Enhancing Effectiveness of Occupational Health and Safety of Garments and Textile Industry Workers in Chittagong, Bangladesh

Edris Alam, Rukya Zaman Juthi, Carlos Samuel, and Yamuna Kaluarachchi

Abstract Ready-made garments (RMG) and textile sectors, the main foreign currency earning sectors employing over 3.8 million poor workers in Bangladesh, have recently drawn international attention due to concerns related to the occupational health and safety (OHS) of workers. In Bangladesh, yearly 11,700 workers experience fatal injuries and approximately 24,500 die from work related diseases across all sectors. This paper aims to investigate the effectiveness of the current occupational health and safety standard/regulations of garments and textile industry workers in Chittagong, Bangladesh. Twenty garments and textile industries were purposely selected having granted permission from their owners to consult workers. The sample size of the research was 200 undertaking 10 respondents randomly selected for interviews from each garment industry. In addition to the experimental group, a sample of 100 participants comprised of teachers and workers from the education sector were interviewed from a control group for this study. Secondary data was used to examine the OHS policies, practices, and action plans in industries. A variety of statistical techniques (weightage analysis, frequency distribution etc.) were applied to analyze the data. The most pronounced health problem as determined from data collection include: the most pronounced health problems included by severity: knees (86%), shoulders (79%), neck (73%), ankles (60%), low back (56%), wrists (54%), right elbow (52%), and hips (33%). The causes of diseases indicated by respondents include heavy workload with prolonging work in a congested and hot humid environment, and not having meals at the appropriate time. Knowledge about workplace policies, OHS awareness and participation in OHS drills has been assessed by the Likert scale method. Apart from experiencing physical health problem, the workers

suffer from mental stress, job and social insecurity. Finally, the research offers recommendations to improve OHS in the RMG and textile industry workers including having a worker-friendly environment, improved OHS care facilities, post-accident rehabilitation, and compensation for work injury.

Keywords Health and safety · Musculoskeletal disorder · Injuries and diseases · Risk perception and preparedness

1 Introduction

The proliferation of industrialization and commercial activities without undertaking appropriate safety measures has generated great concern for the Occupational Health and Safety (OHS) of workers in many emerging economies of the developing world. Bangladesh has approximately 5000 garment factories which employ over 4 million workers, where 85% of employees are women (Barua et al. 2021). For continuing development in Bangladesh, the readymade garments (RMG) and textile industry plays a significant role in the overall economic development. In 1993-1984, RMG's contribution to total exports was 3.89% that rose to 83% in 1919–2020 (BGMEA 2021). The OHS aims to preserve the welfare of the labour force by identifying, assessing, and preventing hazards within the work environment.

The export-oriented RMG sector in Bangladesh began in the late 1970s and emerged as a vital foreign currency earning sector in a decade. Unlike in developed nations, the responsibility for OHS in the workplace is that of the employer. Although the Government of Bangladesh (GoB) has existing health care services and safety standards, OHS services are provided as a benefit by employers, and are generally separate from other community benefits. Prior to 2013, workers were unaware of OHS due to lesser levels of education as well as the owners of industries did not provide importance to promote OHS in RMG sector and Textile industry (Barua and Ansary 2017). After the Rana Plaza incidence in 2013, the workplace safety and health issue received widespread media coverage locally and internationally. There was much pressure from overseas buyers to improve workplace safety. Thus, the government of Bangladesh (GoB) has emphasized on the issue of OHS of workers and employees (Alam 2020).

OHS is defined as 'the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment' (Alli 2008, p. vi). Broadly, OHS includes the promotion and maintenance of the highest degree of physical; psycho-social well-being of workers in all occupations; the prevention of health risk by promoting a safe environment; the provision of health services for workers; and the provision of benefits and salaries during sick period. Recently, the RMG industries receive huge international attention due to the loss of thousand factory workers' lives by factory building collapse, fire hazards and lack of safe work environment. This research

aims to analyse various types of OHS threats in garment and textile industries in Bangladesh.

Despite progress made in post Rana Plaza collapsed period, readymade garments (RMG) industries are confronting danger by deficient well-being issues, inadequate working conditions, and denial of workers' rights (Mahmood et al. 2021). The challenges in the RMG industry include the excess workers in a confined space, faulty machinary, ergonomic challenge, dust problems, inadequate lighting, and ventilation, and lack of knowledge of personal protective equipment (Hoque and Shahinuzzaman 2021). Existing research on health, safety and hazards in the RMG industries in Bangladesh can be divided into the following 3 categories: (1) Structural assessment of RMG factory buildings; (2) Fire hazards in Tazreen Fashion and collapse of Rana Plaza; (3) Fire risk assessment. Following the Rana Plaza tragedy several research studies (Chowdhury and Tanim 2016; Wadud et al., 2014) were dedicated to investigating causes of fire hazards. These works identified root causes of fire hazards and associated deaths in RMG industries in Bangladesh. Ansary and Barua (2015) and Barua and Ansary (2017) discussed the structural integrity of the RMG buildings and the progress of monitoring of the building safety in Bangladesh.

The issue of wellbeing and security issues of female workforce in Bangladesh is currently critical with respect to worldwide work environment standards outlined in the International Labor Organization (ILO) and the UN's Universal Declaration of Human Rights. There is a gap in knowledge in understanding the present condition of occupational injuries and diseases (Neck-shoulder, arm, and respiratory diseases), OHS knowledge, health risk perception and preparedness, practices, procedures, and policies in RMG industry workers and employees' OHS and environment. This research adds value to the existing knowledge on occupational health and safety and health information at selected RMG and textile industry in Chittagong, Bangladesh.

2 Materials and Methods

This section describes information about the study area, procedure of data collection on OHS in garments and textile industrial sector in Chittagong, Bangladesh.

2.1 Study Area

Chittagong is the third largest agglomeration of garments and textile industries in Bangladesh. More than 90% of the country's international trade is handled through the Chittagong Port. The district is considered a gateway for Bangladeshi export. Of the over 4500 registered factories, more than 500 garments and textile industries are located in Chittagong. To better understand the status of OHS in the RMG work environment 40 factories were initially visited throughout Chittagong from May to July 2017. Of these, 20 industries allowed for the interview of workers questions

limited to the scope of this. Steps were taken to preserve the anonymity of interview participants. The breakdown of 20 RMG and textile industries by location included 10 in located in Bayezid (Ward no 2 & 3), six in Khulshi (Ward no 8) and four situated in Pahartoli thanas (Ward no 10) (Fig. 1).

2.2 Data Collection Procedure

Multiple data sources face-to face interview, visits and observation of work environment, and documentary evidence were used in order to achieve the objectives of this research. A sample of 200 respondents–10 each from each of the 20 factories–was interviewed face-to-face by the second author of this research through using structured questionnaire. In addition to the experimental group, a sample of 100 participants comprised of teachers and workers from the education sector were interviewed from a control group for this study. The presence of Control groups in experimental designs allows researchers to confirm the findings on experimental group compared to similar study on the control groups comprising participants who are not exposed to dependent variables (Allen 2017). The same questionnaire was used for respondents from the experimental and control groups. Before conducting interviews pre-testing of questionnaire was conducted among 10 participants consisting five from each group.

The interview questionnaire was comprised of five sections: (1) socio-demographical and professional information; (2) knowledge and practices related to health and musculoskeletal; (3) Illness and injuries; (4) social benefits/right of workers; (5) OHS. A total of five questions about socio-demographic and professional information; six questions explored knowledge and practices related to health troubles surrounding the musculoskeletal system; four questions examined the range of illness and injuries suffered by respondents; five questions explored worker rights and social benefits in the garment and textile industries; six questions examined participant knowledge of occupational health and safety. A brief introduction to the objectives of the research was given to each respondent before the interview. In accordance with their rights as participants in this study, each respondent was given assurance that all data would be kept confidential; be used exclusively for research purposes; and informed that study would not affect their interest in any adverse way, but produce benefits to garment workers in the course of time. Thus, informed consent from each participant was confirmed before the interview.

After commencing the interview questions were asked systematically in a very simple manner with necessary explanation and the information supplied by the respondents was documented directly in a field notebook. After each interview the field note book was reviewed to verify that responses to questions were accurate. Any items overlooked or found contradictory were corrected in the follow up interview. Data was processed and transferred to master sheets to face-lifting tabulation to meet the objectives of the research. All data was summarized and scrutinized

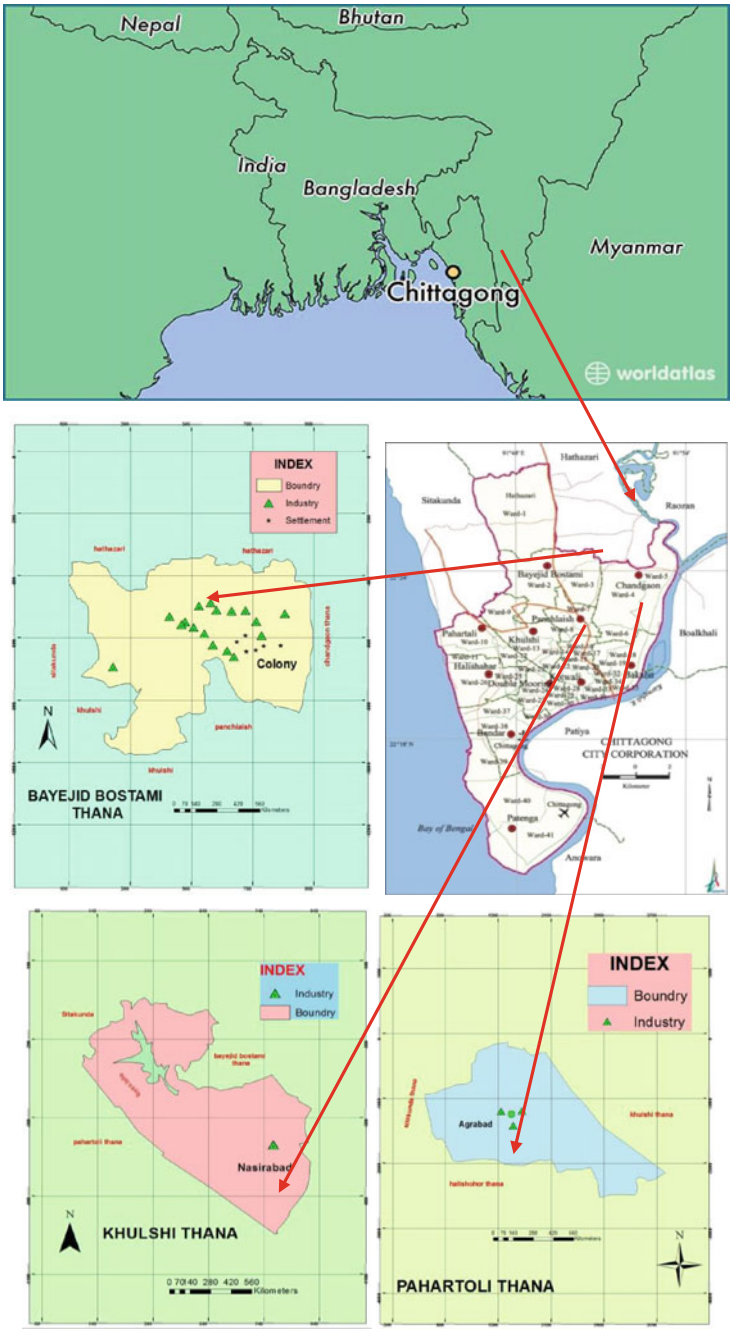

Fig. 1 The location of Chittagong in SE Bangladesh. Study Area map of Baized Thana, Khulshi Thana, Pahartoli Thana (Chittagong City Corporation Ward No. – Ward No.–2 & 3, Ward No.–8,10).

carefully before proceeding to manual editing and coding. Secondary data collection source includes information from books, magazines, journals, and websites.

2.3 Data Analytical Technique

The Likert scale method, a common rating format for surveys has been applied.The Likert scale method has been applied which is a common rating format for surveys (Vagias 2006). As a result of the respondent's statement, the authors rank the weight ranking in Calculation of total weightage: $(5 \times 45) + (4 \times 50) + (3 \times 12) + (2 \times 65) + (1 \times 28) = 619$, Mean $= 619 \div 200 = 3.84$ Variance $= \sqrt{}$Standard Deviation. Those methods were taken into account to analyze data and to describe the socio-economic characteristics of respondents, type of work, and length of services. The workplace policies and procedures, OHS awareness, and participation in OHS drills and exercises have been figured out by the format of a typical five-level Likert scale method.

3 Results and Discussion

The following section discusses the socio-economic characteristics of the respondents interviewed, knowledge of OHS, social benefits, illness and injuries, knowledge and practices related to health troubles, about the musculoskeletal systems, the experience of health hazards, and prevention from work due to health hazards.

3.1 Socio-Economic Profile

The total members of workers were 200 consisting of 35% male and 65% female. Total members of control group respondents (teachers and employees from the education sectors) were 100 consisting of an equal percentage of male and female. Of the control group respondents, married and single were 80 and 20% respectively. In terms of workers in RMG industries, 82% were married, and 18% were single. The workers' level of education as illiterate, primary, junior secondary certificate (JSC), secondary school certificate (SSC), higher secondary certificate (HSC) and above were 6, 16, 25, 29, 18, and 6% respectively. The control group participants being involved in the teaching profession, all completed graduate and above degrees. The working hours of respondents from the worker group ranged from 8–10, 11–12, and 13–14 hours per day were 63, 25, and 7% respectively. Income level of the respondents in a range of 6000-8000 (USD 71–94$), 8001-12000 (USD 94-141$), and 12000 (USD 141$)

above taka[1] were 38, 44 and 18% respectively. In the RMG industries, a different category of work exists. Work types of the respondents in RMG industries include operator, sewing machine operator, cutting man operator, helper, supervisor, quality controller, and lineman were 41.5, 19.5, 15, 9, 7, 4.5, and 3.5% respectively.

3.2 Knowledge About OHS, Worker's Rights, and Health Problems in the Industries

Following the Rana Plaza collapse in 2013, the factory workers, officials, executives, and RMG industry owners improved their awareness of OHS. Regarding personal protective equipment, 73% of the workers said that their employer provides gloves, caps, and helmets. All respondents wear masks and know the full meaning of fire warning. Approximately 80% of the respondents are aware of the location of fire extinguishers, the emergency exit door, and first aid boxes. In a factory workplace, recommended working hours should be maximum of 8 hours per day with two days off per week. Long working hours without sufficient restbreaks often lead to health problems. All the respondents said that their break time was one hour in an eight-hour t working period. It is the regular rule in industry (GoB 2015). According to the government rules and regulations (GoB 2015), a minimum 10 hours break is needed for workers between one day of work and another in order to maintain health and safety in garments industry sectors. It is noted that 15.5% of workers said that their break time from one day to another day was below 10 h. In response to canteen facilities in their working industries, about 80% of industry workers said that they have a canteen and the remaining 20% opined that they do not have any such facility in their industries. In a response to vacation facility in garment industries, the workers were happy about weekly and national festival-related leave from their employers whereas 85% of workers received maternity leave and 70 received sick leave.

The workers in garment factories experience different types of health problems. They had to work by sitting or standing for a long time and that causes problems in their bones. There is no allowance for the workers to leave their desks for a brief period of rest and they always have to work under close supervision. The most reported problems among factory workers are back pains, aches, breathing problems, skin allergies, and loss of appetite. Musculoskeletal pain which includes aches was prevalent among the garments workers. Most of the workers reported that they started experiencing these health problems after joining the RMG industries. On the other hand, the most reported health problems among the control group were aches, loss of appetite, back pain and breathing.

[1] 1 USD = 85 Bangladeshi taka on 16 February 2020.

3.3 Social Benefits of the Workers

According to Bangladesh Government Labour Law 2006, every laborer with the exception of newspaper employees has the right to get their wage with a leave of 14 days due to sickness. The workers in RMG industry are entitled to receive 14 days of sick leave. In a response to sickness leave in the RMG and textile industries, the respondents receiving sick leave from 1–5, 6–10, and 11–15 days were 70, 17 and 13%, respectively. This implies that the workers in RMG industries do not receive an appropriate level of sick leave from their employers. The workers were also asked if they got enough space to keep their belongings. In response, 90% of the workers said they had enough space in their working place. The remaining 10% of the respondents who did respond negatively stated that their industries were located in rental buildings with limited space for such facility.

3.4 Illness and Injuries

Factory owners pressurize to their workers to fulfill daily production targets by implementing strict factory rules. As discussed above, excessive work hours harm the workers' health and work safety resulting in unexpected costs for companies in terms of accidents, injuries, absence, lower productivity, and high worker turnover. In response to whether or not the garments industry workers experience any accident or injury within the garments trade since they started working, 75% opined that they suffered accidents/injuries in several forms and the remaining 25% stated that they did not suffer accidents or injuries. The reasons for these injuries include: not receiving adequate training on OHS, inappropriate handling of tools and equipment, non-provision of requisite protecting equipment, and ignorance on OHS matters. In response to a question about work injury-related health problems, 79% of the respondents suggested that they did not suffer a bad level of physical injury that could lead to disability. The remaining 21% respondents suggested that they experienced physical injuries such as cutting of the hand, a needle inside the hand/ finger, and leg injury. The respondents said that when they first joined in garments industry they faced noise environment problems in their workplace. Later they become used to it. This is consistent with other findings which reveal that none of the respondents experienced hearing problem.

3.5 Knowledge and Practices Related to Health Troubles About Musculoskeletal

Musculoskeletal disorders (MSDs) are the foremost common work-related health problem in Bangladesh. Manual handling, holding, lifting, pulling, pushing, carrying,

or movement of load is the most important reason for injury in RMG and textiles sector. Manual handling will cause either accumulative disorder from the worsening of the musculoskeletal system, like lower back pain, or acute traumas like cuts or fractures resulting from accidents. This research identified baseline demographic, health and behavioral characteristics, and health troubles concerning the musculoskeletal system that was related to an important physical activity improvement among management group participants within the occupational health and safety program.

3.6 Health Hazards in the Immediate Past Year

Health hazards are common in RMG and textile industrial sectors in Bangladesh. The workers of RMG and textile industries and employees from the control group were asked about health problems (i.e., neck, shoulder, elbow, wrists, back, hips, and knees) throughout the last twelve months in their different moving organs (Table 1). The findings suggest that majority of the respondents of the workers of RMG and textile industry experience these health problems resulting from daily work practice and environment. For the workers, the most pronounced health problems included by severity are: knees (86%), shoulders (79%), neck (73%), ankles (60%), low back (56%), wrists (54%), right elbow (52%), and hips (33%). Body movement of the workers in relation to their work types caused to these types of problems to occur. The respondents from control group suggested that they experienced full-fledged health troubles (i.e., ache, pain, or discomfort) throughout the last twelve months.. The reported health problems from the control group include shoulders (58%), elbow (50%), wrists (50%), and neck (45%).

3.7 Prevention From Work Due to Health Hazard

Of the control group respondents, 66.66% said that they were prevented from normal work due to upper back pain, followed by 54.55% who experienced lower back trouble prevented them from working. The participants, 66.67% said that they were prevented from normal work due to upper back pain, followed by 77.47% who respondent to lower back trouble causing their absence from work (Table 2). Data suggests that 66.66% of the control group respondents were prevented from normal work due to neck trouble. Findings from interviews with workers suggest that 86.21% were prevented from normal work due to neck trouble. Shoulders pains were mostly prominent among control group respondents whilst wrists/hands problems were highly prevalent among workers due to the repeated work categories they perform on a daily basis.

Table 1 Health hazards in the last one year (n = W (200), n = C (100) F = Frequency, P = Percentage, W = Workers, C = Control group respondents)

Moving organs	Yes		No	
	F & P of W	F & P of C	F & P of W	F & P of C
Neck	145 (73%)	45 (45%)	55 (25%)	55 (55%)
Shoulder				
In the right shoulder	37 (21%)	17 (45%)	24 (12%)	60 (60%)
In the left shoulder	0 (0%)	0 (0%)	24 (12%)	60 (60%)
In both shoulders	139 (79%)	23 (58%)	24 (12%)	60 (60%)
Elbow				
In the right elbow	67 (52%)	3 (38%)	72 (36%)	92 (92%)
In the left elbow	21 (16.41%)	1 (12.5%)	72 (36%)	92 (92%)
In both elbow	40 (32%)	5 (50%)	72 (36%)	92 (92%)
Wrists/Hands				
In the right Wrists/Hands	67 (36%)	14 (36%)	16 (8%)	74 (74%)
In the left Wrists/Hands	17 (9%)	6 (13%)	16 (8%)	74 (74%)
In both Wrists/Hands	100 (54%)	5 (50%)	16 (8%)	74 (74%)
Back				
Upper back	39 (9%)	9 (9%)	161 (81%)	91 (91%)
Low back	111 (56%)	11 (11%)	89 (45%)	89 (89%)
Hips/thighs	65 (33%)	15 (15%)	135 (68%)	85 (85%)
Knees	177 (86%)	7 (7%)	23 (12%)	93 (93%)
Ankles/feet	120 (60%)	10 (10%)	80 (40%)	90 (90%)

Source Field Survey – 2017 (*Note* Multiple responses were counted and non-responses for many items were reported)

Table 2 Reasons for prevention from work due to health hazards

Have you been prevented from doing your normal Work?	Yes		No	
	F & P of W	F & P of C	F & P of W	F & P of C
Neck	125 (86.21%)	30 (66.66%)	20 (13.79%)	15 (33.34%)
Shoulders	79 (44.89%)	28 (70%)	97 (55.11%)	12 (30%)
Elbows	102 (79.69%)	2 (25%)	26 (20.31%)	6 (75%)
Wrists/hands	184 (92%)	26 (26%)	16 (8%)	74 (74%)
Upper back	26 (66.67%)	6 (66.66%)	13 (33.33%)	3 (33.34%)
Low back	86 (77.47%)	6 (54.55%)	25 (22.53%)	5 (45.45%)
Hips/thighs	6 (40%)	6 (40%)	9 (60%)	9 (60%)
Knees	133 (75.14%)	3 (42.86%)	44 (24.86%)	4 (57.14%)
Ankles/feet	56 (46.67%)	6 (60%)	64 (53.33%)	4 (40%)

Source Field Survey – 2017 (*Note* Multiple responses)

Table 3 Experience of health hazards by teaching professionals in the last week

Moving organs	Yes		No	
	F &P of W	F & P of C	F &P of W	F & P of C
Neck	7 (4.83%)	35 (77.78%)	138 (13.79%)	10 (22.22%)
Shoulders	112 (63.64%)	32 (80%)	64 (36.36%)	8 (20%)
Elbows	34 (26.56%)	4 (50%)	94 (73.44%)	4 (50%)
Wrists/hands	132 (71.74%)	26 (26%)	16 (8%)	74 (74%)
Upper back	28 (71.79%)	8 (88.88%)	11 (28.21%)	1 (11.22%)
Low back	78 (70.27%)	8 (72.73%)	33 (29.73%)	3 (27.27%)
Hips/thighs	8 (53.33%)	8 (53.33%)	7 (46.67%)	7 (46.67%)
Knees	155 (87.57%)	5 (71.43%)	22 (12.43%)	2 (28.57%)
Ankles/feet	97 (80.83%)	7 (70%)	23 (19.17%)	3 (30%)

Source Field Survey – 2017 (*Note* Multiple responses)

3.8 Respondent's Experience of Health Hazards in the Last Working Week

In an attempt to understand health problems during the last working week, 87.57% of workers stated that they had knee pains last week and 80.83% of respondents reported having ankle/feet problem. The other types of health problems experienced by the workers in the last week by severity include upper back, wrists/hands, low back, and shoulders (Table 3). Of control group respondents, 77.78% stated that they had neck pain in the last week and 80% of the respondents reported shoulder pain. On the other hand, 88.88% of the respondents stated that they had upper back pain last week followed by 80% who reported shoulder problems. The other types of health hazards reported by the control group respondents by severity include neck, knees, low back, and ankles/feet.

3.9 Workplace Health and Safety

The GoB has launched a workplace safety campaign for garment industry to raise awareness concerning the fundamentals of occupational safety. The RMG and textile industries in Bangladesh is experiencing challenges to provide workplace safety for the garment workers in accordance with both national and international labour standards and labour rights. The question (1) applicable (see Table 4) for only helper type of workers. Data suggest that only 9% workers who do manual lifting items more than 20 kg at least ten items per day. Sequentially, question (2) is applicable for operator type workers. 41.5% of operator's work is associated with packing, sorting, assembling, cleaning, pulling, pushing, and tying, for at least 3 hours during the day. The operator types of workers do these works on a daily basis. Question (3)

Table 4 Workplace hazards

SN	In your job, how often do you?	Never		Every months		Every day	
1.	Manual lifting items heavier than 20 kg	F	P	F	P	F	P
		0	0	0	0	18	9
2	Repetitive movements with hands or wrists to pack, sort, assemble clean, pull, push, tie, for more than 2 h per day	F	P	F	P	F	P
		0	0	0	0	83	41.5
3	Interaction with risky substances such as flammable liquids and gases, and chemicals,	F	P	F	P		P
		0	0	0	0	32	16
4	Work at a height that is 2 m or more above the ground or floor	F	P	F	P	F	P
		200	100	0	0	0	0

is applicable for only dying operator type of workers. Only 16% workers act with hazardous substances such as chemicals, flammable liquids, and gases on a daily basis. The last question (4) about work on a height of 2 meters above the ground or floor is applicable for every respondent. Data suggest that no worker worked above that height ever.

The weightage analysis explored that the conditions of the workplace policies and procedures are agreed (3.84 mean average score) for workers, whereas condition (1) was lower and (5) was higher places among variables (Table 5). As variance among variables was 0.371 and also standard deviation 0.61 among variables. The analysis agreed that industrial owners ensure the mandatory health and safety training for each worker before beginning the job to keep regular communication with employees to their safety net issue and incidents and accidents area unit investigated quickly.

The weightage analysis explored that the conditions of the occupational health and safety awareness are strongly agreed (4.41 mean average score) for workers, whereas condition (10) was lower and (8) higher among variables (Table 6). Because variance among variables was 0.062 and additionally standard deviation 0.25 among variables, the analysis agreed that industrial workers are ensured the mandatory precautions they ought to take while doing their job. However, Industrial workers were aware of their rights and the responsibility of occupational Health and Safety awareness.

The weightage analysis explored that the conditions for the participation in occupational health and safety are neutral (3.004 mean average score) for workers (Table 7). The analysis concluded that the industrial workers could not participate in building upon their concerns in workplace health and safety.

Table 5 Compliance of occupational health, policies and procedure

At my (workers) workplace	5	4	3	2	1	Total Cal wt	Mean score	Mean av score	Variance	Standard deviation	Level of explanation
1. Received the necessary OHS training at the beginning of a job, changing jobs or using techniques	45	50	12	65	28	619	3.1	**3.84**	**0.371**	**0.61**	**Agree**
2. Regular communication between employees and top management about OHS	60	125	0	**15**	5	835	4.2				
3. OHS is equally considered as important as production and quality	15	88	0	97	0	621	3.11				
4. Incidents and accidents are investigated quickly in order to improve OHS	100	20	0	65	150	860	4.3				
5. Communication about OHSprocedures is understandable	143	35	0	22	0	899	4.5				

Source Field Survey 2017 (Where 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = strongly agree. (N = 200; weightage range: 50–250 Mean score range: 1)

Table 6 OHS awareness

At my (workers) workplace	5	4	3	2	1	Total Cal wgt	Mean score	Mean average score	Variance	Standard deviation	Level of explanation
6. I am aware of rights and responsibilities in relation to OHS	130	21	0	38	11	821	4..2	4.41	0.062	0.25	Strongly Agree
7. I am trained how to perform my job in a safe manner	142	37	0	21	0	900	4.5				
8. In case I come to know a health or safety hazard at my workplace, I know whom to report at my workplace	167	13	0	20	3	930	4.7				
9. I am knowledgeable in responding to any health and safety concerns at my workplace	172	8	0	13	7	925	4.6				
10. I know what precautions that I should take while doing my job	23	169	0	8	0	807	4.04				

Source Field Survey 2017 (Where 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = strongly agree. (N = 200; weightage range: 50–250 Mean score range: 1–5).

Table 7 Participation in OHS

At my (workers) workplace	5	4	3	2	1	Total Cal wgt	Mean score	Mean score	Variance	Standard deviation	Level of explanation
11. I can make suggestions about workplace health and safety at my job	22	33	0	97	48	484	2.42	**3.004**	**0.363**	**0.60**	**Neutral**
12. Having noticed a workplace hazard, I would inform this management	65	43	0	54	38	643	3.23				
13. I can stop work if I think something is unsafe and management will not be unhappy for it	43	21	0	107	29	542	2.72				
14. If my work environment was unsafe, I would not say anything, and hope that the situation eventually improves (reverse scored)	14	43	0	129	14	514	2.57				
15. I have been given time to complete my work tasks safely	147	20	0	33	0	815	4.08				

Source Field Survey 2017 (Where 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = strongly agree. (N = 200; weightage range: 50–250 Mean score range: 1–5)

4 Conclusions

Occupational health and safety should be a comprehensive exercise that may include the office design, ergonomics, tiling and flooring, protective tools and equipment, ventilation, lighting, and any other thing that will make ease staff's work process. Data from the control group (teachers and employee) in university and college suggest that there was no emergency evacuation door in case of fire outbreak. It was noted that many industries do not have a schedule in terms of specific periods for training workers on OHS. Comprehensive OHS include the security for workers and employers and oll other stakeholders. Musculoskeletal problems (Neck-shoulder, arm and respiratory diseases), neck pain, back pain, headaches, and heart problems, seems to be the prime health problems among the workers due to long work hours and wrong working postures. The injuries and diseases as indicated in the analysis is alarming and therefore, require immediate attention from employers and workers through the use of policy The garment and textile industries are yet to implement full scale occupational health hazards among the workers, these recommendations should be implemented by government, industry owners and all other OHS stakeholders, employers, and workers.

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