

Mental Health Survey of General Duty Assistance Staff in a Tertiary Hospital: A Cross-Sectional Study

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Abstract

Background: Mental health is a vital but often overlooked aspect of well-being, especially among non-clinical healthcare workers like General Duty Assistants (GDAs). These workers perform physically and emotionally taxing hospital duties, yet their mental health status is understudied. This study assessed depression and anxiety prevalence among GDAs in a tertiary hospital and explored links with sociodemographic factors. **Material and Methods:** A cross-sectional study was done at TMMC&RC, Moradabad, from January to December 2024, including all GDAs employed for over a year. Data were collected through structured interviews using standardized tools: Patient Health Questionnaire-9 (PHQ-9), Hamilton Depression Rating Scale (HAM-D), and Hamilton Anxiety Rating Scale (HAM-A). Sociodemographic associations were analyzed using ANOVA. **Results:** Among 60 GDAs, PHQ-9 scores showed 36.7% had minimal/no depression, 28.3% mild, 25% moderate, 8.3% moderately severe, and 1.6% severe. HAM-D indicated 45% normal, 31.7% mild, 20% moderate, and 3.3% severe depression. On HAM-A, 65% had minimal/no anxiety, 25% mild, 6.7% moderate, and 3.3% severe. Mean scores suggested overall mild depression and anxiety, PHQ-9 = 5.78, HAM-D = 9.08, HAM-A = 9.12. Significantly higher ($p < 0.05$) scores of PHQ-9, HAM-D, and HAM-A scores, are seen in people with rural residence, post-graduates, and the age group 31-40 years. No significant associations were seen with gender and marital status, and PHQ-9, HAM-D, and HAM-A scores. **Conclusion:** Mild to moderate depression and anxiety are common among GDAs, particularly those from rural areas, higher education, and aged 31-40. Routine mental health screening and support for non-clinical healthcare staff are essential to promote well-being and improve hospital services.

Keywords: General Duty Assistants, Depression, Anxiety, PHQ-9, HAM-D, HAM-A, Mental Health, Cross-Sectional Study.

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INTRODUCTION

The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity".^[1] Mental health plays a vital role in the overall well-being and holistic development of an individual. One of the most important yet most neglected aspects of health care workers, there has been renewed interest in this aspect of health after the effects of the 2019 pandemic, which had an impact far beyond imaginable.^[2] Not only physical but also social and mental well-being at large were affected.

GDA staff are one of the important supporting personnel in the system of health care in India. They are mainly concerned with trivial, unrewarding, tedious, and disagreeable chores. They are always behind-the-scenes workers whose contribution to ensuring a smooth discharge of health care services more often than not goes unrecognized. This, combined with the minimum pay and very limited career advancement opportunities, makes them highly susceptible to developing mental health disorders.^[3] While we have had multiple studies addressing the mental health issues among doctors and nursing staff, this aspect largely remains unaddressed in the case of GDAs.

We aimed to determine the prevalence of depression and

anxiety among General Duty Assistant (GDA) staff using standardized assessment tools. We evaluated the association between various demographic factors and mental health outcomes. Through this, we sought to identify at-risk groups to inform targeted mental health interventions. Our study addressed a critical gap in mental health research among non-clinical healthcare workers.

MATERIALS AND METHODS

Our study was a cross-sectional study based on TMMC&RC, Moradabad. The study commenced after Permission from the College Research Committee (CRC) and Institutional Ethical Committee (IEC), TMMC&RC, Moradabad, and was started in

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January 2024 for one year. After approval, we collected the contact details of GDAs currently employed in our institution from the wardmasters' office and called them up to explain to them about our study and the voluntary nature of participation. Only those GDAs who voluntarily consented to take part in our study and fulfilled our inclusion criteria were asked to give a time and place within the hospital campus after their duty hours, as per their convenience, where we interviewed them using a questionnaire. Our inclusion criteria included all GDAs currently employed at our institution for over one year, and exclusion criteria were any GDA who did not give consent to our study. Our questionnaire was divided into two parts. The first part included sociodemographic information and other factors linked with the development of mental health disorders. The second part of the questionnaire consisted of three standard scales -Patient Health Questionnaire-9, The Hamilton Depression Rating Scale, and The Hamilton Anxiety Rating Scale (The PHQ-9 is a self-administered tool used to screen and measure the severity of depression. The HAM-D is a clinician-rated instrument widely used to assess the severity of depressive symptoms in patients. The HAM-A is a clinician-administered scale designed to evaluate the severity of a patient's anxiety. Due to the lack of any similar study involving GDAs, we opted for complete enumeration as the sampling method to ensure comprehensive data collection. A total of 60 participants were included in the study.

RESULTS

Our study revealed according to the PHQ-9 scale, the prevalence of depression was as follows: none or minimal in 36.67% of participants, mild in 28.33%, moderate in 25%, moderately severe in 8.3%, and severe in 1.6%. [Figure 1] Based on the HAM-D score, 45% of participants were classified as normal, 31.67% had mild depression, 20% had moderate depression, and 3.33% had severe depression. [Figure 2] Regarding anxiety, as measured by the HAM-A scale, 65% of participants exhibited minimal or no anxiety, 25% had mild anxiety, 6.67% had moderate anxiety, and 3.33% had severe anxiety. [Figure 3] Figure 4 shows a Composite Bar diagram comparing the distribution of the study population according to the severity of depression and anxiety.

Our results revealed that GDAs who participated in our

study experienced mild levels of depression and anxiety, as indicated by mean scores on the PHQ-9, HAM-D, and HAM-A scores (PHQ-9 (Mean = 5.78, SD = 3.76), HAM-D (Mean = 9.08, SD = 5.59), and HAM-A (Mean = 9.12, SD = 8.01)). [Table 1] summarizes the scores of the participants in the three standard questionnaires. While gender and marital status did not show statistically significant associations with mental health outcomes, females reported slightly higher mean scores than males across all scales—PHQ-9: 6.5 vs. 5.35, HAM-D: 9.22 vs. 8.8, and HAM-A: 9.7 vs. 7.9. Significant associations were observed by ANOVA test with area of residence, education level, and age. GDAs residing in rural areas had higher depression and anxiety scores than their urban counterparts (PHQ-9: 6.18 vs. 4.45; HAM-D: 10.21 vs. 7.13; HAM-A: 9.86 vs. 7.81), with all differences reaching statistical significance ($p < 0.05$), suggesting that environmental and socioeconomic factors contribute to psychological distress. Education level was significantly associated with mental health outcomes; postgraduates had the highest scores (PHQ-9: 7.75; HAM-D: 11.25; HAM-A: 15.00), followed by 12th pass (PHQ-9: 6.68; HAM-D: 10.25; HAM-A: 10.6), while graduates had the lowest scores (PHQ-9: 3.9; HAM-D: 6.71; HAM-A: 5.52), possibly reflecting role mismatch and unfulfilled expectations. Age-wise, the 31–40 years group experienced the greatest psychological burden with PHQ-9 = 6.73, HAM-D = 11.6, and HAM-A = 12.13 ($p < 0.05$), indicating that mid-career stress may be a contributing factor. [Tables 2, 3, and 4] summarize the association of various sociodemographic variables with PHQ-9, HAM-D, and HAM-A scores, respectively. All three scales (PHQ-9, HAM-D, HAM-A) indicate mild levels of depression and anxiety among GDAs, with mean scores around 5.78 for PHQ-9, 9.08 for HAM-D, and 9.12 for HAM-A. [Table 1] Significant associations were found for area of residence (higher depression in rural areas), education level (highest scores in postgraduates), and age group (31–40 years showing the highest depression). Gender and marital status showed no significant impact. [Table 2] HAM-D scores were significantly higher in rural residents, postgraduates, and the 31–40 years age group, confirming demographic disparities in depression severity. Gender and marital status had no significant effects. [Table 3] Anxiety levels as per HAM-A were significantly greater among rural residents, postgraduates, and those aged 31–40 years. No significant differences were noted by gender or marital status. [Table 4]

Table 1: Summary of Mean Scores and Interpretation of Depression and Anxiety Scales

Mean Total scores	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
PHQ9 Questionnaire	60	0	16	5.78	3.76	MILD DEPRESSION
HAM-D Questionnaire	60	2	25	9.08	5.59	MILD DEPRESSION
HAM-A Questionnaire	60	0	34	9.1	8.01	MILD ANXIETY

Table 2: Association of Sociodemographic Factors with PHQ-9 Depression Scores

Variables	Levels	N	Mean	SD	Significance
Gender	Female	40	6.5	4.2	t-test – 0.943, p-value – 0.357
	Male	20	5.35	3.65	
Marital Status	Married	29	5.62	3.58	t-test – 0.537, p-value – 0.596
	Unmarried	31	6.17	3.99	
Area of residence	Rural	38	6.18	3.76	t-test – 1.415, p-value – 0.047*
	Urban	22	4.45	3.49	

Education	12 th pass	35	6.68	3.53	F – 2.667, p-value – 0.023*
	Graduate	21	3.9	3.59	
	Post graduate	4	7.75	3.3	
Age	<20	3	3.33	3.22	F – 1.078, p-value – 0.033*
	20-30	38	5.84	3.75	
	31-40	15	6.73	4.01	
	41-50	4	3.5	2.08	

*Statistically significant

Table 3: Association of Sociodemographic Factors with HAM-D Depression Scores

Variables	Levels	N	Mean	SD	Significance
Gender	Female	40	9.22	5.68	t-test – 0.809, p-value – 0.101
	Male	20	8.8	5.53	
Marital Status	Married	29	9.55	5.42	t-test – 0.611, p- p-value – 0.623
	Unmarried	31	8.64	5.79	
Area of residence	Rural	38	10.21	5.76	t-test – 2.711, p-value – 0.030*
	Urban	22	7.13	4.8	
Education	12th pass	35	10.25	5.32	F – 2.809, p-value – 0.011*
	Graduate	21	6.71	5.4	
	Post graduate	4	11.25	6.13	
Age	<20	3	5.66	2.89	F – 2.314, p-value – 0.029*
	20-30	38	8.52	5.62	
	31-40	15	11.6	5.45	
	41-50	4	7.5	5.45	

*Statistically significant

Table 4: Association of Sociodemographic Factors with HAM-A Anxiety Scores

Variables		N	Mean	SD	Significance
Gender	Female	40	9.7	8.06	t-test – 1.045, p-value – 0.091
	Male	20	7.9	7.97	
Marital Status	Married	29	9.44	7.62	t-test – 0.508, p-value – 0.142
	Unmarried	31	8.8	8.47	
Area of residence	Rural	38	9.86	8.03	t-test – 2.029, p-value – 0.049*
	Urban	22	7.81	7.98	
Education	12th pass	35	10.6	8.49	F – 2.117, p-value – 0.029*
	Graduate	21	5.52	5.44	
	Post graduate	4	15	9.2	
Age	<20	3	3.33	4.93	F – 2.667, p-value – 0.003*
	20-30	38	8.6	7.92	
	31-40	15	12.13	8.37	
	41-50	4	7	7.57	

*Statistically significant

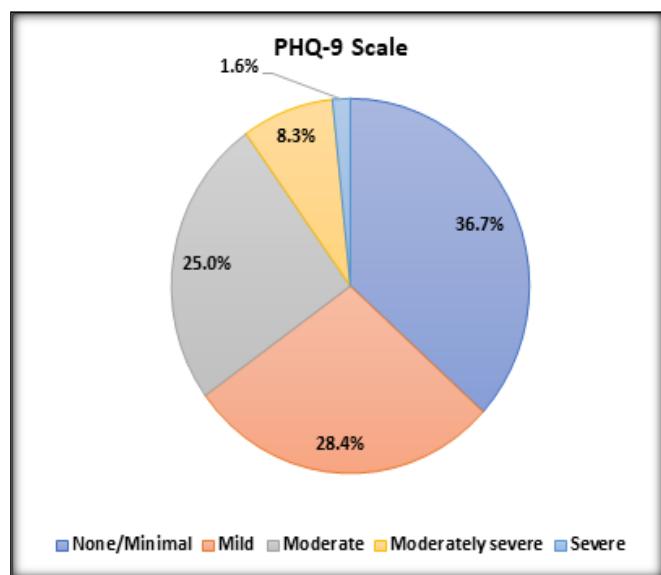


Figure 1: Distribution of study population according to the PHQ-9 scale

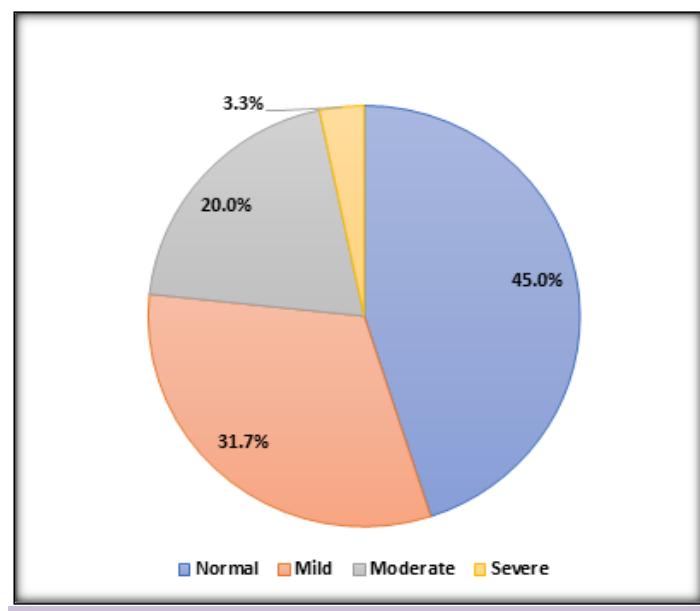


Figure 2: Distribution of study population according to HAM-D

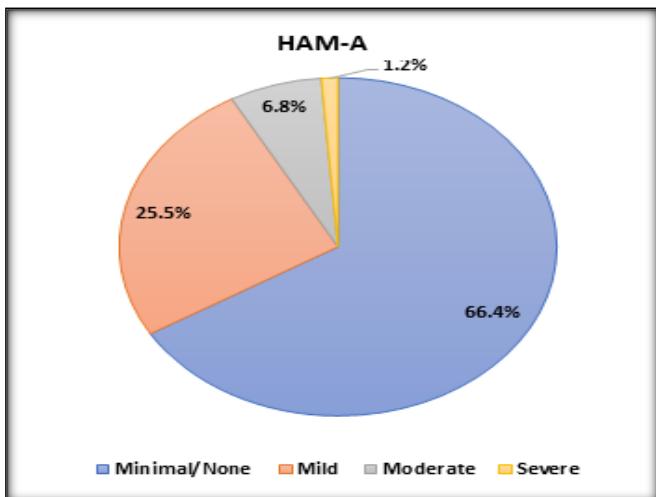


Figure 9: Distribution of study population according to HAM-A scales

DISCUSSION

The results of our study have highlighted the prevalence of mental health issues among GDA staff in our hospital. This study aimed to assess how frequently depression and anxiety were present among General Duty Attendants (GDAs), using standardized measures (PHQ-9, HAM-D, and HAM-A), and to explore how various sociodemographic factors related to mental health among this workforce. The results point to a noteworthy incidence of mild to moderate mental health issues, with differences emerging across groups defined by area of residence, educational background, and age. While male and female participants did not differ in a statistically significant manner, female GDAs consistently showed slightly higher average scores on the mental health assessments.

The findings of our study closely corroborate similar studies. A study by Khan et al. found that among health care support personnel (N=71), 56.3% had none to mild anxiety, while 43.7% experienced mild to severe anxiety. For depression, 63.4% reported none to mild symptoms, with 36.7% experiencing mild to severe depression.^[4] Similarly, in our study, 36.37% of participants exhibited no or only mild symptoms of depression (PHQ-9), 65% showed no or minimal anxiety (HAM-A), and 45% were classified as normal (HAM-D).

Shajan et al. found anxiety in 40% and depression in 35.8% of nurses.^[5] A meta-analysis by Lee et al. found the pooled prevalence of depression and anxiety among allied healthcare workers to be 23.5% and 23.3% respectively, with support staff having higher prevalence: 30.2% (depression) and 37.7% (anxiety).^[6] Similarly, Maliwichi et al. in South Africa reported that 31% of healthcare workers experienced depression and 30% had anxiety during the COVID-19 pandemic.^[7] Pappa et al. estimated the global prevalence of depression at 33.8% and anxiety at 41.3% among healthcare workers.^[8]

Marital status and gender did not significantly influence depression or anxiety in our cohort. Bibi et al. also reported no significant difference in perceived stress between

married and single HCWs but found married individuals to have poorer work-related QoL and slightly higher severe stress levels.^[9] Singh et al. found higher depression and anxiety among female HCWs (24.0% and 22.1%) than their male counterparts (22.7% and 16.0%).^[10]

The residential setting influenced outcomes—GDAs from rural areas showed higher levels of psychological distress. Xie et al. reported a higher proportion of depressive symptoms among rural workers (17.09%) than urban ones (11.75%) in China.^[11] Indian data reflect similar trends, with urban depression prevalence at 33.1% vs. 19.4% rural, and urban residents showing 1.7 times higher odds of anxiety.^[12]

Education level was inversely related to mental health in our study. Qin et al. in China reported worse PHQ-9 scores among more educated HCWs.^[13] Sun et al. found that younger and more educated mental health care workers had higher depression scores.^[14] Singh et al. and Schroeder et al. both found that younger HCWs (especially those <35) were more likely to experience moderate to severe depression and anxiety.^[10,15]

CONCLUSION

There is a high prevalence of anxiety and depression among GDAs in a Medical college of Uttar Pradesh, India. Of the many variables studied, age, marital status, residential area, and educational status emerged as the most decisive factors. Considering the important role of GDAs in efficient execution of healthcare delivery and yet thankless nature of their jobs, it might be appropriate for the government to perform regular mental health screening and introduce performance-based monetary enumerations and promotional postings, which might go a long way to reduce the mental health burden experienced by them.

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