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Effect of work environment on health & socioeconomic status of cobblers in repairing work

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Abstract

Shoe-repairers, popularly known as cobblers, are exposed to different risk factors in their working environment which makes them prone to various health hazards. The use of sharp tools and equipment, chemical based glues & adhesives and extreme environmental conditions may lead to risk of causing occupational injuries. The present investigation was carried out with an objective to find out the risk and problems faced by cobblers during their work. The respondents reported to have pain in various body regions along with tingling sensations and numbness. Sitting for nearly ten hours daily along roadside of a busy route often lead to headache and eye irritation among respondents.

Keywords: Cobblers, work environment, health hazards, risk & discomforts

Introduction

Various studies have reported that occupation requiring sitting for most of the working hours causes pain or discomfort in the body which in longer run leads to musculoskeletal disorder. The profession of cobblers involves repairing of footwear by sitting mainly on the roadside of a busy route due to which they are exposed to many risk factors which may lead to various health hazards including body pain, skin ailments and visual discomforts. An awkward posture including stooping of neck and waist leads to pain which, if adopted for longer period, may lead to damaging of limbs (Sahu *et al.*, 2013) [6]. Working with folded legs or cross legged posture leads to a poor position which is an identified risk factor for musculoskeletal disorder (Choobineh *et al.*, 2004) [2].

Objectives

The objectives of the present investigation were to study the demographic characteristics & work profile of the cobblers and to find out the risk and problems faced by them during their work.

Methodology

The sample size comprised of thirty cobblers chosen randomly from different locations of Nainital District in Uttarakhand. The data pertaining to the demographic features and work related information was collected using a personal interview schedule. The frequency of problems occurring was measured on a 3-point scale (frequently-3, often-2, rarely-1). Further the pain in different body regions was analyzed using body map.

Results & Discussion

The table 1 shows distribution of respondents according to demographic characteristics. It was observed that most (53.3%) of the cobblers were in 40-60 years of age group. Majority of them (83.3%) were married. Further 53.4% were found to be illiterate. The average income per day ranged Rs. 301-400 for most (40%) of the cobblers. It was analyzed that majority of the respondents (90%) belonged to Class V of socio-economic status, i.e. poor class, according to analysis done using Socio-economic Status Scale developed by Aggarwal *et al.* (2005) [1].

The table 2 shows the information pertaining to work profile of the respondents. The mean time spent daily was observed to be 8.45 ± 2.16 hours. The mean work experience was 20.96 ± 11.25 years. For maximum cobblers (86.7%), shoe-repairing work was the only source of income. Kumar (2018) [4] stated that cobbling was the only source of income for 78% of the respondents in a community in Tuljapur.

The different identified risk or problems faced by cobblers during their work were pain, stiffness and numbness in different body regions, tingling sensation in hand/fingers & feet.

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Swelling around neck and shoulder area caused due to continuous bending during work and carrying of tool box was also an identified problem. Continuous sitting during working hours without back rest lead to a tiring posture. The nature of job and work environment (including climatic conditions) caused irritation and inflammation of eyes raising visual discomforts and weakness. According to Kaur and Singh (2018) [3], an awkward posture adopted during work causes

postural changes which becomes the reason of pain and discomfort further leading to work related musculoskeletal problems. Pednekar *et al.* (2011) [5] stated that 82% of the goldsmiths faced problems due to sitting in cross legged posture with unsupported back. The table 3 shows distribution of respondents on the basis of frequency of work related problems as stated by respondents.

Table 1: Demographic distribution of Cobblers

Parameters	Frequency	Percentage
Age (in years)		
Below 40	12	40.0
40-60	16	53.3
Above 60	2	6.7
Gender		
Male	30	100.0
Marital status		
Married	25	83.3
Unmarried	5	16.7
Education		
Illiterate	16	53.4
Primary level	13	43.3
Secondary level	1	3.3
Average income per day (in Rupees)		
200-300	10	33.3
301-400	12	40.0
401-500	8	26.7
Socioeconomic status		
Class IV (Lower Middle)	3	10.0
Class V (Poor)	27	90.0

Table 2: Distribution of cobblers on basis of work related information

Parameters	Frequency	Percentage
Work experience (in years)		
1-15	11	36.7
16-30	13	43.3
31-45	6	20.0
Time spent daily on activity (in hours)		
4-6	7	23.3
7-9	13	43.3
10-12	10	33.3
Dependency on other occupation		
Yes	4	13.3
No	26	86.7

Table 3: Work related problems faced by cobblers during their work

Problems occurred	Frequently	Often	Rarely
Pain	20 (66.7)	10 (33.3)	-
Stiffness	3 (10.0)	21 (70.0)	6 (20.0)
Swelling	-	10 (33.3)	20 (66.7)
Tingling	19 (63.3)	11 (36.7)	-
Numbness	-	13 (43.3)	17 (56.7)
Dizziness/weakness/headache	7 (23.3)	21 (70.0)	2 (6.7)
Visual discomfort	10 (33.3)	10 (33.3)	10 (33.3)
Tiring posture	8 (26.7)	21 (70.0)	1 (3.3)

(Figures in parenthesis denote percentages)

A body map questionnaire was used to locate the body regions with pain or discomfort among respondents. It was analyzed that neck, shoulder, upper back, arm and lower back were the majorly reported painful areas as stated by all the respondents. The other reported body regions with pain or discomfort were lower leg (80%), fingers (76.7%), knee (73.3%), hip & thigh areas (66.7%), ankle (63.3%) and wrist

(60%). It was observed that there was a positive correlation between age and frequency of pain in knee ($r=0.523$), lower leg ($r=0.387$), thigh ($r=0.365$), wrist ($r=0.305$), fingers ($r=0.237$) and lower back ($r=0.219$). The frequency of pain in neck (-0.62), shoulder (-0.622) and upper back (-0.23) was found to be negatively correlated with age.

Conclusion

It was observed that majority of cobblers belonged to poor socio-economic status. The mean age of the respondents was found to be 40.9 ± 11.96 years. Majority of the respondents were illiterate, i.e. had not attained formal education. The mean time spent daily on the work was observed to be 8.45 ± 2.16 hours and the mean income was found to be Rs. 366.67 ± 66.08 . Cobbling work is a family craft which is passed on from generation to generation and it was the reason, majority of the respondents had adapted to it as the only source of income. Different body regions were identified using body mapping technique by the respondents where they experienced pain or discomfort. The pain in different regions was found to be correlated with the age of respondents.

References

1. Aggarwal OP, Bhasin SK, Sharma AK, Chhabra P, Agarwal K, Rajoura OP. New Instrument (Scale for measuring the Socioeconomic Status of a Family: Preliminary Study. *Indian Journal of Community Medicine*. 2005; 30(4):111-114.
2. Choobineh A, Lahmi A, Shahnava H, Jazani AK, Hosseini M. Musculoskeletal Symptoms as Related to Ergonomic Factors in Iranian Hand-Woven Carpet Industry and General Guidelines for Workstation Design. *International Journal of Occupational Safety and Ergonomics*. 2004; 10(2):157-168.
3. Kaur J, Singh AD. Ergonomic Evaluation of Female Working in Small Scale Handicraft Industries of Patiala District of Punjab. *American Research Journal of Sports Medicine*. 2018; 1(1):1-8.
4. Kumar A. A Study to Understand Livelihood Pattern of Cobblers of Tuljapur Block, Maharashtra. Thesis, M.Sc. TISS, Maharashtra, 2018.
5. Pednekar A, Arora A, Yardi S. Prevalence of Various Health Problems in Traditional Goldsmith. *Indian Journal of Physiotherapy and Occupational Therapy – An International Journal*. 2011; 5(1):128-132.
6. Sahu S, Moitra S, Maity S, Pandit AK, Roy B. A Comparative Ergonomics Postural Assessment of Potters and Sculptors in the Unorganized Sector in West Bengal, India. *International Journal of Occupational Safety and Ergonomics (JOSE)*. 2013; 19(3):455-462.