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A Descriptive Study To Assess The Knowledge Regarding Occupational Hazards And Utilization Of Safety Measures Among Construction Labourers At Selected Construction Sites Of Udaipur (Raj.)

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ABSTRACT

The construction industry has a poor safety record. It has a high accident rate. Building construction is a high–risk industry. The accident rate is very high when compared to other industries. Population engaged is construction activity comprises1.5% of total world population. Most construction workers are not well educated. Their friends and relatives recruit them to work on sites. Sub contractors employed worker's physical ability and skill to carryout works; they have not provided safety training to the workers in the construction sites. This means that workers lack safety awareness and conscious on the job–related safety and health issues. The frequent change of site environment and poor equipment supplied making them difficulty for compliance of safety standards. **"A descriptive study to assess the knowledge regarding occupational hazards and utilization of safety measures among construction labourers at selected construction sites of Udaipur.(Raj.)"Objectives:** To determine the level of knowledge of construction labourers on occupational hazards.To identify the utilization of safety measures by the construction labourers. To find the relationship between knowledge score on occupational hazards and utilization of safety measures. To find out the association between knowledge score of construction labourers on occupational hazards with selected socio demographic variables. The research approach adopted for this Study was descriptive survey research approach. A descriptive co-relational research design was used for this study. Formal written permission was obtained from the authorities to conduct the study and informal consent was obtained from the labourers prior to the data collection process. The investigator selected 100 samples by convenient sampling technique. A structured interview schedule and rating scale was used for data collection. The data was analyzed using descriptive and inferential statistics. The finding of the study revealed that Majority of the workers had average knowledge on various areas of occupational hazards such as Physical hazards (59.54%), Chemical hazards (59.64 %), Biological hazards (57.85%), Mechanical hazards (54.44%), Psychosocial hazards (66.18%).Majority of workers (51%) were using moderately adequate `safety measures, low utilization of safety measures by 44% workers, and high utilization of safety measures by 5% of workers. There was significant relationship between knowledge score on occupational hazards and utilization of safety measures [r=0.205p=0.040]. There was a significant association between the knowledge score and religion [x_2 =4.83 at 1df P<0.05 level of significance]. Hence it is inferred that there is a significant association between religion and knowledge score of respondents. However, the x_2 value of other variables like age, gender, education, monthly income, total work experience, and nature of work, occupational hazards, source of information were found to be non significant at 0.05 level of significance.

Key Words: Knowledge, occupational hazards, utilization of safety measures, construction labourers

Materials and methods: A descriptive survey approach was used for this study. The study was carried out in 3 construction sites of Udaipur. The sample comprised of 100 construction labourers. Sample was selected by convenient sampling technique. The data collection was done from 1/03/2024 to 20/03/2024. Formal written permission was obtained from the authorities to conduct the study and informal consent was obtained from the labourers prior to the data collection process. A structured interview schedule and rating scale were used for data collection. The data was analyzed using descriptive and inferential statistics.

Results: *Reveals that t*he Majority of the workers had average knowledge on various areas of occupational hazards such as Physical hazards (59.54%), Chemical hazards (59.64 %), Biological hazards (57.85%), Mechanical hazards (54.44%), Psychosocial hazards (66.18%). Majority of workers (51%) were using moderately adequate `safety measures, low utilization of safety measures by 44% workers, and high utilization of safety measures by 5% of workers. There was significant relationship between knowledge score on occupational hazards and utilization of safety measures [r=0.205p=0.040].
There was a significant association between the knowledge score and religion [x_2 =4.83 at 1df P<0.05 level of significance]. Hence it is inferred that there is a significant association between religion and knowledge score of respondents. However, the x_2 value of other variables like age, gender, education, monthly income, total work experience, and nature of work, occupational hazards, source of information were found to be non significant at 0.05 level of significance.

Conclusion: The findings of this study suggest the need for educating the workers about occupational hazards and utilization of safety measures. They must be motivated to adapt safety measures to promote and protect their health from occupational hazards. Corporations of construction industries also to be motivated to educate the labourers by intimating the results of this present study.

Key Words*:* Knowledge, occupational hazards, utilization of safety measures, construction labourers.

INTRODUCTION

Work plays a central role in people's lives since most workers spend at least 8 hours a day in the work place – whether it is on a construction site, in an office or factory. Occupational health is concerned with health in its relation to work and the working environment.

Occupational health implies not only health protection but also health promotion, emergency care, wide range of preventive, curative services, rehabilitative services, a concept which includes everything that can apply to promote the health and working capacity of worker. The nurses dealing with occupational health can play a major role in promotion, protection, prevention and control of diseases and disabilities. Workers constitute a large and important sector of the world's population.

The global labor force is about 2600 million with 75% of these working people in developing countries. The total labour force in India is estimated to be 317 Million in which the organized sector employees only 26.8 Million (8.5%) while the unorganized sector employs, as many as 290.2 Million (91.5%).

Indian industry remains labour intensive and often employs relatively inexpensive and hazardous technology due to financial constraints and is especially true for unorganized small scale sectors. The construction industry, is a labour intensive, generates demand for skilled and semiskilled labour force.

The employment in construction sector is expected to touch 60 million by the year 2025, this work force shall comprise 55% of the unskilled, 27% skilled labour and rest the technical and support staff. Though India has a human resource, it requires training in various skills for absorption in the construction industry.

Construction workers suffer far more serious injuries and fatalities than the general workforce population. They die from work-related trauma at a rate three times the national average for workers in all industrial sectors; they suffer disproportionately from non-fatal injuries, from lung diseases, musculoskeletal disorders, hearing loss and dermatologic conditions. For the construction industry, the national cost from lost production, medical care, workers compensation and related claims is very high.
Workers compensation insurance premiums alone cost $ 7 billion annually.

The work force in construction sector is most vulnerable because employment is permanently temporary, employer and employee relationship is very fragile and most of the time short –lived, the work has inherently life and limb due to lack of safety ,health and welfare facilities ,coupled with uncertain working hours.The construction industry is faced with unique safety and health problems that require special attention. Construction workers must perform work in an environment containing a variety of hazardous energy sources.

Community health nursing branch invites the nurses to explore all possible community set- ups to give complete care to the general public. Growing trend in real estate has opened the doors to have lots of construction sites and erection of high and huge buildings. The daily local newspapers are the real evidence for the numbers and frequency of injuries taking place at construction sites. Hence the investigator felt the need to select this study and explore the knowledge and utilisation of safety measures adopted and promote the health of construction labourers.

In conclusion the findings of this study suggest the need for educating the workers about occupational hazards and utilization of safety measures. They must be motivated to adapt safety measures to promote and protect their health from occupational hazards. Corporations of construction industries also to be motivated to educate the labourers by intimating the results of this present study.

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MATERIALS AND METHODS

The research employs a descriptive survey approach, utilizing a descriptive co-relational research design. Conducted over four weeks in the selected area of Udaipur (Raj.), the study targets construction labourers. The target population encompasses selected areas of Udaipur (Raj.) while the accessible population specifically includes construction labourers working in these areas. A sample size of 100 construction labourers from selected area of Udaipur (Raj.) was selected using a convenient sampling technique. This approach allows for a focused investigation into the knowledge and utilization of safety measures of construction labourers regarding occupational hazards and its implications, providing Practice of appropriate strategy, work discipline and knowledge regarding job is essential in order to retain the health of the workers. Health education is considered as an important and best weapon and is a powerful tool a community health nurse would possess to give comprehensive, preventive, and promotive care to the workers at their work place. and promoting sustainable practices in the region.

RESULTS

Based on demographic data findings, Majority of the respondents (38%) were in the age group of 31-43 years. In the variable Gender Majority of the respondents (72%) were male. Majority of the respondents (82%) belonged to Hindu religion. In the variable Educational qualification Majority of the respondents (64%) had no formal education. Majority respondents (61%) were had monthly income of Rs. 9001 to 10000. In the variable Total work experience Majority of the respondents (40%) had less than 1 years of experience. In the variable Nature of work Majority of the respondents (70%) were helpers, engaged in mixing, loading, and unloading work. In the variable Occupational hazards Maximum respondents (48%) had backache. In the variable Source of information Majority of respondents (75%) obtained information from supervisors. Majority of the workers had average knowledge on various areas of occupational hazards such as Physical hazards (59.54%), Chemical hazards (59.64 %), Biological hazards (57.85%), Mechanical hazards (54.44%), Psychosocial hazards (66.18%).Majority (51%) respondents were using moderately adequate safety measures, low utilization of safety measures by 44% workers, and high utilization of safety measures by 5% of workers with mean= 27.09,standard deviation= 6.10. There was significant relationship between knowledge score on occupational hazards and utilization of safety measures [r = 0.205, P=0.040]. There was a significant association between the knowledge score and religion [χ^2=4.8300 at 1 df p<0.05

level of significance].Hence it is inferred that there is a significant association between religion and the knowledge score of respondents. However the chi-square value of other variables such as age (in years), gender, education, monthly income (in rupees), total work experience, nature of work, occupational hazards and source of information were found to be non significant at 0.05 level of significance. There by suggests that there
was no association between these variables with the knowledge score of respondents. These findings underscore the importance of demographic factors in understanding knowledge levels and utilization of safety measures regarding certain occupational hazards among construction labourers.

CONCLUSION

Demographic data reveals significant insights into construction labourers characteristics and knowledge levels. The majority are aged 31-43, with no formal education and modest incomes, had below 1 year working experience, 70 % respondents were helpers, engaged in mixing, loading, and unloading work with Hindu backgrounds. Majority of the workers had average knowledge on various areas of occupational hazards and 51 % respondents were using moderately adequate safety measures, There was significant relationship between knowledge score on occupational hazards and utilization of safety measures [r = 0.205, P=0.040]. These findings of the study could be made use by all nursing personnel, medical, allied science as well as employers of construction industry. The health team members could arrange health assessment camps in the construction sites to assess the risk of occupational hazards periodically. The nursing students could organize health education programme to the workers about prevention of occupational hazards during their industrial visit. The knowledge gained from this study may be utilized while conducting occupational health programs. Development of manual on safety at work place will enhance to reduce accidents at work place. The community leaders, health officials and health workers should be oriented and sensitized to occupational hazards. Mass media to be used to impart knowledge on occupational hazards to the working population.

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