

RESEARCH PAPER

Study on the working environmental conditions of women workers in building construction industry

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Abstract: An effort was made to study the working environmental conditions of women workers in building construction industry. The study was conducted in Dharwad city. Purposive random sampling technique was used to select 120 respondents from 18 different sites in and around Dharwad city for the study. Structured interview schedule was used for collection of information. Results revealed that as concerned with work place 57.50 per cent of women reported that the eating where they required having lunch was unhygienic. Regarding type of site ground, half of the respondents opined that the ground was too muddy (54.20 %). Regarding the type of ladder used in work sites, 35 per cent of respondents reported that the ladder was without adequate support. Mean temperature of 28.24 °C with standard deviation of 3.06 and mean humidity of 39.33 per cent with standard deviation of 10.05 was observed at many work sites. Both temperature and humidity were within the recommended values for comfortable working situation. More than 90 per cent of respondents revealed that they had access to safe drinking water facility followed by sanitary facility (75.00 %). Thus, it can be concluded that, since women workers were lack of facilities in the work sites and faced difficulty to work in such environment. They were not imparted any skills, remained just helping hands to male co-workers, paid lowly and faced occupational hazards and gender issues. The working conditions at construction sites therefore needs to be improved to make them women friendly.

Key words: Gender, Occupational hazards, Unorganized sector, Worker

Introduction

Construction sector has been providing employment to 70 per cent of the total world population. Total number employed in construction sector was 10,27,900 in 2012. (Anon., 2012). Indian construction industry employs about 33 million people and creates assets worth over ₹ 5,00,000 million annually (Anon., 2011-12). In India, it is the largest employer of unorganized labour next to agriculture sector. The contribution of construction sector to the GDP in India at factor cost in 2012-13 was ₹ 30,554 million.

Construction offers employment opportunities to all categories of people right from highly skilled to totally unskilled labourer. In urban sector, increasing numbers of workers have taken up construction work as a means of immediate employment, which provides cash earnings at the end of the day / week. The rural masses also migrate towards urban areas in search of job and being involved in this second largest occupation. In metropolitan cities, the construction work is predominantly a male dominated economic activity due to the arduous nature of work to be performed by the workers. These construction labourers are one of the most vulnerable segments of the unorganized sector as there is no permanent job opportunity for them. The construction industry has an annual turnover of ₹ 2, 10,000 corers. (Poongodi and Revathi, 2011).

Women play prominent role at various level in our economic status. They are the backbone of our nation. In India, construction is the largest employer of unorganized labour next to agriculture sector. In India a large group of female unskilled labourers work in the rural areas as agriculture labourers and as

soon as the season ends, they shift to the construction industry by which they support their husband in income generation for meeting their household expenditure. Women are almost unskilled labourers and they face serious problems related to work, viz., wage discrimination, gender and sexual harassment, unhealthy job relationship, lower wages. Despite of this, construction industry over whelmingly attracts the workers. Their skills never upgraded as they are allowed to perform only certain types of work and usually they assist the male work force.

The study conducted by Bharara *et al.* (2012) clearly indicates the conditions of such women in unorganized work sector, where they faced multidimensional issues due to lack of basic facilities required for women workers like separate latrine, drinking water facilities, rest and recuperation. Since no study on this workforce has been conducted so far in the Dharwad city, the present study was undertaken with the following objectives 1) to study the demographic profile of women in building construction industry, 2) to analyze the working environmental conditions and facilities provided by employers for women workers in building construction industry, and 3) to suggest appropriate measures to overcome the problems.

Material and methods

The present study was conducted during the year 2016-17, in Dharwad city. For this investigation, exploratory research design was used. Purposive random sampling technique was used to select 120 respondents from 18 different sites in and

around Dharwad city for the study. Keeping in view the objectives and the variables of study, self structured interview schedule was prepared to collect information on working environmental conditions and facilities available in work sites. Pre-testing was done to check the reliability. After pre-testing certain modifications were made in self structured interview schedule. Data was collected through self structured interview schedule and it was coded, tabulated and interpreted using suitable statistical parameters like frequencies and percentages.

Results and discussion

Table 1 depicts the demographic profile of women workers in building construction industry. Regarding the age group of women, it was observed that majority of them belonged to middle age group of 34-42 years (39.17 %) followed by 34.17 per cent belonged to young age group of less than 34 years and 26.66 per cent belonged to age group of more than 42 years, wherein they compelled to do any economic activity for supporting the family. Similar observation was made by Bharara *et al.* (2012) where in 55 per cent of women were in the age group of 21-30 years, followed by 37.50 per cent in the age group of 31-40 years. Maximum per cent of the women (74.16 %) were illiterate followed by primary schooling (24.16 %). Only 0.84 per cent had completed their middle school and high school education. Maximum percentage of respondents belonged to SC / ST caste category (38.34 %),

Table 1. Demographic profile of women in building construction industry (N=120)

Particulars	Frequency	Percentage
Age (years)		
Less than 34	41	34.17
34-42	47	39.17
More than 42	32	26.66
Education level		
Illiterate	89	74.16
Primary	29	24.16
Middle school	1	0.84
High school	1	0.84
Caste		
Forward caste/General	31	25.83
Other backward caste	43	35.83
SC / ST	46	38.34
Marital status		
Unmarried	2	01.67
Married	95	79.17
Widow	23	19.16
No. of children		
No child	2	01.66
1-3 (small family)	78	65.00
4-6 (large family)	40	33.34
Type of family		
Nuclear	81	67.50
Joint	19	15.83
Extended	20	16.67

followed by other backward caste (35.83 %) and upper caste (25.83 %). Maximum percentage of women in construction industry were illiterate and belonged to SC / ST caste. Illiteracy is the main reason for engaging in such occupations where skill is not required. The results reported by Bhalerao and Kulkarani (2007) are also in the similar lines where in more than half of the respondents belonged to age group of 26-40 years (55.50 %). Most of the respondents were illiterate. Eighty per cent lived in nuclear family.

More than 75 per cent of women were married and 19.16 per cent were widows. Only 1.17 per cent were unmarried women in the selected sample (Table 1). Similar results were found by Kamatchi and Jeyanthi (2015) who reported that was 88 per cent of women were married and 12 per cent were widow.

Majority (65.00 %) of women had 1-3 children and lived in small family where they were less aware about the family planning and however knew the advantages of having small family, followed by 33.34 per cent having 4-6 children. Only 1.66 per cent of women did not possess any child during the study period.

Majority of women belonged to nuclear family (67.50 %) followed by 16.67 per cent of women belonging to extended family and 15.83 per cent had joint family system as depicted in Table 1. Majority of women belonged to nuclear family. The probable reason might be the poverty and aspiration to lead an independent life with personal assets. Need for proper accommodation to lead a moderate life compelled them to have nuclear families. This makes them to spend their earnings in a meaningful way. Studies conducted by Bharara *et al.* (2012) showed similar results where in more than 90 per cent of the respondents were married and 60 per cent of women were living in a nuclear family.

Table 2 shows the details of work site environment in building construction industry. As concerned with work place 57.50 per cent of women reported that the eating place were unhygienic followed by decomposing garbage (26.70 %). In view of continuous storage and circulation of building materials no separate places could be given to labourers to relax and have food. Only 11.70 per cent respondents reported the stinking toilets and litter filled work sites in construction sites (2.50 %).

In case of type of site ground, half of the respondents experienced that the ground was too muddy (54.20 %) due to unloading of sand, cement and stone in the sites, making environment dirty and unhealthy. Similar results were reported by Bharara *et al.* (2012). Next in the order included uneven ground (24.20 %), full of sharp residues of building materials (13.30 %), and too hot whether condition (5.80 %). Only 2.50 per cent of women opined that the ground was slippery in building construction areas.

Regarding the type of ladder used in work sites, 35 per cent of respondents reported that the ladder was without adequate support, followed by obstacles in path way (25.00 %), thus increasing risk of falling at work. Similar observation was made

Table 2. Details of work site environment in building construction

Particulars	Frequency	Percentage
Work place		
Unhygienic eating place	69	57.50
Stinking toilets	14	11.70
Litter filled work sites	3	2.50
Garbage of decomposing nature	32	26.70
Type of site ground		
Uneven ground	29	24.20
To muddy ground	65	54.20
Full of sharp residues of building materials	16	13.30
Slippery	3	2.50
Too hot	7	5.80
Type of ladder used in work sites		
Without safety belt	16	13.30
Without support	42	35.00
Too steep	26	21.70
Unstable	6	5.00
Obstacle pathway	30	25.00

Table 3. Composition of environmental parameters of the construction sites with recommendations

Environmental parameters	Observed mean value	Recommended value/ normal
Temperature (°C)	28.24±3.06	36-38
Humidity (%)	39.33±10.05	80

by Madhok (2005) who reported that women walked on slippery slops holding babies in one arm and carrying heavy head loads. There were no railings to hold onto, thus increasing un-safety at work. The next ladder types were too steep (21.70 %), ladder was without safety belt (13.30 %) and unstable (5.00 %).

The environmental parameters of the building construction sites included temperature and humidity. Table 3 indicates the mean temperature and humidity in construction sites. It was observed that mean temperature recorded was 28.24 °C with standard deviation of 3.06 °C and mean humidity of 39.33 per cent with standard deviation of 10.05 per cent. Both temperature and humidity were within the recommended values for comfortable work. Research was conducted during the month of December- February, where the climate was found to be not too hot during these months.

Table 4 shows the details of facilities available in work sites. More than 90 per cent of respondents revealed that they had access to safe drinking water facility followed by sanitary facility (75.00 %). Equal percentage (29.20 %) of women reported that they had separate sanitary facility for both men and women and had insurance policy. Reason may be access to sanitary facility was a common problem on new construction sites. Temporary facilities were usually unisex, often without privacy. These results are supported by the study conducted by Sultan *et al.* (2014) 55 per cent respondents had latrine facilities, 45 per cent had no such facility and 73 per cent had the supply of

Table 4. Details of facilities available in work sites in building construction

Facilities available in work sites	Yes	No
	F	%
Drinking water facility	111	92.50
Sanitary facility	90	75.00
Separate sanitary facility for both men and women	35	29.20
Protective clothing	4	3.30
Financial help from owner	2	1.70
Insurance policy	35	29.20

Table 5. Suggestions given by the selected respondents for betterment of work sites

Suggestions	Frequency	Percentage
Food consuming place should be clean	82	68.33
Working area should be clear, avoid falls	77	64.16
Ladder should be strong	43	35.83
Canteen facility	57	47.50
Give small breaks during working time	63	52.50
Provide separate sanitary facility for both men and women	95	79.16
Provide protective cloths by owners	86	71.66
Insurance coverage	109	90.83

drinking water facility followed by tube well (25 %) and other sources (2 %). Only 3.30 per cent of women had protective clothing followed by 1.70 per cent reported that they get financial help from owner.

Table 5 indicates the suggestions given by the selected respondents for betterment of work sites. Majority of the respondents gave suggestions like having insurance coverage (90.83 %) as possibilities of accidents and hazards are more at work place. In case of sanitary facility, 79.16 per cent of respondents suggested to provide separate sanitary facility for both men and women to avoid uncomfortable feeling, followed by providing protective cloths by owners (71.66 %) while performing various activities in sites activities to safeguard themselves from any unwanted incidences. The respondents also suggested food consuming place or dining place should be clean (68.33 %) followed by working areas should be clear, avoid falls (64.16 %), having breaks during working time (52.50 %), and canteen facility (47.50 %). Only 35.83 per cent of women suggested that ladder should be strong.

Conclusion

Based on the results it was concluded that since women workers lack facilities in the work sites and faced difficulty to work in this environment. They were not imparted any skills, remained just helping hands to male co-workers, paid lowly and faced many occupational hazards and health problems. The working conditions at construction sites therefore needs to be improved to make them women friendly.

References

- Anonymous, 2011-12, Indian construction industry at glance. www.indianmirror.com.
- Anonymous, 2012, Department of Statistics Malaysia construction. www.nawic.org/statistics.
- Bhalerao, V. S. and Kulkaani, D. N., 2007, Status of working rural women, *Asian J. Home Sci.*, 2(2): 56-59.
- Bharara, K., Sandhu, P., Sidhu, M. and Bakhshi, R., 2012, An analytical study into environmental hazards at construction sites for female laborers. *Asian J. Home Sci.*, 7(2): 180-185.
- Kamatchi, M. D. and Jeyanthi, 2015, Women construction workers in Sivakasi. *Kisan World*, 2: 57-59.
- Madhok, S., 2005, Report on the status of women workers in the construction industry. National Commission for Women, New Delhi.
- Sultan, N., Ferdousi, J. and Shahidullah, S., 2014, Health problems among women building construction workers, *J. Bangladesh Soc. Physiol.*, 9 (1): 31-36.
- Poongodi, R. and Revathi, K., 2011, Economics of women construction workers with special reference to Thuraiyur Taluk, Trichirapalli district in Tamilnadu, *Asian J. Mgmt. Res.*, 2(1): 59-60.