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**Research Article** 

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# Post-COVID Psychological Impact on Bangladeshi Garment Industry Workers

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#### **ABSTRACT**

**Background:** The COVID-19 outbreak has impacted people's mental health, particularly in the workplace. Stress and depression were worsened by job insecurity, social isolation, and health worries. The Bangladeshi garment sector experienced a drop in demand due to the lockouts, leading to rising worker poverty levels. Mental anguish was enhanced as a result of both the delay in wage payments and safety violations. This study evaluated the psychological consequences experienced by Bangladeshi garment factory workers in the post-COVID-19 era.

**Method:** With factory consent, a study assessed mental health among Bangladeshi garment workers from January 2023 to July 2023. Surveys gathered demographic data, medical history, depression, anxiety, stress, and posttraumatic stress disorder scores (DASS-21, IES-R). Insights on emotional well-being, work experiences, financial stress, and pandemic effects were explored. The comprehensive assessment encompassed multiple dimensions, including emotional, work-related, economic, social, and industry-specific. Inclusion criteria covered factory workers present during the study, while exclusion criteria considered chronic disorders and response consistency.

**Result:** Regarding gender, 42% were males and 40% were females. Relationship statuses vary: married (26%), committed (34%), single (7%), divorced/separated (7%), and widowed (6%). Occupationally, managerial positions are 8%, supervisors 15%, clerical/administrative 20%, catering 3%, security 5%, and factory laborers 31%. COVID-19 interactions: 42% yes, 40% no hemoglobin levels are detailed. In Table 2, the DASS-21 and IES-R scores are compared. Gender differences showed higher depression and anxiety in females (p<0.05).

Conclusion: The study concluded that there was clinically significant depression and anxiety in female workers.

Key-words: Garment industry, Psychological well-being, Depression, Anxiety, Stress

# **INTRODUCTION**

The COVID-19 pandemic has significantly impacted the worldwide economy and the well-being of individuals, resulting in critical health effects <sup>[1]</sup>. The recognition of the significant psychological impact resulting from the post-COVID period is of the highest importance, particularly regarding its effect on individuals and communities on a global scale. This is particularly pertinent in the context of employees across diverse industries.

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The worldwide pandemic and its attendant difficulties have precipitated noteworthy transformations in mental health and overall well-being. The COVID-19 pandemic has caused various psychological responses, impacting individuals in multiple dimensions [2]. The presence of ambiguity regarding the virus, extended periods of lockdown, limited social interaction, and concerns about contracting the infection have increased stress, worry, and despair. The abrupt disturbance of regular schedules, economic uncertainty, and employment terminations have been significant factors precipitating mental health concerns. Workers have been undergoing challenges during the pandemic that others have not. As a result of increased workloads, working alone or from home, many people report feelings of aloneness and exhaustion, which contribute

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to isolation <sup>[3]</sup>. The dangers and pressures have been especially harsh for individuals who operate on the front lines, such as healthcare workers, factory workers, and key service providers. They have difficulty coping with the stress of working and caring for a family while also being concerned about contracting the sickness, which has significantly impacted their mental health.

The working conditions in Bangladesh's factories have become increasingly challenging in recent years [4]. The disruptions in the garment industry, a vital component of the economy, were caused by lockdowns and a decline in demand from international markets. The emotional suffering of industrial workers was made worse by job insecurity, pay cuts, and a lack of access to healthcare. Workers in many other sectors worldwide have encountered similar challenges [5]. Millions of workers worldwide have been affected by layoffs, furloughs, and lower wages due to the pandemic's effect on global supply chains and trade. Mental health has suffered due to increased feelings of helplessness and financial uncertainty. It is crucial to address the causes of the psychological effects of the post-COVID period. In addition to the obvious physical risks, the disruption of daily routines, economic difficulties, and social isolation have all led to rising rates of anxiety, depression, and other mental health problems [6]. Individuals and communities need ready access to mental health care and services to face these difficulties head-on. Psychology must be at the forefront of all rehabilitation efforts, requiring action by governments, organizations, and society. Supportive workplace policies, mental health programs, and community-based interventions can play a vital role in supporting workers and communities in recovering from the psychological repercussions of the epidemic [7]. The COVID-19 pandemic has resulted in an uncommon and rare economic downturn affecting nations globally, including Bangladesh. The prevalent emphasis has mainly centered on the financial ramifications; however, it is crucial to recognize and face the profound psychological impacts experienced by individuals, particularly employees, in the months that followed the outbreak of the COVID-19 pandemic. The rapid adoption of lockdown measures and restrictions by the government of Bangladesh to preserve human lives has led to notable effects in terms of employment decline and economic challenges experienced by a substantial number of workers [8].

Uncertainty regarding their means of existence leads to increased stress, anxiety, and a sense of financial vulnerability. According to the "Bangladesh Institute of Development Studies (BIDS)," the rise in the unemployment rate in Bangladesh led to 2.44% increase in the percentage of the entire labor force affected, resulting in approximately 164 million individuals being pushed into poverty.

In Bangladesh, garment workers' health, financial stability, and job security have all been negatively impacted by the COVID-19 pandemic [9]. Workers and employers in the garment industry are struggling due to the phenomenal crisis, and the effects are being felt nationwide. Many people in the garment industry have declined further into poverty due to the epidemic's abrupt loss of jobs. Bangladesh's lockdown measures were costly in the short term for the country's economy and the textile sector because there was no treatment or vaccine available [10]. Concerns have been raised for the safety of employees despite the slow restart of activities due to a lack of compliance with safety protection rules. The emotional toll on the garment industry has been significant, with many workers worried about losing their jobs and becoming infected with COVID-19. As a result of stress brought on by unpredictability in their careers and health situations, many workers are reportedly struggling with mental health concerns [11]. Some employees have taken to the streets to advocate for their rights after suffering financial difficulty due to wage delays and reduced pay due to the economic crisis.

Although the government of Bangladesh and foreign organizations have issued stimulus packages and grants to support industry and workers, it is still unclear what the full impact of the epidemic is on the textile sector and the national economy. Disruptions in domestic demand, supply chains, international trade, and the job market have created severe difficulties [12]. It is critical to acknowledge the workers' central role in generating billions of dollars annually for factory owners to treat the psychological impact on workers and foster a permanent recovery. Employees can better weather the storm if they receive sufficient financial aid, their wages are paid on time, and mental health programs are in place. COVID-19 has caused significant damage to Bangladesh's economy and the country's garment industry [13]. Joblessness, export values, and remittances have all risen due to the pandemic. The issue must be adequately

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evaluated, and suitable policies must be implemented using econometric methods and indicator variables, including gross domestic product, total export values, sales revenue, employment, remittance inflows, and unemployment rate, to address the difficulties created by the epidemic.

Moreover, the COVID-19 epidemic has had severe psychological effects on textile workers in Bangladesh and elsewhere [14]. Uncertainty about the future, including employment and health, wage delays, and financial difficulties, has increased stress and anxiety. The health of employees and the long-term growth of Bangladesh's garment industry and economy depend on the government's attention to these psychological difficulties and appropriate recovery strategies. The study's objective was to provide insights into the emotional well-being in terms of anxiety and clinical depression of garment factory workers and propose strategies to enhance their support during the epidemic.

#### **MATERIALS AND METHODS**

Research Design- A study was conducted to examine the mental health of garment factory workers at a garment factory in Bangladesh. The study was conducted from January 2023 to July 2023. Before conducting the study, consent was sought from the relevant management body of the factory. Subsequently, a survey was performed in the factory. Each factory worker was questioned about several parameters, such as demographic information, medical background, and scores on established depression, anxiety, stress, and posttraumatic stress disorder symptoms (DASS-21, IES-R), which were gathered from the participants.

To comprehensively assess the post-COVID-19 pandemic psychological impact on Bangladeshi garment industry workers, a series of probing questions was designed to delve into various dimensions of their experiences. First, it is crucial to inquire about the overall emotional wellbeing of workers since the pandemic. Questions aimed to understand changes in mood, stress levels, and overall mental health. Inquiries regarding feelings of isolation, anxiety, or depression during and after the pandemic can provide insights into the psychological toll.

In addition, it is important to explore any alterations in work-related experiences. Questions about changes in the work environment, job security, workload, and interactions with colleagues and supervisors can uncover

sources of stress or empowerment. potential Understanding how workers perceive their job roles and whether they feel supported by their employers can illuminate the dynamics influencing their psychological state. The financial impact of the pandemic is another vital aspect to investigate. Queries regarding financial hardships, concerns about income stability, and the ability to meet basic needs can help gauge the stressors arising from economic uncertainties. Exploring coping mechanisms workers employ to manage financial stress can offer insights into their resilience and adaptive strategies. Moreover, the effects of any public health measures or workplace changes implemented in response to the pandemic should be examined. Questions about adjustments in safety protocols, remote work, or changes in work hours can provide insight into the perceived impact of such measures on the workers' psychological state.

The study considered a comprehensive assessment of the post-COVID psychological impact on Bangladeshi garment industry workers that should encompass inquiries into emotional well-being, work-related experiences, financial stress, social dynamics, responses to public health measures, and industry-specific concerns. This multifaceted approach can provide a nuanced understanding of the challenges and resilience of these workers in the face of unprecedented circumstances.

# Inclusion and exclusion criteria

#### **Inclusion criteria**

- Garment factory workers work in the factory where the study was conducted.
- Those workers who were present in the factory for the period of study.
- The workers who had shared all relevant information and those who could show evidence of their responses if asked.

#### **Exclusion criteria**

- Those who had chronic underlying disorders that may interfere with the study findings.
- Those who left their job at the concerned factory.
- Those who did not or could not share the relevant information.
- Those who lost interest in the middle of the study.

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Statistical Analysis- The data analysis was conducted utilizing IBM SPSS V.26. Continuous variables were summarized using means for each group, whereas categorical variables were described using percentages and frequency counts. An independent sample t-test and a Mann–Whitney U test were employed to assess the statistical significance of the differences in continuous variables between the groups. The statistical significance of categorical variables was evaluated using a  $\chi^2$  test for independence. p-value was  $\leq$ 0.05 considered statistically significant.

**Ethical Approval-** This study followed ethical norms to protect participants' rights, safety, and well-being. The applicable institutional review board (IRB) or the management committee of the factory approved the research before starting to ensure ethical compliance with human subject research guidelines.

### **RESULTS**

Table 1 shows the study population's age, gender, relationship statuses, occupational diversity, COVID-19 interactions, and hemoglobin levels. These parameters describe participants' health and demographics. Significant measurements and values reveal research population features in the table. The middle 50% of participants were 32-48, with an average age of 40.7 years. The study had 42% men and 40% women, showing gender representation. In addition, 26% of participants are married (31.71%), 34% are in committed relationships (41.46%), 7% are single (8.54%), 7% are divorced or separated (8.54%), and 6% are widowed (7.32%). Participants work in these fields: 8% of the study population are managers (9.76%), 15% supervisors (18.29%), 20% are secretarial administrative workers (24.39%), 3% are caterers (3.66%), 5% are security staff (20.06%), and 31% are manufacturing laborers (37.80%). The study population had two groups: 42% met COVID-19 patients (51.22%), whereas 40% did not (48.78%).

**Table 1:** Participant characteristics at baseline

Parameters	Value	Percentage
Average age (IQR),	40.7 (32–48)	
years		
	Gender, % (n)	
Male	42	51.22

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Female	40	48.78		
Relationship status, % (n)				
Married	26	31.71		
In a committed	34	41.46		
relationship				
Single	7	8.54		
Divorced/separated	7	8.54		
Widowed	6	7.32		
Types of workers				
Managerial positions	8	9.76		
Supervisors	15	18.29		
Clerical or	20	24.39		
administrative staff				
Catering	3	3.66		
Security	5	6.10		
Factory labours	31	37.80		
Interaction with COVID-19 patients (n)				
Yes	42	51.22		
No	40	48.78		
Hemoglobin level in males				
> 13 g/dL	35	42.68		
<13 g/dL	7	8.54		
Hemoglobin level in females				
> 12 g/dL	29	35.37		
< 12 g/dL	11	13.41		

Table 2 shows sample subgroup DASS-21 & IES-R results. Females differ in sadness and anxiety, direct COVID-19 patient contact may affect psychological distress, and anemia is linked to increased anguish. In the studied setting, statistically significant differences underscore of observable the importance patterns comprehending psychological well-being. It compared sample population subgroup DASS-21 and IES-R scores. Subgroups with p-values below 0.05 vary statistically in the table. For men, the mean DASS-21 depression score was 5.36, but for women, 8.45. The mean DASS-21 anxiety score for women was 7.44, compared to 4.95 for men. Relationship-less people scored somewhat higher on depression (4.88) and anxiety (3.82). Since the scores between these two relationship status groups were not statistically significant (p>0.05), relationship support may not significantly alter sadness and anxiety. Mean depression (4.53) and anxiety (5.1) were considerably lower without COVID-19 contact. Direct COVID-19 patient engagement is associated with higher psychological distress (p<0.05).

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**Table 2:** Comparison of DASS-21 and IES-R scores among subgroups of the sample population and statistical significance

Characteristic	DASS-21 depression (mean)	DASS-21 anxiety (mean)		
Gender*				
Male	5.36	4.95		
Female	8.45	7.44		
Relationship status				
Relationship support	4.46	3.89		
Without relationship support	4.88	3.82		
Direct interaction with COVID-19 patients*				
Yes	9.29	9.1		
No	4.53	5.1		
Less Hemoglobin level (Anemia)*				
Yes	6.36	6.15		
No	4	3.2		

<sup>\*</sup>Statistically significant (p<0.05) between males and females or "Yes" and "No" for each

# **DISCUSSION**

Bangladesh's garment sector and general economy have been profoundly affected by the COVID-19 pandemic, necessitating a complete examination employing modern econometric methodologies reliant on time series data [15]. Bangladesh encountered difficulties in its garment sector, a significant driver of economic growth and socioeconomic progress, as it grappled with the consequences of the epidemic despite its status as one of the world's fastest-growing economies. As of February 11, 2022, an examination of the COVID-19 situation in Bangladesh reveals that the country occupied the 40th position out of 225 countries regarding the cumulative number of confirmed cases. Bangladesh's global ranking for the number of deaths is 32nd. However, its position for total recovered cases is 36th [16].

In contrast to other nations, Bangladesh exhibited a somewhat manageable condition; however, country's performance in total tests conducted per million residents and the proportion of fully vaccinated individuals per 100 people was rather inadequate. The study found that the epidemic hit Bangladesh in four distinct waves, with the third and fourth waves being the most severe. The lockdowns effectively limited the spread of the virus, as seen by the slower propagation rate during certain times [17]. Daily COVID-19 infections in Bangladesh averaged 2,698, resulting in approximately 41.36 fatalities and 2,385 recoveries. Daily, the country ran an average of 18,400.39 exams. There were approximately 1.8452 fatalities and 74.9007 recoveries for every 100 confirmed cases. Another study that determined the effects of the COVID-19 outbreak in Bangladesh used the time series variables "gross domestic product (GDP)", "total export values (TEX)", sales revenue of the garment industry (REVGS), "employment in the garment sector (EMP)", "remittance inflows (REM)", and "unemployment rate (UNR)" [18]. Based on the econometric test results, DRRC was shown to have the greatest "coefficient of variation (CV)", followed by DTR, DTD, DTC, DRTC, TT, and RRTC. Except for RRTC, all other variables had positively skewed and leptokurtic distributions. DTC, DTD, DTR, TT, DRTC, RRTC, and DRRC all had statistically significant population means.

TEX, REVGS, REM, GDP, EMP, and UNR were determined to be the most changeable economic indicators <sup>[19]</sup>. Leptokurtic curves were found for TEX and UNR, while platykurtic curves were found for GDP, REVGS, REM, and EMP. Statistically, every single economic factor was important. Strong and statistically significant correlations were found between total cases, total fatalities, total recoveries, and total tests. Bangladesh's garment industry and economy have been severely impacted by the COVID-19 outbreak <sup>[20]</sup>. The epidemic's impacts on the country's economy were not as direct as in other places, but they were still noticeable. It will be essential to take prompt action and implement effective policies if the garment industry and the economy of Bangladesh are to recover sustainably.

In the beginning, during the lockdown times, factory workers in Bangladesh experienced enormous financial challenges <sup>[21]</sup>. Many workers had been laid off or had their hours cut due to companies temporarily closing and

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orders being canceled by international consumers and brands. The workers and their families were experiencing a great deal of stress and anxiety due to the unexpected loss of income and the lack of assurance regarding their future employment. Although the COVID-19 outbreak had a significant financial impact on Bangladesh's garment sector and economy, it also had complete psychological effects on the country's labor force, mainly factory employees [22]. Multiple factors contributed to the emotional stress felt by these employees as they dealt with the unexpected and long crisis brought on by the pandemic. Second, the virus's threat of serious disease or death contributed to the psychological burden. Factory workers are worried about their health and safety as the virus spreads worldwide, including locally [23]. Fear of infection and job loss made them feel vulnerable and helpless. The crisis and the national economy's unfavorable influence increased workers' worry. The clothing industry, a key exporter, suffered from declining global demand for goods and services. Workers worried about job security and the future due to fewer opportunities for employment and higher competition for restricted positions during the financial crisis [24]. Increased unemployment reflected the psychological impact. The pandemic cost many employees their jobs, affecting their finances, selfesteem, and mental health. The dread of being unable to support their families and the shame of unemployment caused melancholy and inadequacy. Garment employees reported food problems throughout the lockdown, with many having no food at home [25]. This dreadful circumstance affected their physical and mental wellbeing. Workers' psychological distress was increased by the anxiety of insufficient foodstuffs for their families. Female workers' mental health was particularly affected by the pandemic. Women reported sexual assault and harassment during lockdowns, compounding the psychological toll [26]. The threat of workplace violence and uncertainty created a hostile work environment and increased stress and trauma, affecting their mind. The tension, foreboding, and economic and employment insecurity caused by the virus harmed the emotional well-being of employees worldwide. Bangladesh's garment industry and economy were also severely impacted by the COVID-19 outbreak [27]. Employees were under tremendous stress and anxiety due to financial hardships, fear of infection, job insecurity, and incidents

of violence and harassment. To guarantee the well-being of employees and their families in the post-COVID future, the government and relevant parties must address the psychological impact of the pandemic [28].

#### **CONCLUSIONS**

The study found that female employees, those with a history of COVID-19, and those with anemia exhibited clinically significant levels of depression and anxiety. Due to overwork, there is pervasive distress among garment factory employees. It is impossible to overstate the significance of safeguarding the well-being of factory workers. To accomplish this, it is essential to implement measures such as screening for mental health outcomes, rigorous testing of psychotherapy treatments, and establishing effective support mechanisms. These strategies are crucial for protecting the mental and emotional welfare of employees. Considering this infectious disease's short- and long-term consequences is imperative. The research relies on self-reported information, which has limitations. This dependency may impair the authenticity of responses and result in recollection bias.

This study does not account for the participants' mental history and socioeconomic status, which may influence assessment scores and the efficacy of individualized therapy. Location, timing, and selection bias limit the generalizability of the study.

# **CONTRIBUTION OF AUTHORS**

One author has only contributed to this article.

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