44.0%)	67 (50.8%)	159 (46.6%)
Mild	21 (10.0%)	11 (8.3%)	32 (9.4%)
Moderate	43 (20.6%)	19 (14.4%)	62 (18.2%)
Severe	22 (10.5%)	12 (9.1%)	34 (10.0%)
Extremely severe	31 (14.8%)	23 (17.4%)	54 (15.8%)
Total	209 (100.0%)	132 (100.0%)	341 (100.0%)

Table 5 shows the gender-wise distribution of anxiety severity among unemployed workers. Of the total participants, 53.4% experienced anxiety symptoms while 46.6% had a normal anxiety score. The highest proportion of affected students was observed in the extremely severe anxiety category (15.8%). Anxiety symptoms were reported by 117 (56.0%) male workers and 65 (49.2%) female workers, suggesting a slightly higher prevalence among male workers.

Table 6: *Prevalence of Stress severity by gender among unemployed workers*

Stress Severity	Male (n=209), (%)	Female (n=132), (%)	Total (N=341), (%)
Normal	146 (69.9%)	76 (57.6%)	222 (65.1%)
Mild	25 (12.0%)	20 (15.2%)	45 (13.2%)
Moderate	15 (7.2%)	12 (9.1%)	27 (7.9%)
Severe	12 (5.7%)	17 (12.9%)	29 (8.5%)
Extremely severe	11 (5.3%)	7 (5.3%)	18 (5.3%)
Total	209 (100.0%)	132 (100.0%)	341 (100.0%)

Table 6 shows that 65.1% of unemployed workers had a normal stress score, while 34.9% experienced stress symptoms ranging from mild to extremely severe, with mild stress (13.2%) being the most common category. Stress symptoms were seen in 63 (30.1%) male workers and 56 (42.4%) female workers, suggesting that the prevalence was considerably higher among women.

4. Discussion

This study assessed the prevalence and severity of depression, anxiety, and stress among unemployed workers in Tier 2 & Tier 3 cities of Uttar Pradesh using the Depression Anxiety Stress Scale-21. The findings showed a substantial burden of psychological distress,

with 57.2% of the participants experiencing depressive symptoms ranging from mild to extremely severe, 53.4% reporting symptoms of anxiety, and 34.9% experiencing stress symptoms. Among depressive symptoms, moderate severity was most prevalent (18.8%), followed by mild (17.3%), severe (11.4%), and extremely severe (9.7%) levels. For Anxiety, 9.4%, 18.2%, 10.0%, and 15.8% lie in the respectively, mild, moderate, severe, and extremely severe anxiety symptomatology ranges, while 46.6 % of the participants lies within the normal range. Similarly, the stress level ranges were 13.2%, 7.9%, 8.5%, and 5.3%, falling in the mild, moderate, severe, and extremely severe stress ranges, respectively, whereas 65.1% of participants reported a normal stress level. The results also highlighted significant gender differences in psychological symptoms among unemployed individuals. Females showed a slightly higher overall prevalence of depression as compared to males, 59.1% of females stated depressive symptoms as compared to 56.0% of males. In contrast, anxiety symptoms were slightly higher among males (56.0%) than females (49.2%), while stress levels were higher among females (42.4%) than males (30.1%).

The findings are consistent with previous research demonstrating a strong association between unemployment and poor mental health. McKee-Ryan et al. (2005) reported that unemployed individuals experienced lower psychological and physical well-being than employed individuals. The researchers also identified that personal, social, economic, and time-structure coping resources were other substantial aspects of mental health while facing unemployment. Nevertheless, comparatively few studies have focused on depression, anxiety and stress altogether among the unemployed population in the Indian context, raising a remarkable gap in the existing literature. The current study's findings were found to be consistent with the study by Hossain (2025) In young unemployed men aged 20-35 years in West Bengal. In this study, the author reported significant higher prevalence of depression (54.5%), anxiety (61.8%), and stress (48.0%), pointing towards a remarkable burden of psychological distress among the unemployed population. The present study concludes that 57.2% of unemployed participants experienced depressive symptoms, while 53.4% and 34.9% reported anxiety and stress symptoms, respectively. Among the varied psychological impacts, depression showed the highest prevalence, followed by anxiety and stress, indicating a considerable burden of psychological distress among the vulnerable group. Biswas et al. (2024) reported prevalence rates of 54.4% for depression, 61.8% for anxiety, and 47.9% for stress among 400 higher-educated migrant youth aged 21-35 years in Kolkata using the DASS-21. The findings of the present study were generally consistent with those reported by Biswas et al

particularly for depression. In contrast, a lower prevalence of anxiety and stress was observed in the present study.

Furthermore, Biswas et al. (2024) reported that unemployed youth exhibited significantly higher symptoms of depression and anxiety than their employed counterparts, highlighting the potential impact of unemployment on psychological well-being. The differences in anxiety and stress prevalence may be attributable to variations in the study populations, socioeconomic circumstances, migration status, employment characteristics, and other contextual factors.

The findings revealed important gender-wise differences in psychological distress. Females (59.1%) were found to be higher on depressive symptoms than males (56.0%), while stress showed a more notable difference, with 42.4% of females experiencing stress symptoms compared with 30.1% of males. In contrast, anxiety was more prevalent among males (56.0% than females (49.2%). Anxiety symptoms were more prevalent among males; this is consistent with Paul and Moser (2009). The higher levels of depression and stress observed among females suggest that gender-specific social, economic, and family-related factors may differentially influence psychological outcomes across domains.

The overall occurrence of depressive symptoms in this investigation was 57.2%, indicating a considerable burden of depression among unemployed individuals. Zülke et al. (2018) similarly reported an increased risk of depression among unemployed participants, with comparable associations observed among men and women. Consistent with these findings, depressive symptoms were observed in both genders in the study, with a slightly higher prevalence among female workers (59.1%) than male workers (56.0%)

The findings concluded the necessity of psychological interventions among unemployed individuals due to the considerable burden of depression, anxiety, and stress observed in the study population. Unemployment-related financial difficulties, uncertainty about the future, and reduced social and occupational engagement may contribute to psychological distress. Evidence-based interventions such as cognitive behavioural therapy (CBT), stress-management techniques, psychoeducation, and supportive counselling may support individuals in developing effective coping strategies and improve mental well-being. Therefore, mental health support should be integrated with employment-related services to address both the psychological and practical challenges associated with unemployment.

5. Conclusion

The present findings have implications for public health policy and practice. Routine mental health screening and accessible psychological support should be implemented alongside

employment and skills-development programmes, particularly for individuals experiencing severe or extremely severe symptoms. Integrating counselling, mental health awareness, and employment-focused assistance may help address the psychological and socioeconomic difficulties associated with unemployment. Strengthening these interventions could promote psychological well-being and enhance preparedness for future employment. The greater prevalence of depression and stress symptoms among female participants, and of anxiety symptoms among male participants, indicates that although basic services including mental health screening, counselling, and psychoeducation should be available to all unemployed individuals, support should be tailored to gender specific needs.

5.1 Limitations

The cross-sectional design precludes conclusions about causality, distress levels may have changed in response to variations in the examination and placement cycle during the data-collection period from January 2025 to April 2026. Psychological distress may have varied based on participants' duration of unemployment, financial strain, and employment seeking experiences. In the sample, men made up 61.3%, while women accounted for 38.7%. Although this distribution reflects the normal composition of the unemployed population in tier 2 & tier 3 cities of Uttar Pradesh, the unequal group sizes may have reduced the precision of gender-specific estimates and limited the robustness of comparisons between genders. The DASS-21 is a widely used screening tool that evaluate symptom level over the previous week; however, it does not confirm the formal diagnosis. Therefore, the reported prevalence should be interpreted as indicative of probable symptomatology rather than confirming a psychological problem. The study did not include structured clinical interviews to formal diagnostic assessments. In addition, potentially influential sociodemographic and contextual factors, including socioeconomic status, previous employment history, reason for unemployment, and social support, were not assessed.

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