

Beyond Stitches: Analysis of Disease Burden in a Bangladeshi RMG Factory

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Abstract

Introduction: Bangladesh has experienced remarkable growth in RMG over the past 25 years. With the knitwear industry providing more than 4 million direct jobs, providing better occupational health and safety of workers remains a challenge. **Aim of the study:** The aim of the study was to analyze the disease burden of a RMG factory, and to highlight occupational health risks. **Methods:** A cross-sectional study design was employed for this analysis. A 17-month data entry (January 2020 - May 2021) was gathered from the factory in-house clinic. The socio-demographic and clinical diagnosis entries of 8421 entries were analyzed. **Result:** The population of the factory workers is 5370, where 40% (2148) are female workers and 60% (3222) are male workers. The mean age of respondents is 30 years, with a SD of ± 7 years. Among the chief complaints, the most common was vomiting (14%; 2262) fever (14%; 2247), runny nose (11%; 1842), cough (9%; 1465), and loose motion (8%; 1364). In the diagnosis categories, gastrointestinal diseases were more predominantly diagnosed (35%; 2978), followed by viral fever (21%; 1772), neurological diseases (16.5%; 1389) and musculoskeletal disorders (9%; 768). The average cost of medicine for each respondent is BDT 36. The factory covered costs of all medication for 99% (8380) of respondents. Only 0.5% (37) was referred to a tertiary hospital for further evaluation. **Conclusion:** Garments workers suffer mostly from long-term occupational health hazards. Factory owners and policy makers can contribute in various ways to improving primary healthcare options for workers.

Keywords

RMG, Disease Burden, Work Related Disease, Communicable Disease, Occupational Safety

1. Introduction

In the forty years since Bangladesh's independence, its economy has gradually shifted from being one of imports to one of exports. Following a recent transition from being a low-income country to a lower-middle income country, Bangladesh is now regarded as a trading nation [1]. The readymade garment (RMG) industry has greatly contributed to the transformation. The RMG sector is Bangladesh's largest exporting sector today with phenomenal growth since its inception 25 years ago [2]. RMG was only worth US\$69 thousand in Bangladesh's first export in 1978. The RMG sector in FY2008 contributed \$12.35 billion from a total export of \$15.56 billion, about 79 percent of the country's exports [3]. As of 2019-20, the apparel industry is Bangladesh's largest export earner, producing more than \$27.9 billion of exports, which is 83 percent of total export earnings [2]. The readymade garments of Bangladesh can be classified into two broad categories: woven products and knitted products. Clothing made of woven materials includes shirts, pants, and trousers. Knitted products include T-shirts, polo shirts, undergarments, socks, stockings, and sweaters. The country's export earnings are still dominated by woven garments. The existence of strong backward links within the country has enabled the knitwear industry to add up to 75% value, thus providing an opportunity for investors both domestically and internationally to spend in areas such as spinning, weaving, sewing, packaging, and accessories [4]. With the rapid expansion of the RMG industry, the sector has achieved an impressive level of international exports, industrialization, and contributions to GDP within a short period [5]. Furthermore, the industry plays a key role in creating jobs, providing income to the poor, and aiding in the socio-economic development of the country. According to the Bangladesh Knitwear Manufacturing and Exporting Association (BKMEA), it provides 4.2 million direct jobs, 90% of which were held by women, mainly from rural areas [6]. As the knitting department workers are exposed to dust, noise, and dangerous machines, the dyeing department workers are primarily exposed to ergonomic hazards and chemicals, and the support department workers are subject to mechanical and office-related hazards [7]. The government of Bangladesh has already taken steps to maintain labor standards, including minimum wages, maternity leave, discouraging child labor, and more. Women make up much of the workforce in this industry. Thus, the improvement of this sector depends mostly on the improvement of women workers. Most export RMG factories are required to follow international compliances and provide free medical facilities, maternity leave, childcare policies, medical benefits, etc. to their workers [8]. A systematic review of the health vulnerabilities of readymade garment (RMG) workers in South and Southeast Asia found that general health issues (such as back/joint pain, headache, jaundice, eye problem, fever, diarrhea, work stress, gastric pain), produced from unhygienic workplace conditions, are more frequently reported as acute among Bangladeshi workers [9]. Based on a disease burden analysis conducted in 2018, the most common medical conditions identified were anemia (19.0%; 362/1906), elevated blood pressure (EBP) (11.9%;

226/1906) and elevated fasting blood glucose (FBG) (8.0%; 151/1906); suggesting workers receive a health screening every year [10]. Another study was conducted among 522 workers in 2013 to assess the health seeking behavior of workers, and to highlight awareness programs among factory owners and garment workers. This study found 56% of workers sought treatment from local medical assistants and family planning doctors [11]. According to a 2008 study, an improved work environment, a positive work environment, and corporate social responsibility all contribute to productivity, rather than a drop in wages [12]. Employees are more motivated to work in environments where safety and health concerns are prioritized. One study finds that 61% of workers are willing to do more hard work for the employee investing in the worker's occupational safety and health [13]. The investment in occupational safety and health yields benefits to its investors, just as any other investment does. According to a study conducted on the costs and benefits of investments in occupational safety and health in companies, the return on prevention ratio is 2.2. This means that in exchange for one currency unit invested per employee per year, companies should earn 2.2 currency units [14]. Occupational safety and health aid in reducing social costs connected to lost productivity, disability, and other losses [15]. Despite Bangladesh's success in the garment and textile sector, it will need to invest more in healthcare and safety of workers to expand even further. By investing in these areas, the industry will be able to add the value it needs to go the extra mile.

2. Objectives

2.1. General Objective

- The objective of this study is to analyze the disease burden of a readymade garments factory in Bangladesh.

2.2. Specific Objectives

- To find the disease pattern of workers in a garments factory.
- To identify the occupational health hazards of the workers.

3. Methodology & Materials

A cross-sectional study was conducted in a knit composite factory located in Shirirchala, Gazipur, Bangladesh, covering an area of 32,516 m² with four six-story buildings and 13 sheds. The factory operates from 9 am to 10 pm, six days a week, and employs 6,250 personnel, including 5,371 workers. The on-site clinic, staffed by two doctors and three nurses, provides primary healthcare, with emergency cases referred to external facilities. Data on clinic visits were collected over 17 months (January 1, 2020 - May 30, 2021), excluding the COVID-19 lockdown period (March 23 - April 30, 2020). Due to the pandemic coronavirus covid-19 pandemic, Bangladesh was under lockdown for a few weeks, including all factories and institutes. The factory was closed from 23rd March till 30th April 2020; hence no data is available during that period of lockdown. During

this period, 8,421 worker visits to the clinic were recorded and analyzed.

3.1. Inclusion Criteria

- All respondents who were factory employees and who visited the clinic during factory working hours, and within the chosen study period, were included in the analysis.

3.2. Exclusion Criteria

- Entries that did not have complete information about the respondent were excluded.
- Chronic disease follow-ups and visits to change the treatment regime were excluded from the study.
- Any factory management staff entries were also excluded.

3.3. Training

Two staff from the IT department of the factory participated in the data collection with 2 days of training for this work by the principal investigator. A questionnaire was prepared by the principal investigator, which sequentially placed all the respondents' personal and medical details in order. A pretest was conducted by filling out the form for a small set of respondents. It allowed the team to check for reliability and make changes so that the final data entries were viable and effective. This questionnaire sequence was used to make the final data entry into Microsoft Excel.

3.4. Data Collection

Medical information for workers was obtained from the factory clinic, where each worker's visit is logged using their unique patient identification number, also linked to the human resources database. Upon clinic entry, workers present their ID badge, and the duty nurse records the chief complaint in a handwritten logbook. The attending doctor checks vitals and diagnoses the condition, which is then logged. Worker profiles, including demographic and employment details, were extracted from the HR database. Clinical data from the logbook covering January 1, 2020, to May 30, 2021, were digitized and categorized into diagnostic codes such as respiratory diseases, musculoskeletal disorders, injuries, and others. The data entry was verified for consistency and completeness before analysis.

3.5. Data Analysis

Daily clinic entry data was recorded in individual Microsoft Excel sheets for accuracy checks, with 2% of the data double-entered by the primary investigator for verification. Discrepancies were rechecked and corrected. All daily sheets were then merged into a single Excel file. This compiled data was imported into IBM SPSS version 26 for analysis. Continuous variables, such as age and years of employment, were presented as means, while categorical variables, such as gen-

der, education, and diagnoses, were expressed as percentages. Gender-based comparisons and population percentages for different complaints and diagnoses were calculated. Data security was ensured with physical files in a secure cabinet and computerized file on a password-protected computer, accessible only to the principal investigator.

3.6. Ethical Consideration

A formal letter of invitation was submitted to the authorities of the factory for participation in the study. The factory granted permission and provided a letter of support to us. Workers had consented to the use of their data during entry. Despite the primary author being directly related to the owner of the factory, there are no conflicts of interest reported by the author. Findings from this study may help authorities to understand more about health issues of the workers and provide better facilities for them. The study was approved by the Institutional Ethics Committee of S M Knitwears Ltd. and the reference number is SMG/HR/Admin/21/48.

4. Result

The study focuses on common complaints that are registered in the RMG factory, and to see a difference in the pattern of visits among the workers. The factory employs a total of 6250 factory workers. After excluding 879 management staff, 40% (2148) are female workers and 60% (3222) are male workers (**Figure 1**).

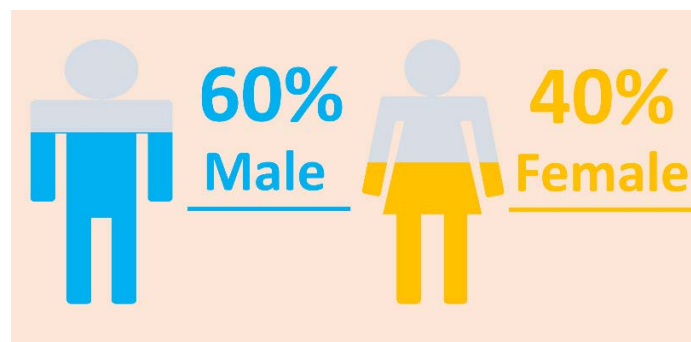


Figure 1. Percentage distribution of females and males in the factory.

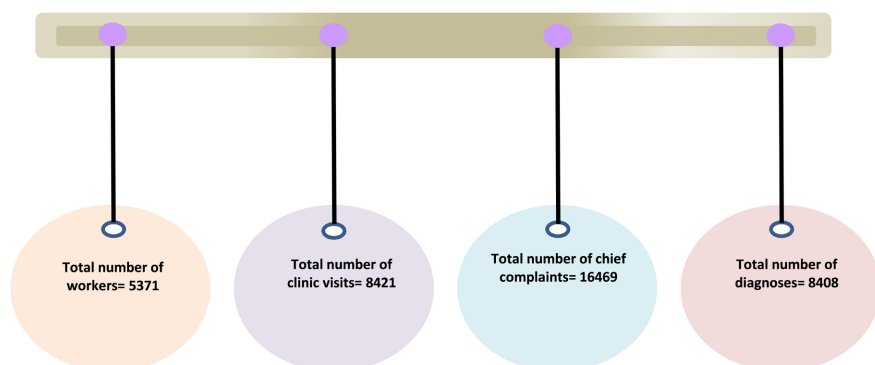


Figure 2. Illustration of frequency of chief complaints and diagnosis amongst the respondents.

Figure 2 illustrates the frequency of chief complaints and diagnosis amongst the respondents. A total of 8421 visits were recorded in the clinic during the study period of 17 months, including multiple visits by a respondent during the study period, of which 43% (3643) were females and 57% (4778) were males.

Table 1. Worker distribution by age group and education level.

Age Group	Female	Male	Total	Percentage (%)
18 - 24 years	785	1255	2039	24.1
25 - 29 years	953	1336	2289	27.1
30 - 34 years	1021	1058	2079	24.6
35 - 39 years	622	621	1243	14.7
40 - 44 years	176	301	477	5.6
45 years and above	86	207	293	3.5
Total	3643	4778	8421	100
Education Level	Male	Female	Total	Percentage (%)
No Education	0	0	0	0
Primary Education (Up to class 5)	1875	1911	3786	44.8
Secondary Education (Class 6 - SSC)	2157	1476	3633	43
Higher Education (HSC and above)	744	258	1002	11.9
Total	4776	3645	8421	100

Table 1 shows the distribution of our participants by age group and education level. The mean age of workers was 30 years, a standard deviation of ± 7 , with the lowest recorded age of 18 years and the highest recorded age of 69. Highest percentage of respondents (27%; 2289) were found within the age group 25 - 29, followed by 25% (2079) of respondents within ages 30 - 34 years. Respondents above the age of 40 were less than 10% (770). According to the compliance requirement, all workers should have some sort of formal education to be employed in a garment factory. Almost 45% (3786) of the workers received primary education. 43% (3633) of the workers completed secondary education and approximately 12% (1002) received higher education. Among the workers who obtained primary education, approximately 50% were males and 50% were females. The percentages in the secondary education group were 60% males and 40% females. The majority (74%) of workers with higher education were males.

Table 2 presents the distribution of male and female workers across various diagnosis categories in a Bangladeshi RMG factory, along with the percentage representation in each category. GI disorders are the most common category, with a higher percentage of males affected compared to females. Viral fever is the second most common category, again showing a higher incidence in males. Neurological problems are more prevalent in males, but the gender distribution is relatively balanced. Vascular problems have a nearly balanced gender distribu-

tion, with a slight male predominance. GI disorders, viral fever, and neurological problems are the top three categories, comprising 35.4%, 21.1%, and 16.5% of the total diagnoses, respectively. These categories alone account for over 73% of all diagnoses. Reproductive health disorders are the least common, making up only 0.25% of the total diagnoses and affecting only female workers.

Table 2. Male-female distribution in percentage in each diagnosis category (*) percentages expressed.

Diagnosis categories	Female		Male		Total	
	n	(%)*	n	(%)*	n	(%)*
GI disorders	1306	(43.9)	1672	(56.1)	2978	(35.4)
Viral fever	733	(41.3)	1039	(58.6)	1772	(21.1)
Neurological problems	630	(45.3)	759	(54.6)	1389	(16.5)
MS disorders	345	(44.9)	423	(55.1)	768	(9.1)
Skin diseases	146	(38.5)	233	(61.5)	379	(4.5)
ENT diseases	142	(38.3)	228	(61.6)	370	(4.4)
Respiratory disorders	103	(42.4)	140	(57.6)	243	(2.9)
Injuries	57	(38.2)	92	(61.7)	149	(1.8)
Eye diseases	54	(41.5)	76	(58.5)	130	(1.5)
Vascular problems	51	(45.5)	61	(54.5)	112	(1.3)
Urinary and bowel disorders	50	(51.5)	47	(48.5)	97	(1.2)
Reproductive health disorders	21	(100)	0	(0)	21	(0.25)
Total	3638	(43.3)	4770	(56.7)	8408	(100)

Table 3. Distribution of diagnosis in each age group category.

Diagnosis	Age groups						Total
	18 - 24 (%)	25 - 29 (%)	30 - 34 (%)	35 - 39 (%)	40 - 44 (%)	≥45 (%)	
Gastrointestinal diseases	719 (35.3)	816 (35.8)	768 (37.1)	412 (33.2)	157 (32.98)	101 (34.47)	2973 (35.41)
Viral Fever	421 (20.7)	457 (20)	427 (20.6)	290 (23.4)	110 (23.11)	66 (22.53)	1771 (21.09)
Neurological problems	324 (15.9)	396 (17.4)	328 (15.8)	222 (17.9)	78 (16.39)	39 (13.31)	1387 (16.52)
Musculoskeletal disorders	201 (9.9)	199 (8.7)	192 (9.2)	103 (8.31)	43 (9.03)	28 (9.56)	766 (9.12)
Skin diseases	96 (4.7)	103 (4.5)	88 (4.2)	58 (4.68)	18 (3.78)	16 (5.46)	379 (4.51)
ENT diseases	95 (4.7)	100 (4.4)	87 (4.2)	46 (3.71)	25 (5.25)	17 (5.8)	370 (4.41)
Respiratory diseases	57 (2.8)	68 (3)	56 (2.7)	34 (2.74)	14 (2.94)	14 (4.78)	243 (2.89)
Injuries	32 (1.6)	43 (1.9)	41 (2)	19 (1.53)	8 (1.68)	4 (1.37)	147 (1.75)
Eye diseases	32 (1.6)	34 (1.5)	30 (1.4)	22 (1.77)	8 (1.68)	4 (1.37)	130 (1.55)
Urinary and bowel disorders	27 (1.3)	30 (1.3)	20 (0.9)	12 (0.97)	6 (1.26)	2 (0.68)	97 (1.16)
Reproductive health issues	10 (0.5)	4 (0.2)	4 (0.2)	1 (0.08)	2 (0.42)	0 (0.00)	21 (0.25)
Vascular problems	21 (1.0)	30 (1.3)	31 (1.5)	21 (1.69)	7 (1.47)	2 (0.68)	112 (1.33)
Total, n (%)	2035 (24.2)	2280 (27.1)	2072 (24.7)	1240 (14.7)	476 (5.7)	293 (3.5)	8396

The diagnosed medical conditions were most prevalent among workers of the age group 25 - 29 years (27%). This was followed by workers of the age group 30 - 34 years (24.7%), 18 - 24 years (24.2%), 40 - 44 years (5.7%) and ≥ 45 years (3.5%). The highest gastrointestinal issues were faced by workers in the age group 30 - 34 years (37.1%). Viral fever was seen most among age groups 35 - 39 years (23.4%) and 40 - 44 years (23.1%). The highest number of neurological problems was seen in age group 35 - 39 years (17.9%); musculoskeletal disorders in 18 - 24 years (9.9%); skin diseases and ENT and respiratory diseases in age group ≥ 45 years were 5.46%, 5.8% and 4.78%, respectively (Table 3).

In Figure 3 we can see the male female distribution (in percent) of the workers according to their duration of service in years in the factory. The mean number of service years is 3.4 years with SD \pm 3.2 years. The lowest duration of

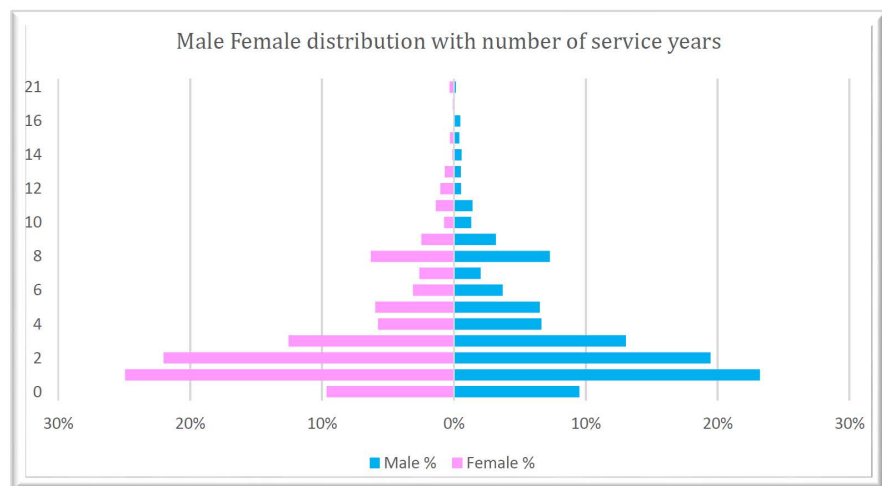


Figure 3. Male-female distribution of duration of service (in years).

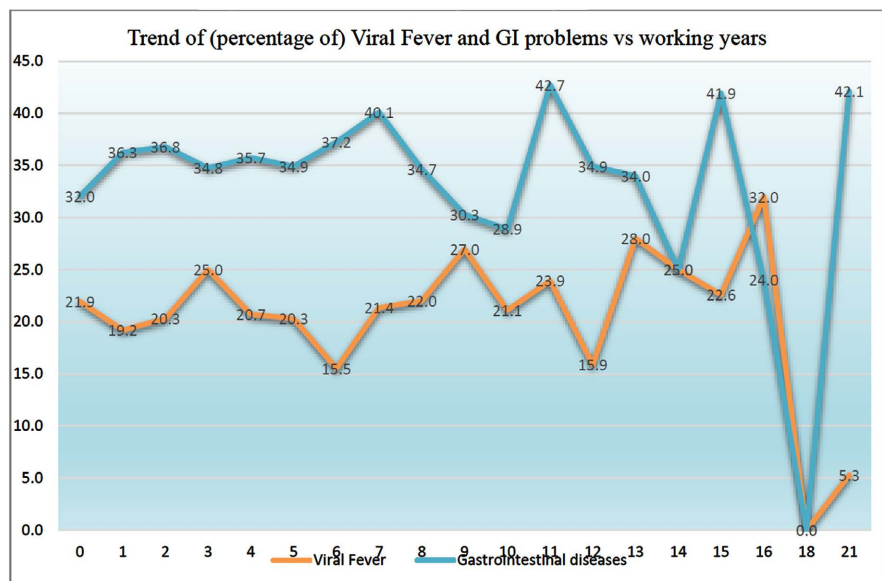


Figure 4. Trend of (percentage of) viral fever and gi problems vs number of working years of workers.

service is less than a year, and the highest duration of service is 21 years. Most number of workers has been working in the factory for 1 year; 25% Female and 23% Male. There is a drop in number of workers after 5 years of service, and then again after 8 years.

In **Figure 4** we see the trend of viral fever and gastrointestinal problems (in percentage) reported compared to the number of working years of the workers. The percentage of complains of viral fever and gastrointestinal problems remain the same regardless of number of working years. The drop at 18 years is because no one working for 18 years complained of fever or gastrointestinal issues during the study period. For example, amongst workers who have been working for 1 year, 36.3% present with gastrointestinal problems and 19.2% present with viral fever. Again, amongst workers who have been working for 16 years, 41.9% present with gastrointestinal problems and 32% present with viral fever.

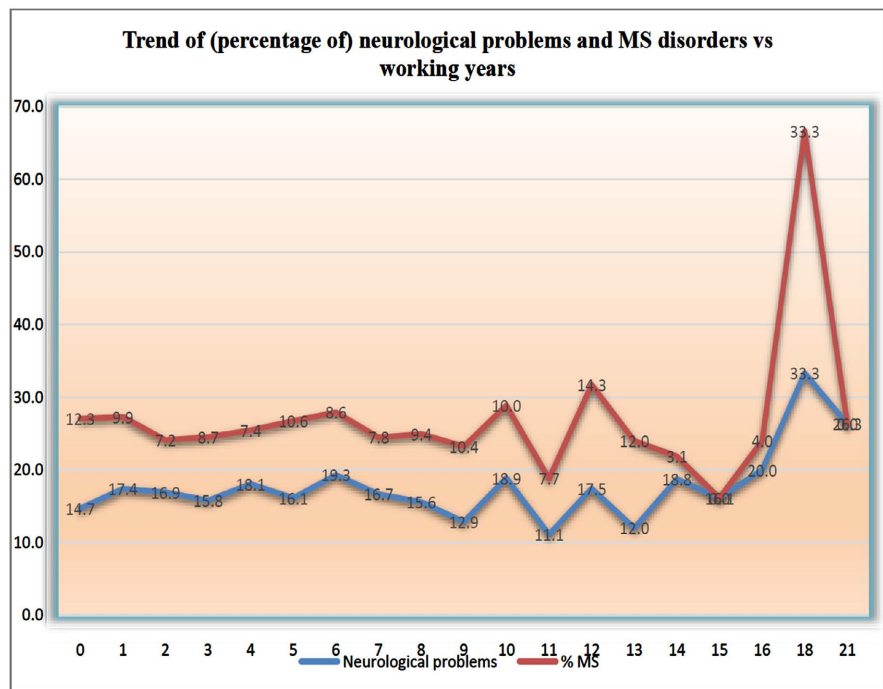


Figure 5. Trend of (percentage of) neurological problems and ms disorders vs number of working years of workers.

In **Figure 5** we see the trend of neurological problems and MS disorders (in percentage) compared to the number of working years of the workers. As the number of years increases, percentage of complains of neurological problems and MS disorders increases. For example, 12.3% and 14.7% of workers working for less than 1 year present to the clinic with MS disorder and neurological problems, respectively. On the other hand, amongst workers who have been working for 18 years, 33% present with MS disorders, and 33% with neurological problems.

Table 4. Percentage distribution of disease pattern in duration of service (in years).

Service years	Disease diagnosis											
	Viral Fever (%)	Respiratory diseases (%)	MS disorders (%)	ENT diseases (%)	Eye Diseases (%)	Gastrointestinal diseases (%)	Reproductive health problems (%)	Skin diseases (%)	Neurological problem (%)	Vascular issues (%)	Injuries (%)	Urinary and Bowel disorders (%)
0	21.9	2.1	12.3	5.0	1.6	32.0	1.0	4.7	14.7	1.0	1.9	1.6
1	19.2	2.8	9.9	4.1	1.5	36.3	0.1	4.3	17.4	0.8	2.2	1.4
2	20.3	3.8	7.2	4.9	1.8	36.8	0.2	4.9	16.9	1.4	1.1	0.7
3	25.0	2.5	8.7	3.3	1.4	34.8	0.3	4.1	15.8	1.4	1.9	0.8
4	20.7	3.4	7.4	4.4	1.1	35.7	0.2	3.6	18.1	1.7	1.9	1.7
5	20.3	3.0	10.6	4.2	1.5	34.9	0.2	5.1	16.1	1.5	1.9	0.6
6	15.5	2.8	8.6	5.5	0.3	37.2	0.0	5.2	19.3	1.7	2.4	1.4
7	21.4	2.1	7.8	3.1	1.6	40.1	0.5	3.6	16.7	1.0	0.5	1.6
8	22.0	1.7	9.4	5.0	2.3	34.7	0.2	4.3	15.6	2.1	1.6	1.2
9	27.0	3.7	10.4	4.6	1.7	30.3	0.0	5.0	12.9	2.5	1.7	0.4
10	21.1	2.2	10.0	5.6	0.0	28.9	0.0	6.7	18.9	2.2	4.4	0.0
11	23.9	4.3	7.7	0.9	1.7	42.7	0.0	3.4	11.1	0.0	0.9	3.4
12	15.9	4.8	14.3	4.8	1.6	34.9	0.0	1.6	17.5	1.6	1.6	1.6
13	28.0	0.0	12.0	4.0	0.0	34.0	0.0	4.0	12.0	2.0	2.0	2.0
14	25.0	0.0	3.1	0.0	6.3	25.0	0.0	12.5	18.8	3.1	3.1	3.1
15	22.6	3.2	0.0	12.9	0.0	41.9	0.0	3.2	16.1	0.0	0.0	0.0
16	32.0	4.0	4.0	12.0	0.0	24.0	0.0	4.0	20.0	0.0	0.0	0.0
18	0.0	0.0	33.3	0.0	0.0	0.0	0.0	33.3	33.3	0.0	0.0	0.0
21	5.3	0.0	0.0	5.3	5.3	42.1	0.0	10.5	26.3	0.0	5.3	5.3

In **Table 4**, we can see that, during any year of service from 0 - 21 years, gastrointestinal diseases diagnosis has been the highest always, followed by viral fever. Furthermore, Musculoskeletal disorders (12% at 0 years, 33% at 18 years), neurological disorders (15% at 0 years, 26% at 21 years), and skin diseases (4.7% at 0 years, 11% at 21 years) show an increase in diagnosis percentage as duration of service increases.

Table 5. Summary of medical costs, referrals, and payment responsibility.

Cost of Medicine (BDT)	Minimum	Maximum	Mean	STD Deviation	
		1	3000	36.03	110
Referred Cases	Female	Male	Total	Total %	
	No	3592	4706	8298	99.6
	Yes	19	18	37	0.44
	Total	3611	4724	8335	100
Payment Method	Frequency		Percentage		
	Self-paid	44	0.5		
	Company paid	8377	99.5		
	Total	8421	100		

Table 5 summarizes the medical costs, referrals, and payment responsibility. The average cost of medicine for each patient was BDT 36 with a standard deviation of ± 110 . The highest cost of medicine reported was BDT 3000, which was for a cut injury. The second highest after that was BDT 1122, which was for cellulitis. The lowest cost of medicine was BDT 1, which was for a single tablet of Paracetamol (**Table 5**). Referrals were not needed for 99.6% of the cases. Only 0.4% (37) of cases was referred to a secondary or tertiary hospital for further treatment. These mainly included cut injuries and burns and a few cases of fever, runny nose (**Table 5**). And 99% of the treatment costs were covered by the company.

5. Discussion

Today, Bangladesh is one of the most prominent garment exporters in the world, with the RMG industry accounting for about 83 percent of exports [2]. Therefore it is important to consider the welfare of the millions of workers employed in this sector, especially those who work for long hours each day.

Work generates income and, in turn, contributes to a better socioeconomic state that in turn affects our health. Nonetheless, the work environment poses many health risks and can contribute to injuries, respiratory diseases, musculoskeletal disorders, reproductive disorders, cardiovascular diseases, mental illness, and hearing loss, eye diseases, and skin diseases, in addition to communicable diseases [16]. This study focused on analysis of the health issues presented by the workers.

Majority of the respondents in this study were males and the mean age was 30 years with SD of ± 7 years. Both the factors did not seem consistent with findings in other studies [17]-[19]. It is widely recognized that female workers account for 80% of the readymade garment's workforce. However, according to a survey conducted by the "Mapped in Bangladesh" found the male to female ratio to be between 35:65 to 55:45 [20]. The most probable reasons for this shift could be the replacement of some jobs with technology adoption. Also, another reason for the shift could be that more males are now willing to join jobs that were once considered a female-oriented sector. More females may also be replaced by more skillful and trained males. Focus on skill-training female workers may be taken as an initiative by policymakers.

All workers had some level of education, mostly primary education, which supports the findings of previous research by A Rahman [11]. Every export factory requires employing workers with a basic level of education. For this reason, it may be possible that some workers provide false information about their education level to acquire jobs.

The most common diagnoses were gastrointestinal problems and viral fever. The number of cases being reported seemed to be higher during the winter seasons. Such diseases are common among factory workers due to the overcrowded environment both at their workplace as well as their homes, which is usually lo-

cated in slum areas near to the factory. These are similarities expressed by the findings of Humayun Kabir [9]. Changes in personal health hygiene at work and home may help to bring about changes in the number of cases. Furthermore, another reason for the high number of viral fever and gastrointestinal problems may be due to the pandemic covid-19.

Neurological problems were the third most common diagnosis which includes migraine, neuralgia, vertigo, nerve problems, peripheral neuropathy, and general weakness. In addition to their home environments, workers spend a significant amount of time at work in a room where the temperature is high, machine noise and dust is ceaseless. These may be reasons for these complaints along with the possibility of lack of nutrition and vitamins in the respondents. These findings are supported by the findings of a study conducted by Reena Shukla [21].

Musculoskeletal problems were the fourth common complaint among the respondents to this study. This may be explained by the fact that their jobs required them to sit in a bent position for long hours each day, often in an overcrowded, ill-ventilated room. The neck, shoulder and back were the most common anatomical area to be affected. These findings of this research are consistent with the findings of Tushar Kanti Saha, with neck, low-back, hand, wrist, finger, and shoulder being most affected [22]. In another study by Pin-Chie Wang, workers complained of neck, shoulder, hand, wrist, arm, and forearm the most [19]. Though there was no significant occupational health hazard found specific to this factory, understanding the importance and applying ergonomics at workplace is an investment made towards the betterment of the company.

6. Limitations of the Study

Having an on-site clinic is a time-efficient method to diagnose and treat medical conditions, as it addresses various barriers to healthcare such as transportation costs, access, and availability. However, the main weakness of the study is the data collected was secondary. The clinic lacked records of vital statistics of the respondents, such as BMI, blood pressure, blood sugar levels, and previous medical history that could have helped with further analysis of disease prevalence. Collecting primary data will give control over more information that can give more insight on the issues faced by workers. It is important to note that the results are for only one garment factory and may not be applicable to other factories. There was no control group to compare results with this study.

7. Recommendations

Management should consider having adequate tools to measure and record BP, blood sugar, and hemoglobin levels. Providing free or subsidized meals and supplements containing vitamins A and D, iron, and folic acid to improve nutritional status and decrease disease burden. Ensure proper exhaust ventilation on each floor helps to reduce temperatures in hot zones. Arrange for water supply in workplace for the workers. Organizing regular awareness campaigns for the

workers about healthy living conditions and proper sanitation, and hygiene methods. Collaborate with healthcare providers to supply long-term healthcare by training in-house healthcare providers. Conducting regular health check-ups, including eye exams, cervical screenings, and breast cancer screenings for the workers. Affiliate with local secondary or tertiary hospitals for subsidized rates for workers. Encourage and institutionalize health insurance for all workers.

8. Conclusion

The readymade garment industry of Bangladesh hosts many workers who work despite numerous diseases and illnesses as they have no other option to survive. There is an urgent need to invest in healthcare system and provide access to healthcare for the workers. The study findings highlight awareness programs among factory owners and garment workers about preventing infectious diseases and chronic diseases, as well as promoting improved medical facilities. Prevention and early treatment of such disorders may reduce the risk of complications in the future. Bangladesh's fashion industry needs a systematic approach to achieve SDG 3. This enables factory management to understand the merits of investing in the health of workers, which goes beyond simply social responsibility. Study of other environmental-related issues and their impact on the occupational health and safety of garment manufacturing workers can be conducted in the future. More work with other factories in different areas will further help to identify and compare geographical changes and factors among the workers.

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Conflicts of Interest

There are no conflicts of interest.

Ethical Approval

The study was approved by the Institutional Ethics Committee of S M Knitweaves Ltd. and the reference number is SMG/HR/Admin/21/48.

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