



Brief Report

Psychological distress and quality of community life among migratory construction workers in India

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ABSTRACT

Objectives: The objectives of this study are to elicit sociodemographic details, assess the level of psychological distress, and measure the quality of community life (QoCL) of migratory construction workers.

Materials and Methods: A cross-sectional research design and survey method of sampling was followed. The semi-structured interview schedule, self-reporting questionnaire, and QoCL scale were used as measures for the study.

Results: Out of 75 respondents, 37 (49.3%) did not have formal education, 38 (50.7%) have migrated for less than a month duration, 33 (44.0%) respondents migrated with their families. The mean age of respondents was 32.03 ± 9.82 years. About 48 (64.0%) were identified as potential respondents for psychosocial care and female respondents ($M = 12.90 \pm 4.03$, $t = -3.03$, $P < 0.003$) have higher distress than males ($M = 9.50 \pm 4.56$, $t = -3.03$, $P < 0.003$) ones. Overall, QoCL indicated a below moderate (59.08 ± 8.31) level.

Conclusion: The distress was high and QoCL indicated a below moderate level. Intersectoral and community mental health services were required to enhance QoCL and reduce distress among migratory construction workers.

Keywords: Migration, Workers, Construction, Distress, Quality of community life

INTRODUCTION

The movement of people from one place to another has existed throughout human civilization. The decision on whether to move, how, and where to go is complex and could be driven by several factors.^[1] The National Sample Survey Organization (NSSO) estimated that 326 million of the population are migrants.^[2] According to the Census of India, 31.16% of the urban population are migrants and nearly 20.5 million people migrate annually to urban areas.^[3]

The NSSO reported that seasonal and short-term migrants are young and they are 15–29 years age group.^[2] In the development sector, the construction industry is India's second-largest generator of the labor force, with 40 million migrants,^[4] most of whom are seasonal and short-term migrants.^[5] This sector attracts and employs many, especially unskilled or semi-skilled manual laborers. However, studies have found that most short-term migrants belong to socioeconomically disadvantaged

groups, with basic educational attainment, limited assets and resources, debt cycles, agricultural losses, and huge expenditures on family and social ceremonies.^[5,6]

Migration interrupts social interaction with families, friends, communities, and value systems, changing behavior and adapting to a new psychosocial environment.^[7] In the process of migration, women, children, and elders are more vulnerable and they require psychosocial support at either their origin or destination places.^[8] Migration creates job insecurity, separation from sociogeographical connectivity, poor housing facilities, lack of recreation and health services, lack of protection and safety, and other concerns.^[9,10]

Studies have found social discrimination toward migrants, lack of civic amenities at the destination places is a greater risk to families, and also prolonged stay in destination cities compound the risk of psychiatric disorders.^[9,11-13] The construction industry has high levels of occupational strain,

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physical and mental health problems could arise related to work and the environment of the workplace.^[14,15] Studies revealed that the threat to mental health depends on the social context, the circumstances, and the act of migration.^[16,17]

Even though distressed people migrate to cities for temporary work in the construction sector, moving from distressing conditions to another stressful job will obviously lead to more psychological distress. In this context, the migratory construction workers might encounter and develop more distress. The unaddressed distress aspect can lead to mental health problems among migrants. Hence, assessing their level of distress and quality of community life (QoCL) such as living conditions, accessibility with civic amenities, availability of social support, and information about social services other aspects are important. By understanding this problem, the mental health professionals could design, develop, and deliver the appropriate community mental health services by following intersectoral services.

The dimension of the QoCL, which is the perception of “being,” “belonging,” and “becoming” a part of one’s community, may also have consequences for mental morbidity.^[18] Indian Council for Medical Research (ICMR) specifies that QoCL is the assessment of the quality of life within a community by understanding a member’s point of view related to the individual, family, and community social support systems.^[19]

Due to the COVID-19 pandemic, the migrant population has encountered various psychosocial stressors in the early phase of the lockdown. The entire country has noticed the vulnerability of the migrants, mainly daily wagers, construction, and other unorganized sector workers. They encountered several psychosocial stressors, such as living in camps, lack of privacy, maintaining physical distance, lack of safety, uncertainty about the duration of the lockdown, fear of losing their jobs, loss of income, social needs of their children and pregnant women, and the urgency to travel to their hometowns, occupational pneumoconiosis, tuberculosis, absence of family support and lack of caretakers during the emergency, social segregation, and inability to access the health and psychiatric services and other aspects have heightened the distress among migrant workers.^[20,21]

All the above factors associated with migration increase their distress and limit the social support in destination places, it leads to poor quality of life among migratory construction workers. Most research has broadly focused on the issues of migratory workers, but their distress and QoCL aspects have been paid little attention.

MATERIALS AND METHODS

The present study was carried out to assess the psychological distress and QoCL of migratory construction workers. The cross-sectional research design was adopted and a survey

method of sampling was followed. The Chandapura Panchayat (a group of revenue villages), Anekal Taluk of Bangalore urban district, was considered the universe of study.

In Chandapura panchayat, numerous construction projects were ongoing. One such construction place is a Surya City Layout. The persons who migrated and working as manual/semi-skilled laborers at construction work, and resided at construction sites or premises/camps, were considered the population of the study. These migrant camps are called Gulbarga camps, Raichur camps, and other names of Northern parts or states of India. Depending on their convenience, comfortability, availability of a job, or better wages, the migrants would stay in these camps/sites for some weeks to months.

Among these camps, one of the Gulbarga camp was selected randomly for the present study. The study constituted the total enumeration of all the individuals living in the Gulbarga camp. During the first visit of the study, it was found that the Gulbarga camp comprises 75 households/sheds, and approximately 300 migrant adults residing in these households. The adult migratory construction workers, who could speak Kannada and Telugu languages, were included in the study. Only one respondent from each household unit was selected for the study. Out of 300 migrant workers, nearly 70 were not included in the study for the reasons of not working in the construction sector, especially females (lactate mothers, working at garments, and housemaids), and senior citizens (taking care of their grandchildren). The remaining 110 persons had not shown interest in participating in the study. The other 12 persons reported their pre-existing neuropsychiatric disorders, such as headache, anxiety, depression, and obsessive and compulsive disorders. Another 33 were not included due to their unavailability during the field visit despite having pre-appointments and coordination with their family members and other concerned persons. Finally, 75 migrants were considered as the sample of the study. The data collection was carried out on Sundays.

A semi-structured interview schedule was prepared to determine the respondent’s sociodemographic details and other aspects of migration. A Self-reporting Questionnaire-20 (SRQ-20) developed by the World Health Organization was applied to assess psychological distress.^[22] The SRQ-20 items were scored through “yes” (score is 1) or “no” (score is 0) responses. A score of “1” indicates that the symptom was present in the previous month. SRQ’s cutoff point was 7/8 out of 20. A score below 7 was considered a non-clinical case, while an eight and above score indicated a clinical case and required psychosocial interventions.

The QoCL questionnaire was developed by the ICMR.^[19] The QoCL scale consisted of 11 factors, with a range of scores for each factor is 3–9. Each factor contained three questions and a total of 33 questions, and the total score range for all the factors is 33–99. The average score of a single factor is “6,” and for all factors, the

overall average score is “66,” kept as a cutoff for determining the QoCL. The higher the score, the greater the QoCL.

All these tools have been translated into Kannada and Telugu languages. A total of 75 respondents were interviewed for the study. The data were analyzed using SPSS-16 version software. The frequency distribution and descriptive statistics were used to analyze the respondents’ sociodemographic status, migration details, level of distress, and QoCL. A *t*-test was computed to determine the significance of gender differences between distress and QoCL domains. The Pearson correlation test was administered to find out the relationship between SRQ-20 (distress), QoCL, and other variables.

Ethical clearance was obtained from the Institutional Ethics Committee (Behavioral Science Division), NIMHANS, Bengaluru. Informed consent was obtained from each respondent for their participation.

RESULTS

Sociodemographic profile of the migrants

The mean age of the respondents was 32.03 ± 9.82 years and the range was 19–55 years. Most of the respondents 53 (70.7%) were men. About 59 (78.7%) were married, 16 (21.3%) were single, and one was a widower (1.3%).

Regarding their educational status, 37 (49.3%) respondents did not have formal education, 24 (32.0%) had studied up to fourth standard, and 14 (18.7%) had studied up to high school and above. Furthermore, it was found that 23 (30.7%) respondents’ monthly income was between ₹5000 and ₹7999, and another 42 (56.0%) respondent’s monthly income was ₹8000–10,999.

Migration details and reasons for migration

The duration of migration showed that 38 (50.7%) respondents migrated for less than a month and 28 (37.3%) migrated for 2–6 months. The remaining 9 (12.0%) respondents migrated for 7 months and above period. Nearly 15 (20.0%) respondents had migrated alone, 33 (44.0%) had migrated with their spouses and children, 4 (32.0%) had migrated along with their spouses, and another 3 (4.0%) had migrated with all their family members, including elders. The respondents have reported multiple reasons for migration, such as 51 (68.0%) had a drought in their area, 48 (64.0%) facing debts, 48 (64.0%) having poverty, 41 (54.7%) had unemployment, 40 (53.3%) had a loss of capital investment, 39 (52.0%) had low wages, and 20 (26.7%) reported that family issues caused for their migration.

Item-wise distribution of psychological distress (SRQ-20)

The item-wise distribution of factors related to SRQ-20 showed that 83% of respondents had felt unhappy and nervous, 75%

had sleep disturbances, 71% had trouble thinking, 69% had felt easily tired and often had headaches, 65% had lost interest in doing things, 64% had difficulty in making decisions, and 60% had poor appetites. It also noted that 59% had felt tired, 47% suffered from daily work, and 53% had an uncomfortable feeling in their stomachs. The respondents also reported that 44% had to shake hands, 40% had difficulty enjoying daily activities, 40% had felt like worthless persons, 39% had poor digestion, 39% had thought of ending their lives, 35% were easily frightened, and 29% had been crying more than usual.

Level of distress (SRQ-20)

The respondents’ distress level showed that 48 (64.0%) had scored more than 8, and 27 (36.0%) scored < 7 out of a total possible score of 20. The respondents with a distress score of 8 and above required psychosocial care and support.

[Table 1] shows the domain-wise mean scores of the QoCL. The minimum level of QoCL noticed in the domain of community efforts for sanitation was (3.26 ± 0.60); above the moderate level QoCL was seen in the domains of caste and religion (7.06 ± 1.29) and law and order problems were (7.04 ± 1.28). The overall QoCL was ($M = 59.08 \pm 8.31$) in the range of 44.00–80.00.

[Table 2] describes the significant differences between gender, distress, and domains of QoCL. It showed that female respondents ($M = 12.90 \pm 4.03$, $t = -3.03$, $P < 0.003$) had higher distress levels compared with male ($M = 9.50 \pm 4.56$, $t = -3.03$, $P < 0.003$) respondents. The QoCL showed that there was a significant difference between male and female workers in the domain of support of relatives ($t = 2.828$,

Table 1: Details of the mean and standard deviation of the domains of QoCL ($n=75$).

S. No.	Domains	Mean	SD	Range* (Min–Max)
1.	Community efforts for sanitation	3.26	0.60	3.00–6.00
2.	Social discrimination	4.60	1.10	3.00–7.00
3.	Support of relatives	4.86	1.69	3.00–9.00
4.	Relationships with colleagues	5.46	1.38	3.00–9.00
5.	Support of family	5.29	1.78	3.00–9.00
6.	Support of neighbors	5.38	1.49	3.00–8.00
7.	Relationships with friends	5.36	1.36	3.00–8.00
8.	Medical and other facilities	5.33	0.92	3.00–9.00
9.	Social contacts and community information	5.40	1.68	3.00–9.00
10.	Law and order problems	7.04	1.28	3.00–9.00
11.	Caste and Religion	7.06	1.29	3.00–9.00
Total		59.08	8.31	44.00–80.00

*In each domain, the minimum possible score is 3, and the maximum possible score is 9. QoCL: Quality of community life

$P = 0.003$); support of family ($t = 3.068, P = 0.003$); social contacts and community ($t = 2.80, P = 0.007$); and social discrimination ($t = 1.92, P = 0.059$). The overall QoCL indicated that males ($60.73 \pm 8.13, t = 2.79, P < 0.007$) had better QoCL than females ($55.09 \pm 7.48, t = 2.79, P < 0.007$) workers. The t-test showed no statistically significant difference ($P > 0.05$) in the other domains of QoCL.

Table 3 shows the Pearson correlation test results. The age of the respondents was positively correlated with distress ($r = 0.323, P < 0.01$). Age was negatively correlated with QoCL domains such as relatives ($r = -0.283, P < 0.05$), family ($r = -0.350, P < 0.01$), neighbors ($r = -0.361, P < 0.01$), and total QoCL ($r = -0.299, P < 0.01$).

The total SRQ-20 was negatively correlated with colleagues ($r = -0.463, P < 0.01$), relatives ($r = -0.681, P < 0.01$), family ($r = -0.723, P < 0.01$), neighbors ($r = -0.641, P < 0.01$), friends ($r = -0.453, P < 0.01$), social contacts ($r = -0.548, P < 0.01$), and total QoCL ($r = -0.698, P < 0.01$) of the respondents.

The domains of colleagues on the QoCL were positively correlated with other domains of QoCL, such as community efforts ($r = 0.238, P < 0.05$), relatives ($r = 0.549, P < 0.01$), family ($r = 0.468, P < 0.01$), neighbors ($r = 0.614, P < 0.01$), friends ($r = 0.324, P < 0.01$), medical and other facilities ($r = 0.331, P < 0.01$), social contacts ($r = 0.410, P < 0.01$), and total QoCL ($r = 0.668, P < 0.01$). The domain of relatives in QoCL was positively correlated with other QoCL domains such as family ($r = 0.648, P < 0.05$), neighbors ($r = 0.681, P < 0.01$), friends ($r = 0.320, P < 0.01$), social contacts ($r = 0.544, P < 0.01$), social discrimination ($r = 0.325, P < 0.01$), and total QoCL ($r = 0.795, P < 0.01$) of the respondents.

The family domain of QoCL was positively correlated with neighbors ($r = 0.635, P < 0.01$), friends ($r = 0.456, P < 0.01$),

medical and other facilities ($r = 0.236, P < 0.05$), social contacts ($r = 0.495, P < 0.01$), and total QoCL ($r = 0.774, P < 0.01$). The neighbor's domain was positively correlated with friends ($r = 0.494, P < 0.01$), medical and other facilities ($r = 0.249, P < 0.05$), social contacts ($r = 0.586, P < 0.01$), and total QoCL ($r = 0.807, P < 0.01$) of the respondents.

The friend's domain was positively correlated with social contacts ($r = 0.402, P < 0.01$) and total QoCL ($r = 0.590, P < 0.01$) of respondents. The medical and other facilities domain was positively correlated with caste and religion ($r = 0.241, P < 0.05$) and total QoCL ($r = 0.390, P < 0.01$). Similarly, the social contact domain was positively correlated with overall QoCL ($r = 0.711, P < 0.01$). The domain of law and order was positively correlated with social discrimination ($r = 0.306, P < 0.01$) and overall QoCL ($r = 0.241, P < 0.05$). The domain of social discrimination of QoCL was positively correlated with overall QoCL ($r = 0.0342, P < 0.01$). The other domains, such as days of work and community efforts, were not correlated with the domains of QoCL.

DISCUSSION

In low- and middle-income countries, internal and seasonal migration is a survival strategy for many individuals and families, especially agricultural laborers and poor income groups. In the present study, the mean age of the respondents was 32 ± 9.82 years. Other studies also reported more or less similar findings, such as 26.25 ± 8.49 years and 26 ± 8.2 years.^[12,23]

In this study, most of the respondents, that is, 53 (70.7%) were male, 59 (78.7%) were married, 37 (49.3%) did not have formal education, and 65 (86.7%) of the respondent's monthly income was between ₹5000 and ₹10,999. Similarly, other

Table 2: Gender differences in distress, QoCL domains, and independent sample *t*-test.

Variable	Gender	N	Mean	SD	t-value	df	P-value
Distress (SRQ-20)	Male	53	9.50	4.56	-3.03	73	<0.003
	Female	22	12.90	4.03			
	Total	75	10.50	4.65			
QoCL domains							
	Support of relatives	Male	53	5.20	1.72	2.828	73
Support of family	Female	22	4.04	1.32	3.068	73	0.003
	Male	53	5.67	1.70			
Social contacts and community	Female	22	4.36	1.64	2.80	73	0.007
	Male	53	5.73	1.71			
Social discrimination	Female	22	4.59	1.33	1.92	73	0.059
	Male	53	4.75	1.09			
QoCL total	Female	22	4.22	1.06	2.79	73	0.007
	Male	53	60.73	8.13			
	Female	22	55.09	7.48			

SRQ-20: Self-reporting questionnaire-20, QoCL: Quality of community life

Table 3: Pearson correlation test details between QoCL, SRQ-20, and other variables.

Variable	Age	Days of work	Total SRQ	Colleagues	Community	Relatives	Family	Neighbors	Friends	Medical and social	Social contact and order	Law and order	Caste and Religion	Social discrimination	Total QoCL	
Age	1.00															
Days of work	0.183	1.00														
Total SRQ	0.323**	0.076	1.00													
Colleagues	-0.190	0.074	-0.463**	1.00												
Community efforts	-0.040	0.117	0.009	0.238*	1.00											
Relatives	-0.283*	-0.107	-0.681**	0.549**	0.115	1.00										
Family	-0.350**	0.043	-0.727**	0.468**	0.128	0.648*	1.00									
Neighbors	-0.361**	0.014	-0.641**	0.614**	0.124	0.681**	0.635**	1.00								
Friends	-0.223	0.000	-0.453**	0.324**	0.063	0.320**	0.456**	0.494**	1.00							
Medical and other facilities	-0.144	0.003	-0.201	0.331**	0.057	0.193	0.236*	0.249*	0.108	1.00						
Social contacts	-0.118	0.135	-0.548**	0.410**	0.040	0.544**	0.495**	0.586**	0.402**	0.113	1.00					
Law and Order	0.050	-0.006	0.062	-0.011	0.056	0.120	0.001	-0.015	0.030	-0.034	0.024	1.00				
Caste and Religion	0.023	0.004	0.044	-0.077	-0.162	-0.100	0.067	0.084	0.139	0.241*	0.012	0.095	1.00			
Social discrimination	-0.011	0.111	-0.049	0.018	0.020	0.325**	0.102	0.021	-0.029	0.093	0.225	0.306**	0.094	1.00		
Total QoCL	-0.299**	0.023	-0.698**	0.668**	0.196	0.795**	0.774**	0.807**	0.590**	0.390**	0.711**	0.241*	0.220	0.342**	1.00	

**Correlation is significant at the 0.01 level (two-tailed). *Correlation is significant at the 0.05 level (two-tailed). SRQ-20: Self-reporting questionnaire-20, QoCL: Quality of community life

studies have reported that most of the migrant construction workers are male (95.2%), unskilled (79.4%), seasonal workers, belong to poor socioeconomic backgrounds, and are illiterates.^[2,12,24,25] However, the respondents' monthly income is more or less similar as mentioned in the minimum wages act. As per the minimum wages act, the semi and unskilled worker's monthly income is about ₹7000-00 in Zone-1 cities (Bengaluru).^[26]

The present study found that 50.7% had migrated for less than a month, and another 37.3% had migrated for 1–6 months. Studies reported that construction workers have maximum mobility because of the nature of their work.^[5,6,27] In the present study, the migrant workers worked daily or weekly basis and did not follow any contractual work period. Hence, this could be a reason for the less duration of the migration. In this study, 57 (76.0%) of the respondents migrated with a spouse, or spouse and children. Studies found that migration along with the family could facilitate better psychosocial support.^[13,25]

The distress is higher among the male (9.50 ± 4.56) than the female (12.90 ± 4.03) respondents. In this way, in terms of age group, gender, population category, and migration status. Studies have reported that distress is highest between 18 and 29 years age group population,^[25] ranging between 5% and 27% in the general population,^[28,29] and 13–39% among the immigrants.^[30] The prevalence of distress is higher in women than men.^[31-33] Other studies also noted that a considerable proportion of construction workers had the symptoms of common mental disorders and post-traumatic stress disorders due to life events.^[34,35]

However, the other sector workers (non-construction workers) also have higher stress levels in the country. The Marsh India (insurance company) study found that 59% of employees in India reported feeling stressed in everyday life, which is at higher levels than the global average in the post-pandemic (COVID-19) phase.^[36]

In this study, respondents reported higher distress levels. It might be possible that pre-migratory (crop loss, drought, debts, loss of capital investments, poverty, and unemployment), and post-migratory factors (adjustment at a destination place, temporary jobs, lacking basic amenities, and living at construction sites) might lead to higher levels of distress. Contrary to this, a study on migratory quarry workers reported that only 16.5% of respondents had higher distress.^[37] It might be possible that they were quarry workers by occupation; they have been working in quarry sites and might have adjusted to the lifestyle and nature of the work. A mixed-method study reported that construction workers had higher psychological and occupational hazards, which are also affecting their well-being and decreasing their construction work performance.^[38]

The majority of respondents have below moderate QoCL (59.08 ± 8.31) and the gender-wise difference shows that men (60.73 ± 8.13) have a better QoCL compared to women (55.09 ± 7.48). With this connection, another study reported poor quality of life (55.9 ± 3.7) among construction workers.^[24] Furthermore, studies have revealed that migration brings numerous stressors, including job uncertainty, poverty, social and geographic isolation, intense time and work pressures, poor housing conditions, separation from family, lack of recreation, poor health, shelter, and safety concerns.^[9,10]

Other studies found that adequate wages for construction workers were not competitive to satisfy the needs of the present economic situation. At the same time, gender discrimination is widespread and lack of support at the workplace in the construction industry.^[39-42] Studies also reported that construction workers turned to substance abuse as a diversion from dealing with work stress and substance abuse was associated with anxiety.^[3,43] Thus, our study also noted that all these factors might have contributed to the migrants having higher distress levels and poor QoCL.

Recommendation/suggestions

In this study, nearly 2/3 of workers have higher distress and their QoCL is moderate level; most of them belong to a younger age group, with the potential aspect to support their family and the development of the nation. It shows that psychosocial support is required for migratory construction workers. The study opines that public health and mental health professionals had to take up initiatives to address health needs in terms of the bio-psycho-social aspects of migrants.

The collaborative services of the government and other voluntary organizations would help to improve the QoCL factors, such as adequate shelter care, improving sanitation and hygiene, information about social services and other amenities, safety and protection, education for children, recreational programs, screening of health and mental health problems, helpline services, training in vocational skills, accessing food grains through the public distribution system under the one nation, one ration card system, and other similar aspects. Pre-migration training is required to build effective coping skills, which prepare for the process of migration. Initiation of peer group services could help them to have emotional and informational support.

Limitations

The tools of the study have not been validated into local vernacular. The sample size of the study is small, which limits the generalizability of the findings.

CONCLUSION

The present study showed that migratory construction workers had a higher level of distress, and their QoCL was below moderate. It was observed that pre-and post-migration factors such as poor living and working conditions, lower wages, job uncertainty, and lack of social security schemes might create psychosocial stress. The stress led to distress and resulted in poor QoCL. Intersectoral approaches have been required at the primary, secondary, and tertiary care levels to reduce distress and enhance the QoCL of the migratory construction workers.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- UNICEF. National Workshop on Internal Migration and Human Development in India Workshop Compendium. Vol. 2. Workshop Papers. New Delhi: UNICEF; 2011.
- National Sample Survey Organisation (NSSO). Migration in India, 2007-08: NSS 64th Round, July 2007-June 2008 (No. 533). Government of India: National Sample Survey Office, Ministry of Statistics and Programme Implementation; 2010.
- Census of India. Ministry of Home Affairs, Govt of India, New Delhi: Office of the Registrar General and Census Commissioner; 2011. Available from: <https://www.censusindia.gov.in> [Last accessed on 2021 Nov 12].
- Baruah B. Women and globalization: Challenges and opportunities facing construction workers in contemporary India. *Dev Pract* 2010;20:31-44.
- Deshingkar P, Akter S. Migration and Human Development in India (Human Development Research Paper (HDRP) Series). Vol. 13. New York: Oxford University Press; 2009. Available from: <https://ideas.repec.org/p/hdr/papers/hdrp-2009-13.html> [Last accessed on 2021 Nov 12].
- Rao GB. Household coping/survival strategies in drought-prone regions: A case study of Anantapur District, Andhra Pradesh, India. New Delhi: Society for Promotion of Wastelands Development; 2001.
- Carballo M, Nerukar A. Migration, refugees, and health risks. *Emerg Infect Dis* 2001;7:556-60.
- Smita, Prashant P. Locked Homes, Empty Schools: The Impact of Distress Seasonal Migration on the Rural Poor. New Delhi: Zubaan Books; 2007.
- Hansen E, Donohoe M. Health issues of migrant and seasonal farmworkers. *J Health Care Poor Underserved* 2003;14:153-64.
- Villarejo D, Baron SL. The occupational health status of hired farmworkers. *Occup Med* 1999;14:613-35.
- Alderete E, Vega WA, Kolody B, Aguilar-Gaxiola S. Lifetime prevalence of and risk factors for psychiatric disorders among Mexican migrant farmworkers in California. *Am J Public Health* 2000;90:608-14.
- Adsul BB, Laad PS, Howal PV, Chaturvedi RM. Health problems among migrant construction workers: A unique public-private partnership project. *Indian J Occup Environ Med* 2011;15:29-32.
- Deshingkar P, Start D. Seasonal Migration for Livelihoods in India: Coping, Accumulation and Exclusion. London, United Kingdom: Overseas Development Institute; 2009. Available from: <https://dspace.cigilibrary.org/jspui/handle/123456789/22979> [Last accessed on 2021 Nov 12].
- Karasek R, Theorell T. Healthy Work: Stress, Productivity and the Reconstruction of Working Life. New York: Basic Books; 1990.
- Wang C, Mohd-Rahim FA, Chan YY, Abdul-Rahman H. Fuzzy mapping on psychological disorders in construction management. *J Constr Eng Manag* 2017;143:04016094.
- Khavarpour F, Rissel C. Mental health status of Iranian migrants in Sydney. *Aust N Z J Psychiatry* 1997;31:828-34.
- Van Huy N, Dunne MP, Debattista J, Minh An DT. Stress and coping among migrant labourers in urban Vietnam: An adaptation cycle and health vulnerabilities. *Int J Migr Health Soc Care* 2010;6:15-30.
- Lindencrona F, Ekblad S, Hauff E. Mental health of recently resettled refugees from the Middle East in Sweden: The impact of pre-resettlement trauma, resettlement stress and capacity to handle stress. *Soc Psychiatry Psychiatr Epidemiol* 2008;43:121-31.
- Indian Council for Medical Research (ICMR). Measures of Quality of Community Life, (ICMR-WHO Project on Mental Health Research in India). New Delhi: Indian Council for Medical Research; 1998. Available from: https://Mental_Health.pdf (icmr.nic.in)
- Choudhari R. COVID-19 pandemic: Mental health challenges of internal migrant workers of India. *Asian J Psychiatry* 2020;54:102254.
- Chander R, Murugesan M, Ritish D, Damodharan D, Kumar CN. Addressing the mental health concerns of migrant workers during the COVID-19 pandemic: An experiential account. *Int Soc Psychiatry* 2021;67:826-9.
- World Health Organization (WHO). A User's Guide to the Self-Reporting Questionnaire. WHO/MNH/PSSF 94.8. Geneva: World Health Organization; 1994.
- Banerjee M, Kamath R, Tiwari RR, Nair NP. Dermatological and respiratory problems in migrant construction workers of Udupi, Karnataka. *Indian J Occup Environ Med* 2015;19:125-8.
- Zabeer S, Inbaraj LR, George CE, Norman G. Quality of life among migrant construction workers in Bangalore city: A cross-sectional study. *J Family Med Prim Care* 2019;8:437-42.
- Tiwary G, Gangopadhyay PK, Biswas S, Nayak K, Chakraborty D, Halder L. Psychosocial stress of the building construction workers. *Hum Biol Rev* 2013;2:207-22.
- Karnataka State Minimum Wages 2014-15. PDF Download-Cite HR. Available from: <https://www.citehr.com/488564->

- karnataka-state-minimum-wages-2014-15-pdf.html [Last accessed on 2020 Jul 28].
27. Kulkarni GK. Construction industry: More needs to be done. *Indian J Occup Environ Med* 2007;11:1-2.
 28. Benzeval M, Judge K. Income and health: The time dimension. *Soc Sci Med* 2001;52:1371-90.
 29. Chittleborough CR, Winefield H, Gill TK, Koster C, Taylor AW. Age differences in associations between psychological distress and chronic conditions. *Int J Public Health* 2011;56:71-80.
 30. Sundquist J, Bayard-Burfield L, Johansson LM, Johansson SE. Impact of ethnicity, violence, and acculturation on displaced migrants: Psychological distress and psychosomatic complaints among refugees in Sweden. *J Nerv Ment Dis* 2000;188:357-65.
 31. Jorm AF, Windsor TD, Dear KB, Anstey KJ, Christensen H, Rodgers B. Age group differences in psychological distress: The role of psychosocial risk factors that vary with age. *Psychol Med* 2005;35:1253-63.
 32. Sutherland V, Davidson MJ. Using a stress audit: The construction site manager experience in the UK. *Work Stress* 1993;7:273-86.
 33. Caron J, Liu A. Factors associated with psychological distress in the Canadian population: A comparison of low-income and non-low-income sub-groups. *Community Ment Health J* 2011;47:318-30.
 34. Hu BS, Liang YX, Hu XY, Long YF, Ge LN. Posttraumatic stress disorder in co-workers following exposure to a fatal construction accident in China. *Int J Occup Med Environ Health* 2000;6:203-7.
 35. Boschman JS, van der Molen HF, Sluiter JK, Frings-Dresen MH. Psychosocial work environment and mental health among construction workers. *Appl Ergon* 2013;44:748-55.
 36. Available from: <https://www.financialexpress.com/lifestyle/health/59-of-employees-in-india-report-feeling-stressed-in-everyday-life-a-higher-level-than-global-average-survey/2374074> [Last accessed on 2022 Aug 24].
 37. Raj EA, Sekar K, Johnson J. Psychosocial aspects of migratory quarry workers. *Indian J Soc Work* 2011;72:351-64.
 38. Fordjour GA, Chan AP, Amoah P, Fordjour AA. Exploring the effects of occupational psychological disorders on construction employees and the construction industry. *Occup Dis Environ Med* 2020;8:1-25.
 39. Love PE, Edwards DJ, Irani Z. Work stress, support, and mental health in construction. *J Constr Eng Manag* 2010;136:650-8.
 40. Prasad N, Rao VK, Nagesha HN. Study on building and other construction workers welfare schemes/amenities in Karnataka. *SASTECH J* 2011;10:59-66.
 41. Kamardeen I, Sunindijo RY. Personal characteristics moderate work stress in construction professionals. *J Constr Eng Manag* 2017;143:04017072.
 42. Bowen P, Govender R, Edwards P. Structural equation modeling of occupational stress in the construction industry. *J Constr Eng Manag* 2014;140:04014042.
 43. Langdon RR, Sawang S. Construction workers' well-being: What leads to depression, anxiety, and stress? *J Constr Eng Manag* 2018;144:04017100.

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