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Original Research Article

Risk assessment of priesthood as an occupation in the religious city of India

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ABSTRACT

Background: Ujjain being a holy city with 327 registered temples, large numbers of people are indulged in priesthood as an occupation. Priests are more vulnerable for health-related problems as priesthood demands some characteristic working environment, i.e. closed, damped, smoky, noisy and crowded workplace. Aim of the study was to assess workplace environment of the priest along with occurrence of occupational injuries.
Method: A cross-sectional study done on registered Hindu priests. Total sample size was 440. Simple random sampling was done. Self-designed, pre-tested and semi-structured questionnaire including parameters like problem felt, job satisfaction, stress felt, working hours and occupational injuries were used for data collection by personal interview.
Results: 256 (58.2%) study participants encounter occupational injury. Problems felt at their workplace were-overcrowding 259 (58.9%), improper drainage system 48 (10.9%), unsafe drinking water 44 (10%), air pollution 25 (5.7%), inappropriate waste disposal 24 (5.5%), poor ventilation 24 (5.5%), no sick-room 8 (1.8%) and no toilets 8 (1.8%). Out of 440 study participants 132 (30.0%) were not satisfied with their job due to-less financial support 96 (22%), long duration of working hours 20 (4%) and stressful relations with co-workers 16(4%). 136 (30.9%) of study participants were stressed at their workplace. Statistically significant ($p<0.05$) association was seen between occurrence of occupational injuries and age, job satisfaction, working hours (overtime) and stress felt.
Conclusion: Most of the problems felt by study participants along with occupational injuries and job dissatisfaction occurred due to poor financial support, long working hours and stressful relations with co-workers.

Keywords: Priest, Occupational injuries, Ujjain

INTRODUCTION

Ujjain is an ancient city of Malwa region in central India, on the eastern bank of the Kshipra river with a geographic area of 93 km^2 and population of 515215.[1] It is regarded as 72nd largest city in India and 5th in Madhya Pradehs. [1] In ancient times the city was historically known as Ujjayini, Avanti, Avantika or Avantikapuri and is regarded as one of the seven sacred cities (Sapta Puri) among Hindu's. It is one of the four sites that host Kumbh-Mela (also called the "Simhastha-Mela"), a mass pilgrimage that attracts millions of Hindu pilgrims from around the country. Its home to the Mahakaleshwar Jyotirlinga, one of the 12 Jyotirlinga shrines to the god Shiva in India. It also hosts for Harsiddhi Shaktipeeth one of the 51 holy Shaktipeeth around South East Asia. It has been an ancient seat of learning where Lord Krishna, along with Balarama and Sudama, received their education from Maharishi Sandipani at Sandipani Ashram. Kalbhairava temple and Mangalnath temple are some other most renowned temples of Ujjain.[2]

Ujjain being a holy city with around 327 registered temples distributed throughout the city, large numbers of people are indulged in the priesthood as an occupation.[3] The word priest, it is derived from a Greek word "presbyter", the term used for elders.[4] He is an authorized person to perform sacred rituals of religion.[5] In our study, the word priest was used for Hindu priest.

Priesthood demands some characteristic unique working environment, i.e. mostly closed damped, smoky, noisy and crowded workplace, and some personal eligibility requires like being barefooted, making voice modulation during aarti, wearing traditional clothes and sitting mostly in sukhasna posture for long working hours. They have got very few hours of sleep with no holiday even on Sunday or at festivals.

So, Priests have to be viewed and focused upon with utmost importance as they belong to the Nobel profession, especially in a country like India. Like everything priesthood has two sides, we all are aware of its good part but ignore its other side. As these priests are more vulnerable for health-related problems due to their occupation and workplace environments and very few studies have been done in this area and not much of the data was available on this aspect, so there was a need to do this study.

Aim of the study was to assess workplace environment of the priest along with occurrence of occupational injuries.

METHODS

The study is a descriptive, cross-sectional in design, and it was started after the approval from the ethical and research guidance committee of the institute. Baseline information about the number of temples and officially registered priests were collected from the authentic source, and permission was taken from the higher authorities to conduct our study. Each participant was described regarding the objectives of the study, its benefits, risks, and confidentiality in the local language (Hindi). They were informed that their participation was completely voluntary and that they were free to refuse any question or to withdraw at any time from the study. Written consent was taken.

The study was carried out in the registered temples of Ujjain city, for 2 months from 1st December 2019 to 31st January 2020. Registered Hindu Priests working in temples of Ujjain city were included in our study.

There were total of 327 registered temples along with 1032 registered priests working in it. Sample size was calculated by the formulae $N= (1.96)^2 PQ/L^2$. Where N is sample size, P is prevalence rate, Q is 100% prevalence rate and L is absolute precision (5%). As exact prevalence of occupational injuries in priests was not known, it was assumed as 50% with 5% required absolute precision and 95% confidence limit. So calculated sample size was 384 and with adding a non-response rate of 10%, sample size came as 422. So finally, a round figure of 440 was taken. Simple random sampling technique was applied and 440 computer generated random numbers were selected from the list of registered priests in Ujjain city.

A bilingual community physician did a translation of the questionnaire from English to the Hindi language. Another independent bilingual community physician translated the Hindi questionnaire back to the English language. The differences were noted, and the differences were sorted out by involving both the bilingual translators. Thus, a final Hindi version was used to carry out the study.

A pilot study was conducted among the priests other than the study subjects to validate the above-translated questionnaire. Questionnaires were checked for completeness and correctness before entering into the worksheet.

The above self-designed**,** pre-tested and semi-structured questionnaire contains demographic profile, the problems, job satisfaction, stress levels, working hours, occupational injuries at the workplace, was used for data collection. Personal interview was taken and its information was noted in our proformas.

Statistical analysis

Data validity was checked at the regular interval before data was entered into the worksheet of Microsoft excels. Chi-square test was used as a test of significance with the help of statistical software SPSS v.16. The $p<0.05$ was considered as significant.

RESULTS

In our study, most of the problems felt by study participants at their workplace were overcrowding 259 (58.9%), followed by improper drainage system 48(10.9%), unsafe drinking water 44 (10%), air pollution 25 (5.7%), inappropriate waste disposal 24 (5.5%), poor ventilation 24 (5.5%), no sick-room 8 (1.8%) and no toilets 8 (1.8%).

308 (70%) study participants were satisfied with their job whereas 132 (30.0%) were not due to less financial support 96 (22%), long duration of working hours 20 (4%) and stressful relations with co-workers 16 (4%). Mean working hours per week for study participants was 35.84 hrs±13.1 and 164 (37.3%) study participants were working overtime. 136 (30.9%) of study participants were stressed at their workplace.

Table 1: Distribution of study participants according to the problem felt, job satisfaction, stress felt, working hours and occupational injuries at the workplace (n=440).

Variables	Number of priests	Percentage (%)
Problems felt at the workplace		
Overcrowding	259	58.9
Improper drainage system	48	10.9
No safe drinking water	44	10.0
Air pollution (dust/smoke)	25	5.7
Inappropriate waste disposal	24	5.5
Inadequate ventilation	24	5.5
No Sickroom	8	1.8
No Toilets	8	1.8
Job satisfaction		
Satisfied with the job	308	70
Not satisfied due to less financial support	96	21.8
Not satisfied due to the long duration of working hours	20	4.6
Not satisfied due to stressful relations with co-workers	16	3.6
Stress at the workplace		
Felt stressed	136	30.9
No stress felt	304	69.1
Working hours (hrs)		
Worked overtime	64	14.5
Not worked overtime	376	85.5
Occupational injuries at the workplace		
No occupational injury	184	41.8
Burn injuries	71	16.2
Crush injuries	66	15.1
Cuts and bruises	56	12.7
Fall injuries	34	7.7
Allergic dermatitis	17	3.8
Other injuries	12	2.7

Table 2: Relationship between occupational injuries with age, working hours, stress felt and job satisfaction of study participants at workplace.

Variables	Occupational injuries		Total	Chi square (x^2)	P value
	Occurred (%)	Not occurred (%)			
Age (in years)					
Young adults (<30)	71 (32.9)	145 (67.1)	216	111.8	<0.001
Middle aged (30-60)	137 (82.1)	30 (17.9)	167		
Geriatric age group (> 60)	48 (84.2)	9 (15.8)	57		
Working hours (hrs)					
Worked overtime	136 (82.9)	28 (17.1)	164	64.2	<0.001
Not worked overtime	120 (43.5)	156 (56.5)	276		
Stress at the workplace					
Felt Stress	124 (91.2)	12 (8.8)	136	88.1	<0.001
Never felt	132 (43.4)	172 (56.6)	304		
Job satisfaction					
Not satisfied	108 (81.8)	24 (18.2)	132	78.9	<0.001
Satisfied	148 (48.1)	160 (51.9)	308		

184 (41.8%) study participants never suffered any occupational injury during their priesthood carrier, but 256 (58.2%) did encounter occupational injuries. Maximum injuries were burned injury 71 (16.2%) due to close contact with fire, followed by crush injury due to heavy objects 66 (15.1%), cuts and bruises due to sharp instruments 56 (12.7%), fall injury on a slippery floor 34 (7.7%), allergic dermatitis 17 (3.8%) and other injuries like fungal infection are 12 (2.7%). Statistically significant ($p<0.05$) association was seen between the

occurrence of occupational injuries and age, job satisfaction, working hours (overtime) and stress felt for study participants. Occupational injuries were higher in geriatric age group 84.2% as compared to middle-aged 82.1% and young adults 32.9%. Priests working overtime (82.9%) encountered more injuries than those who were not working overtime (43.5%). Study participants who felt stressed at the workplace (91.2%) suffered more injuries than those who never felt stressed at the workplace (43.4%). Priests who were not satisfied with their job (81.8%) experienced more injuries as compared to those who were completely satisfied with their work (48.1%).

DISCUSSION

A community based cross-sectional study was conducted on Hindu priests in the temples of Ujjain city. The study consists of 440 study participants to know the prevalence of occupational injuries in Hindu priests, along with risk assessment of their workplace environment.

In this study 256 (58.2%) study participants suffered from occupational injuries at the workplace which was higher as compared to other studies like 38.7% in Adane et al (2013) and 28.1% in Laishram et al (2013).[7,8] Injuries including burn injury 71 (16.2%), crush injury 66 (15.1%), cuts and bruises 56 (12.7%), fall injury 34 (7.7%), allergic dermatitis 17 (3.8%) and other miscellaneous injuries like fungal infection 12 (2.7%). This was much higher as compared to studies like Dembe et al (2005) as the workplace of a priest has more risk factors like damp, oily and slippery surface, close contacts with flames during aarti, long working hours and handling of sharp and heavy objects in temple premises along with the unavailability of safety measures at the temple premises.[9]

308 (70.0%) study participants of our study were satisfied as a priest which was much higher than other studies with different occupations like 63.4% in Chandramouleeswaran et al and 51.4% Kaur et al.[10,11] This difference in the findings may be due to the fact that priesthood is one of the most respected and Nobel profession in our society with no age limit and full job security.

136 (30.9%) of study participants of our study felt stressed at the workplace which was similar to other studies like 32.8% in Saini et al and 25% in Mohan et al.[12,13] It may be due to long working hours along with no vacations and increase workload during festive seasons.

In this study, a statistically significant correlation was seen between occupational injuries and stress felt at the workplace which was similar to other studies like Ujwalau et al and Abbas et al.[14,15] Another strong correlation was seen between occupational injuries and job dissatisfaction at the workplace which was similar to studies like Abbas et al and Barling et al.[15,16]

In this study occupational injuries were higher in those who worked overtime 136 (82.9%) and this association between occupational injuries and working overtime was found statistically significant which was similar to other studies like Park et al and Dembe et al.[9,17]

Occupational injuries in our study were higher in geriatric age group 84.2% as compared to middle-aged 82.1% and young adults 32.9% and this statistically significant association was similar to other studies like Mitchell (1988).[18]

CONCLUSION

Priests are supposed to be a religious teacher who plays an essential role in our society. So, a study on their health and workplace environment was an important area to be explored. Our study was focused mainly on their lifestyle and workplace environment. Most of the study participants felt problems with at their workplace environment. Majority of them encountered occupational injuries mainly burn (15.1%) and crush injuries (16.2%). Job dissatisfaction was seen due to poor financial support, long duration of working hours and stressful relations with co-workers. Priests working overtime encountered more injuries than those who were not working overtime.

Recommendations

Considering the results and discussions of our study, we recommend that the working hours of priests should be decreased by divided into shifts. The temple committee should appropriately manage overcrowding (especially during the festive seasons), separate doors should be there for entry and exit, proper ventilation, illumination, and safe drinking water should be available. The proper closed drainage system should be made for wastewater and appropriate waste disposal should be done in an eco-friendly manner.

Occupational safety measures and precautions should be followed to prevent any occupational injuries. A separate sickroom with trained medical staff should be available 24x7 within the temple premises to provide medical assistance during any accidents or emergencies. Recreational activities of own liking should be encouraged to decrease the stress level. A healthy working environment should be maintained for a better relationship between the co-workers along with a periodic salary increment to improve their job satisfaction.

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