

# Postural Discomfort among Workers Working in Unorganized Sector (Potters)

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**Abstract:** *Postural discomfort is common in workers who work in unorganized sector. A cross sectional study was conducted to assess the postural discomfort among potters. The study focused on (a) health status of potters (b) identification of postural discomfort. The sample size of the study was 120 and sample was collected through random sampling through interview schedule along with standardized scale. It was observed that potters worked continuously in one posture during pottery. Consequently, they suffered from discomfort in different parts of their body, specifically in the shoulders, knees, thighs, lower back, mid back and upper back, which mainly prevented them from continuing their work. This study also revealed that potters had work in congested work areas with many difficulties. They faced many problems during pottery or making the pots. The hardness of mud and dust particles emitted during pottery activities could affect potters very much.*

**Keywords:** Potters, Body Mapping Scale, Postural discomfort, Posture, rest time, gender.

## 1. Introduction

Potters sector represent a part of the most popular workers of the unorganized sector in the various states of India and other Asian countries and manufacture pots. A large number of workers are engaged in those unorganized sectors in India as well as in different Asian countries. Postural discomfort is common in potters, in which they suffer from discomfort in the lower back, shoulders and their upper extremities. Potters report a high prevalence of work-related postural discomfort (Sahu.S, et al. 2013). The physical overload is associated with prevalent manual tasks, frequent monotonous movements, lifting and manual handling of heavy loads during the working shift, uncomfortable working postures, which lead to occupational disorders. The feeling of discomfort (pain) in different parts of the body among the workers may be due to their prolonged working hours and repetitiveness of the work, which may lead to postural discomfort. It has been reported by Windau. et. al. (1999) that nearly 2 millions workers are injured each year because of postural discomfort on the job. The workers (potters) have always to compromise with improper working postures, hazardous working environment and heavy workload. It has been documented that Indian economy is characterized by the existence of high level of informal or unorganized labor employment. The workers in the organized sector constitute about 7% of the country's total workforce and the rest (93%) comprises of subsistence farmers, agricultural workers, and fisher folk, dairy workers and those working in traditional manufacturing sectors like handlooms belong to the unorganized counterpart. For the perspective of the study, there is a growing interest in the subject of postural discomfort related to the workplace owing to increasing number of workers suffering from these discomfort.

## 2. Objective

1. To study health status of potters.
2. To identify postural discomfort.

## 3. Hypothesis

H<sub>01</sub>: There exists no significant difference between gender and postural discomfort.

## 4. Material & Methods

Data was collected from 120 potters who belonged to 20-60 years. Random sampling method was used to collect the data for the study. The research design for the study was cross sectional. In this study data collection tool used was interview schedule along with standardized Body Mapping Scale. For analysis of data frequency, percentage, mean, S.D and t-test was calculated.

## 5. Results

Postural discomforts among workers working in unorganized sector (potters) were analyzed by standardized Body Mapping Scale. Table no. 1 discuss the health status of respondents results showed that most of the respondents (30.5% male and 32.0% female) reported that they had any past medical complaints, (26.3% male and 32% female) reported that they had take pain medication or home remedies for this problem. (26.3% male and 28% female) reported that they had visited doctor for this problem. Table no. 2 discusses pain in body parts. Results revealed that most of the respondents (80% male and 60% female) mainly affected by mid back pain and (55.8% male and 56% female) mainly affected by neck pain respectively. Results also showed that male respondents were affected by mid back pain, shoulders pain and neck pain and female respondents were affected by shoulders pain, mid back pain, neck pain and upper back pain. These results are at par with the results given by Joshi.K.S, (2013). Most of the respondents (55.8% male and 56% female) reported that they had pain in neck, (64.2% male and 68% female) reported that they had pain in shoulders, (3.2% male) reported that they had pain in upper arms and thighs, (1.1%

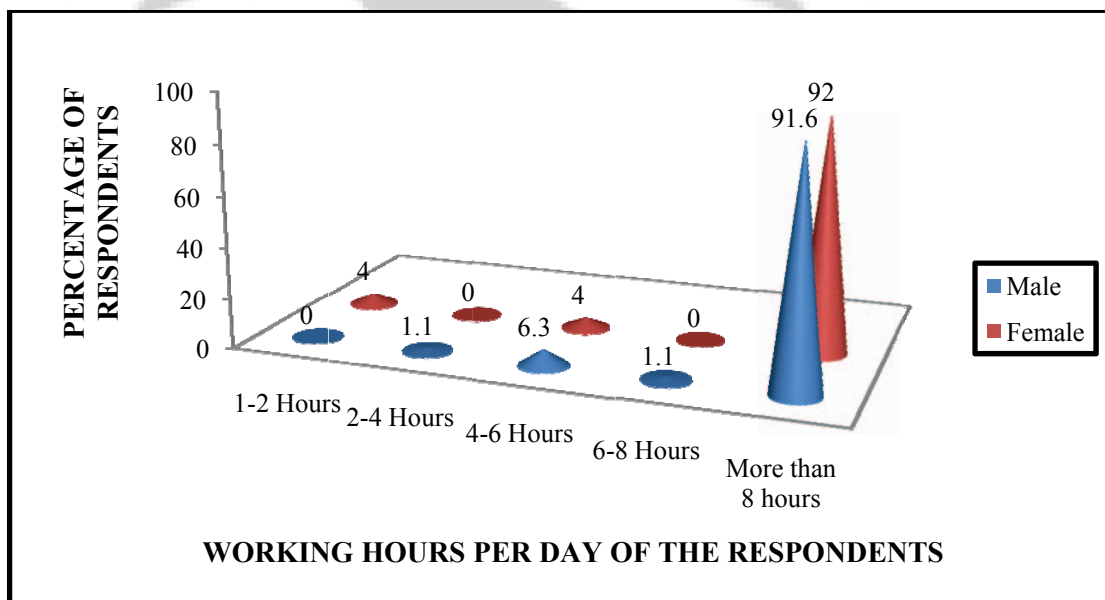
male) reported that they had pain in lower arms and buttocks, (7.4% male and 12% female) reported that they had pain in upper back. (80% male and 60% female) reported that they had pain in mid back, (5.3% male and 4% female) reported that they had pain in lower back. (73.7% male and 76% female) reported that they had pain in legs.

Figure no 1 showed that 4.0 percent female respondents were worked 1-2 hours per day, whereas 1.1 percent male respondents were worked 2-4 hours per day. Also 6.3 percent male respondents were worked 4-6 hours per day and 4.0 percent female respondents were worked 4-6 hours per day, whereas 1.1 percent male respondents were worked 6-8 hours per day, 91.6 percent male respondents were worked more than 8 hours per day and 92.0 percent female respondents were worked more than 8 hours per day. Figure no. 2 showed that 96.8 percent male respondents were take rest 2-3 times and 92.0 percent female respondents were take rest 2-3 times, whereas 1.1 percent male respondents were take rest more than seven times. None of the respondents take rest 4-5 times and 6-7 times.

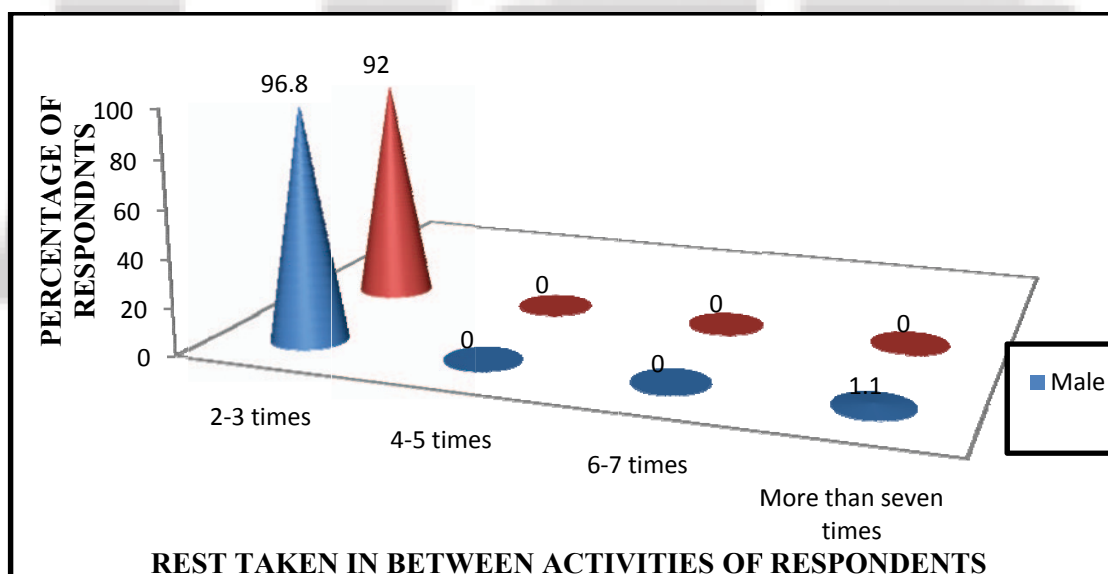
**Table 1:** Distribution of respondents on the basis of health status

S. No.	Gender	Male		Female		Total N= 120	
		YES	NO	YES	NO	YES	NO
1.	Do you have any past or existing known medical complaints?	29 (30.5)	66 (69.5)	8 (32.0)	17 (68.0)	37 (30.8)	83 (69.16)
2.	Do you take pain Medication /home remedies for this problem?	25 (26.3)	70 (73.7)	8 (32.0)	17 (68.0)	33 (27.5)	87 (72.5)
3.	Have you ever visited your doctor for this problem?	25 (26.3)	70 (73.7)	7 (28.0)	18 (72.0)	32 (26.6)	88 (73.3)

(Figures in parentheses indicates percentage)



**Figure 1:** Distribution of the respondents according to working hours per day



**Figure 2:** Distribution of the respondents according to rest taken in between activities of respondents

**Table 2:** Distribution of respondents on the basis of postural discomfort

S. No.	Body Parts	Male		Female		Total (N=120)	
		Pain	No Pain	Pain	No Pain	Pain	No Pain
1	Neck	53(55.8)	42(44.2)	14(56.0)	11(44.0)	67(55.83)	53(44.16)
2	Shoulders	61(64.2)	34(35.8)	17(68.0)	8(32.0)	78(65)	42(35)
3	Upper arms	3(3.2)	92(96.8)	0	25(100)	3(2.5)	117(97.5)
4	Lower arms	1(1.1)	94(98.9)	0	25(100)	1(0.83)	119(99.16)
5	Upper back	7(7.4)	88(92.6)	3(12.0)	22(88.0)	10(8.33)	110(91.6)
6	Mid back	76(80.0)	19(20.0)	15(60.0)	10(40.0)	91(75.83)	29(24.16)
7	Lower back	5(5.3)	90(94.7)	1(4.0)	24(96.0)	6(5)	114(95)
8	Buttocks	1(1.1)	94(98.9)	0	25(100)	1(0.83)	119(99.16)
9	Thighs	3(3.2)	92(96.8)	0	25(100)	3(2.5)	117(97.5)
10	Legs	70(73.7)	25(26.3)	19(76.0)	6(24.0)	89(74.16)	31(25.83)

(Figures in parentheses indicates percentage)

Testing of Hypothesis-

- $H_0$ : There exists no significant difference between gender and postural discomfort

**Table 3:** T- test value between gender and types of postural discomfort.

Variable	d.f.	Male		Female		T- Value	Level Of Significance
		Mean	S.D	Mean	S.D		
Gender	118	.86	.346	.76	.436	1.25	1.00

Table no 3; discuss the hypothesis that there exists no significant relationship between gender and types of postural discomfort. Results showed that there was no significant difference between gender and types of postural discomfort. This means that the null hypothesis was accepted which means that types of postural discomfort was not dependent or influenced by gender. Both male and female respondents faced same types of postural discomfort. Mean value showed that males (.86) were having more postural discomfort as compared to females (.76). Similar type of results was shown in the study conducted by **Gangopadhyay.S, et al. (2010)**.

## 6. Conclusion

The results indicated that the prevalence of postural discomfort among potters was considerably high. The study suggests that postural discomfort was high in males in comparison to females. The reasons may be they work for long time in one posture and they were not taking rest. So the findings of the study were showed that males ( $\mu=0.86$ ) were having more postural discomfort as compared to females ( $\mu=0.76$ ). The study conclude that most of the respondents mainly affected by mid back pain, shoulders pain and neck pain respectively and mainly male respondents were affected by mid back pain, shoulders pain and neck pain and female respondents were affected by shoulders pain, mid back pain, neck pain and upper back pain. The findings of the present study provide additional information and assessment of physical problems faced by potters. Ghosh.T, et al. (2010). Most of the respondents (30.5% male and 32.0% female) reported that they had any past medical complaints. Most of the respondent's 91.6 percent male respondents were worked more than 8 hours per day and 92.0 percent female respondents were worked more than 8 hours per day. Figure no 2 showed that most of the respondents 96.8 percent male respondents were take

rest 2-3 times and 92.0 percent female respondents were take rest 2-3 times.

## 7. Acknowledgement

The researcher is thankful to the potters who supported in giving relevant information which was helpful in conducting the research.

## 8. Future scope of this study

The findings of the research will help other researchers in designing the workstation which will reduce the postural discomfort of the workers.

## References

- [1] Sahu.S, Moitra.S, Maity.G.S. (2013). 'Evaluation of the musculoskeletal problems related to occupational health of sweet makers of West Bengal'. *US National Library of Medicine*. Vol – 6, PP- 150-157.
- [2] Gangopadhyay.S, Das.B, Das.T, Ghoshal.G, Ghosh.T. (2010). 'An Ergonomics Study on Posture – Related Discomfort and Occupational – Related Disorders among Stonecutters of West Bengal, India'. *International Journal of Occupational Safety and Ergonomics (JOSE)*. Vol – 16, PP – 69-79.
- [3] Ghosh.T, Das.B, Gangopadhyay.S. (2010). 'Work-related Musculoskeletal Disorder: An Occupational Disorder of the Goldsmiths in India'. *Indian Journal of Community Medicine*. Vol – 35. PP – 1-5.
- [4] Joshi.K.S, Dahal.P, Poudel.A, Sherpa.H. (2013). 'Work related injuries and musculoskeletal disorders among child workers in the brick kilns of Nepal'. *International Journal of Occupational Safety and Health*. Vol – 3, PP – 2-7.