

Original Article

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## Subjective Health Complaints among the Garments Worker

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### Abstract:

**Background:** The garments sector in Bangladesh is fronting prospective growth with millions of garments workers at the forefront. Workers suffered from different health problems due to extensive workload, inadequate personal protective equipment and poor or non-existent of health facilities in the workplace.

**Methods:** A cross-sectional study was done to determine the subjective health complaints 180 among the garments workers of two garments factories in Dhaka. 'Subjective Health Complaints Inventory' (SHCs) scale was used to construct the questionnaire for interviewing the workers.

**Results:** The garments workers mean age was 27.0±5.7 years and mean working hour's 55.4±6.3 per week. The prevalence of SHCs was gastrointestinal problems (89.4%), flu (63.9%), musculoskeletal pain (56.7%), pseudo-neurology problems (41.1%) and allergy (33.3%). The significant subscale of SHCs prevalence was cold flu (59.1%) in flu, leg pain (27.5%) in musculoskeletal pain, heat flushes (23.0%) in pseudo-neurological problems, gas discomfort (53.4%) in gastrointestinal problems and allergies (28.3%) in allergy. Majority of the worker's (85.0%) health conditions were good. Statistically significant association found coughing with the age; and gas discomfort and allergies (p<0.05) were significant with the gender of the workers.

**Conclusion:** This study reveals that the majorities of the workers' health condition was good and cough, gas discomfort and allergies being the most prevalent health issues. The garments authorities and policymakers indeed develop primary healthcare services in their garments by establishing health facilities in order to improve the health state of workers.

**Keywords:** Subjective health complaints, Garments worker, Bangladesh.

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### Introduction

Bangladesh is a middle-income country with a high density of about 166.63 million of population.<sup>1</sup>

Garment industries growing rapidly over the last three decades and became most challenging industrial domain for the economic evaluation.<sup>2</sup> This industry is essential for economic growth and development.<sup>3</sup> This sector employs around 4.1 million people, the majority of whom under the age of 30 years and hail from rural parts of Bangladesh.<sup>4,5</sup> In the fiscal year 2017-18, readymade garment (RMG) exports value accounted 84% of the total exports and contributed 11% of the national gross domestic product (GDP).<sup>5,6</sup>

It is needed to maintain optimal physical and mental health in order to retain a healthy life. It is fundamental human right to have access to adequate healthcare at all levels, including at workplace.<sup>7</sup> Our country wages and other benefits of garment workers are unsatisfactory in contrast to other regions of the world.<sup>8</sup>

The garment workers are commonly exposed to prolonged sitting or standing, highly tiresome

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work, heavy weight lifting to shoulder level and working with back twisted or bent forward, all of which are provoking impaired workability and long-term sickness.<sup>9</sup>The most common health problems are respiratory problems, cardiovascular diseases, gastrointestinal diseases, neurological, musculoskeletal and nutritional problems.<sup>10</sup>The Maximum factory's healthcare facility is not well established and health amenities are insufficient. In the vast of cases auxiliary healthcare providers administered first aid and provide only limited medical treatments.<sup>11</sup>

The healthcare-seeking behaviors and morbidity patterns of garment workers are crucial in this regard. It is essential to determine the prevalence of subjective health complaints among garments workers to improve their quality of life.

## Methods

### Study design and settings

This is a cross-sectional study was conducted to determine the subjective health complaints among the garments workers aged  $\geq 18$  years. The study was initiated from January, 2018 to December, 2018 at the purposively selected two garments factories named 'Trouser Line Limited' and 'Lancia knitwear Limited' situated in Dhaka, Bangladesh.

### Data collection

A pretested semi-structured questionnaire was used to collect data from the 180 respondents through face-to-face interviews at their convenience. Informed written consent was taken from each respondent, and informed them about the objectives and probable outcomes of this study. The questionnaire consists of two parts: socio-demographic outlines of the garments worker and the 'Subjective Health Complaints Inventory' (SHCs) scale which was used to find out the subjective somatic and psychological complaints experienced during the past 30 days. The scale is divided into five

categories: musculoskeletal pain, pseudo-neurology, gastrointestinal problems, allergy and flu.<sup>12</sup>The scores for each component was ranged from 0 to 3, giving a total score from 0 (excellent) to 90 (very poor). Substantial complaints were also computed for each subscale.

### Data analysis

The questionnaire was checked and cleaned after the completion of data collection. All data were computed and analyzed through 'Statistical Package for the Social Sciences' (SPSS) software version 25. Both descriptive and inferential statistics were carried out and the results were presented in tables and chart.

### Ethical statement

An assurance of confidentiality and secrecy of the information was given to all interviewed workers. The study was validated by the 'Institutional Review Board' (IRB) of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka 1212, Bangladesh. (NIPSOM/IRB/2018/471)

### Results:

#### Socio-demographic outlines of the garments workers

Table 1 outlines the socio-demographic overviews of the garments workers. The mean age of the workers was  $27.0 \pm 5.7$  years followed by  $28.2 \pm 6.5$  years in males and  $26.2 \pm 5.0$  years in females. The mean working hours in a week was  $55.4 \pm 6.3$  hours. The majorities of the workers were female (61.7%) and married (73.9%). Above two-thirds of workers (70.6%) completed up to primary level of education. The mean of family member's was  $3.2 \pm 1.2$  persons; and the mean annual family income was  $106,416.7 \pm 32,360.6$  taka, where two-thirds of the workers (67.2%) income was less than 100,000 taka representing the low economic condition

**Table 1: Socio-demographic outlines of the garments workers (n=180)**

Traits	Mean±SD	
<b>Mean ages by gender (years)</b>		
Male's mean age		28.2±6.5
Female's mean age		26.2±5.0
Mean age of workers		27.0±5.7
<b>Working hours in a week</b>		
Mean of working hours		55.4±6.3
	<b>n</b>	<b>%</b>
<b>Gender</b>		
Male	69	38.3
Female	111	61.7
<b>Marital status</b>		
Never married	32	17.8
Married	133	73.9
Divorced and widowed	15	8.3
<b>Highest level of education</b>		
Primary and below	127	70.6
Secondary and above	53	29.4
<b>Family members</b>		
≤3 persons	148	82.2
>3 persons	32	17.8
Mean±SD= 3.2±1.2		
<b>Annual average family income (Taka)</b>		
≤100,000	121	67.2
100,001-150,000	48	26.7
>150,000	11	6.1
Mean±SD= 106,416.7±32,360.6		
<b>Living housing conditions</b>		
Paka	160	88.9
Semi-paka	16	8.9
Kacha	4	2.2

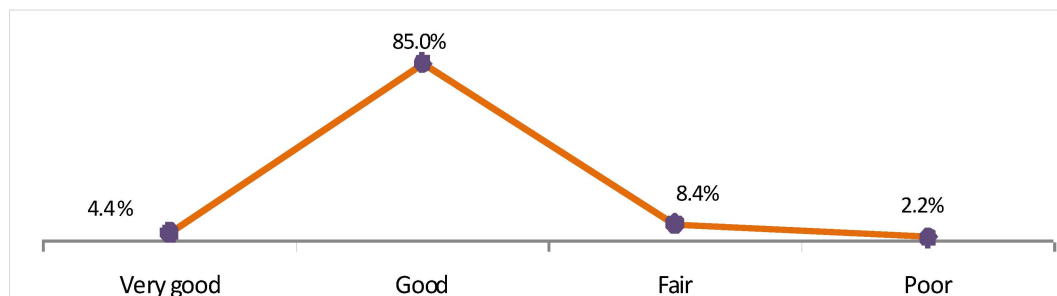
### Health status of the garments workers

Table 2 describes the health status of the garments workers categorized by the SHCs scale and subscale. The prevalence of SHCs in the workers was gastrointestinal problems (89.4%), flu (63.9%), musculoskeletal pain (56.7%), pseudo-neurology problems (41.1%) and allergy (33.3%). All the workers paid for healthcare and other medical expense from their out-of-pocket.

In the subscale of SHCs, the significant prevalence was cold flu (59.1%) in flu, leg pain (27.5%) in musculoskeletal pain, heat flushes (23.0%) in pseudo-neurological problems, gas discomfort (53.4%) in gastrointestinal problems and allergies (28.3%) in allergy.

**Table 2: Health status of the garments workers**

		n	%
<b>Subjective Health Complaints Inventory (SHC) scale</b>			
Prevalence of SHCs of the workers			
	Flu	115	63.9
	Musculoskeletal pain	102	56.7
	Pseudo-neurologyproblems	74	41.1
	Gastrointestinal problems	161	89.4
	Allergy	60	33.3
*Multiple responses			
Mode of payment for healthcare and others medical expense (n=180)			
	Public financing	0	0
	Authorities financing	0	0
	Self-financing (out-of-pocket)	180	100
<b>Subscale of SHCs</b>			
Prevalence of flu (n=115)			
	Cold flu	68	59.1
	Coughing	47	40.9
Prevalence of musculoskeletal pain (n=102)			
	Shoulder pain	6	5.9
	Neck pain	8	7.8
	Upper back pain	8	7.8
	Arm pain	5	4.9
	Headache	26	25.5
	Low back pain	7	6.9
	Leg pain	28	27.5
	Migraine	14	13.7
Prevalence of pseudo-neurological problems(n=74)			
	Anxiety	3	4.1
	Depression	11	14.9
	Sleep problems	15	20.3
	Tiredness	8	10.8
	Palpitations	7	9.5
	Heat flushes	17	23.0
	Dizziness	13	17.6
Prevalence of gastrointestinal problems (n=161)			
	Stomach discomfort	20	12.4
	Heartburn	7	4.3
	Ulcer or non-ulcer dyspepsia	1	0.6
	Stomach pain	15	9.3
	Gas discomfort	86	53.4
	Diarrhoea	9	5.6
	Constipation	23	14.3
Prevalence of allergy (n=60)			
	Asthma	8	13.3
	Breathing difficulties	12	20.0
	Allergies	17	28.3
	Eczema	5	8.3
	Chest pain	8	13.3



**Figure 1: General health conditions of the workers (n=180)**

Figure 1 illuminates the general health conditions of the workers. Majority of the worker's (85.0%)

health condition was good and only 2.2% of worker's health condition was poor.

**Table 3: Association of subscale of SHCs with age of the garments workers**

Subscale of SHCs	Age groups (years)			$\chi^2$ value	P-value
	$\leq 20$	21-30	$>30$		
	n(%)	n(%)	n(%)		
<b>Prevalence of flu(n=115)</b>					
Cold flu	9(33.3)	49(40.8)	10(30.3)	1.488	0.475
Coughing	2(7.4)	38(31.7)	7(21.2)	7.226	*0.027
<b>Prevalence of musculoskeletal pain(n=102)</b>					
Shoulder pain	0(0)	6(5)	2(1.11)	1.759	<sup>†</sup> 0.376
Neck pain	1(3.7)	7(5.8)	0(0)	1.608	<sup>†</sup> 0.483
Upper back pain	3(11.1)	4(3.3)	1(3)	3.020	<sup>†</sup> 0.162
Arm pain	1(3.7)	3(2.5)	1(3)	0.728	<sup>†</sup> 0.818
Headache	7(25.9)	15(12.5)	7(12.1)	3.201	<sup>†</sup> 0.207
Low back pain	1(3.1)	6(5)	0(0)	1.297	<sup>†</sup> 0.529
Leg pain during physical activity	5(18.5)	22(18.3)	1(3)	4.827	0.090
Migraine	1(3.7)	11(9.2)	2(6.1)	0.685	<sup>†</sup> 0.771
<b>Prevalence of pseudo-neurological problems(n=74)</b>					
Depression	0(0)	11(9.2)	0(0)	4.895	<sup>†</sup> 0.069
Sleep problems	2(7.4)	11(9.2)	2(6.1)	0.237	<sup>†</sup> 0.922
Tiredness	1(3.7)	7(5.8)	0(0)	1.608	<sup>†</sup> 0.483
Heat flushes	3(11.1)	9(7.5)	5(15.2)	2.173	<sup>†</sup> 0.295
Dizziness	3(11.1)	7(5.8)	3(9.1)	1.579	<sup>†</sup> 0.467
<b>Prevalence of gastrointestinal problems(n=161)</b>					
Stomach discomfort	5(18.5)	12(10)	3(9.1)	1.828	<sup>†</sup> 0.431
Heartburn	0(0)	5(4.2)	2(6.1)	1.256	<sup>†</sup> 0.623
Stomach pain	5(18.5)	8(6.7)	2(6.1)	3.822	<sup>†</sup> 0.148
Gas discomfort	13(48.1)	59(49.2)	14(42.4)	0.473	0.789
Diarrhoea	2(7.4)	6(5)	1(3)	0.742	<sup>†</sup> 0.764
Constipation	3(11.1)	13(10.8)	7(21.2)	2.532	<sup>†</sup> 0.314
<b>Prevalence of allergy(n=60)</b>					
Asthma	0(0)	7(5.8)	1(3)	1.207	<sup>†</sup> 0.650
Breathing difficulties	3(11.1)	9(7.5)	0(0)	3.480	<sup>†</sup> 0.128
Allergies	1(3.7)	11(9.2)	5(15.2)	2.124	<sup>†</sup> 0.322
Eczema	1(3.7)	3(2.5)	1(3)	0.728	<sup>†</sup> 0.818
Chest pain	1(3.7)	14(11.7)	3(9.1)	1.260	<sup>†</sup> 0.690

\*Statistically significant value

<sup>†</sup>Fishers exact test

Table 3 interprets the association of the subscale of SHCs with the age of the garments workers. There was a statistically significant association of coughing ( $p=0.027$ ) with the age of the workers. Being most prevalent among the participant group of 21-30 years (31.7%).

Table 4 interprets the association of the subscale of SHCs with the gender of the garments workers. Gas discomfort ( $p=0.023$ ) and allergies ( $p=0.019$ ) were statistically significant with the gender of the workers. Being most prevalent in female workers (51.35%) and allergies in male workers (15.9%)

**Table 4: Association of subscale of SHCs with gender of the garments workers**

Subscale of SHCs	Gender		$\chi^2$ value	P-value
	Male	Female		
	n(%)	n(%)		
<b>Prevalence of flu(n=115)</b>				
Cold flu	25(36.3)	43(38.7)	0.114	0.736
Coughing	19(27.5)	28(25.2)	0.118	0.731
<b>Prevalence of musculoskeletal pain(n=102)</b>				
Shoulder pain	1(1.5)	5(4.5)	-	†0.409
Upper back pain	4(5.8)	4(3.6)	-	†0.485
Headache	6(8.7)	20(18.0)	2.990	0.084
Low back pain	1(1.5)	6(5.4)	-	†0.253
Leg pain during physical activity	7(10.1)	21(18.9)	2.494	0.114
Migraine	5(7.3)	9(8.1)	0.044	0.834
<b>Prevalence of pseudo-neurological problems(n=74)</b>				
Anxiety	0(0)	3(2.7)	-	†0.287
Depression	2(2.9)	9(8.1)	-	†0.209
Sleep problems	5(7.3)	10(9.0)	0.173	0.786
Tiredness	2(2.9)	6(5.4)	-	†0.712
Palpitations	2(2.9)	5(4.5)	-	†0.709
Heat flushes	8(11.6)	9(8.1)	0.605	0.437
Dizziness	2(2.9)	11(9.9)	-	†0.136
<b>Prevalence of gastrointestinal problems (n=161)</b>				
Stomach discomfort	3(4.4)	17(15.3)	5.182	0.023
Heartburn	4(5.8)	3(2.7)	-	†0.431
Ulcer or non-ulcer dyspepsia	1(1.5)	0(0)	-	†0.383
Stomach pain	6(8.7)	9(8.1)	0.019	0.890
Gas discomfort	29(42.0)	57(51.4)	1.480	*0.023
Diarrhoea	4(5.8)	5(4.5)	-	†0.734
Constipation	11(15.9)	12(10.8)	1.005	0.316
<b>Prevalence of allergy (n=60)</b>				
Asthma	4(5.8)	4(3.6)	-	†0.485
Breathing difficulties	7(10.1)	5(4.5)	-	†0.217
Allergies	11(15.9)	6(5.4)	5.523	*0.019
Eczema	3(4.4)	2(1.8)	-	†0.373
Chest pain	7(10.1)	11(9.9)	0.003	0.959

\*Statistically significant value †Fishers exact test

## Discussion

Prolonged working periods without proper rest, scarce use of personal protective equipment and inadequate provision of ergonomic facilities at the workplace are the leading cause of subjective health complaints among workers.

The mean age of the workers was 27.0±5.7 years followed by 28.2±6.5 years in males and 26.2±5.0 years in females. The mean working hours in a week was 55.4±6.3 hours. The highest level of education of above two-thirds of workers (70.6%) was up to the primary level. The mean annual family income was 106,416.7±32,360.6 taka. The overview of the

garments workers reveals their low socioeconomic conditions.

In this study, the prevalence of SHCs in the workers was gastrointestinal problems (89.4%), flu (63.9%), musculoskeletal pain (56.7%), pseudo-neurology problems (41.1%) and allergy (33.3%). In the subscale of SHCs, the significant prevalence was respectively cold flu (59.1%) in flu, leg pain (27.5%) in musculoskeletal pain, heat flushes (23.0%) in pseudo-neurological problems, gas discomfort (53.4%) in gastrointestinal problems and allergies (28.3%) in allergy. Gastrointestinal problems such as gastric pain, heartburn and abdominal

discomfort were reported as most prevalent in the studies.<sup>13-15</sup> Gas discomfort ( $p=0.023$ ) was found statistically significant with the gender of the workers and it is most prevalent in female workers (51.35%). Heat flushes and dizziness were recognized as common neurological-related problems in the studies conducted in Bangladesh, Sri Lanka and Turkey.<sup>16-18</sup> Several studies were documented that musculoskeletal disorders are the fore most SHCs among garments workers.<sup>3, 15-17</sup> Among sewing machine operators, it was found that 60% of the women were suffering from back pain. Neck and shoulder pain both were commonly reported among sewing machine operators.<sup>15,18,19</sup>

This study described the association of the subscale of SHCs with the age and gender of the garments workers. There was a statistically significant association of coughing ( $p=0.027$ ) with the age of the workers and it is the most prevalent among the participant group of 21-30 years (31.7%). The allergies ( $p=0.019$ ) were statistically significant with the gender of the workers and it is most prevalent in male workers (15.9%).

### Conclusion

It is evident from the study that the garments workers are exposed to various health problems. Gastrointestinal problems are the most common problem and the prevalence of musculoskeletal disorders is the leading SHCs among the workers. The causes of the musculoskeletal problems were related to continuous sitting, bending and twisting at the waist, abnormal posture and movements during work. Anxiety, depression and somatic illness are also associated with gastrointestinal problems. The SHCs seem to be a fast, inexpensive, simple and reliable way to score subjective health complaints as they occur in the normal working population, without diagnoses, hypotheses or attributions. The establishment and strengthening of healthcare facilities in the garments factory, and also the provision of emergency and essential healthcare can reduce the subjective health problems of the workers.

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