



## Health Hazards and Risks in Construction Workers of Kashmir Valley

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### ABSTRACT

**Introduction:** Boom in the construction sector worldwide has led to increase in demand of raw materials. The nature of work and working environment involved in construction exposes the workers to many occupational hazards and risks.

**Aim:** To study the health risks and occupational hazards involved in construction workers.

**Materials and Methods:** A cross sectional study was conducted to identify various health risks and occupational hazards. A total of 500 workers were selected. Socio -Demographic Profile, Type and nature of work done and other data were collected using predesigned and pretested preform. A detailed clinical history was taken and clinical examination was conducted.

**Results:** The musculoskeletal pain and discomfort was prevalent in 80.0% of workers. All the workers examined had skin problems. Inadequate personal protective devices and lack of social/employment schemes was there. Only 30% of the workers used any personnel protective measures.

**Conclusion:** There was high prevalence of various health related issues in construction workers.

**Keywords:** Occupational; Prevalence; Workers; Hazards

### Introduction

An increased demand for urbanization and generous schemes for housing have led to an acceleration of constructions all over India [1].

The construction industry is one of the world's major industries. It is an essential contributor to the process of development. Being an unorganized sector the workforce is at risk of developing safety and health related hazards at work [2]. Construction workers in both are at a

greater risk of developing certain health disorders and sickness than workers in many other industries. They are exposed to multiple physical, chemical and biological agents, which make them vulnerable to various health problems that include-injuries, respiratory problems, dermatitis, musculo-skeletal disorders and gastro-intestinal diseases. The work is hard physical labor, often under difficult conditions like adverse weather conditions and the nature of work, hours of work, low pay, poor living conditions with lack of

basic amenities and separation from family, lack of job security and lack of access to occupational health services make the situation worse. Due to ergonomic issues they are also vulnerable to degenerative disorders. Apart from this, in most of construction projects the workers employed are unorganized in nature and often not guided by the legislations made for the health and welfare of the workers and hence are not eligible for free or subsidized care [3]. In the era of globalization construction is a fast growing industry and very little research has been done on the occupational health, hazards and psychosocial problems of these workers especially in Kashmir. In this context to understand the health problems of construction workers and advocate public health policy measures, this study was conducted [4,5]

The present study was conducted to identify the various health risks and occupational hazards among manual sand extraction workers. It will help in framing preventive strategies and ultimately improving health of the workers.

## Methods

It was a series of cross-sectional survey conducted during a health camps at various construction sites of in Srinagar during the month of July 2019. The sites was selected randomly .All the workers present at the site were examined .The structured questionnaire designed and pretested. It had following points:

1. Socio-Demographic Profile, which included: age, gender, ethnicity ,years of experience, duration of working hours and tasks involved
2. Clinical diagnosis via General examination, history taking and clinical local examination with special attention directed to skin, eyes and musculoskeletal system.

In addition workers were asked regarding availability of personnel protective kits and social/employment security schemes.

## Data Entry and Statistical Analysis

Data was collected, coded and analyzed using SPSS software (Version 20) on Windows 7, and a simple descriptive analysis in the form of means and standard deviations was calculated for numerical data..

## Results

Out of total 580 workers , 500 workers gave informed consent to participate in the study and were subjected to history taking and clinical examination.

## Demographic Profile:

It was observed that only male workers are involved . The workers were majority seasonal migrants from Northern states of India.(Table 1 & 2)

**Table (1):** Genderwise Distribution

Gender	Frequency	Percentage
Male	500	500.0%
Female	0	0.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

**Table (2):** Ethnicity of workers

Ethnicity	Frequency	Percentage
Kashmiri	200	40.0%
Migrant	300	60.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

**Table (3):** Age Wise Distribution

Majority of the workers(58%) belonged to the age group of 26-35 years.

Age	Frequency	Percentage
16-25	60	12.0%
26-35	290	58.0%
36-45	70	14.0%
>45	80	16.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

**Table (4):** Work Experience of workers

The majority of workers were working for more than five years

Work experience in years	Frequency	Percentage
< 1 years	30	6.0%
1-5 years	190	38.0%
>5 years	280	56.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

**Table( 5):** Duration of working hours

Fifty six percent of workers worked for between 10-12 hours daily.

Working hours	Frequency	Percentage
8-10 hours	160	32.0%
10-12 hours	280	56.0%
>12 hours	60	12.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

**Table (6):** Medical Conditions

All the workers examined had skin diseases. 80% of the patients had musculoskeletal problems .

Medical conditions	Frequency	Percentage
Musculoskeletal pain and discomfort	400	80.0%
Ophthalmic Symptoms (redness/itching)	360	72.0%
Ear Discharge/Pain	320	64.0%
Skin problems (dermatitis, Callosities)	500	100.0%
Trench Foot	130	26.0%
Others (including bowel and bladder discomfort)	40	8.0%

**Table (7): Worker welfare provisions:**

No worker benefited from any social security scheme and only 30% of the workers had personal protective measures.

Variable	Frequency	Percentage
Employment/ Social security schemes	0	0.0%
Availability of personal protective measures	150	28.0%
<b>Total</b>	<b>500</b>	<b>100.0%</b>

## Discussion

Rapid urbanization and industrialization have imposed a huge load of construction works worldwide, which creates different social, cultural and health impact. The construction workers are exposed to multiple risks at working and living places, they are exposed to physical, chemical, biological, ergonomic hazards and environmental and psycho social risks.

In the current study only 30 .0% workers had opportunity to use any form protective measure. The prolonged exposure to construction materials for years without almost no protective measures may be cause of this high rate of contact dermatitis. The construction workers are a group of less skilled workers who start the occupation without previous training; this situation facilitates the emergence of occupational dermatitis. More over in this study almost all workers are belong to low socio-economics class, they have limited excess to healthcare, lack of sufficient health education. All these factors produce a cumulative affect to their health which can be prevented by providing improved work place, protective means, health education, adequate health services and improving professional skills .<sup>6</sup>

## Conclusion

Workplace exposure to hazards and resultant injuries have a complex multifaceted relation which calls for a multi pronged strategy to address the problem. Significant lack of health and safety measures were also identified.

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