

Original Article

Perceived Social Support Among Public Sector Employees With Mood Disorders Accessing Psychiatric Services In A Tertiary Care Hospital Of Karachi

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Abstract

Objective: To assess the level of perceived social support among public sector employees diagnosed with mood disorders and examine its association with selected demographic and occupational factors among those receiving psychiatric care at a tertiary care hospital in Karachi.

Methodology: A cross-sectional study was conducted over six months in the Department of Psychiatry and Behavioral Sciences. Consecutive public-sector employees (≥ 18 years) with clinician-confirmed mood disorders (depressive disorders, bipolar affective disorder, dysthymia, and cyclothymia) were enrolled after providing informed consent ($n=385$). The data included demographics, occupational factors, clinical history, PHQ-9, Young Mania Rating Scale (YMRS), and the Multidimensional Scale of Perceived Social Support (MSPSS). The MSPSS totals were categorised as low (12–35), moderate (36–60), or high (61–84). Analyses were performed using SPSS v27, employing descriptive statistics and chi-square tests for association.

Results: The mean age was 36.16 ± 8.4 years, and 54% were married. The diagnoses were depressive disorder (59%), bipolar affective disorder (25%), dysthymia (11%), and cyclothymia (5%). The mean MSPSS total score was 58.51 ± 9.31 (95% CI 57.58–59.44); distribution: moderate 58% ($n=224$), high 41% ($n=157$), and low 1% ($n=4$). Mean PHQ-9 was 9.14 ± 5.58 (95% CI 8.58–9.70); YMRS 8.05 ± 8.17 (95% CI 7.23–8.87) (no mania/hypomania 81%). MSPSS categories did not differ significantly by age ($\chi^2=12.98$, $df=8$, $p=0.14$), monthly income ($\chi^2=6.73$, $df=8$, $p=0.716$), duration of service ($\chi^2=9.54$, $df=6$, $p=0.137$), weekly work hours ($\chi^2=2.50$, $df=6$, $p=0.881$), or marital status ($\chi^2=7.95$, $df=8$, $p=0.437$).

Conclusion: Perceived social support in this clinical workforce cohort was generally moderate to high and did not vary significantly across common demographic and occupational groups. Despite the substantial depressive symptom burden and minimal manic activity, these findings suggest that strengthening family- and peer-based support within routine psychiatric care may further improve clinical outcomes. Future longitudinal research is needed to determine whether higher levels of perceived social support, as measured by the Multidimensional Scale of Perceived Social Support (MSPSS), predicts symptom improvement and functional recovery over time.

Keywords: Social Support, Mood Disorders; Depression; Bipolar Disorder; Psychiatric Care, Mental Health Services.

Introduction

Mood disorders, principally major depressive disorder and bipolar disorder, are leading contributors to disability worldwide. In 2019, an estimated 970 million people were living with a mental disorder, with depression being among the most prevalent, and mental disorders accounted for ~125 million disability-adjusted life years (DALYs) in the Global Burden of Disease 2019 study.^{1,11} Public-sector employees often work under unique pressures, including role conflicts, hazardous or emotionally demanding responsibilities, and rigid hierarchical structures. These workplace challenges can have a psychological impact. Large workforce studies have shown that emotional distress is common among employees; however, it frequently goes unrecognised and untreated.²

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Data Availability Statement: The dataset generated and analysed in the current study is not publicly available due to patient confidentiality but is available from the corresponding author upon reasonable request, subject to institutional and ethical approval.

Institutional Review Board

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Across South Asia, particularly in Pakistan, both community and occupational surveys highlight the significant burden of anxiety and depressive symptoms. National data estimate that 10–16% of Pakistani adults experience clinically meaningful psychological symptoms, while studies from Karachi report a moderately high prevalence of anxiety and depression among urban adults.^{3,10} Public safety and health sector personnel, core segments of the public sector, appear especially vulnerable, with international and regional literature linking exposure to traumatic or high-strain work to elevated depression, anxiety, and burnout.^{2,4}

Perceived social support (PSS) is a modifiable psychosocial factor that is consistently associated with better mental health outcomes. The Multidimensional Scale of Perceived Social Support (MSPSS) is a brief 12-item instrument designed to assess perceived support from three key sources: family, friends, and significant others. It has demonstrated strong reliability and consistent factorial validity across diverse populations.^{5,6} A growing body of evidence highlights the protective role of social support in mental health. Longitudinal studies suggest that individuals who report higher levels of perceived support are less likely to experience worsening depressive symptoms over time, partly because stronger support reduces loneliness. Meta-analytic findings further demonstrate small to moderate but meaningful associations between social support and overall psychological adjustment.^{13,14} Among public safety personnel, stronger perceived social support has been linked to lower rates of major depressive disorder and post-traumatic stress disorder, emphasising the importance of social networks for individuals working in high-risk public-sector roles.⁴

Among individuals living with mood disorders, social support is linked not only to the severity of depressive symptoms but also to important aspects of the illness course, including remission and risk of relapse—issues that are particularly critical in bipolar disorder.^{9,13}

In resource-constrained healthcare systems, strengthening family and peer support may serve as a practical extension of formal clinical care. Such support has the potential to enhance treatment adherence, improve functional outcomes, and promote sustained engagement with services, which are key priorities for tertiary psychiatric settings in Pakistan.^{10,12}

Robust, context-specific data for public sector employees in Pakistan remain limited, despite signals from local studies in the police and healthcare cadres showing high rates of distress and depression under workload and hazard exposure.^{2,4} Furthermore, most regional investigations assess symptoms but rarely quantify perceived social support using validated multidimensional instruments or examine how PSS varies across demographic and occupational strata among patients already receiving psychiatric care.

Standardised measures support rigorous case characterisation in these cohorts. The PHQ-9 is a brief, validated depression severity measure widely used in clinical and research settings, and the Young Mania Rating Scale (YMRS) is a reliable clinician-rated index of manic symptom severity, both appropriate for mood disorder phenotyping alongside the MSPSS in hospital settings.^{7,8} This study aimed to measure levels of perceived social support (MSPSS) and describe their distribution and correlates among public sector employees with mood disorders accessing psychiatric services at a tertiary care hospital in Karachi. It also aimed to explore associations between MSPSS categories and demographic/occupational factors within this clinical workforce cohort.

Methodology

This cross-sectional study was conducted over six months at the Department of Psychiatry and Behavioral Sciences. Approvals were obtained from the Research Evaluation Unit of the College of Physicians and Surgeons Pakistan and the Institutional Review Board before the recruitment began. Public-sector employees aged ≥ 18 years who presented to psychiatric services and had a clinician-confirmed mood disorder diagnosis (depressive disorders, bipolar affective disorder, dysthymia, or cyclothymia) were approached consecutively until the target sample of 385 participants was achieved. The sample size was calculated using the WHO single-proportion formula $N = Z^2 \cdot p(1-p)/m^2$, with $Z=1.96$ (95% confidence), $p=0.50$, and margin of error $m=0.05$. Individuals provided written informed consent after the information was explained in simple language. The exclusion criteria included refusal of consent, mood disorders with active psychosis at the time of the interview or current intoxication with psychoactive substances, intellectual disability, and chronic debilitating medical diseases. Data were collected through interviews and reviews of medical records using a structured pro forma. Demographics (age, marital status, education, religion), occupational variables (department, rank, duration of service, monthly income, residence type, work hours), and clinical history (family history of psychiatric disorders, substance use, current illness status: active disease or remission) were documented. Perceived social support was measured using the 12-item Multidimensional Scale of Perceived Social Support (MSPSS; 7-point Likert scale), and total scores were categorised as low (12–35), moderate (36–60), or high (61–84). Depressive symptom severity was assessed using the Patient Health Questionnaire-9 (PHQ-9; categories: 0–4 minimal, 5–9 mild, 10–14 moderate, 15–19 moderately severe, 20–27 severe), and manic symptoms were rated using

the Young Mania Rating Scale (YMRS; 0–12 no mania/hypomania, 13–19 hypomania, 20–25 moderate mania, >25 severe). Potential confounding variables—age, marital status, monthly income, duration of service, and weekly working hours—were pre-specified a priori and examined through a stratified bivariate analysis of the MSPSS category against each variable using chi-square tests. As this was a descriptive cross-sectional analysis, multivariable regression adjustment was not performed, and residual confounding by unmeasured factors cannot be excluded; this is noted as a limitation. Data were entered into SPSS v27 with range and completeness checks. Descriptive statistics were used to summarise participant characteristics and MSPSS levels, and chi-square tests were used to explore bivariate associations. A P-value <0.05 was considered significant. Proforma entries were checked for completeness at the point of collection; records with missing values on the primary outcome (MSPSS) were excluded from the analysis (complete-case analysis), and missing values on covariates were handled by pairwise exclusion in bivariate tests.

Results

The sample comprised 385 public sector employees with a mean age of 36.16 ± 8.4 years. Most participants were married (208; 54%), followed by single (139; 36%), with smaller proportions divorced (13; 3.3%), separated (13; 3.3%), or widowed (12; 3%). Educational attainment was distributed as follows: Bachelor's degree/graduate (135; 35%), intermediate/college (117; 30%), high school or below (87; 23%), and postgraduate/master's (46; 12%). The cohort was predominantly Muslim (365; 95%), with Hinduism (9; 2%), Christianity (3; 0.8%), Sikhism (3; 0.7%), and Other (5; 1%) also represented.

Table 1: Lifestyle variables

Variables		Mean and Frequency
Age (years)		36.16±8.4
Marital status	Divorced	13 (3.3%)
	Married	208 (54%)
	Separated	13 (3.3%)
	Single	139 (36%)
	Widowed	12 (3%)
	Bachelor Degree/Graduate	135 (35%)
Education	High School or below	87 (23%)
	Intermediate/College	117 (30%)
	Postgraduate Degree/Master	46 (12%)
Religion	Christianity	3 (0.8%)
	Hinduism	9 (2%)
	Islam	365 (95%)
	Other	5 (1%)
	Sikhism	3 (0.7%)
Family structure	Extended	28 (7%)
	Joint	104 (27%)
	Nuclear	221 (57%)
	Single Parent	19 (5%)
	Step	13 (3.3%)
Monthly income (pkr)	1,000 - 10,000	16 (4%)
	10,000 - 50,000	117 (30%)
	100,000 – 250,000	96 (24.9%)
	250,000+	15 (3.9%)
	50,000 - 100,000	141 (37%)
Residence	Home	299 (78%)
	Housing provided by the workplace	70 (18%)
	Other	16 (4%)
Duration service (years)		8.97±4.6
work hours/per week		44.85±7.9

The family structure was chiefly nuclear (221, 57%), followed by joint (104, 27%), extended (28, 7%), single-parent (19, 5%), and step (13, 3.3%). Monthly income (PKR) clustered at 50,000–100,000 (141; 37%) and 10,000–50,000 (117; 30%), with 100,000–250,000 (96; ~25%), 1,000–10,000 (16; 4%), and $\geq 250,000$ (15; 3.9%) less frequent. Most resided in their own homes (299, 78%), with workplace housing (70, 18%) and other (16, 4%) less common. The mean duration of service was 8.97 ± 4.6 years, and the mean work hours/week were 44.85 ± 7.9 .

Clinically, a family history of psychiatric disorders was reported by 94 (24%) and substance use by 82 (21%) patients. At assessment, 227 (59%) were in active disease and 158 (41%) were in remission. The primary diagnoses were depressive disorder (227, 59%), bipolar affective disorder (96, 25%), dysthymia (41, 11%), and cyclothymia (21, 5%).

Survey scores showed a mean MSPSS total of 58.51 ± 9.31 (95% CI 57.58–59.44), with moderate perceived social support (224, 58%) being the most common, followed by high (157, 41%) and low (4, 1%) perceived social support. On the YMRS, the mean was 8.05 ± 8.17 (95% CI 7.23–8.87); categories were no mania/hypomania (311; 81%), hypomania (34; 9%), severe mania (19; 5%), and moderate mania (2; 0.5%). The PHQ-9 mean was 9.14 ± 5.58 (95% CI 8.58–9.70), with mild (129; 34%), moderate (99; 26%), minimal (85; 22%), moderately severe (50; 13%), and severe (22; 6%) depression.

Table 2: Clinical variables

Variables	Mean and Frequency	
family history psychiatric disorder	No	291 (76%)
	Yes	94 (24%)
Substance use	No	303 (79%)
	Yes	82 (21%)
Current psychiatric illness status	Active Disease	227 (59%)
	Remission	158 (41%)
Diagnosis	Bipolar affective disorder	96 (25%)
	Cyclothymia	21 (5%)
	Depressive disorder	227 (59%)
	Dysthymia	41 (11%)

Table 3: Survey categorization score

	Category	Frequency (%)
MSPSS category	High perceived social support	157 (41%)
	Low perceived social support	4 (1%)
	Moderate perceived social support	224 (58%)
	Total	58.51 ± 9.31
YMRS category	Hypomania	34 (9%)
	Moderate mania	2 (0.5%)
	No mania/hypomania	311 (81%)
	Severe mania	19 (5%)
	Total	8.05 ± 8.17
PHQ9 category	Mild depression	129 (34%)
	Minimal depression	85 (22%)
	Moderate depression	99 (26%)
	Moderately severe depression	50 (13%)
	Severe depression	22 (6%)
	Total	9.14 ± 5.58

Stratification of the MSPSS categories showed no statistically significant associations across demographic and occupational groups. By age group, counts of low/moderate/high MSPSS were: 18–25 (0/24/18), 26–35 (0/80/56), 36–45 (2/100/60), 46–55 (2/16/21), ≥ 56 (0/4/2) ($\chi^2=12.98$, $df=8$, $p=0.14$). By monthly income (PKR): 1,000–10,000 (1/10/5), 10,000–50,000 (1/71/45), 50,000–100,000 (2/81/58), 100,000–250,000 (0/54/42), $\geq 250,000$ (0/8/7) ($\chi^2=6.73$, $df=8$, $p=0.716$). By service duration: <5 years (0/42/32), 5–10 years (1/119/75), 11–20 years (3/62/45), ≥ 21 years (0/1/5) ($\chi^2=9.54$, $df=6$, $p=0.137$). By work hours/week: <40 (2/63/41), 40–48 (1/92/60), 49–56 (1/58/45),

≥ 57 (0/11/11) ($\chi^2=2.50$, $df=6$, $p=0.881$). By marital status: divorced (0/5/8), married (1/128/79), separated (0/7/6), single (3/75/61), and widowed (0/9/3) ($\chi^2=7.95$, $df=8$, $p=0.437$).

Table 4: Stratification of MSPSS categories

MSPSS	Low perceived social support	Moderate perceived social support	High perceived social support	P value
Age group				
18-25	0	24	18	0.14
26-35	0	80	56	
36-45	2	100	60	
46-55	2	16	21	
56 and above	0	4	2	
Monthly income (PKR)				
1,000 - 10,000	1	10	5	0.716
10,000 - 50,000	1	71	45	
100,000 – 250,000	0	54	42	
250,000+	0	8	7	
50,000 - 100,000	2	81	58	
Service duration				
<5 years	0	42	32	0.137
5–10 years	1	119	75	
11–20 years	3	62	45	
≥21 years	0	1	5	
Work hours/week				
<40 hrs/week	2	63	41	0.881
40–48 hrs/week	1	92	60	
49–56 hrs/week	1	58	45	
≥57 hrs/week	0	11	11	
Marital status				
Divorced	0	5	8	0.437
Married	1	128	79	
Separated	0	7	6	
Single	3	75	61	
Widowed	0	9	3	

Discussion

In this cohort of public-sector employees with mood disorders receiving care at a tertiary psychiatric facility, perceived social support (PSS) was generally moderate to high, with a mean MSPSS score of approximately 58.5. Most participants reported moderate (58%) or high (41%) levels of perceived social support, whereas only 1% reported low social support. Furthermore, PSS did not differ significantly according to age, monthly income, duration of employment, weekly working hours or marital status.

These findings suggest that perceived social support may be influenced more by the quality and availability of interpersonal relationships than by conventional sociodemographic characteristics. The Multidimensional Scale of Perceived Social Support (MSPSS) specifically evaluates support from family, friends, and significant others, emphasising subjective perceptions of supportive relationships rather than structural social characteristics.^{5,6} Recent evidence supports this concept, demonstrating that the protective effects of social support against depressive symptoms depend primarily on the accessibility and quality of interpersonal relationships rather than on demographic factors alone.^{13,14} Consequently, differences in perceived support across broad sociodemographic groups may become less apparent once meaningful social relationships are established.

The absence of significant associations between PSS and income, marital status, or occupational characteristics may also reflect Pakistan's sociocultural context, where extended families and informal caregiving networks continue to play a central role in emotional support and help-seeking. A recent evaluation of Pakistan's mental healthcare system has highlighted that family members remain the principal providers of psychosocial support because of the limited

availability of formal community mental health services.¹² Such strong family and community ties may buffer the effects of socioeconomic disparities, resulting in relatively consistent levels of perceived support across different demographic groups.

The lack of variation in the MSPSS scores according to the weekly working hours is particularly noteworthy. Previous occupational studies have demonstrated that prolonged working hours are associated with greater psychological distress and poorer mental health outcomes.² However, psychological distress and perceived social support are distinct constructs. While an increased workload may increase vulnerability to anxiety and depression, the MSPSS measures the perceived availability of supportive interpersonal relationships. Recent longitudinal evidence further suggests that social support functions as a protective factor against depressive symptomatology over time rather than merely reflecting baseline demographic or occupational characteristics.¹³ Since all participants in the present study were already receiving psychiatric care, it is also possible that supportive family and social networks had already been mobilised following illness onset, thereby minimising differences in perceived support across occupational and demographic strata of the participants. Future longitudinal studies should investigate whether perceived social support moderates the relationship between occupational stress, symptom severity, and treatment outcomes in individuals with mood disorders.

Clinically, depressive symptoms were generally mild, with a mean PHQ-9 score of approximately 9.1, while manic symptoms were largely absent, as more than four-fifths of the participants had YMRS scores indicating no mania or hypomania. This clinical profile is consistent with that of a predominantly outpatient population experiencing depressive episodes or partial remission. The PHQ-9 and YMRS are extensively validated instruments that demonstrate excellent reliability and validity for assessing depressive and manic symptom severity, respectively, thereby supporting the internal validity of the present findings.^{7,8}

The predominance of moderate-to-high perceived social support observed in this study is consistent with the growing evidence demonstrating the beneficial role of social support in mood disorders. Recent longitudinal network analyses have shown that stronger perceived social support is associated with lower depressive symptom severity and may buffer against worsening depression over time.¹³ Similarly, a comprehensive quantitative synthesis of 60 meta-analyses concluded that social support is one of the strongest and most consistent predictors of positive psychological adjustment in both clinical and non-clinical populations.¹⁴ Earlier findings among public safety personnel likewise demonstrated that greater perceived social support is associated with lower levels of depression, anxiety, and post-traumatic stress symptoms⁴. Collectively, these findings reinforce the importance of strengthening supportive interpersonal relationships in comprehensive psychiatric care.

Within the Pakistani context, these findings may also reflect culturally embedded family systems in which relatives commonly provide emotional, practical, and financial support throughout the course of mental illness. The WHO-AIMS evaluation of Pakistan's mental healthcare system emphasises that families continue to shoulder much of the responsibility for psychosocial care because of limited community-based mental health resources.¹² Community-based research from Karachi has similarly demonstrated a substantial burden of depression and anxiety while highlighting the important role of informal support networks in coping with psychological distress.³ Together, these findings suggest that family centred interventions may represent a particularly valuable strategy for improving outcomes among patients with mood disorders in Pakistan.

Overall, the present study indicates that perceived social support among public-sector employees with mood disorders is generally moderate to high and appears to be relatively independent of routine sociodemographic and occupational characteristics of the employees. These findings are consistent with contemporary evidence suggesting that the effectiveness of social support depends less on demographic characteristics than on the quality, availability, and activation of supportive interpersonal relationships.^{13,14} From a clinical perspective, interventions that actively engage family members and trusted peers, strengthen discussion networks, and integrate psychosocial support into routine psychiatric care may improve treatment adherence, functional recovery, and long-term psychological wellbeing.

This study has several limitations. The cross-sectional design precludes causal inference, and the very small proportion of participants reporting low perceived social support limits the statistical power to detect between-group differences. In addition, the study was conducted at a single tertiary care centre and relied partly on self-reported information, which may limit generalisability and introduce reporting bias. Future multicentre prospective studies are needed to determine whether higher perceived social support predicts improvements in depressive symptoms over time and whether it moderates the relationship between occupational stress, symptom severity, and functional recovery among public-sector employees with mood disorders.

Conclusions

In this tertiary care cohort, most public-sector employees with mood disorders reported moderate to high perceived social support, with no significant variation across age, income, length of service, work hours, or marital status. The clinical profiles were dominated by mild depressive symptoms and low manic activity. These findings support the integration of family- and peer-involved approaches into routine psychiatric care. Future longitudinal studies should examine whether a higher PSS predicts improvements in symptoms and overall functioning over time.

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