International Journal of Occupational Safety and Health

ISSN: 2091-0878 (Online) ISSN: 2738-9707 (Print)

Original Article

Psychological morbidity and its risk factors among migrant construction workers in Chengalpattu district – A cross-sectional study

Rehana Syed,[1] Raja Danasekaran,[2] Surya B.N,[3] Vijayalakshmi S,[4] Pragadeesh P,[5] Manoj P,[6] Madhush Kumar S,[7] Hari Narayanan A[8]

[1,2,3,4,6,7,8] Department of Community Medicine, Chettinad Hospital and Research Institute, Chettinad Academy of Research and Education, Kelambakkam – 603103, Tamil Nadu, India
[5] Department of Community Medicine, Sri Ramachandra Medical College and Research Institute, Sri Ramachandra University, Chennai, India

Corresponding author:

Raja Danasekaran,
Professor,
Department of Community Medicine, Chettinad Hospital and Research Institute, Chettinad Academy of Research and Education, Kelambakkam – 603103, Tamil Nadu, India
E-mail: rajadanasekaran@gmail.com
ORCID ID: https://orcid.org/0000-0002-4571-0407

Date of submission: 11.11.2024
Date of acceptance: 22.05.2025
Date of publication: 01.10.2025

Conflicts of interest: None
Supporting agencies: None
DOI:https://doi.org/10.3126/ijosh.v15i3.69186

ABSTRACT

Introduction: Migrant construction workers, who form an essential workforce in the construction industry, face distinctive challenges such as job-related stress, workplace safety issues, financial instability, and difficulties arising from communication and cultural differences. Addressing psychological morbidity in this population is crucial not only to improve their quality of life. Hence, this study was conducted to assess the psychological factors such as anxiety, depression, and stress among migrant construction workers, as well as to evaluate the influence of social factors such as isolation, housing conditions, and cultural adaptation.

Methods: This cross-sectional study was carried out among 350 migrant construction workers in the Chengalpattu district. A total of 4 construction sites were randomly chosen by lottery method and stratified random sampling was done in each construction site to obtain the required sample size. The Data was collected using a pretested semi-structured questionnaire and validated Depression, Anxiety, and Stress (DASS-21) Scale for assessing depression, anxiety, stress, and relevant data. Informed consent was obtained, and data were entered in MS Excel and analyzed by SPSS version 22.

Results: Among the study participants, the prevalence of Depression, Anxiety, and Stress was found to be 44%, 32% and 38.6% respectively. Factors such as male gender, age ≤ 29 years, sleeping less than 6 hours per day, working more than 8 hours per day, lack of adequate housing facilities, and limited access to healthcare services were essential predictors for depression and stress. Working more than 8 hours per day was a necessary predictor of anxiety.

Conclusion: Migrant construction workers are more prone for stress and other psychological health problems. Routine screening of both physical and mental health for workers should be carried out to ensure their well-being. Additionally, policies that address discrimination, improve living conditions, and enhance access to social services can contribute to a more equitable and fulfilling experience for migrant construction workers.

Keywords: Depression, Financial stress, Mental health, Migrants, Social isolation, Stress

Introduction

Migrant construction workers are individuals who relocate, often from rural areas or other countries, to work in the construction industry in urban or industrial regions.[1] They represent a significant part of the labor force in many developing countries. These workers typically

move temporarily or seasonally to areas where construction projects are underway, seeking employment opportunities that may not be available in their home regions.[2] They often face unique and challenging conditions that can adversely impact their mental health. Psychological morbidity, encompassing conditions such as anxiety, depression, and stress, is a growing concern among this population.[3]

Several risk factors lead to psychological morbidity among migrant construction workers. Social isolation, resulting from separation from family and familiar social networks, is a significant factor.[4] Many workers live in substandard housing conditions, which adds to their stress and anxiety levels. Additionally, the process of cultural adaptation can be challenging, as these workers often migrate from diverse locations with different cultural practices, which can lead to feelings of isolation and discomfort.[5]

The interaction of these risk factors with the psychological well-being of migrant construction workers requires a thorough understanding to design effective solutions. Addressing psychological morbidity in this population is crucial not only for improving their quality of life but also for enhancing their productivity and overall contribution to the workforce.[6] This study aims to evaluate the prevalence of psychological morbidity among migrant construction workers in Chengalpattu District and identify the key social and environmental factors influencing their mental health.

Methods:

Between November 2023 and April 2024, a cross-sectional study was undertaken among 350 migrant construction workers in the Chengalpattu district, India. The sample size was determined using a 27.5% prevalence of psychological distress among migrant workers from a prior study by Mathew G et al[7] factoring in a 5% margin of error, a 95% confidence level, and a 10% buffer for non-responses, which led to a final required sample of 350 participants.

Out of the eight blocks in the Chengalpattu district, four were randomly selected. One construction site was then randomly chosen from each of these blocks. Stratified random sampling was employed at each site to recruit an equal number of participants proportionate to size, totaling 350 (80+94+84+92). The study included all migrant construction workers who were at least 18 years old and had been residing in the area for at least six months. Workers with a known psychiatric illness or those currently on psychiatric medications were excluded following a detailed history. Before participating in the study, each potential participant was provided with a Participant Information Sheet (PIS), and informed consent was obtained through a Participant Informed Consent Form (PICF). Ethical clearance for this study was obtained from the Institutional Human Ethics Committee on Human Subjects (Approval No: IHEC-I/2328/23). Safeguarding participants' privacy by protecting personal and sensitive information to prevent any risk of stigma or discrimination due to mental health disclosure, and providing referrals or resources for psychological support for those in need.

Data was gathered directly from eligible participants using a semi-structured proforma, which covered their basic sociodemographic information as well as work-related details such as job type and working conditions. To ensure the reliability and validity of the proforma, a pilot study was conducted with 30 migrant workers in a neighboring area to the study site. Following revisions based on this initial feedback, the proforma's internal consistency was evaluated through reliability analysis, with Cronbach's alpha of 0.87 demonstrating strong internal validity.

The DASS-21 questionnaire was employed to assess the psychological well-being of the participants. This tool is designed to measure

three key emotional states: depression, anxiety, and stress. Each of these psychological aspects is evaluated through separate subscales within the questionnaire. The study participants rated their experiences on a Likert scale, ranging from 0 (does not apply to me) to 3 (applies to me most of the time). The total scores for each of the three subscales are aggregated and classified into four levels of severity: mild, moderate, severe, and extremely severe. The DASS-21 scale has been validated for assessing depression, anxiety, and stress in adult populations.[8]

Microsoft Excel was used to enter the collected data and for more advanced statistical analysis, the data was imported into SPSS (Statistical Package for the Social Sciences) version 22. Frequencies and percentages were used to express categorical variables. The significance of categorical variables was assessed using the Chi-square test, with a p-value <0.05 considered statistically significant. Bivariate logistic regression was conducted to determine the unadjusted odds ratios. Variables with a p-value <0.05 from the bivariate analysis were included in a multivariate model to calculate adjusted odds ratios.

Results:

A total of 350 migrant construction workers participated, with 50.6% being under 29 years old and 49.4% being over 30 years old. The majority were male (72.6%), and 60.3% were unmarried. Among the participants, 51.1% used tobacco, 36.6% consumed alcohol, and the prevalence of depression, anxiety, and stress was 44%, 32%, and 38.6%, respectively (Figure 1).

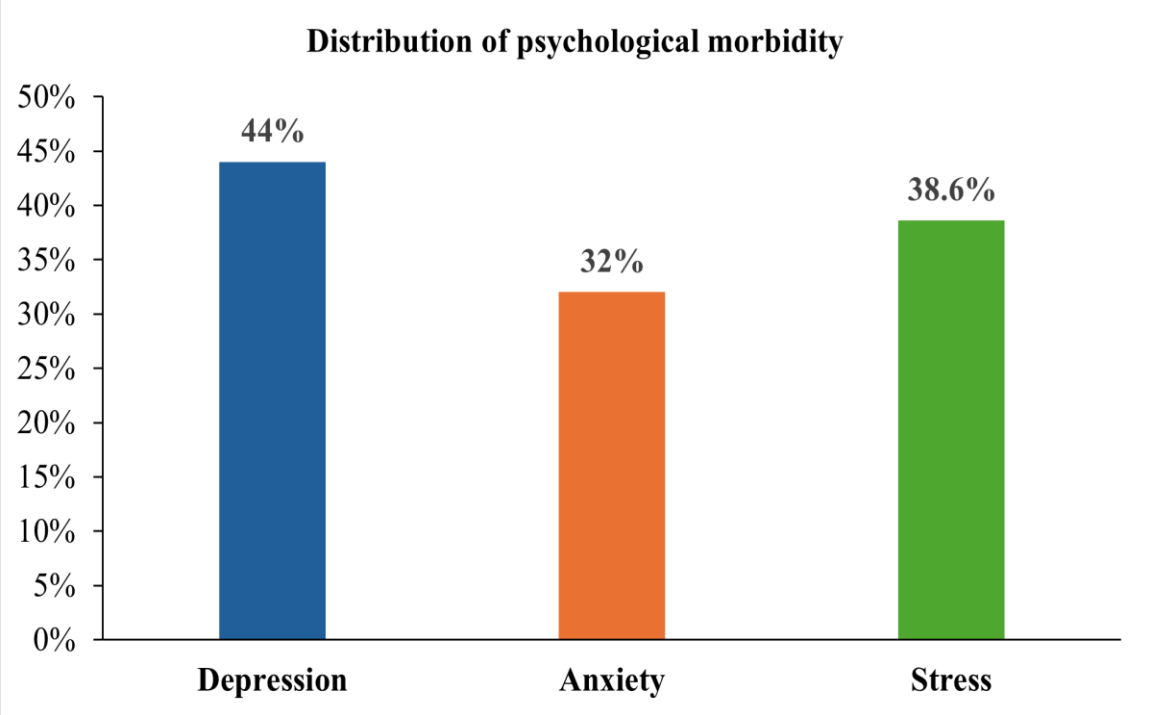

Figure 1: Distribution of psychological morbidity among the study participants

Table 1: Variables associated with Depression among study participants, n=350

Variables	Depression			OR (95% CI)	p-value
	Yes n (%)	No n (%)	Total (N = 350)		
Age (years)					
≤ 29	89 (57.8)	88(44.9)	177 (50.6)	1.680 (1.09 – 2.57)	0.017*
> 29	65(42.2)	108(55.1)	173(49.4)		
Gender					
Male	128 (83.1)	126 (64.3)	254 (72.6)	2.735 (1.63 – 4.56)	<0.001*
Female	26 (15.9)	70 (35.7)	96 (27.4)		
Monthly income (rupees)					
≤ 6000	97(63)	137 (69.9)	234 (66.9)	0.733 (0.46 – 1.15)	0.173
> 6000	57 (37)	59 (30.1)	116 (33.1)		
Marital Status					
Unmarried	59 (38.3)	80(40.8)	139 (39.7)	0.901 (0.58 – 1.38)	0.635
Married	95 (61.7)	116 (59.2)	211 (60.3)		
Staying with family					
No	120 (77.9)	146 (74.5)	266 (76)	1.209 (0.73 – 1.96)	0.455
Yes	34 (22.1)	50 (25.5)	84 (24)		
Tobacco consumption					
Yes	100 (64.9)	79 (40.3)	179 (51.1)	2.743 (1.77 – 4.24)	0.001*
No	54 (35.1)	117 (59.7)	171 (48.9)		
Alcohol Consumption					
Yes	51 (33.1)	77 (39.3)	128 (36.6)	0.765 (0.49 – 1.19)	0.234
No	103 (66.9)	119 (60.7)	222 (63.4)		
Sleep (hours)					
≤ 6	125 (81.2)	122 (62.2)	247 (70.6)	2.614 (1.59 – 4.29)	0.001*
> 6	29 (18.8)	74 (37.8)	103 (29.4)		
Working hours/day					
> 8	131 (85.1)	186 (94.9)	317 (90.6)	0.306 (0.14 – 0.66)	0.002*
≤ 8	23 (14.9)	10 (5.1)	33 (9.4)		
Adequate housing facilities					
No	116 (75.3)	126 (64.3)	242 (69.1)	1.696 (1.06 – 2.71)	0.026*
Yes	38 (24.7)	70 (35.7)	108 (30.9)		
Access to healthcare services					
No	48 (31.2)	40 (20.4)	88 (25.1)	1.766 (1.08 – 2.87)	0.021*
Yes	106 (68.8)	156(79.6)	262(74.9)		

*** P Value < 0.05 - Statistically significant at 95% Confidence Interval**

The findings indicate that workers aged 29 or younger were 1.68 times more likely to experience depression than those older than 29. Male participants had a higher probability of depression (OR = 2.74, CI=1.63 – 4.56) compared to females. Key factors associated with increased depression risk included tobacco use (OR = 2.74, CI=1.77 – 4.24), insufficient sleep (OR = 2.61, CI=1.59 – 4.29), inadequate housing conditions (OR = 1.69, CI=1.06 – 2.71), and limited access to healthcare services (OR = 1.76, CI=1.08 – 2.87). Additionally, participants who worked more than eight hours a day had significantly lower chances of depression (OR = 0.306, CI=0.14 – 0.66), Table 1. Gender had a significant association, with males having lower odds of anxiety compared to females (OR = 0.28). Additionally, working hours >8 hours per day was significantly associated with higher odds of anxiety (OR = 2.85) Table 2.

Table 2: Variables associated with Anxiety among study participants, n =350

Variables	Anxiety			OR (95% CI)	p-value
	Yes n (%)	No n (%)	Total (N = 350)		
Age (years)					
≤ 29	53(47.3)	124(52.1)	177(50.6)	0.826 (0.52 – 1.29)	0.404
> 29	59(52.7)	114(47.9)	173(49.4)		
Gender					
Male	61(54.5)	193(81.1)	254(72.6)	0.279 (0.17 – 0.45)	0.001*
Female	51(45.5)	45(18.9)	96(27.4)		
Monthly income (rupees)					
≤ 6000	78(69.6)	156(65.5)	234(66.9)	1.206 (0.74 – 1.95)	0.448
> 6000	34(30.4)	82(34.5)	116(33.1)		
Marital Status					
Unmarried	47(42)	92(38.7)	139(39.7)	1.147 (0.72 – 1.81)	0.555
Married	65(58)	146(61.3)	211(60.3)		
Staying with family					
No	85(75.9)	181(76.1)	266(76)	0.991 (0.58 -1.67)	0.974
Yes	27(24.1)	57(23.9)	84(24)		
Tobacco consumption					
Yes	50 (44.6)	129 (54,2)	179 (51.1)	0.681 (0.44 – 1.08)	0.095
No	62 (55.4)	109 (45.8)	171(48.9)		
Alcohol Consumption					
Yes	37(33)	91(38.2)	128(36.6)	0.797 (0.49 – 1.27)	0.346
No	75(67)	147(61.8)	222(63.4)		
Sleep (hours)					
≤ 6	76(67.9)	171(71.8)	247(70.6)	0.827 (0.50 – 1.34)	0.445
> 6	36(32.1)	67(28.2)	103(29.4)		
Working hours/day					
> 8	107(95.5)	210(88.2)	317(90.6)	2.853 (1.07 – 7.60)	0.029*
≤ 8	5(4.5)	28(11.8)	33(9.4)		
Adequate housing facilities					
No	84 (75)	158(66.4)	242(69.1)	1.519 (0.91 – 2.51)	0.104
Yes	28(25)	80(33.6)	108(30.9)		
Access to healthcare services					
No	28 (25)	60 (25.2)	88 (25.1)	0.989 (0.59 – 1.67)	0.966
Yes	84 (75)	178 (74.8)	262 (74.9)		

The results indicate significant associations between stress and various factors. Participants aged 29 or younger were less likely to experience stress (OR = 0.551, CI=0.35 – 0.85), while males had a higher likelihood (OR = 1.655, CI=1.01 – 2.73). Stress was also significantly associated with working over 8 hours per day (OR = 3.89, CI = 1.46 – 10.34), inadequate housing (OR = 1.76, CI=1.08 – 2.86), limited healthcare access (OR = 2.129, CI=1.31 – 3.45), and sleeping 6 hours or less (OR = 2.19, CI=1.32 – 3.63), Table 3.

Table 3: Variables associated with Stress among study participants, n=350

Variable	Stress			OR (95% CI)	p-value
	Yes n (%)	No n (%)	Total (N = 350)		
Age (years)					
≤ 29	56(41.5)	121(56.3)	177(50.6)	0.551 (0.35 – 0.85)	0.007*
> 29	79(58.5)	94(43.7)	173(49.4)		
Gender					
Male	106(78.5)	148(68.8)	254(72.6)	1.655 (1.01 – 2.73)	0.048*
Female	29(21.5)	67(31.2)	96(27.4)		
Monthly income (rupees)					
≤ 6000	94(69.6)	140(65.1)	234(66.9)	1.228 (0.77 – 1.94)	0.383
> 6000	41(30.4)	75(34.9)	116(33.1)		
Marital Status					
Unmarried	45(33.3)	94(43.7)	139(39.7)	0.644 (0.41 – 1.01)	0.053
Married	90(66.7)	121(56.3)	211(60.3)		
Staying with family					
No	105(77.8)	161(74.9)	266(76)	1.174 (0.70 – 1.95)	0.537
Yes	30(22.2)	54(25.1)	84(24)		
Tobacco consumption					
Yes	75(55.6)	104(48.4)	179(51.1)	1.334 (0.86 – 2.05)	0.191
No	60(44.4)	111(51.6)	171(48.9)		
Alcohol Consumption					
Yes	53(39.3)	75(34.9)	128(36.6)	1.207 (0.77 – 1.88)	0.408
No	82(60.7)	140(65.1)	222(63.4)		
Sleep (hours)					
≤ 6	108(80)	139(64.7)	247(70.6)	2.187 (1.32 – 3.63)	0.002*
> 6	27(20)	76(35.3)	103(29.4)		
Working hours/day					
> 8	130(96.3)	187(87)	317(90.6)	3.893(1.46 – 10.34)	0.004*
≤ 8	5(3.7)	28(13)	33(9.4)		
Adequate housing facilities					
No	103 (76.3)	139 (64.7)	242 (69.1)	1.760 (1.08 – 2.86)	0.022*
Yes	32 (23.7)	76 (35.3)	108 (30.9)		
Access to healthcare services					
No	46 (34.1)	42 (19.5)	88 (25.1)	2.129 (1.31 – 3.45)	0.002*
Yes	89 (65.9)	173 (80.5)	262 (74.9)		

Variables significantly associated with depression, anxiety and stress in bivariate analysis were further analyzed using multiple logistic regression to control for confounders. The study identified that age ≤ 29 years (AOR = 2.10, CI=1.3 – 3.3), male gender (AOR = 2.46, CI=1.6 – 4.3), tobacco use (AOR = 2.38, CI=1.3 – 4.2), inadequate sleep (< 6 hours) (AOR = 3.33, CI=1.8 – 6.1), lack of adequate housing (AOR = 2.12, CI=1.2 – 3.6), and limited healthcare access (AOR = 2.07, CI=1.1- 3.7) were significant predictors of depression, while working hours of more than 8 hours per day was a protective factor (AOR = 0.14, CI=0.05 – 0.3), Working hours >8 hours/day (AOR = 4.06) was found to be an important predictor of anxiety. It was found that

Age ≤ 29 years being a protective factor (AOR= 0.41, CI=0.26 – 0.67), male gender (AOR = 2.493, CI=1.5 – 4.4), inadequate sleep (< 6 hours) (AOR = 3.02, CI=1.19 – 5.62), working more than 8 hours per day (AOR = 6.54, CI=2.1 – 19.3), lack of adequate housing facilities (AOR = 2.43, CI=1.37 – 4.23) and limited access to healthcare services (AOR = 3.01, CI=1.7 – 5.33) were important predictors for stress, Table 4.

Table 4: Predictors of depression, anxiety and stress among study participants through multiple logistic regression, n= 350

Variables	AOR	95% CI	p-value
Predictors of depression			
Age ≤ 29 years	2.101	1.3 – 3.3	0.003*
Male gender	2.460	1.6 – 4.3	0.002*
Tobacco consumption	2.383	1.3 – 4.2	0.003*
Sleep < 6 hours	3.329	1.8 – 6.1	<0.001*
> 8 hours work per day	0.144	0.05 – 0.3	<0.001*
lack of adequate housing facilities	2.119	1.2 – 3.6	0.007*
limited access to healthcare services	2.074	1.1- 3.7	0.014*
Predictors of anxiety			
> 8 hours work per day	4.057	1.5 – 10.9	0.006*
Predictors of stress			
Age ≤ 29 years	0.412	0.26 – 0.67	<0.001*
Male gender	2.493	1.5 – 4.4	0.002*
Sleep < 6 hours	3.023	1.19 – 5.62	0.022*
> 8 hours work per day	6.542	2.1 – 19.3	0.001*
lack of adequate housing facilities	2.425	1.37 – 4.23	0.002*
limited access to healthcare services	3.007	1.7 – 5.33	<0.001*

Discussion:

The prevalence of depression among migrant construction workers in this study was found to be 44%, which aligns closely with findings from other research involving migrant workers and similar occupational groups. For instance, a study conducted by Hovey and Magaña[9] reported a 41% prevalence of depression among migrant farmworkers in the United States, highlighting a similar trend. Another study by Peconga et al[10] found that 40.9% of migrant workers experienced depression, further emphasizing the consistency of these findings across different populations and settings. These consistent prevalence rates underscore the significant mental health challenges faced by migrant populations. Migrant workers often encounter numerous stressors, such as socio-economic instability, which include job insecurity and low wages, inadequate living conditions, such as overcrowded or substandard housing, and limited access to healthcare services.[11]

The current study revealed that individuals aged 29 years or younger are more susceptible to depression, a finding that is consistent with previous research, such as the study conducted by Kessler et al[12] which also reported higher prevalence rates of depression among younger adults. This pattern of increased vulnerability in younger age groups can be explained by several factors unique to this demographic. Younger individuals, particularly those in the early stages of adulthood, often face significant life transitions

and stressors that can heighten their risk for depression. These transitions include adjusting to new environments, which is particularly relevant for migrant workers who may have relocated to unfamiliar settings, away from their support networks. The stress of adapting to a new cultural and social environment, learning to navigate different social norms, and possibly facing language barriers can contribute to feelings of isolation and anxiety, which are known precursors to depression.

This study also reported that, depression was more prevalent among males compared to females. This contrasts with the findings of Hong J et al[13] which reported higher depression rates among females. This disparity could be attributed to the majority of the study population being female (85%) in the study, while in our present study, male (50.6%) and female (49.4%) participants were equally distributed. Among migrant workers, males may face unique pressures such as financial responsibilities and occupational hazards, contributing to higher depression rates.[14]

Tobacco consumption was associated with a higher prevalence of depression in the present study. Research conducted by Byeon[15] and Wu[16] et al. has also shown that tobacco consumption is linked to an increased risk of depression, with daily users having the highest risk. Tobacco use may serve as a coping mechanism for stress and anxiety, which are prevalent among migrant workers due to their challenging living and working conditions.[17] Additionally, the social and economic hardships faced by migrant workers, coupled with the adverse health effects of tobacco, may further contribute to the higher prevalence of depression in this population.[18]

In the present study, working for more than 8 hours per day was found to be protective against depression. This interesting finding suggests that extended work hours could provide a sense of purpose and financial stability, potentially reducing some stressors associated with depression. However, it is important to consider the possibility of a healthy worker effect, where healthier individuals are more likely to engage in longer working hours.[19]

In this study, 32% of participants experienced anxiety. A study by Essayagh et al[20] reported a 39.1% prevalence of anxiety among migrant workers, while research by Peconga EK et al[10] found a 26.7% prevalence among Syrian migrants. The differences in anxiety prevalence across these studies may be due to the varying geographical settings and the different socio-environmental factors in each study area.

The present study identified that working hours of >8 hours/day is a key predictor of anxiety and stress among migrant construction workers. A study by Virtanen et al[21] found that individuals working more>55 hours/week had a higher risk of anxiety, stress, and depressive disorders compared to those working standard hours. Studies have shown that the construction industry has higher rates of anxiety and other mental health problems compared to other sectors. Salgado et al[22] highlighted that construction workers experience significant occupational stress, which is exacerbated by long working hours, contributing to higher anxiety levels.

In this study, the prevalence of stress among migrant construction workers was found to be 38.6%. This figure, while significant, is lower than the stress prevalence reported in other studies involving different groups of migrant workers. For example, research conducted by Anjara S.G. et al on migrant domestic workers in Singapore revealed a higher stress prevalence of 52.5%.[23]

Similarly, research by Sanchez et al[24] among migrant workers found that 45% reported significant levels of stress. The difference in stress levels between these two groups may be attributed to various factors related to their work environments and the nature of their occupations. Migrant domestic workers, who often live with their employers, may experience

unique stressors such as limited personal space, long and unpredictable working hours, and a lack of separation between work and personal life. These conditions can contribute to a heightened sense of isolation and vulnerability, leading to higher stress levels.

The prevalence of stress was higher among male migrant construction workers. This finding is consistent with existing literature that highlights gender differences in stress levels within occupational settings, particularly in male-dominated industries. A study by Kim et al[25] on construction workers in Korea found that male workers reported significantly higher stress levels compared to their female counterparts. Similarly, research done by Hovey et al[9] found that male migrant workers in the United States experience higher stress levels due to their demanding work and societal expectations of men being primary financial providers for their families.

In this study, stress among migrant construction workers was higher in those over 29 years old. Similar findings by Choi et al showed that older construction workers reported more work-related stress due to the physically demanding nature of their jobs and the pressure to meet expectations.[26] Mutambudzi M et al also found that older workers are more prone to chronic health conditions, adding to their stress.[27] Additionally, greater financial and familial responsibilities, coupled with the physical strain of construction work, contribute to higher stress levels in this age group.[28]

In this study, depression and stress were significantly linked to inadequate sleep (less than 6 hours), consistent with Mucci et al's findings, which showed a strong correlation between poor sleep and increased risk of depression and stress.[18] Al-Maddah et al also found that both sleep duration and quality were strongly associated with depressive symptoms among residents.[29] The living conditions and work patterns of migrant workers might not always facilitate proper sleep. Employers should consider implementing methods to enhance sleep hygiene, such as providing better living conditions and adjusting work hours to allow for adequate rest.[30]

Inadequate housing and limited access to healthcare were significantly linked to higher rates of depression and stress. Similarly, a study by Organista et al found that poor living conditions contributed to psychological distress among Latino migrant workers.[31]

Research by Dhungana et al[32] and Tilahun M et al[33] identified limited access to healthcare in the host country as a key risk factor for mental health issues among migrant workers. The correlation between poor living conditions and mental health is well-documented, with housing insecurity contributing to stress and depression. At the same time, limited healthcare access exacerbates the inability to address these mental health concerns.[34] Migrant workers commonly experience financial limitations which restrict them from seeking healthcare services.[35] These findings are in line with the social determinants of health concept, which states that poor living conditions and limited access to healthcare are major factors influencing mental health outcomes.[36]

By examining psychological morbidity in migrant construction workers, the study addresses mental health in a vulnerable and often overlooked group, providing valuable insights into this population's unique challenges. The study's comprehensive assessment of various risk factors, including working hours, housing conditions, and access to healthcare, helps identify key contributors to psychological morbidity. The present study, being cross-sectional in design, has its limitations in its ability to establish causality between psychological morbidity and its risk factors. Longitudinal studies would be needed to assess the incidence of psychological morbidity and provide a better understanding of its progression over time.

Conclusion:

The current study underscores the significant psychological strain experienced by migrant construction workers in the Chengalpattu district. The rates of depression, anxiety, and stress among these workers were found to be 44%, 32%, and 38.6%, respectively. Migrant construction workers are particularly vulnerable to stress and various psychological health issues due to the challenging nature of their work environment and living conditions. Routine screening of both physical and mental health is essential to address and mitigate these issues. Regular health check-ups can help in early identification of psychological conditions such as depression, anxiety, and stress, allowing for timely intervention and support. Participants in this study who have been identified with psychiatric illness were referred to the nearby health centre for further evaluation and management. Additionally, policies to improve living conditions and enhance access to social services can contribute to a more equitable and fulfilling experience for migrant construction workers.

References:

1. Zabeer S, Inbaraj LR, George CE, Norman G. Quality of life among migrant construction workers in Bangalore city: A cross-sectional study. J Fam Med Prim Care. 2019 Feb;8(2):437–42. Available from: https://doi.org/10.4103/jfmpc.jfmpc_424_18
2. Buckley M, Zendel A, Biggar J, Frederiksen L, Wells J. Migrant work & employment in the construction sector. International Labour Organization. 2016. Available from: https://www.studocu.com/my/document/universiti-teknologi-mara/legal-research-and-methodology/migrant-work-employment-in-the-construction-sector/21872644
3. Alegría M, Álvarez K, DiMarzio K. Immigration and mental health. Current epidemiology reports. 2017 Jun;4:145-55. Available from: https://doi.org/10.1007/s40471-017-0111-2
4. Hasan SI, Yee A, Rinaldi A, Azham AA, Mohd Hairi F, Amer Nordin AS. Prevalence of common mental health issues among migrant workers: A systematic review and meta-analysis. PLoS ONE. 2021 Dec 2;16(12):e0260221. Available from: https://doi.org/10.1371/journal.pone.0260221
5. Bhugra D, Becker MA. Migration, cultural bereavement and cultural identity. World psychiatry. 2005 Feb;4(1):18. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1414713/
6. Singh V, Kumar A, Gupta S. Mental Health Prevention and Promotion—A Narrative Review. Front Psychiatry. 2022 Jul 26;13:898009. Available from: https://doi.org/10.3389/fpsyt.2022.898009
7. Mathew G, Ramesh N, Shanbhag D, Goud R, Subramanian S, Lobo C, et al. Quality of life and probable psychological distress among male workers at a construction site, Kolar district, Karnataka, India. Indian J Occup Environ Med. 2016;20(1):54–9. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC4922279/
8. Moya E, Larson LM, Stewart RC, Fisher J, Mwangi MN, Phiri KS. Reliability and validity of depression anxiety stress scale (DASS)-21 in screening for common mental disorders among postpartum women in Malawi. BMC Psychiatry. 2022 May 24;22(1):352. Available from: https://doi.org/10.1186/s12888-022-03994-0
9. Hovey JD, Magaña C. Acculturative stress, anxiety, and depression among Mexican immigrant farmworkers in the midwest United States. J Immigr Health. 2000 Jul;2(3):119–31. Available from: https://doi.org/10.1023/A:1009556802759
10. Peconga EK, Høgh Thøgersen M. Post-traumatic stress disorder, depression, and anxiety in adult Syrian refugees: What do we know? Scand J Public Health. 2020 Nov;48(7):677–87. Available from: https://doi.org/10.1177/1403494819882137
11. Mezzina R, Gopikumar V, Jenkins J, Saraceno B, Sashidharan SP. Social Vulnerability and Mental Health Inequalities in the "Syndemic": Call for Action. Front Psychiatry. 2022 May 30;13:894370.

Available from: https://doi.org/10.3389/fpsyt.2022.894370

12. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005 Jun;62(6):593–602. Available from: https://doi.org/10.1001/archpsyc.62.6.593
13. Hong J, Lee J. Decomposing Income-Related Inequalities in Self-Reported Depression and Self-Rated Health Among Married Immigrants in South Korea. Int J Environ Res Public Health. 2019 May;16(10):1869. Available from: https://doi.org/10.3390/ijerph16101869
14. Wulsin L, Alterman T, Bushnell PT, Li J, Shen R. Prevalence rates for depression by industry: a claims database analysis. Soc Psychiatry Psychiatr Epidemiol. 2014 Nov;49(11):1805–21. Available from: https://doi.org/10.1007/s00127-014-0891-3
15. Byeon H. Association among smoking, depression, and anxiety: findings from a representative sample of Korean adolescents. PeerJ. 2015 Oct 1;3:e1288. Available from: https://doi.org/10.7717/peerj.1288
16. Wu Z, Yue Q, Zhao Z, Wen J, Tang L, Zhong Z, et al. A cross-sectional study of smoking and depression among US adults: NHANES (2005–2018). Front Public Health. 2023 Jan 30;11:1081706. Available from: https://doi.org/10.3389/fpubh.2023.1081706
17. Syed IU. Clearing the Smoke Screen: Smoking, Alcohol Consumption, and Stress Management Techniques among Canadian Long-Term Care Workers. Int J Environ Res Public Health. 2020 Sep;17(17):6027. Available from: https://doi.org/10.3390/ijerph17176027
18. Mucci N, Traversini V, Giorgi G, Tommasi E, De Sio S, Arcangeli G. Migrant Workers and Psychological Health: A Systematic Review. Sustainability. 2020 Jan;12(1):120. Available from: https://doi.org/10.3390/su12010120
19. Li CY, Sung FC. A review of the healthy worker effect in occupational epidemiology. Occup Med Oxf Engl. 1999 May;49(4):225–9. Available from: https://doi.org/10.1093/occmed/49.4.225
20. Essayagh F, Essayagh M, Essayagh S, Marc I, Bukassa G, El otmani I, et al. The prevalence and risk factors for anxiety and depression symptoms among migrants in Morocco. Sci Rep. 2023 Mar 6;13:3740. Available from: https://doi.org/10.1038/s41598-023-30715-8
21. Virtanen M, Ferrie JE, Singh-Manoux A, Shipley MJ, Stansfeld SA, Marmot MG, et al. Long working hours and symptoms of anxiety and depression: a 5-year follow-up of the Whitehall II study. Psychol Med. 2011 Dec;41(12):2485–94. Available from: https://doi.org/10.1017/S0033291711000171
22. Gómez-Salgado C, Camacho-Vega JC, Gómez-Salgado J, García-Iglesias JJ, Fagundo-Rivera J, Allande-Cussó R, et al. Stress, fear, and anxiety among construction workers: a systematic review. Front Public Health. 2023 Jul 13;11:1226914. Available from: https://doi.org/10.3389/fpubh.2023.1226914
23. Anjara SG, Nellums LB, Bonetto C, Van Bortel T. Stress, health and quality of life of female migrant domestic workers in Singapore: a cross-sectional study. BMC Womens Health. 2017 Oct 10;17:98. Available from: https://doi.org/10.1186/s12905-017-0442-7
24. Sanchez M, Diez S, Fava NM, Cyrus E, Ravelo G, Rojas P, et al. Immigration Stress among Recent Latino Immigrants: The Protective Role of Social Support and Religious Social Capital. Soc Work Public Health. 2019;34(4):279–92. Available from: https://doi.org/10.1080/19371918.2019.1606749
25. Kim Y, Lee S, Lim J, Park S, Seong S, Cho Y, et al. Factors Associated with Poor Quality of Sleep in Construction Workers: A Secondary Data Analysis. Int J Environ Res Public Health. 2021 Feb 25;18(5):2279. Available from: https://doi.org/10.3390/ijerph18052279
26. Choi W, Lee SJ, Lee WJ, Beak EM, Kim KY. Job Satisfaction Level of Safety and Health Manager in Construction Industry: Pandemic Period. Int J Environ Res Public Health. 2022 May 11;19(10):5858. Available from: https://doi.org/10.3390/ijerph19105858
27. Mutambudzi M, Henkens K. Chronic health conditions and work-related stress in older adults participating in the Dutch workforce. Eur J Ageing. 2020 Feb 14;17(4):499–508. Available from: https://doi.org/10.1007/s10433-020-00554-x
28. Nagarajan NR, Sixsmith A. Policy Initiatives to Address the Challenges of an Older Population in the Workforce. Ageing Int. 2023;48(1):41–77.

Available from: https://doi.org/10.1007/s12126-021-09442-w

29. Al-Maddah EM, Al-Dabal BK, Khalil MS. Prevalence of Sleep Deprivation and Relation with Depressive Symptoms among Medical Residents in King Fahd University Hospital, Saudi Arabia. Sultan Qaboos Univ Med J. 2015 Feb;15(1):e78–84. Available from: https://pubmed.ncbi.nlm.nih.gov/25685390/
30. Irish LA, Kline CE, Gunn HE, Buysse DJ, Hall MH. The Role of Sleep Hygiene in Promoting Public Health: A Review of Empirical Evidence. Sleep Med Rev. 2015 Aug;22:23–36. Available from: https://doi.org/10.1016/j.smrv.2014.10.001
31. Organista KC, Ngo S, Neilands TB, Kral AH. Living Conditions and Psychological Distress in Latino Migrant Day Laborers: The Role of Cultural and Community Protective Factors. Am J Community Psychol. 2017 Mar;59(1–2):94–105. Available from: https://doi.org/10.1002/ajcp.12113
32. Dhungana RR, Aryal N, Adhikary P, Kc RK, Regmi PR, Devkota B, Sharma GN, Wickramage K, Van Teijlingen E, Simkhada P. Psychological morbidity in Nepali cross-border migrants in India: a community based cross-sectional study. BMC public health. 2019 Dec;19:1-9. Available from: https://doi.org/10.1186/s12889-019-7881-z
33. Tilahun M, Workicho A, Angaw DA. Common mental disorders and its associated factors and mental health care services for Ethiopian labour migrants returned from Middle East countries in Addis Ababa, Ethiopia. BMC Health Serv Res. 2020 Jul 23;20(1):681. Available from: https://doi.org/10.1186/s12913-020-05502-0
34. Lee W, Neo A, Tan S, Cook AR, Wong ML, Tan J, et al. Health-seeking behaviour of male foreign migrant workers living in a dormitory in Singapore. BMC Health Serv Res. 2014 Jul 10;14:300. Available from: https://doi.org/10.1186/1472-6963-14-300
35. Asampong E, Dwuma-Badu K, Stephens J, Srigboh R, Neitzel R, Basu N, et al. Health seeking behaviours among electronic waste workers in Ghana. BMC Public Health. 2015 Oct 16;15:1065. Available from: https://doi.org/10.1186/s12889-015-2376-z
36. Marmot M, Friel S, Bell R, Houweling TAJ, Taylor S, Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Lancet Lond Engl. 2008 Nov 8;372(9650):1661–9. Available from: https://doi.org/10.1016/S0140-6736(08)61690-6