

Sickness Absenteeism and Associated Factors among Foundry Workers in Belagavi, Karnataka: A Cross Sectional Study

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Abstract

Introduction: Absenteeism is an important factor determining the productivity of a given industry, and it depends upon worker's health, and also on other factors including personal and socioeconomic conditions of workers. Recorded sickness absences accurately reflect the health of working populations, when health is understood in terms of physical and social functioning.

Materials and Method: A cross sectional study was conducted among individuals working in Foundry in Belagavi district. The study was conducted from January 2018 to June 2018 with a universal sample size of 250. Data was collected from the patients regarding the socio-demographic details, employment status, details regarding their leaves. Further the absence details were cross checked with the records of the attendance in the foundry.

Results: The prevalence of sickness absenteeism among foundry workers was 61.6%, the mean days lost per worker per year was 21.09 days. Common causes for sickness absenteeism included social factors followed by medical factors. Among medical factors, diseases related to musculoskeletal system were more common. 90% of sickness absenteeism was seen among blue collar workers, which shows the amount of stress they bear.

Conclusion: Foundry workers are more prone for sickness absenteeism and injuries due to various factors related to the work pattern. To overcome that various recreational activities, medical checkups, cross trainings can be conducted.

Keywords: Sickness Absenteeism, Foundry Workers, Occupational Health.

Introduction

Sickness absenteeism is the major occupational health problem in developing countries where the majority of working population are engaged in hazardous sectors,

such as foundry; causing loss of work-hours, reduced productivity and workplace injuries. Absenteeism is a complex phenomenon whose predictors vary according to the frequency – related to workers' tasks, aspects of leadership and work shift, to the company's organization and to lack of measures to control absences – and the duration of the periods of absences^{1,2,3,4} (influenced by age, working conditions, benefits and access to medical care).¹ A few days of absence are mainly associated with organizational culture, which allows absences i.e., more related to labour structure and process than to health problems. Long-term absenteeism is considered a reflex of health conditions and family problems.¹ Sick leaves might be better explained by the influence of complex interrelation mechanisms between individual-related

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factors and factors related to the physical and social environment.⁵

Sickness absenteeism is dependent on various individual factors like age, sex, education status, marital status, duration of employment, distance of workplace from home, socioeconomic conditions, health conditions, habits and occupational factors like type of work, shifts, physical environment, workplace injuries, workplace relations, psychosocial environment etc.

The study of illnesses causing absence of workers from work in industries is a practical method to obtain health status of industrial workers and to identify occupational health hazards.⁶ Absenteeism is an important factor determining the productivity of a given industry, and it depends upon worker’s health, and also on other factors including personal and socioeconomic conditions of workers.⁷ Recorded sickness absences accurately reflect the health of working populations, when health is understood in terms of physical and social functioning.⁸

Study of health conditions of workers is important to identify health problems and studying the health of workers in relation with their social and family related factors provides understanding of the burden of health problem, in relation to social context, which can help to bring necessary changes in labour welfare policies and to create healthy working conditions of workers. Since sickness absenteeism has not been stressed upon among foundry workers in India, the present paper was aimed to analyse the prevalence and risk factors of sickness absenteeism among foundry workers in Belagavi.

Materials and Method

A cross sectional study was conducted among individuals working in foundry in Belagavi district, after obtaining a written permission from the management of the foundry. The study was conducted from January 2018 to June 2018 with a universal sample size of 250. All the workers working in the day shifts were included in the study. Written informed consent was obtained from the participants. Data was collected from the participants regarding the socio-demographic details, employment status, details regarding their leaves on one on one interview. Further the absence details were cross checked with the records in the foundry. Ethical clearance was obtained from ethics committee of Jawaharlal Nehru Medical College (JNMC), Belagavi. The data was analysed using the software SPSS version 24.0.

Results

A total of 250 foundry workers participated in the study. Out of these, 34.4% were between the age group of 26-35 years, with mean age being 36.8 ± 10.1 years. 84.4% participants were males, 71.2% were literates and 49.2% belonged to socio economic status Class 3. A complete demographic profile of participants is given in Table 1.

An overview of participants’ work pattern and work related variables is given in Table 2. 90.8% participants have blue collar jobs, 80.7% are temporary workers and almost half of participants have work experience of 5 years.

Table 1: Sociodemographic Variables

Age Group	Number (%)	Education	Number (%)	Type of Family	Number (%)
<25	32 (12.8)	Illiterate	47 (18.8)	Nuclear	185 (74)
26 – 35	86 (34.4)	Primary	42 (16.8)	Joint	60 (24)
36 – 45	77 (30.8)	Secondary	85 (34)	Broken	05 (02)
46 – 55	49 (19.6)	PUC	36 (14.4)	Socio Economic Status	Number (%)
>55	06 (2.4)	Degree	40 (16)	Class 2	30 (12)
				Class 3	123 (49.2)
				Class 4	93 (37.2)
				Class 5	04 (1.6)
Religion	Number (%)	Marital Status	Number (%)	Sex	Number (%)
Hindu	247 (98.8)	Married	218 (87.2)	Male	212 (84.8)
Muslim	03 (1.2)	Unmarried	32 (12.8)	Female	38 (15.2)

Table 2: Work Related Variables

Type of Work	Number (%)	Work Experience	Number (%)
White collar	23 (9.2)	<5 years	142 (56.8)
Blue collar	227 (90.8)	≥5 years	108 (43.2)
Employment Type	Number (%)	Hrs of Work in a Day	Number (%)
Temporary	202 (80.7)	08 hrs	182 (72.8)
Permanent	48 (19.3)	12 hrs	68 (27.2)

The prevalence of sickness absenteeism among the workers was 61.6%. Among the participants, 61.6% of workers missed atleast a working day due to the reasons of sickness or injury in the past 12 months. The missed working days was further confirmed with the records.(Table 3).

Table 3: Prevalence of Sickness Absenteeism

Sickness Absenteeism	Number	Percentage (%)
Yes	154	61.6
No	96	38.4
Total	250	100

Among the reasons for sickness absenteeism, most common reason was due to any social commitment (61.03%), followed by medical (46.10%), non occupational (37.01%) and economic (31.81%). (Table 4).

Table 4: Reasons for Sickness Absenteeism

Reasons	Number(*)	Percentage
Economic	49	31.81
Social	94	61.03
Medical	71	46.10
Non occupational	57	37.01
*- Multiple answers		

Among blue collar workers health problems related to musculoskeletal system (36) and gastrointestinal system (11) were found to be high whereas among white collar workers musculoskeletal system (5) was the only health problem seen. The comparison of health problems is shown in Table 5.

Table 5: Health Problems among Blue and White Collar Workers

	Gastrointestinal	Respiratory	Musculoskeletal	Others	Total
White collar	00	00	05	00	05
Blue collar	11	04	36	15	66
Total	11	04	41	15	71

Overall 21.09 days were lost per worker per year due to sickness absence (see Table 6). A blue collar worker lost 21.9 days compared to 13.2 days by a white collar worker ($p = 0.02$).

Table 6: Number of Workdays Lost Per Worker Per Year

Variables	Mean Work Days Lost Per Worker/12 Months
Type of work	
White collar	13.2
Blue collar	21.9
p value - 0.024	

Discussion

Our study estimated 61.6% of sickness absenteeism among workers, with a loss of 21.09 days per worker per year due to sickness absenteeism, which was higher in men as compared to women. When compared with previous studies on sickness absenteeism in India, our study had higher values.^{9,10} The higher prevalence could be due to the work pattern of the study participants who were involved, as the iron and steel industry is believed to be a more strenuous place of work, resulting in higher sickness absenteeism, than other industries.^{11,12}

The reasons for sickness absenteeism were most common due to social reasons. This can be explained by the fact that majority of the workers never got leave for their social commitments, so they had get it under sickness absenteeism.

Blue collar workers experienced more health problems than white collar workers, among which problems related to musculoskeletal system (57.7%) and gastrointestinal system (15.5%) were found to be high. Similar finding were seen in a study conducted by Manjunatha R et al in 2011.¹³

The proportion of hospitalization among blue collar workers was also found to be high (11.2%) and blue collar workers had higher sickness absenteeism than white collar workers; they lost more number of working days (21.9 days) due to sickness absenteeism when compared to white collar workers (13.2 days). As workers in Blue collar work are exposed to harmful physical and chemical work environments,¹⁴ it increases the risk of having health problems, mainly involving musculoskeletal system and respiratory system,¹⁵ resulting in higher sickness absences.¹⁴

Conclusion

Sickness absenteeism is high among foundry workers when compared with other workers due to the stress and work pattern they have. Blue collar workers loose significant number of days due to sickness absence, and they face more problems related to musculoskeletal system and gastrointestinal system in comparison to other workers. It was not possible to visit each unit so current picture was not assessed completely. Personal biases of the respondents might have affected the responses. Only small sample was considered which doesn't reflect the exact picture. Further studies with larger sample size need to be conducted for the same.

Recommendations: We can offer employees medical, dental checkups and rehabilitation of chronic absentees as healthy employees are happy employees. A set schedule and recreational facilities can be provided, so that employees get a chance to rest. Cross training should be done to avoid burnout. Employer should have positive mindset and should have healthy relationship with employees.

Conflict of Interest: Nil

Source of Funding: Nil

Ethical Clearance: No intervention was done in the study and only the data was collected and analysed retrospectively.

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