

Study on Awareness Regarding Health Hazards among the Garments Workers in a Selected Garment Factory

Tarafdar MA¹, Miah MA M², Asaduzzaman A K M³, Biswas MA⁴

Abstract

A descriptive type of cross sectional study was carried out to assess the level of awareness regarding health hazards among the garments workers in a selected garment factory with a sample size of 129. Study showed that majority of the respondents (93.8%) was in 18-35 years of age and only 6.2% of the respondents were above 35 years of age with mean age of 26.05± 5.549 years. It revealed that 42.6 % of the respondents educational status was secondary level followed by 39.5 % was completed primary, level 1.6 % was graduate and 9.3% was illiterate. Study showed that 77.5% of the respondents were married, 15.5% was unmarried, 4.7% was separated and 2.3% was widows. It explored that 96.9% of the respondents was Muslim and 3.1% was Hindu. 32.6% of the respondents worked at kneeting section, 21.7% was in trumming, 20.2% was in linking, 10.1% was in finishing section and very negligible percent of respondents worked at various sections. It is found from the study that 60.5% of the respondents had knowledge on occupational health hazards, 78.3 % had knowledge about training regarding health hazards, 72.1% had knowledge about training & education regarding operation of instruments and 62% had knowledge about labor laws. Study further revealed that majority of the respondents worked at 8-10 hours, 26.4% worked 6-8 hours and 11.7% worked more than 10 hours. 100% of the garments had sufficient lighting facilities but only 27.1% of the garments had enclosed harmful materials facilities, 65.2% of the garments had no storage and segregation facilities of hazardous products, 64.4% of the garments had no emergency ambulance service and only 35.7% of the garments had proper personal protective equipment (PPE). It was found from the study that 100% of the garments had medical center facilities but only 62.8% had periodic health check-up. Study revealed that 42.6 % of the respondents source of information about training regarding health hazards from trainer and 28.7 % from doctors and authority, 35.7% knew about training & education regarding operation of instruments from authority, 17.1% from supervisor, 12.4% from HR department and 43.9% from others and 54.9% responded were informed about labor laws from the trainer, 27.9% from HR department and 17.1% from authority. Study found a statistically significant association between use of PPE and sex of the respondents (p=0.032). Availability of PPE and enforcement of their use along with display of proper safety signs and information and appropriate places can be effective to increase workers knowledge and create safer and better work place environment.

Key words: Garments factory, Health hazards, Awareness

Introduction:

In a developing country like Bangladesh, Readymade Garment (RMG) sector plays an important role in the overall economic development. At present, approximately 20 lakh workers (among which 80% is female) are working in this sector which is a great source of employment. It is also mentionable that about 76% of our foreign exchange is earned by this sector. The garment industry of Bangladesh

has been expanding rapidly since late 1970s.¹ It was the global market that created an environment congenial to the growth and development of garment industry in Bangladesh.² Bangladesh's garment industry provides employment to about 3.6 million workers which 2.8 million are women.³ The RMG industry created employment opportunities i.e. especially for female workers and now this sector is considered as one of the main sources of employment for female workers of Bangladesh. This industry has provided the largest employment opportunities for women in the industrial sector where more than 85 percent of the production workers are women.⁴

Work related injuries are a major public health problem. These result in serious socio-economic consequence. By taking appropriate measures we can prevent it. It has been found that, more than 2 billion people suffer from work related injuries and two million die as a consequence of these injuries every year. In developed countries, 20- 50% of workplace have access to some kind of occupational health services. For the developing countries the percentage is only 5-10%.⁵ The garment workers in Bangladesh had to work from dawn to dusk in a confined environment where proper ventilation of air is absent. In a study N Nahar, R N Ali and F Begum concluded that the particular nature of work in garments create various types

1. Professor Monowar Ahmad Tarafdar
Professor and Head, Department of Community Medicine
ZH Sikder Women's Medical College, Dhaka
2. Dr. Md. Abdul Mojib Miah
Associate Professor & Head, Department of Community Medicine
Jalalabad Ragib-Rabeya Medical College, Sylhet
3. Dr. A K M Asaduzzaman
Professor and Head, Department of Community Medicine
Diabetic Association Medical College, Faridpur
4. Dr. Md. Asaduzzaman Biswas
Assistant Professor and Head, Department of Respiratory
Medicine, Diabetic Association Medical College, Faridpur

Correspondence to:

Professor Monowar Ahmad Tarafdar
Professor and Head, Department of Community Medicine
ZH Sikder Women's Medical College, Dhaka
E-mail: E-mail: babla762@yahoo.com

of health hazards among the garment workers such as headache, malnutrition, musculoskeletal pain, eye strain, less appetite, chest pain, fainting, diarrhea, hepatitis (jaundice), food poisoning, asthma, fungal infection, helminthiasis and dermatitis⁶. Most of the health problems that the garment workers suffering arose from the occupational hazards including long working hours, absence of leave facilities, congested and over-crowded working conditions, absence of health facilities and safety measures, absence of staff amenities, lack of safe drinking water etc.¹ In these circumstances Jana P (2008) suggested that recognizing ergonomic risk factors in the workplace is an essential first step in correcting hazards and improving worker protection⁶. Health and productivity of labourers are highly correlated. The garment workers are basically poor. Safe conditions in the garment industry are very crucial for worker's health and productivity⁷.

Materials and Method

A descriptive type of Cross sectional study was done in a selected garment factory at Savar, Dhaka during the period of 17.12.2016 to 22. 12. 2017 having a sample size of 129 among the workers available during the study period. The respondents were selected randomly from the workers available on the study period using a pretested semi structured questionnaire. The data were obtained through face to face interview of the respondents. Data was managed and analyzed with the help of SPSS.

Results

Majority of the respondents (93.8%) was in 18-35 years age group and only 6.2% was above 35 years of age with mean age 26.05± 5.549 years.

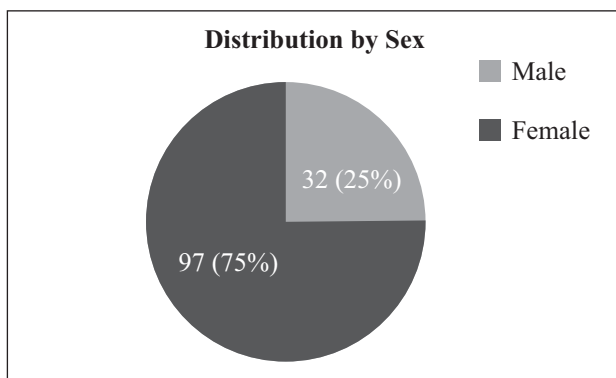


Figure 1: Distribution of the respondents by Sex (n = 129)

It is evident that in the present garment industry, there is female preponderance of worker with a ratio of male: female of 1: 3. Study reveals that 42.6 % of the respondents educational status was Secondary level followed by 39.5 % was completed primary, 1.6 % was graduate and 9.3% was illiterate. The study also explores that 34.9% spouses educational status was Secondary followed by 27.1% was completed primary, 21.7% others, 3.9% was graduate ,3.1% completed informal education and 9.3% was illiterate.

Among the respondents 77.5% were married, 15.5% unmarried, 4.7% separated and 2.3% widows. It was found that 32.6% of the respondents worked at knitting section, 21.7% was in trimming, 20.2% was in linking, 10.1% was in finishing section and very negligible percent of respondents worked at various sections.

The study reveals that 65.2% of the garments had opined that there were no storage and segregation facilities of hazardous products. Only 35.7% expressed that the factory had emergency ambulance service.

Table 1: Distribution of the respondents by knowledge on occupational health hazards

knowledge on occupational health hazards	Frequency	Percent
Yes	78	60.5
No	51	39.6
Total	129	100.0

Table 2: Distribution of the respondents by types of disease and illness (Multiple responses)

Types of disease and illness	Frequency	Percent
Headache	72	55.8
Musculo-skeletal pain/back pain	40	31.0
Eye Strain	33	25.6
Loss of appetite	12	9.3
Chest pain	21	16.3
Diarrheal diseases	8	6.2
Food Poisoning	7	5.4
Faint	9	7.0
Respiratory Problem/ Asthma	8	6.2
Fungal Infection	5	3.9
Numbness and tingling of fingers and arms	19	14.7

Table 3: Distribution of the respondents by History of Mechanical Injury

History of mechanical Injury	Frequency	Percent
Cut Injury	47	36.4
Crush Injury	3	2.3
Wound	1	.8
Burning	7	5.4
Stampede	2	1.6
Others	69	53.5
Total	129	100.0

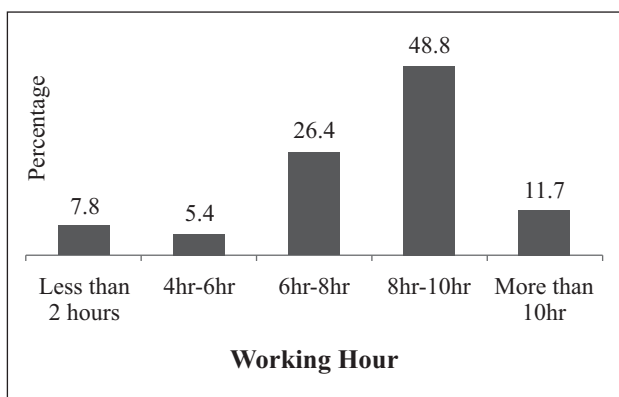


Figure 2: Distribution of the respondents by Length of Working Hour (n = 129)

Table 4: Distribution of the respondents by use of proper personal protective equipment (n = 129)

Use of proper personal protective device	Frequency	Percent
Yes	46	35.7
No	83	64.3
Total	129	100.0

Table 5: Distribution of the respondents by availability of health care facilities (Multiple responses) (n = 129)

Availability of health care facilities	Frequency	Percent
First-Aid	113	87.6
Medical center facilities	129	100.0
Full-time physician employed	119	92.2
Full -time nurse employed	124	96.1
Day care center	107	82.9
Periodic health check-up	81	62.8
Pre placement health check-up	100	77.5
Medical supervision during duty time	89	69.0

Table 6: Distribution of the respondents by knowledge about training regarding health hazards

Knowledge about training	Frequency	Percent
Yes	101	78.3
No	28	21.8
Total	129	100.0

Table 7: Distribution of the respondents by source of information about training regarding health hazards

Source of information about training	Frequency	Percent
Authority	37	28.7
Doctor	37	28.7
Trainer	55	42.6
Total	129	100.0

Table 8: Distribution of the respondents by knowledge about training & Education regarding operation of instruments

Training & Education regarding operation of instruments	Frequency	Percent
Yes	93	72.1
No	36	27.9
Total	129	100.0

Table 9: Distribution of the respondents by source of information about training & Education regarding operation of instruments

Informer	Frequency	Percent
From Authority	46	35.7
HR Department	16	12.4
Supervisor	22	17.1
Others	45	43.9
Total	129	100.0

Table 10: Distribution of the respondents by knowledge about labor laws

Knowledge about labor laws	Frequency	Percent
Yes	80	62.0
No	49	38.0
Total	129	100.0

Table 11: Distribution of the respondents by the source of knowledge about labor laws (Multiple responses)

Sources	Frequency	Percent
From Authority	22	17.1
HR Department	36	27.9
Trainer	71	54.9

Table 12: Distribution of the respondents by association between PPE use and sex of the respondents

Sex of the respondents	Use of proper personal protective device		p-value
	Yes	No	
Male	25	26	0.032
Female	21	56	
Total	46	83	

Discussion

A descriptive type of cross sectional study was carried out to assess the level of awareness regarding health hazards among the garments workers in a selected garment factory with a sample size of 129.

It was found from the study that 60.5% of the respondents had knowledge on occupational health hazards, 78.3 % had knowledge about training regarding health hazards, 72.1% had knowledge about training & education regarding operation of instruments and 62% had knowledge about labor laws. It showed that majority of the respondents was suffering from headache, 31% from musculo-skeletal pain/back pain, 25.6% had eye strain, 16.3% had chest pain, 6.2% had diarrheal disease, 14.7% had numbness and tingling of fingers and arms and other percent of respondents was suffering from different types of disease and illness. 36.4% of the respondents had history of cut injury, 5.4% had burn, 2.3% had crush injury and 53.5% had history of other types of mechanical injury. Study further revealed that majority of the respondents worked at 8-10 hours, 26.4% worked 6-8 hours and 11.7% worked more than 10 hours. 100% of the garments had sufficient lighting facilities but only 27.1% of the garments had enclosed harmful materials facilities, 65.2% of the garments had no storage and segregation facilities of hazardous products, 64.4% of the garments had no emergency ambulance service and only 35.7% of the garments had proper personal protective equipment. A study showed that the knowledge of personal protective equipment differed by section. More than half of the workers were aware of the benefits of personal protective equipment (PPE), but only a few workers in the cutting section were using PPE⁸.

It is found from the study that 100% of the garments had medical center facilities but only 62.8% had periodic health check-up. Study revealed that 42.6 % of the respondents source of information about training regarding health hazards from trainer and 28.7 % from doctors and authority, 35.7% knew about training & education regarding operation of instruments from authority, 17.1% from supervisor, 12.4% from HR department and 43.9% from others and 54.9% responded informed about labor laws from the trainer, 27.9% from HR department and 17.1% from authority. It is similar from a study conducted in Hong Kong³ that being informed of safety precautions

by health and safety training and being supplied with safety information by supervisor were the significant factor leading to safe practice. This study found a statistically significant association between use of PPE and sex of the respondents ($p=0.032$); similar findings were observed by JP Sah in Nepal in the year 2015.⁹

Conclusion

Generally less than half of respondents knew about safety information however, practice towards safety information was inadequate. Safety training was the common factor to increase knowledge and practicing habits which needs to be encouraged. Regular supervision is also recommended to ensure and promote work place safety.

References

1. Nahar N, Ali RN, Begum F. Occupational health hazards in garment sector. *Int J Bio Res* 2010;1(2):2
2. Akhter S, Salahuddin AFM, Iqbal M, Malek ABMA and Jahan N. Health and occupational safety for female workforce of garment industries in Bangladesh. *Journal of Mechanical Engineering*, June 2010; 41(1), 65-70
3. HER project Bangladesh, Female Factory Workers' Health Needs Assessment: Bangladesh. Available from: URL: https://herproject.org/downloads/country-resources/her_health_needs_bangladesh.pdf
4. Sikdar MMH, Sarker MSK, Sadeka S. Socio-Economic Conditions of the Female Garment Workers in the Capital City of Bangladesh *International Journal of Humanities and Social Science* 2014, 4(3): 173-179
5. Gupta R D, Nag S, Datta D, Roy S, Das S, Aziz SMY, Occupational Health Hazards among Workers in Garment Factories in Bangladesh: A Cross-Sectional Study; *Developing Country Studies* ISSN 2224-607X (Paper) ISSN 2225-0565 (Online),5(5): 90-98, 2015
6. Ahmed S, Raihan MZ. Health Status of the Female Workers in the Garment Sector of Bangladesh. *Journal of The Faculty of Economics*, 4(1):43-58
7. Haque M A, Begum H A, Fahmida H, Supply-Side Effect of Health Care Facilities on Productivity Amongst the Female Workers in the Readymade Garment Sector, *Ibrahim Med. Coll. J.* 2008; 2(1): 4-8.
8. Tetemke D, Alemu K, Tefera Y, Sharma HR, Worku W (2014) Knowledge and practices regarding safety information among textile workers in Adwa town, Ethiopia. *Science Postprint* 1(1): e00015. doi:10.14340/spp.2014.01A0004
9. Sah JP et al, Knowledge and practice related to Occupational Hazards among Maruti Cement Factory workers in Mirchaiya, Siraha, Nepal, *Microbes and Health*, June 2015, 2(2): 11-18