

Chapter 1: Introduction

1.1 Introduction

Depression is a common illness worldwide, with an estimated 3.8% of the population affected, including 5.0% among adults and 5.7% among adults older than 60. Approximately 280 million people in the world have depression (GHDX 2019). The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019 showed that depressive disorders are among the most disabling mental illnesses, ranked among the top 25 leading causes of burden worldwide in 2019. This burden was high across the entire lifespan, for both sexes, and across many locations (GBD 2019).

Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when recurrent and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, school, and family. At its worst, depression can lead to suicide (Chand and Arif, 2021; Hossain et al., 2017).

Depression among workers generates substantial costs to the person, family, employer, and community. Depression causes decreased workplace productivity and absenteeism, resulting in lower income or higher unemployment. A World Economic Forum/Harvard School of Public Health study “estimated that the cumulative global impact of mental disorders in terms of lost economic output will amount to \$16.3 trillion between 2011 and 2030” (Grazier, 2019).

International, regional, and local governments, employers, and organizations recognize depression as one of the most debilitating conditions, leading to widespread suffering, high costs, labor and productivity losses, and long-term disability. They also agree that in many cases, depression is preventable and treatable. The workplace offers promise for identification, intervention, and sustainable improvement in worker health and well-being at highly positive returns on the investment in the people and the programs (Grazier et al., 2019).

The economic impact may be much higher in developing countries where economies largely depend on labour-intensive manufacturing industries, particularly those which employ a large proportion of the young population, especially females (Bohra et al., 2015). The Bangladesh economy depends heavily on low-wage garment manufacturing. Bangladesh is the 2nd highest exporter in the world in terms of RMG or Readymade Garments Exports, and it is the highest export earning sector in Bangladesh. The industry employs a total of 4.22 million people, with women accounting for over 60% of the workforce, the highest proportion in South Asia (Masud, 2022). Previous studies and interventions have focused exclusively on the physical health and safety of these garment workers (Ahmed et al., 2009; Akhter et al., 2010; Hoque and Shahinuzzaman, 2021), and very few studies report on their mental health conditions and measures (Fitch et al., 2017; Fitch et al., 2018; Parvin et al., 2018).

The prevalence of depression in industrial workers is higher than in the general population. These differences can be due to the working conditions of industrial workers (Amiri, 2021; Do et al., 2020; Minh, 2014; Tran et al., 2019). Workers in the garments industry are exposed to family and workplace violence, experience a large income gap and have few social protections; these increase their risk of developing mental health conditions (Begum et al., 2010; Kabir et al., 2021; Riaduzzaman, 2017). The few studies conducted so far in Bangladesh – solely on females reported a high prevalence of depression among workers. The prevalence of depression was 20.9% among garment workers (Fitch et al., 2017). Post-traumatic stress disorder (PTSD) was found to be 17.79% – 7.25% in garment workers in Bangladesh (Fitch et al., 2018). The ongoing pandemic situation makes the condition even worse. The pandemic COVID-19 has brought unbearable psychological pressure to people worldwide. A recent study from Bangladesh showed that a substantial portion of the population, especially females and younger, are at high risk of psychological problems during the COVID-19 outbreak (Hossain et al., 2021).

Mental disorders are generally not perceived as a health problem and are not a priority in health care delivery. Because of false perceptions, nearly 60% of people with depression do not seek medical help. Many feel that the stigma of a mental health disorder is unacceptable in society and may hinder personal and professional life

(Chand and Arif, 2021). Data related to depressive symptoms in the general population, particularly the garment workers, are scarce and are not readily available in Bangladesh. This study was conducted to determine the prevalence of depression among garment workers and identify common risk factors of depression including socio-demographics and comorbid health/medical conditions. This is expected to generate valuable insights and assist health professionals and policymakers in defining the need and planning service delivery models.

1.2 Objectives

1.2.1 General objective

To determine the prevalence of depression and risk factors associated with depression among garment workers in Chattogram.

1.2.2 Specific objectives

1. To describe the sociodemographic and workplace-related characteristics of the participants.
2. To determine the prevalence and level of depression by using the DASS-21 questionnaire.
3. To assess associated risk factors of depression among the participants.

Chapter 2: Review of Literature

Depression is a mental health problem in the world and is associated with disability and increasing healthcare costs. Its prevalence and associated factors are underreported in Bangladesh. The following sections overview of depression, its burden, screening tools, and related aspects of depression are reviewed to determine the knowledge gap and develop the methodology of the current study.

2.1. Definition and classification of depression:

Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. The American Psychiatric Association's Diagnostic Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) classifies the depressive disorders into Disruptive mood dysregulation disorder; Major depressive disorder; Persistent depressive disorder (dysthymia); Premenstrual dysphoric disorder; and Depressive disorder due to another medical condition (APA 2013; Chand and Arif, 2021). The standard features of all the depressive disorders are sadness, emptiness, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function (Ormel et al., 2019).

2.2. Depression as a public health concern

2.2.1. Epidemiology of depression

Twelve-month prevalence of the major depressive disorder is approximately 7%, with marked differences by age group. The prevalence in 18 to 29 year old individuals is threefold higher than in individuals aged 60 years or older. Females experience 1.5 to 3 fold higher rates than males beginning early adolescence. In the US, depression affects nearly 17 million adults, but these numbers are gross underestimates as many have not even come to medical attention (Chand and Arif, 2021).

2.2.2. Etiology of depression:

The etiology of major depressive disorder is multifactorial, with genetic and environmental factors playing a role. First-degree relatives of depressed individuals are about three times as likely to develop depression as the general population; however, depression can occur in people without family histories of depression (Namkung et al., 2018). Some evidence suggests that genetic factors play a lesser role

in late-onset depression than early-onset depression. Neurodegenerative diseases, stroke, multiple sclerosis, seizure disorders, cancer, macular degeneration, and chronic pain have been associated with higher rates of depression. Life events and hassles operate as triggers for the development of depression. Traumatic events such as the death or loss of a loved one, lack or reduced social support, caregiver burden, financial problems, interpersonal difficulties, and conflicts are stressors that can trigger depression. Widespread social inequalities, income disparities, poverty, high prevalence of chronic pain, and medical conditions like cardiovascular disease and diabetes have been linked with depression (Chand and Arif, 2021).

2.2.3. Consequence of depression in the workplace:

In the workplace, depression is more common than other mental disorders and is a significant cause of reduced productivity, elevated absenteeism and diminished job retention (Burton et al., 2008). Moreover, depressive disorders increase the risk of accidents at work, resulting in impaired health conditions, reduced quality of life, suicidal ideation, an additional cost to healthcare, and other related problems (Do et al., 2020). The total depression-attributable costs in the United States are estimated to be US\$36.6 billion per year (Grazier, 2019). This cost is even expected to be significantly higher in developing countries such as China, Bangladesh, and Vietnam, where the economies greatly rely on labor-intensive industries such as textile/shoemaking, electronics, or food processing (Do et al., 2020; Fitch et al., 2017; Minh, 2014).

2.2.4. Screening for depression in adults

Depression is among the leading causes of disability in persons 15 years and older. It affects individuals, families, businesses, and society and is common in patients seeking care in the primary care setting. So, the US Preventive Services Task Force (USPSTF) recommends screening for depression in the general adult population, including pregnant and postpartum women. Screening should be implemented with adequate systems to ensure accurate diagnosis, effective treatment, and appropriate follow-up. The USPSTF found convincing evidence that screening improves the proper identification of adult patients with depression in primary care settings, including pregnant and postpartum women (Siu et al., 2016). The USPSTF found

adequate evidence that programs combining depression screening with sound support systems improve clinical outcomes (i.e., reduction or remission of depression symptoms) in adults, including pregnant and postpartum women. The USPSTF found convincing evidence that treatment of adults and older adults with depression identified through screening in primary care settings with antidepressants, psychotherapy, or both decreases clinical morbidity (Siu et al., 2016).

Many instruments have been developed for depression screening. Commonly used depression screening instruments include the Patient Health Questionnaire (PHQ) in various forms and the Hospital Anxiety and Depression Scales in adults, the Geriatric Depression Scale in older adults, and the Edinburgh Postnatal Depression Scale (EPDS) in postpartum and pregnant women (Maurer, 2012).

Among the numerous self-reported instruments that have been developed for the early screening or assessment of people with common mental health problems, the Depression Anxiety Stress Scales (DASS)-21 is widely used, relatively short, and freely available in the public domain (Lovibond and Lovibond, 1995). The DASS-21 is a short version of the DASS-42 (Antony et al., 1998) that was developed to measure negative emotional symptoms of depression and anxiety. During the development process, a third construct corresponding to irritability, tension, and agitation emerged empirically and was labeled as “stress.” Therefore, the DASS comprises Depression, Anxiety, and Stress subscales. Antony et al. (1998) selected seven items from each subscale of the original DASS and demonstrated the reliability and validity of the DASS-21.

During the last two decades, the measurement properties of the original English version of the DASS-21 have been evaluated in clinical and non-clinical populations (Antony et al., 1998; Ng et al., 2007; Sinclair et al., 2012). The DASS-21 has also been translated into 44 languages (www2.psy.unsw.edu.au/dass/), with its measurement properties studied in various countries, including Bangladesh (Ahmed et al., 2022). Lee et al. (2019) concluded from their systemic review that the DASS-21 demonstrated sufficient high-quality evidence for bifactor structural validity, internal consistency (bifactor), criterion validity (Depression subscale), and hypothesis testing for construct validity.

2.3. Burden of depression

2.3.1. Global prevalence of depression

According to recent global estimates, 615 million people are suffering from depression and anxiety, which imposes a high burden on both the affected individuals (e.g., poor function at work or school) and society (e.g., medical costs) (Brunier and Mayhew, 2016).

These statistics vary in the World Health Organization (WHO) Regions, as depression rates are 3.6% in the Western Pacific Region and 5.4% in the African Region. At a global level, over 300 million people are estimated to suffer from depression, equivalent to 4.4% of the world's population (WHO 2017). Depression, as stated by WHO, will be the leading cause of disease burden by 2030 (Lépine and Briley, 2011).

Santomauro et al. (2021) estimated a substantial increase in the prevalence and burden of major depressive disorder and anxiety disorders due to the COVID-19 pandemic. They systematically identify and analyze population mental health survey data and quantify the resulting impact of the COVID-19 pandemic on the prevalence of these two disorders by location, age, and sex in 2020. Major depressive disorder caused 49.4 million (33.6 to 68.7) disability-adjusted life-years (DALYs), and anxiety disorders caused 44.5 million (30.2 to 62.5) DALYs globally in 2020 (Santomauro et al., 2021).

2.3.2. Prevalence of depression in Bangladesh

In Bangladesh, the prevalence of mental health disorders amongst the adult population from 1974 to 2005 declined significantly, in 1974 it was 31.4% and in 2005 it was 16.1% (Hossain et al., 2014). The first national survey on mental health conducted in 2003-2005 revealed that 16.1 % of the adult population had some form of mental disorder, with a higher prevalence in women (19%) than in men (12.9%) (Islam et al., 2015). In their systematic review, Hossain et al. (2014) show the prevalence of mental disorders, including depression, amongst children in Bangladesh is 13.40% to 22.9% between 1998 to 2004. The estimated prevalence of depressive disorders is 4.6%

(Gausia et al., 2009). Unfortunately, mental health care is immensely inadequate due to a shortage of public mental health facilities, scarcity of skilled professionals, insufficient financial resource distribution, and stigma.

2.3.3 Depression among Industrial workers

Amiri (2021) conducted a study to meta-analyze the prevalence of depressive disorder in industrial workers is 21%. One in five workers in the industrial sector experiences depression disorder. The prevalence of depressive disorders in men and women industrial workers is 23% and 28%, respectively. The prevalence of depressive disorders in Asia, Europe, and America is equal to 22%, 18% and 20% respectively.

Compared to the general population, the prevalence of depression in the population of industrial workers was higher, with the prevalence of depression in the general population being up to 15% (Ustun and Chatterji, 2001). Also, compared to a meta-analysis of depression in the general population conducted in 30 countries (Lim et al., 2018), the prevalence of depression in industrial workers is almost two times higher than in the general population.

A study from India (Rao and Ramesh, 2015) measures the depression, anxiety, and stress levels of workers in the industry to investigate if it affects the firm's productivity. Interestingly, the study showed that none of the workers had a positive score for depression. It also showed that around 36% of the workers had a positive score for anxiety, and 18% had a positive score for stress on the DASS-21 scale.

Few studies have been done to determine the mental health status and the factors associated with them among industrial workers in Indian settings. A survey of industrial workers showed a 17–30% prevalence of mental health disorders (Nilamadhab et al., 2002). However, another study in southern India showed a higher prevalence of around 40–50% psychiatric morbidity among industrial workers (Kumar et al., 2011).

Do et al. (2020) performed a cross-sectional study in industrial zones of four provinces of Vietnam to screen for depressive symptoms and suicidal ideation among industrial workers by the Patient Health Questionnaire (PHQ-9). Of 1200 industrial workers, 30.5% and 33.6% industrial workers had positive depressive symptoms and

suicidal ideation in the last two weeks, respectively. This study found a high prevalence of depressive symptoms and suicidal ideation among industrial workers in Vietnam.

Minh (2014) conducted a cross-sectional study among 420 workers in Shoe Manufacturing Factory in Haiphong City, Vietnam. Using Karasek's Job Content Questionnaire (JCQ) and the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM IV) tool for measuring depression, the study revealed a high prevalence of work-related depression among workers (18.8%). Another survey conducted among a cohort of Vietnamese industrial workers (Tran et al., 2019) identified that 38.6% of participants reported suffering from depression. The findings suggested the importance of regular health screening, work safety assurance, and social support outside the workplace on the worker's mental health.

A survey was conducted on a sample of 600 lower socio-economic working women, including garment workers in Bangladesh (Fitch et al., 2017). The prevalence of depression was 23.5%, 20.9% among garment workers and 26.4% among others. The study concluded that the prevalence of moderate-to-severe depression among working women in Bangladesh is relatively high. Parvin et al. (2018) set out to study the relationship between intimate partner violence (IPV), workplace violence, and depression among 800 female garment workers. The findings show high rates of IPV (69%), WPV (73%, experienced or witnessed), and depressive symptomatology (40%) among female garment workers.

2.3.4 Factors associated with depression

There are several mechanisms for the causes of the high prevalence of depression in industrial workers compared to the general population. As previous studies have shown, working conditions have a significant impact on mental health and, especially, depression in industrial workers, so the higher prevalence of depression in industrial workers can be due to variables such as job strain, work changes, and job unsuitability (Battams et al., 2014; Theorell et al., 2013).

Part-time employment, chronic pain, two or more traumatic life events, and dysuria were significantly associated with depression among garment workers in Bangladesh.

Depression prevalence lowered by 11% among these workers for every additional monthly earning of 1,000taka (US\$12) (Fitch et al., 2017).

Associations with age, gender, and education have also been found (Singh 1992). High school education, living in a dormitory, living with siblings, having two children or more, high years of experience, suffering from burnout, alcohol use disorder, and smoking status were associated with positive depressive symptoms. Living with children, working in mechanical/metallurgy/electronics factories, being wholly exhausted and often thinking of quitting, and having alcohol use disorder was positively related to suicidal ideation (Do et al., 2020). The factors associated with depression at work were high psychological demand, low social support, inadequate work protection materials, and work absenteeism in the study of Minh (2014). Factors found to be positively associated with the possibility of depression, and higher PHQ-9 score were long working hours, more health problems, and health hazards exposure at work. Meanwhile, being female, having more children, living with parents, engaging in smoking, and being local workers were found to correlate with a lower likelihood of being depressed in the study by Tran et al. (2019).

Sakamoto et al. (2013) cross-sectionally investigated the association between bedtime and depressive symptoms in Japanese workers, considering sleep duration. The participants were 1,197 workers who participated in a health survey during a periodic checkup and had no history of psychiatric disease. Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression (CES-D) scale. Short sleep duration (<6 hours) was significantly associated with an increased prevalence of depressive symptoms. Late bedtime was also significantly associated with an increased prevalence of depressive symptoms (CES-D score of ≥ 19); the multivariable-adjusted odds ratio of depressive symptoms for rest of 1:00 or later versus 23:00 to 23:59 was 1.90. After additional adjustment for sleep duration, however, the association was attenuated mainly.

From the above discussion, it was evident that the level of depression varied among studies due to the difference in several workplaces and work-related factors. Very few studies were conducted on this issue in Bangladesh; all those studies included only female garment workers in the capital of Bangladesh. In this regard, to provide more

evidence for the policymakers, this study was conducted in some selected garment factories in Chattogram city of Bangladesh to determine the prevalence and risk factors associated with depression among garment workers.

Chapter-3: Materials and Methods

Following approval by the Ethical and Research Committee of Chattogram Veterinary and Animal Sciences University (CVASU), an observational study was carried out to explore the prevalence and factors associated with depression among garment workers in Chattogram Metropolitan Area. Informed consent was obtained from the participants who were included in the study. Different sociodemographic, work-related, and workplace-related factors were compared between participants with and without depression.

3.1. Study design:

This was a descriptive type of cross-sectional study.

3.2. Study period

This was a 06 (six) months study commencing from 1st January 2022 to June 2022. For the study, the total study period was divided into different parts based on the tasks of the study, including topic selection, ethical approval, questionnaire development, data collection, data analysis, manuscript writing, etc. as detailed in appendix A.

3.3. Place of the study

Three garments in the BSCIC area, Kalurghat, Chattogram.

3.4. Reference population: All garment workers of Chattogram Metropolitan Area.

3.5. Source population: Garment workers of three garments in BSCIC area, Kalurghat, Chattogram.

3.6. Sample size:

Sample size was determined by the following formula:

$$n = \frac{z^2 \times p \times q}{d^2}$$

Where,

n= Expected sample size

z= 1.96, the standard normal deviation set as 1.96 with 95% confidence interval.

p= proportion in the target population estimated to have a particular characteristic (Proportion of garments worker had depression based on previous study), 69%= 0.69 (Mahmud et al., 2018)

q=1-p =1- 0.69 = 0.31

d= is degree of accuracy desired or maximum allowable difference from true proportion which was set at 0.05 (5%) at 95% confidence interval.

So,

$$n = \frac{1.96^2 \times 0.69 \times 0.31}{0.05^2} \approx 329$$

However, considering the resource (time and fund) 200 participants (100 male and 100 female garment workers) were enrolled in the study.

3.7. Sampling technique: Non-probability type purposive sampling was done for the study.

3.8. Selection criteria

3.8.1 Inclusion criteria

1. Age between 19-40 years
2. Working in the factory for at least one year,
3. Agreed to participate in the study and gave their informed consent.

3.8.2 Exclusion criteria

1. Previous diagnosis of any psychiatric illness other than depression.
2. Patients not willing to give written consent.

3.9. Research Instrument

The study used structured, pretested, interview-administered questionnaires as its tool.

The questionnaire had three sections.

- The First section contains sociodemographic information like age, sex, marital status, religion, residence, education, family type, number of family members, designation, and length of service.
- Second part includes questions regarding different risk factors of depression, including suicidal thoughts, stressors, family history of drug abuse or mental disorder, and comorbid conditions.
- The Third section was the Depression Anxiety Stress Scale (DASS)-21: The DASS-21 is based on three subscales of depression, stress, and anxiety, and each subscale consists of seven questions (Lovibond and Lovibond ,1995). Each subscale comprises seven statements regarding how the test subject was feeling over the last week and four responses ranging from 0- did not apply to me at all, 1- applied to me some of the time, 2- used to me for a considerable

amount of time to 3- devoted to me very much/most of the time. The scoring system is of the Likert type, and the total score for each subscale gives the severity of that very symptom, ranging from 0 to 21 for each subscale. Both English and non-English versions have high internal consistency (Cronbach's alpha scores >0.7) (Tran et al., 2015).

3.10. Data processing and analysis

After collecting the data, these were checked and rechecked for omission, inconsistencies, and improbabilities. The researcher studied all questionnaires immediately after completion on site of data collection for missing fields. Obtained data were preserved in a secured place with strict confidentiality under the direct responsibility of the thesis applicant.

Then data was checked, followed by editing, coding, and entering the computer. Data analysis was performed by statistical package for social science (SPSS), version-23. An appropriate statistical method was used after encoding data. Descriptive statistics were used to describe demographic data. The student's t-test was used to compare the mean DASS-21 scores between the two groups. The result was presented with appropriate text, tables, and figures.

3.11 Ethical considerations

- This study was conducted after approval from the Research cell and Ethical committee of Chattogram Veterinary and Animal Sciences University.
- Permission was taken from the factory's Human Resources (HR) department after explaining the study, its objectives, and methodology.
- Written informed consent was taken from each of the workers in this study. The participants were not influenced or insisted on responding. Participation in the study was entirely voluntary, and employees received no benefit for the same. Participants were briefed about the purpose and procedure of the study in detail, the implications, and detailed study-related information was read out and explained in the local language from a printed handout. All aspects, including confidentiality and rights not to participate or withdraw

from the study, were specially communicated. No identifying information was recorded in the questionnaire and kept in a separate file to which only the researchers have access. The research findings will be presented in sufficiently aggregated form to ensure no participating worker can be identified.

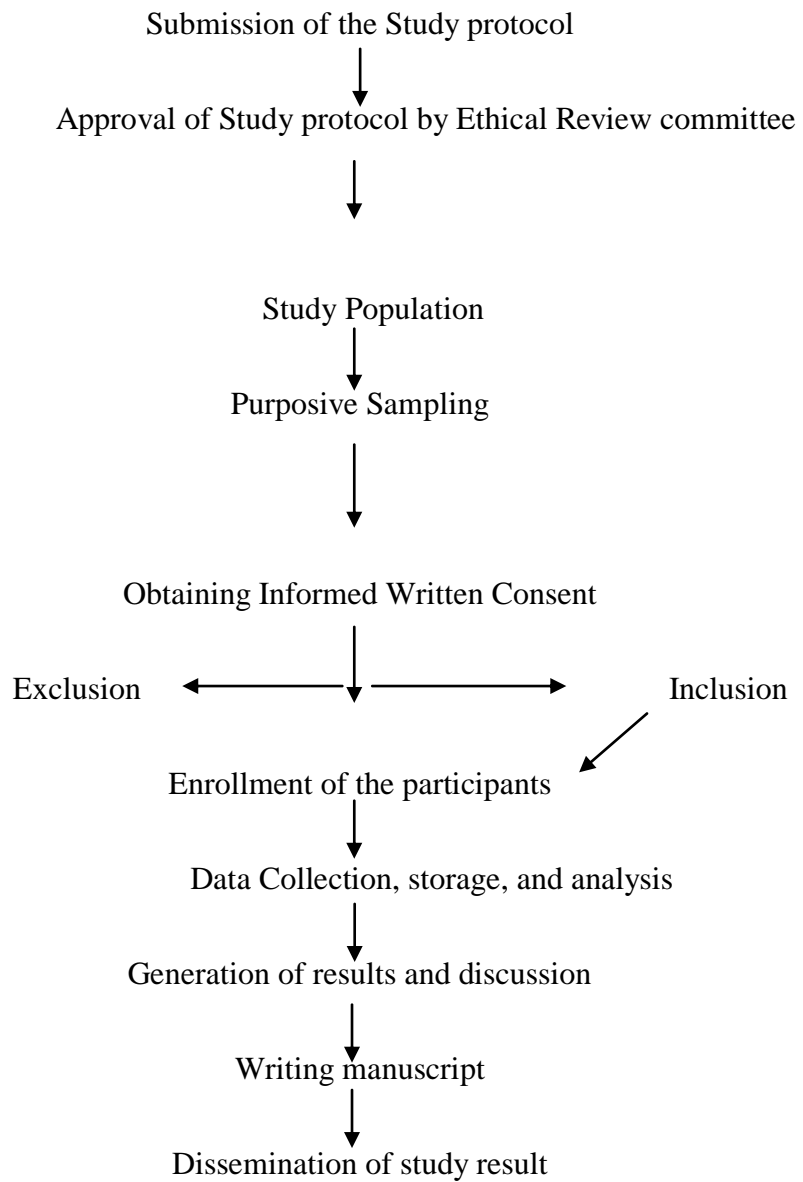
As per the rule of the Ethical Committee of CVASU-

1. Participation was voluntary.
2. Consent was obtained after a brief study in Bangla, and technical terms were explained to all respondents wherever appropriate.
3. It was clear to them that they are free to take part/ withdraw from the study at any stage.
4. All personal information will be confidential and will not be disclosed. Other responses will be used solely for the study purpose.
5. Interview was taken at a suitable time convenient to the respondents.
6. The researcher did not intervene to establish any desired outcome.
7. The researcher informed the concerned authority when any problem or confusion arose.

3.12. Data collection procedure

Data were collected from the workers at the industrial workplace site. All the interviews were conducted only upon receiving verbal consent from the participants considering low readability and high concerns about confidentiality in Bangladesh. Participants were free to stop the discussion anytime and refuse to answer any question they did not want.

3.13. Study flow chart



3.14. Study Variables

3.14.1. Sociodemographic variables

1. Age
2. Sex
3. Marital status
4. Religion
5. Habitat
6. Educational Status
7. Type of family
8. Number of family members
9. Designation
10. Length of service

3.14.2. Variables related to the risk of depression

1. Suicidal thoughts
2. Traumatic life events
3. Family history of drug abuse
4. Family history of mental disorder
5. Comorbid conditions

3.14.3. Variables related to DASS-21

1. Questions related to the depression subscale
2. Questions related to the anxiety subscale
3. Questions related to the stress subscale

Chapter- 4: Results

Table 1: Distribution of the participants by their age groups (n=200)

Age group	Frequency	Percentage
≤19 years	2	1.00
20-29 years	127	63.50
30-39 years	60	30.00
≥40 years	11	5.50

The minimum age of the participants was 19 years, and the maximum age was 40 years. About two-thirds of the respondents were from the age group 20-29 years (63.50%).

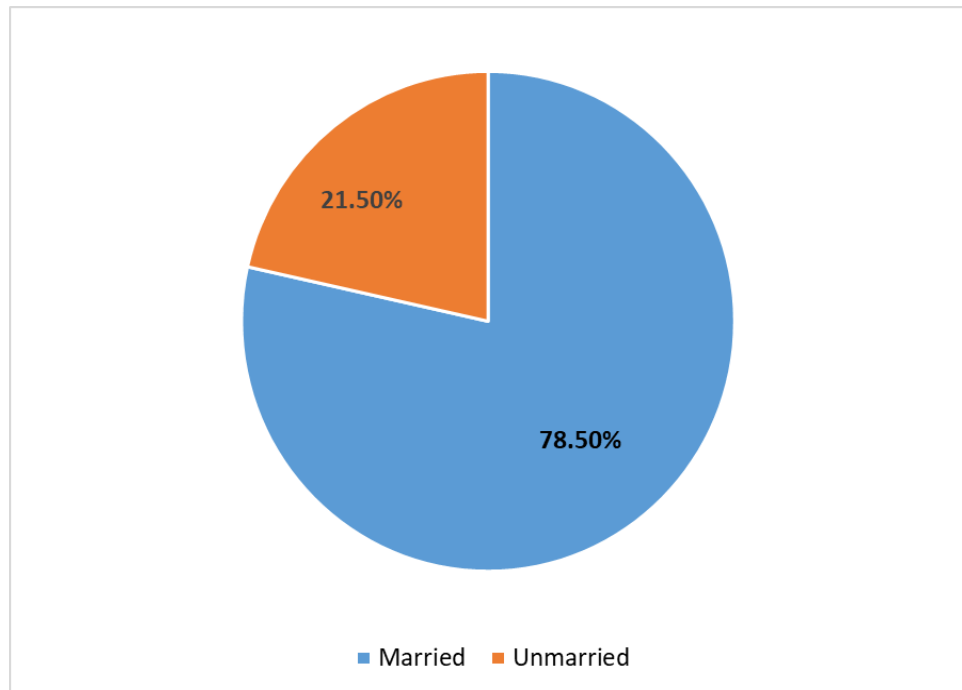


Figure 1: Marital status of the respondents (n=200)

Most respondents (78.50%) were married, while 21.50% were unmarried (Figure 1).

Table 2: Religion of the garment workers (n=200)

Religion	Frequency	Percentage
Muslim	186	93.00
Sanatan	8	4.00
Buddhist	6	3.00

Out of 200 garment workers, 186 (93.00%) were Muslim, 08 (4.00%) were Sanatan, and 06 (3.00%) were Buddhist (Table 2).

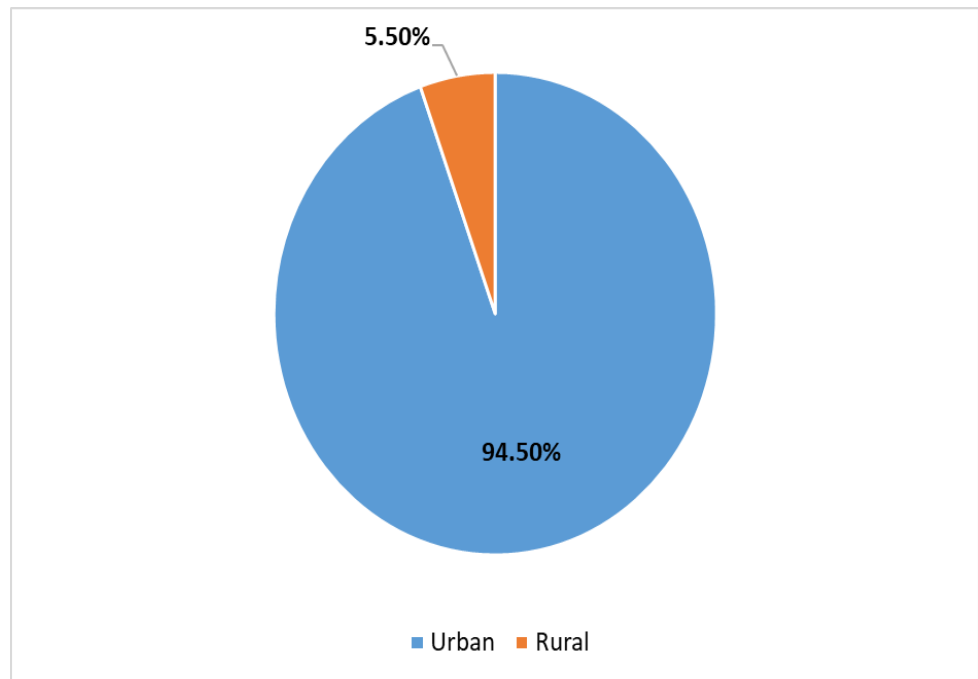


Figure 2: Habitat of the respondents (n=200)

Most of the respondents hailed from urban areas (94.50%), and the rest hailed from rural areas (05.50%) (Figure 2).

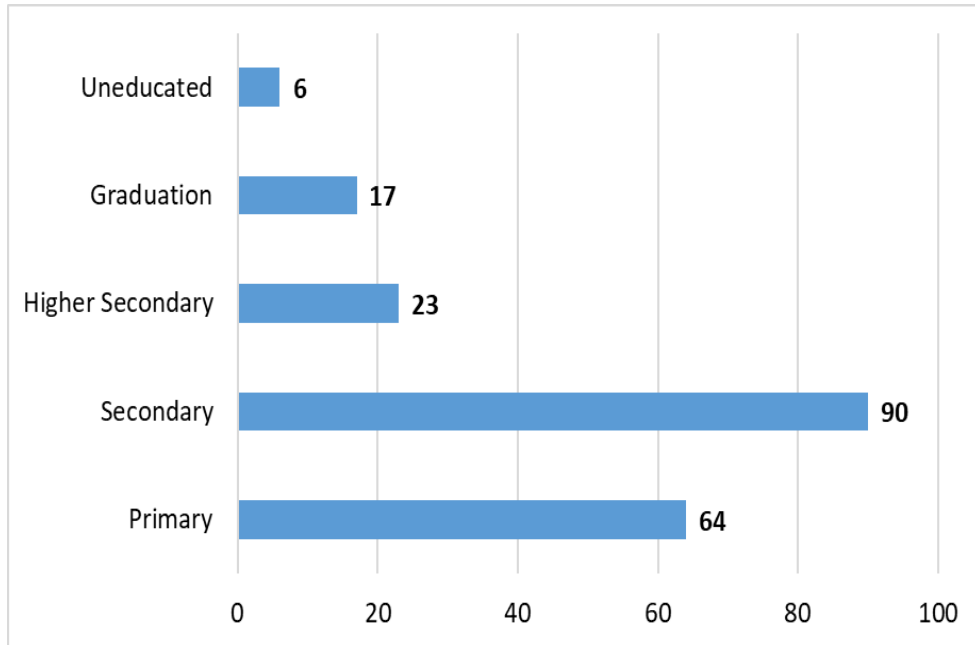


Figure 3: Educational status of the respondents (n=200)

The highest number of the respondents were educated up to secondary level (90), while very few (06) were uneducated (Figure 3).

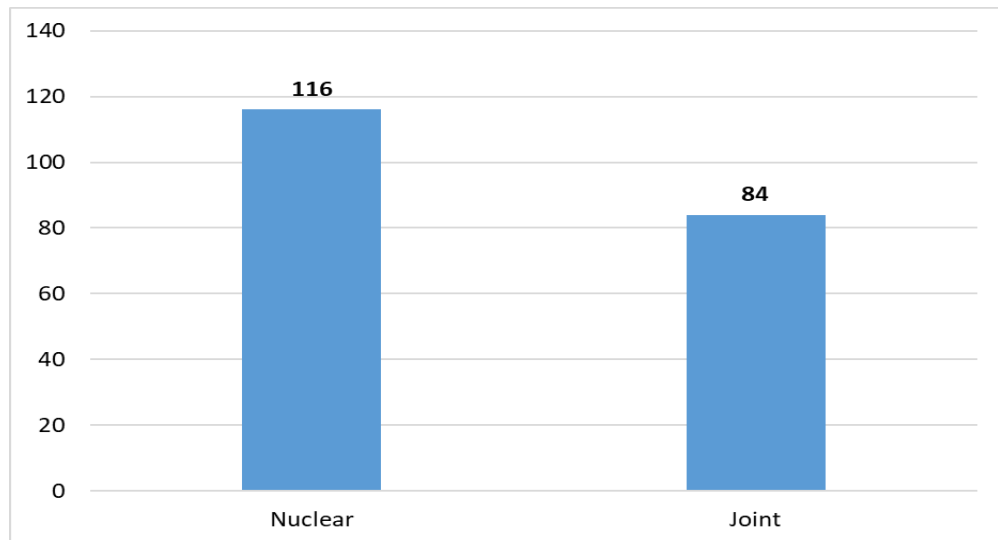


Figure 4: Type of family of the respondents (n=200)

116 individuals belonged to a nuclear family and 84 individuals were from joint family (Figure 4).

Table 3: Designations of the participants (n=200)

Designation	Frequency	Percentage
Folding Man	3	1.50
Cutter Man	21	10.50
Office Assistant	13	6.50
Operator	77	38.50
Quality in charge	15	7.50
Packing Man	7	3.50
Cleaner	7	3.50
Numbering Man	5	2.50
Others	52	26.00

There were 09 categories of workers among the respondents, with the highest number of workers working as the operators (38.50%) followed by others (26.00%), and the category containing the lowest number of respondents was folding man (01.50%).

Table 4: Prevalence of depression, anxiety, and stress among the respondents (n=200)

Parameters	Prevalence	95% Confidence Interval
Depression	13.50%	9.45%-18.93%
Anxiety	35.50%	29.20%-42.35%
Stress	13.50%	9.45%-18.93%
Normal	37.50%	31.60%-43.40%

Anxiety was identified to be the most prevalent psychological issue among the participants, as 35.50% of participants were found to have some degree of anxiety state in the study (Table 4). The prevalence of depression and stress was 13.50% each.

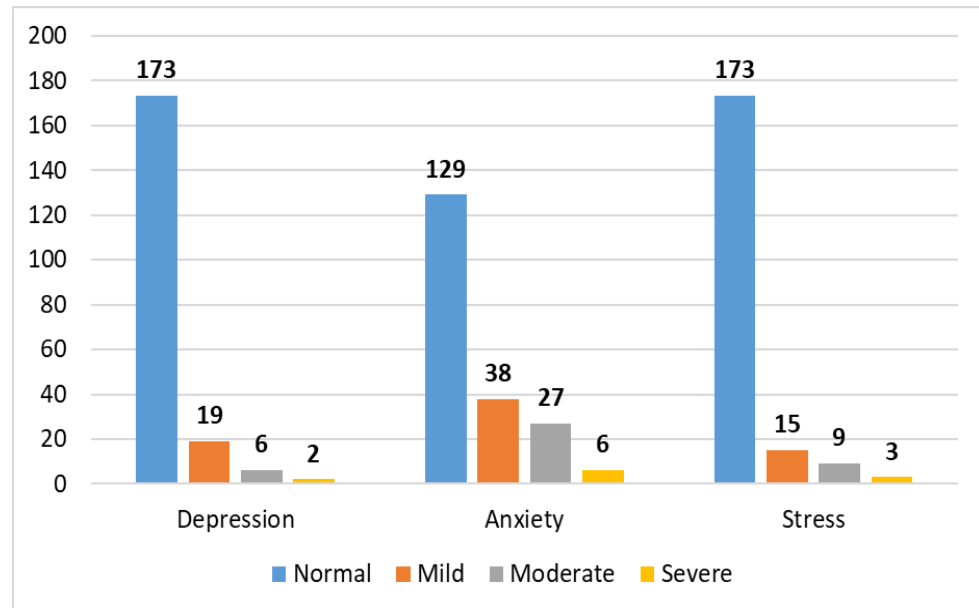


Figure 5: Level of depression, anxiety and stress of the respondents (n=200)

There were 27 workers with depression (Mild-19, Moderate- 06, Severe- 02), 71 workers with anxiety (Mild- 38, Moderate- 27, Severe- 06), and 27 workers were under stress (Mild- 15, Moderate- 09, Severe- 03).

Table 5: Sex-based difference between the number of family members of the participants (n=200)

Sex	Mean	Std. Deviation	p-value
Male	4.68	2.188	0.012*
Female	3.98	1.705	

*p-value was calculated by independent sample t-test ($p < 0.05$ was considered significant)

The number of family members for male workers was significantly higher than that of the female workers (Table 5).

Table 6: Sex-based differences in scores of the participants (n=200)

DASS domain	Sex	Mean	Std. Deviation	P-value*
Depression Score	Male	5.80	3.69	0.241
	Female	5.18	3.77	
Anxiety Score	Male	5.92	3.73	0.885
	Female	6.00	4.08	
Stress Score	Male	9.60	4.35	0.124
	Female	10.66	5.30	

*p-value was calculated by independent sample t-test ($p < 0.05$ was considered significant)

The mean depression is higher in male workers than the female workers. On the other hand, the mean anxiety and stress scores were higher in female workers than the male workers. However, none of these differences was significant statistically (Table 6).

Table 7: Marital status-based differences in scores of the participants (n=200)

DASS domain	Marital Status	Mean	Std. Deviation	p-value
Depression Score	Married	5.27	3.87	0.118
	Unmarried	6.28	3.07	
Anxiety Score	Married	6.03	4.00	0.658
	Unmarried	5.72	3.53	
Stress Score	Married	9.91	5.21	0.225
	Unmarried	10.93	3.24	

There was no significant difference between the participants' depression, anxiety, and stress scores based on their marital status. P-value was calculated by t-test ($p < 0.05$ was considered significant)

Table 8: Habitat-based differences in scores of the participants (n=200)

DASS domain	Habitat	Mean	Std. Deviation	p-value
Depression Score	Urban	5.37	3.67	0.049*
	Rural	7.64	4.27	
Anxiety Score	Urban	6.02	3.97	0.360
	Rural	4.91	2.07	
Stress Score	Urban	10.07	4.94	0.502
	Rural	11.09	3.27	

The Depression score of the participants hailing from the rural area was significantly higher than the habitats of urban regions ($p= 0.049$), and there was no significant difference between the scores for anxiety and stress based on the habitat of the participants. P-value was calculated by t-test ($p<0.05$ was considered significant)

Table 9: Association of level of depression with the number of family members among the subjects

Number of family Members	Level of Depression			Total
	Mild	Moderate	Severe	
2	4	2	1	7
3	4	1	1	6
4	3	1	0	4
5	4	0	0	4
6	3	0	0	3
7	0	2	0	2
8	1	0	0	1
	19	6	2	27

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.228 ^a	12	0.428
Likelihood Ratio	13.524	12	0.332
Linear-by-Linear Association	0.752	1	0.386
N of Valid Cases	27		

a. 21 cells (100.0%) have expected count less than 5. The minimum expected count is .07.

Table 9 showed that the association between the number of family members and the level of depression was somehow associated but the association was not significant. (p value <0.05 was considered significant)

Table 10: Association of level of anxiety with the number of family members among the subjects

Number of family Members	Level of Anxiety			Total
	Mild	Moderate	Severe	
1	2	0	1	3
2	4	2	1	7
3	9	5	2	16
4	10	9	2	21
5	8	6	0	14
6	3	3	0	6
7	0	1	1	2
8	1	0	0	1
9	0	1	0	1
Total	37	27	7	71

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.450 ^a	16	0.422
Likelihood Ratio	16.944	16	0.389
Linear-by-Linear Association	0.264	1	0.607
N of Valid Cases	71		
a. 21 cells (77.8%) have expected count less than 5. The minimum expected count is .09.			

Table shows that the association between the number of family members and the level of anxiety was somehow associated but the association was not significant. (p value <0.05 was considered significant)

Table 11: Association of level of stress with the number of family members among the subjects

Number of family Members	Level of Stress			Total
	Mild	Moderate	Severe	
2	0	1	1	2
3	4	2	1	7
4	4	3	1	8
5	2	1	0	3
6	2	1	0	3
7	0	2	0	2
8	1	0	0	1
15	1	0	0	1
	14	10	3	27

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.643 ^a	14	0.635
Likelihood Ratio	13.444	14	0.492
Linear-by-Linear Association	1.333	1	0.248
N of Valid Cases	27		
a. 24 cells (100.0%) have expected count less than 5. The minimum expected count is .11.			

Table shows that the association between the number of family members and the level of stress was somehow associated but the association was not significant. (p value <0.05 was considered significant)

Table 12: Risk factors for depression among the participants (n=200)

Risk factor	Risk	Frequency	Percentage
1. In the last year have you thought seriously about killing yourself?	Yes	1	3.7
	No	26	96.3
2. Have any of these stressful events happened to you during the last 12 months?	Loss of a spouse, family member, or loved one	2	7.4
	Serious financial downfall	6	22.2
	None	19	70.4
3. Have you been in trouble with the law in the last 12 months?	Yes	1	3.7
	No	26	96.3
4. Has someone close to you recently committed suicide?	No	27	100.00
5. Has anyone in your family (parents, grandparents, great-grandparents, brothers, sisters, aunts, or uncles) had any of the following conditions?	Alcoholism in any first-degree family member	1	3.7
	None	26	96.3
6. Do you have or have you ever had any of these conditions?	Type 2 Diabetes	1	3.7
	None	26	96.3

Few participants reported having risk factors for depression in the study (Table 12). Among these, the most frequent one was the severe financial downfall (22.2%), followed by the Loss of a spouse, family member, or loved one in the last 12 months (7.4%), co-morbid condition (3.7%).

Chapter-5: Discussion

The present study was conducted to determine the prevalence of depression and risk factors of depression among garment workers in the Chattogram Metropolitan Area. Two hundred garment workers from three garments were enrolled in this study. The prevalence of depression, anxiety and stress levels were studied using the DASS-21 scale. The results showed that 13.50%, 35.50% and 13.50% have mild to severe depression, anxiety and stress respectively.

The minimum age of the participants was 19 years, and the maximum age was 40 years. About two-thirds of the respondents were from the age group 20-29 years. Most respondents (78.50%) were married and 93.00% were Muslim. Most of the respondents hailed from urban areas (94.50%) and the highest number of the respondents were educated up to the secondary level 90(45.00%), while very few 06(3.00%) were uneducated. About half of the participants belonged to a joint family 84(42.00%) and another half was from a nuclear family 116(58.00%)—the highest number of workers working as the operators (38.50%). However, the sociodemographic characteristics of the present study of garments workers were like other studies conducted in and around our country (Akhter et al., 2010; Begum et al., 2010; Bohra et al., 2015; Fitch et al., 2017; Mahmud et al., 2018; Tran et al., 2019).

The prevalence of depressive, anxiety and stress disorder in garment workers was studied, and the results showed that 13.50% (95% CI: 9.45-18.93%) of them have mild to severe depressive symptoms according to the depression subscale of the DASS-21 score. However, most of them 19(9.50%) had mild symptoms, followed by 06(3.00%) with moderate depressive scores, and only 02(1%) had severe depression. Previous studies were conducted in Bangladesh (Fitch et al., 2017; Mahmud et al., 2018). Fitch et al. (2017) found that depression was 23.5% among 600 working women with low socioeconomic conditions: 20.9% among garment workers and 26.4% among others. On the contrary, depression was identified as the most prevalent psychological issue among the female garment workers, as 69% of participants reported it in the first place in the study by Mahmud et al. (2018). They noticed several symptoms among the workers during the data collection, for example, always

or frequently feeling sad or having depressed mood, trouble in sleep, feeling worthless and fatigue. Subsequently, mood disorder (59%), a serious and rapid change in mood, was identified with both emotional and physical symptoms (Mahmud et al., 2018). In the study of Bohra et al. (2015), none of the industrial workers from India scored a 'symptomatic' score on the depression subscale of the DASS-21. The prevalence of the depressive disorder in industrial workers was studied in a recent meta-analysis (Amiri, 2021), and the results showed that 21% of them have a depression disorder. One in five workers in the industrial sector experiences depression disorder. Compared to the general population, the prevalence of depression in the population of industrial workers is higher, with the prevalence of depression in the general population being up to 15% (Ustun and Chatterji, 2001).

In the present study, the mean depression subscale score was higher in males than the female workers without any statistical significance. Amiri (2021) examined the prevalence of depression in men and women as industrial workers in their meta-analysis. Accordingly, the results showed that the prevalence of depression in men industrial workers is 23%, while this prevalence in women is 28%. Compared to the general population of the world, where the prevalence of depression is 11.5% in men, and 14.4% in women (Lim et al., 2018). However, several studies on industrial workers indeed reported a higher proportion of male workers suffering from depression than female workers (Park et al., 2016; Tran et al., 2019) or no significant difference in gender regarding the prevalence of depression (Zhong et al., 2015). Such findings may be explained by the fact that men may be more willing to take or more likely to be assigned more dangerous jobs or heavier workloads, leading to longer working hours and increased work hazard exposures (Park et al., 2016), raising their proneness to depression. Regarding the present study, the sampling technique adopted may also be a reason for the lower possibility of having depression in women.

The present study failed to demonstrate any significant differences between married and single respondents' mean scores of depression, anxiety, and stress subscales. Kongsomboon (2010) observed that among different factors, marital status was one crucial factor affecting depression in the workplace; married person had depression 1.95 times that of those who were single.

In the present study, anxiety was identified as the most prevalent psychological issue among the participants, as 35.50% of participants were found to have some degree of anxiety state in the study. The prevalence of stress was 13.50%, according to the stress subscale of DASS-21, which agreed with the findings of Rao and Ramesh (2015). It is expected that garment workers are compelled to work long hours, often until late at night and forced to do overtime. In addition, they need to do household chores, including cooking and taking care of other family members, ultimately making their daily lives so busy they hardly enjoy any leisure. This has contributed to psychological complications such as depression and anxiety (Mahmud et al., 2018). A study by Saini et al. (2010) also proved that work-related depression resulted from stress and job dissatisfaction. Lack of social support and resources, trim control and autonomy on the job, and unfair and overly demanding workloads and expectations could breed depression. Because of the strong association between the development of depression and the psychosocial work environment, businesses that contribute to negative employee affect may incur significant decreases in productivity, quality, and profit due to increased absenteeism and turnover. This is consistent with the findings reported by Revicki et al. (1993) that anger, depression, work stress, and job satisfaction were highly related. They also found a direct relationship between anxiety and depression and concluded that employee emotions were closely linked to perceptions of social support and resource availability at the workplace.

Factors significantly correlated with having depression in the study of Fitch et al. (2017) included chronic pain, dysuria, two or more traumatic life events, part-time work and lower-income. In the present study, participants were asked to report some of the precipitating factors for depression, and only a few participants reported having such risk factors for depression in the survey. Among these, the most frequent one was the severe financial downfall (22.2%), followed by the Loss of a spouse, family member, or loved one in the last 12 months (7.4%), co-morbid condition (3.7%). Economic status was also associated with depression, as seen by the increase in depression rates with a decrease in income. Many studies have reported on this association before; however, whether depression causes a lower economic status or causes depression has long been debated. Studies and meta-analyses suggest that lower-income or poverty-level wages and financial strain increase depressive symptoms and can propagate their continuation (Dohrenwend et al., 1992; Lorant et

al., 2007; Lorant et al., 2003). Health care providers in countries like Bangladesh should be made aware of the vulnerability of these millions of poverty-wage populations to depression.

The present study likely underestimates the exposure to traumatic events and rates of depression, as participants might not always be comfortable disclosing this information, and mental health conditions are almost always under-reported. Only 8 (29.63%) respondents reported having any such events in the last 12- months. Young working women in Bangladesh are a vulnerable social and demographic group; most are exposed to domestic violence (87%) (Fitch et al., 2018). Most of the study participants in the study of Fitch et al. (2017) reported at least one-lifetime trauma (76.2%), with nearly half reporting two or more events (46.8%). The association between suicidal ideation and traumatic events is known, and given this study's findings, this study population appears to be a high-risk group (Goldney et al., 2000).

Chapter-6: Conclusion and Limitation

6.1. Conclusion

However, the prevalence of depression was 13.50%, anxiety was 35.50% and stress was 13.50%. The most frequently reported stressful event was the severe financial downfall (22.2%). In a nutshell, mental health issues like anxiety, depression and stress were present in a considerable number in garment workers of Chattogram Metropolitan City. Prevention and treatment of these mental health conditions should be a priority to reduce suffering and prevent further loss in economic productivity.

6.2. Limitations of the study

Although this study is important to explore the depression of garment workers in Chattogram District, Bangladesh, its results should be interpreted carefully. Studies conducted in other settings may show point to a different outcome. Results were be interpreted in the light of the following limitations:

- First, the sampling method adopted may hinder the generalize ability of our results.
- Study findings may be subject to recall bias due to the self-reported nature of the survey.
- A cross-sectional design, the study has not accounted for the progress of depressive symptoms and illness over time in these garment workers.

Chapter-7: Recommendations and Future perspectives

The findings of the current study have important implications from the perspective of health policy. In the light of this research work, the researcher recommended the following

- Challenging psychological conditions (Depression, Anxiety and Stress) in garment workers, is necessary to pay attention to occupational factors related to depression in this population and to investigate the causes of this prevalence more comprehensively.
- The findings suggested the importance of regular health screening, work safety and social support outside the workplace to ensure the wellbeing and mental health of the workers.
- Further studies should investigate how public policy, social protection and changes, awareness of care providers and workplace-based interventions can impact this highly prevalent and costly health condition in developing countries like Bangladesh.

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Chapter – 8: Appendices

Appendix A: Schedule of works

Activities	1 st month	2 nd month	3 rd month	4 th month	5 th month	6 th month
Ethical Approval	■					
Designing the study	■					
Data collection		■	■			
Data analysis and result generation				■		
Writing the manuscript					■	■
Submission and Presentation of thesis					■	■

Appendix B: Informed Consent form (English Version)

Title of the Study: “Prevalence and Risk Factors of Depression among Garment Workers in Chattogram Metropolitan Area.”

Date :

Name :

Address :

Age :

I know all the steps involved in this research. I am well explained the purpose, procedure, and the fate of the research data and also informed about how much time it will need to respond. I have understood the matter very well and I am also satisfied with the explanation. I have provided a written information sheet with details of the study.

During any stage of the study, I can withdraw my consent, and this decision will not hamper my job.

I have also clearly understood that the researcher will be there to resolve the issue during the research activity if I have any queries or problems. I also know that my information will be kept confidential and anonymous. I know that only the study’s results, not the personal information, will be published.

I have read or heard the paper explaining the research thoroughly and agreed to participate in the study as a respondent with a profound understanding.

Signature of the participant with date

Signature of the researcher with date

Appendix B: Informed Consent form (Bengali version)

সম্মতিপত্র

গবেষণার শিরোনাম: “চট্টগ্রাম মহানগর এলাকায় পোশাক কারখানায় কর্মরত শ্রমিকদের মধ্যে বিষন্নতার প্রাদুর্ভাব এবং ঝুঁকির কারণ সমূহ”।

তারিখ :

নাম :

ঠিকানা :

বয়স :

আমি এই গবেষণা জড়িত সব পদক্ষেপ জানি, আমাকে গবেষণার উদ্দেশ্য, পদ্ধতি ভালোভাবে ব্যাখ্যা করা হয়েছে এবং প্রশ্নের উত্তর দিতে কত সময় লাগবে সে সম্পর্কে অবহিত করা হয়েছে।

আমি বুঝেছি যে, এই গবেষণায় অংশগ্রহণের মাধ্যমে আমি সরাসরি উপকৃত না হলেও এটা বৃহত্তর স্বার্থে কাজে লাগবে। আমি নিচের বিষয়গুলো নিয়ে সন্তুষ্ট আছি।

- ১) যে কোন সময় এই গবেষণা থেকে নিজেকে সরিয়ে নেয়ার অধিকার আছে আমার।
- ২) আমার যে তথ্য সংগ্রহ করা হবে তা গোপন থাকবে এবং শুধুমাত্র গবেষনার কাজে ব্যবহার করা হবে।
- ৩) কোন সমস্যা বা প্রশ্ন থাকলে আমি যে কোন সময় গবেষকের সাথে যোগাযোগ করতে পারব।
- ৪) এই গবেষণা আমার চাকরিতে বাধা সৃষ্টি করবে না।

আমি তথ্যগুলো পড়েছি, বুঝেছি এবং ব্যাখ্যায় সন্তুষ্ট হয়ে এই গবেষণায় অংশগ্রহণের জন্য রাজি আছি।

অংশগ্রহণকারীর নাম :

গবেষকের নাম :

স্বাক্ষর :

স্বাক্ষর :

তারিখ :

তারিখ :

Appendix C: Questionnaire

Prevalence and Risk Factors of Depression among Garment Workers in Chattogram Metropolitan Area.

- 1) Name :
- 2) Age :
- 3) Sex :
- 4) Marital Status :
- 5) Religion :
- 6) Contact No :
- 7) Address :
- 8) Habitat : Urban/Rural
- 9) Educational Status :
- 10) Type of Family : Nuclear/Joint
- 11) Number of Family Members:
- 12) Name of Factory :
- Designation :
- Length of Service :

Depression Risk Assessment

1. In the last year have you thought seriously about killing yourself?

Yes No

2. Have any of these stressful events happened to you during the last

12 months? (Check all that apply.) Loss of a spouse, family member, or loved one Divorce Loss of a job A serious illness or surgery A serious financial downfall None

3. Have you been in trouble with the law in the last 12 months?

Yes No

4. Has someone close to you recently committed suicide?

Yes No

5. Has anyone in your family (parents, grandparents, great-grandparents, brothers, sisters, aunts, or uncles) had any of the following conditions? (Check all that apply.)

Alcoholism in any first-degree family member(s) (mother, father, brother, sister) Bipolar disorder Depression Suicide (attempted or committed) None

6. Do you have or have you ever had any of these conditions? (Check all that apply.)

Heart attack (myocardial infarction). Alcoholism Type 2 diabetes Type 1 diabetes Kidney disease HIV positive or HIV infection Anorexia nervosa Bulimia binge/purge Hepatitis C Multiple sclerosis Suicide attempt Bipolar disorder Depression Cancer None

DASS-21

Researcher explains each statement and encircles a number 0, 1, 2 or 3 which indicates how much the statement applied to the participant over the past week. There are no right or wrong answers. Researcher doesn't spend too much time on any statement.

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree or a good part of time
- 3 Applied to me very much or most of the time

1 (s)	I found it hard to wind down	0	1	2	3
2 (a)	I was aware of dryness of my mouth	0	1	2	3
3 (d)	I couldn't seem to experience any positive feeling at all	0	1	2	3
4 (a)	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 (d)	I found it difficult to work up the initiative to do things	0	1	2	3
6 (s)	I tended to over-react to situations	0	1	2	3
7 (a)	I experienced trembling (e.g. in the hands)	0	1	2	3
8 (s)	I felt that I was using a lot of nervous energy	0	1	2	3
9 (a)	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 (d)	I felt that I had nothing to look forward to	0	1	2	3
11 (s)	I found myself getting agitated	0	1	2	3
12 (s)	I found it difficult to relax	0	1	2	3
13 (d)	I felt down-hearted and blue	0	1	2	3
14 (s)	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15 (a)	I felt I was close to panic	0	1	2	3
16 (d)	I was unable to become enthusiastic about anything	0	1	2	3
17 (d)	I felt I wasn't worth much as a person	0	1	2	3
18 (s)	I felt that I was rather touchy	0	1	2	3
19 (a)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
20 (a)	I felt scared without any good reason	0	1	2	3
21 (d)	I felt that life was meaningless	0	1	2	3

ডাস-২১

গবেষক নিচের প্রতিটি বিবৃতি পড়ে অংশগ্রহণকারীকে শূন্য এবং ০,১,২ অথবা ৩ এর মধ্যে গত সপ্তাহ ব্যাপী অংশগ্রহণকারীর জন্য প্রযোজ্য যে কোন একটি সংখ্যায় গোল চিহ্ন দেন। এখানে কোন সঠিক বা ভুল উত্তর নেই। গবেষক কোন বিবৃতির জন্য বেশী সময় ব্যয় করেন নাই।

মানদণ্ডটি (রেটিং স্কেল) নিম্নরূপ:

০ আমার জন্য একেবারেই প্রযোজ্য নয়

১ আমার জন্য অল্পমাত্রায় বা কখনো কখনো প্রযোজ্য

২ আমার জন্য বেশ কিছুমাত্রায় বা বেশখানিকটা সময়ের জন্য প্রযোজ্য

৩ আমার জন্য খুব বেশী বা বেশীরভাগ সময়ের জন্য প্রযোজ্য

	০	১	২	৩
১. কোন উৎকর্ষা বা উত্তেজনামূলক কাজের পর আরামদায়ক অবস্থায় ফিরে আসা আমার জন্য কঠিন ছিল।	০	১	২	৩
২. আমি বুঝতে পারতাম যে আমার গলা শুকিয়ে আসছে।	০	১	২	৩
৩. ইতিবাচক কোন অনুভূতিই আমার মধ্যে কাজ করত না।	০	১	২	৩
৪. আমার শ্বাসকষ্টের অনুভূতি হত (যেমন অতিদ্রুত শ্বাসপ্রশ্বাস, শারীরিক পরিশ্রম ছাড়াই নিঃশ্বাস বন্ধ হয়ে আসা)	০	১	২	৩
৫. নিজে উদ্যোগী হয়ে কোন কাজ শুরু করা আমার জন্য কঠিন হত।	০	১	২	৩
৬. আমার মধ্যে বিভিন্ন পরিস্থিতিতে অতিরিক্ত প্রতিক্রিয়া করার প্রবণতা ছিল।	০	১	২	৩
৭. আমার শরীর কাঁপার অভিজ্ঞতা হয়েছিল (যেমন হাত কাঁপা)।	০	১	২	৩
৮. আমার মনে হতো যে আমি খুব বেশী স্নায়ু চাপে ভুগছি।	০	১	২	৩
৯. আমি এমন পরিস্থিতি সম্পর্কে দুশ্চিন্তাগ্রস্ত ছিলাম যেখানে আমি তীব্রভাবে আতঙ্কিত হতে পারি এবং এমন কোন কাজ করতে পারি যাতে অন্যরা আমাকে বোকা মনে করবে।	০	১	২	৩
১০. আমার মনে হচ্ছিল, ভবিষ্যতে আমার ভালো কিছুই আশা নাই।	০	১	২	৩
১১. আমি অনুভব করতাম যে আমি খুব অস্থির হয়ে যাচ্ছি।	০	১	২	৩
১২. আরাম বোধ করা আমার জন্য কঠিন হত।	০	১	২	৩
১৩. আমি মনমরা এবং বিষণ্ণ অনুভব করতাম।	০	১	২	৩
১৪. আমার কাজে বাধা হয় এমন যে কোন জিনিসই আমার কাছে অসহ্য লাগত।	০	১	২	৩
১৫. আমার মনে হত এই বুঝি আমি হঠাৎ তীব্রভাবে আতঙ্কগ্রস্ত হচ্ছি।	০	১	২	৩
১৬. কোন কিছুতেই আমি বেশী আগ্রহী হতে পারতাম না।	০	১	২	৩
১৭. আমি অনুভব করতাম ব্যক্তি হিসেবে আমার বিশেষ কোন মূল্য নেই।	০	১	২	৩
১৮. আমি অনুভব করতাম আমি একটুতেই মনে ব্যাথা পাই।	০	১	২	৩
১৯. শারীরিক পরিশ্রম না করলেও আমি হৃদপিণ্ডের কাজ করা বুঝতে পারতাম (যেমন: হৃদস্পন্দন বৃদ্ধির অনুভূতি বা বুক ধড়ফড় করা, হৃদপিণ্ডের স্পন্দনে ব্যাঘাত)।	০	১	২	৩
২০. যথাযথ কারণ ছাড়াই আমি ভীত-সন্ত্রস্ত বোধ করতাম।	০	১	২	৩
২১. জীবনটা অর্থহীন বলে মনে হত।	০	১	২	৩

অংশগ্রহণকারীর স্বাক্ষর :

তারিখ :

গবেষকের স্বাক্ষর :

তারিখ :

Brief Bio-data of the student

I am Polly Talukder, passed Secondary School Certificate Examination in 1994 and Higher Secondary Certificate Examination in 1996. I obtained my MBBS in 2003 from Chittagong Medical College, Chattogram. Bangladesh. Now, I am a Candidate for Thesis defense at One health Institute, Faculty of Veterinary Medicine, CVASU. I am interested in working with garments workers in Chattogram Metropolitan Area and I have massive interest in the field of Public Health.