

Research article

Impact of COVID-19 outbreak on psycho-socio, economic and health status of people in Chattogram: A cross sectional study

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A B S T R A C T

The COVID-19 pandemic has had profound global implications, affecting societies in multifaceted ways. This cross-sectional study aims to investigate the impact of the COVID-19 outbreak on the psycho-socio, economic, and health status of the Bangladeshi population. Data were collected through structured surveys distributed via Google Forms between July 2020 and July 2021, involving a representative sample of 114 participants across various regions of Bangladesh. The study reveals significant disruptions in the psycho-social aspects of individuals' lives, marked by increased levels of stress, anxiety, and inclination toward social isolation. As a response to the lockdown, 30.6% of participants opted for social distancing and increased their reliance on social media and online learning platforms. Economic hardships are evident, with a substantial portion (40%) of the population experiencing income loss, job insecurity, and reduced access to basic necessities. Diet status has also been affected, with positive changes in daily diet with 38.7% of respondents reporting adopting a healthier dietary style during this period. The findings highlight the importance of public health interventions, social support systems, and economic relief measures in mitigating the adverse effects of the pandemic. Understanding the unique challenges faced by the Bangladeshi population can aid in the development of targeted policies and strategies to enhance resilience and recovery in the face of future crises.

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1. INTRODUCTION

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, emerged as a global crisis of unprecedented scale and impact (Pollard et al., 2020). Since its first appearance in late 2019, the virus has spread across continents, challenging public health systems, economies, and societies worldwide. On March 8, 2020, the Institute of Epidemiology, Disease Control and Research (IEDCR) in Bangladesh reported the initial instances of Covid-19 in the country (Saha and Gulshan, 2021). The outbreak of COVID-19 in Bangladesh posed multifaceted

challenges, encompassing not only the direct health implications but also profound repercussions on its people's psycho-socio and economic well-being (Kumar and Pinky, 2021). As the virus continued its relentless march, governments worldwide implemented a range of containment measures, including lockdowns, social distancing, and travel restrictions, which had immediate and enduring effects on daily life (Han et al., 2020). In Bangladesh, a countrywide lockdown was implemented on March 26, and it was repeatedly extended until May 30, 2020, with the aim of curbing the spread of the virus among people (Bodrud-Doza et al., 2020). This

paper focuses on understanding the intricate web of consequences that the Covid-19 outbreak wove across the Bangladeshi population. We delve into three crucial dimensions: psychosocial, economic, and health status. These dimensions are inter-connected, and their interplay reflects the dynamic nature of the pandemic's impact. The psycho-social dimension explores the pandemic's toll on the mental and social well-being of Bangladeshi citizens. Isolation, anxiety, and uncertainty became pervasive, with individuals and communities adapting to new norms and coping with the pandemic's psychosocial stressors (Banik et al., 2022). Economically, the pandemic unleashed a wave of disruptions, affecting livelihoods and financial stability (Nicola et al., 2020). As businesses shuttered, employment opportunities dwindled, and global supply chains faltered, the economic landscape of Bangladesh underwent a transformation. This paper examines the extent of economic adversity experienced by the population, including income losses, job insecurity and changes in food consumption patterns.

Furthermore, the pandemic cast a shadow over the health status of the Bangladeshi people. Beyond the immediate threat of the virus, the healthcare system grappled with surges in cases and the reconfiguration of resources to address the crisis (Al-Zaman, 2020). The study investigates shifts in healthcare-seeking behavior, access to essential services, and the emergence of new health concerns during the pandemic. By comprehensively examining these dimensions, this cross-sectional study aims to contribute valuable insights into the impact of the COVID-19 outbreak on the Bangladeshi population. It underscores the importance of understanding these multifaceted consequences to inform evidence-based policymaking and facilitate the development of targeted strategies for resilience and recovery in the face of current and future crises. In doing so, we hope to provide a nuanced perspective on the challenges faced by the people of Bangladesh during these unprecedented times.

2. MATERIALS AND METHODS

Study design and participants

This cross-sectional study was carried out in Chattogram between July 2020 to July 2021. To conduct this study, a questionnaire was designed and administered online using social media and emails. A total of 202 respondents participated in the survey. They were assured of the confidentiality of the information provided and their freedom of choice of participation. Inclusion criteria included being a resident of Bangladesh who was there at the time of the pandemic, aged 18 years or older, and able to understand the study purpose.

Questionnaire and data collection

To conduct this survey, a Google Form-based online questionnaire was prepared. The questionnaire in the beginning contained an introductory paragraph describing the objective of the questionnaire. The questionnaire consisted a total of 52 questions which were divided into different sections. Different sections of the questionnaire mainly focused on the general and demographic information, public perception, economic condition, nutrition, diets, mental health, and social relation. The answers to the survey questionnaires are the voluntary basis.. The prepared questionnaire with an introductory paragraph delineating the purpose of the study was shared through Email, Facebook, LinkedIn, and WhatsApp with selective and relevant people considering the inclusion criteria.

Ethical issues

The participants in the beginning of the questionnaire are assured anonymity and confidentiality of their identity. By proceeding to further answer the questionnaire the participants give consent as to whether or not they wish to participate in the study. Participants were able to complete the survey only once and could terminate the survey at any time they preferred. Formal ethical permission of this study was taken from the Institutional Ethical Review Committee.

Data analysis

In data analysis, the IBM SPSS Statistics for Windows, Version 25.0. software was used. Quantitative variables summarized as means and

standard deviations while qualitative variables were described as frequencies and percentages.

3. RESULTS

General and demographic information

The general socio-demographic characteristics are shown in Table 1. The average age of the participants was approximately 36.5 years and maximum number of the participants was female (72.28%) and unmarried (89.1%). Almost 80% of the participants were students. Among the participants, 62.2% were living in

nuclear families and had an average of 4 people in their family. Most of the participants were staying in the city/town of Chattogram (90%). A majority of the participants lived in their own house (50.2%) or rent house (42.3%). A Health care center/Hospital/Medical was located either very near (40%) or a few km distances (40.4%) for most of the people. Almost 50% of these healthcare centers provided both screening and treatment facilities to the patients and almost 25% participants were not aware about the COVID testing and hospital facilities around their living place.

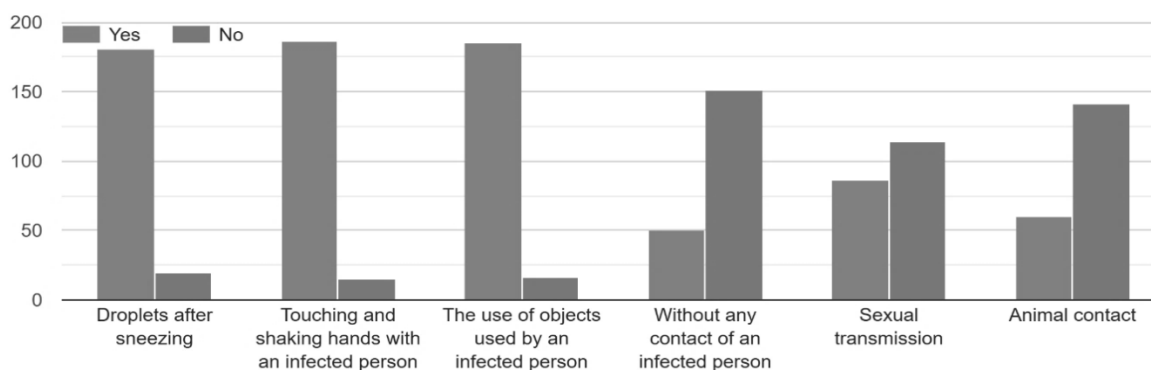
Table 1. Socio-demographic details of the survey participants (n=202)

	Variables	Frequency (n)	Percentage (%)
Gender	Male	56	27.72%
	Female	146	72.28%
Marital status	Married	19	9.5%
	Unmarried	179	89.1%
	Engaged	3	1.48%
Family status	Nuclear	125	62.2%
	Joint	50	24.7%
	Semi-nuclear	26	12.9%
Location	City/Town	182	90.5%
	Upazilla Town	10	4.95%
	Village	9	4.5%
	Hill Track	1	0.5%
Housing type	Own house	101	50.2%
	Rent house	85	42.3%
	Hostel	13	13%
	Others (relatives and friends)	3	1%
Healthcare facilities	Very near	80	39.8%
	Within a few Km distance	81	40.3%
	Far away	22	10.9%
	Very far away	13	13%
	No idea about the distance	5	2.5%
Availability of screening and treatment facilities	Only screening facilities	22	10.9%
	Both services	97	48.3%
	No facilities for COVID treatment	32	15.9%
	No idea about the availability of screening and treatment facilities	50	24.9%

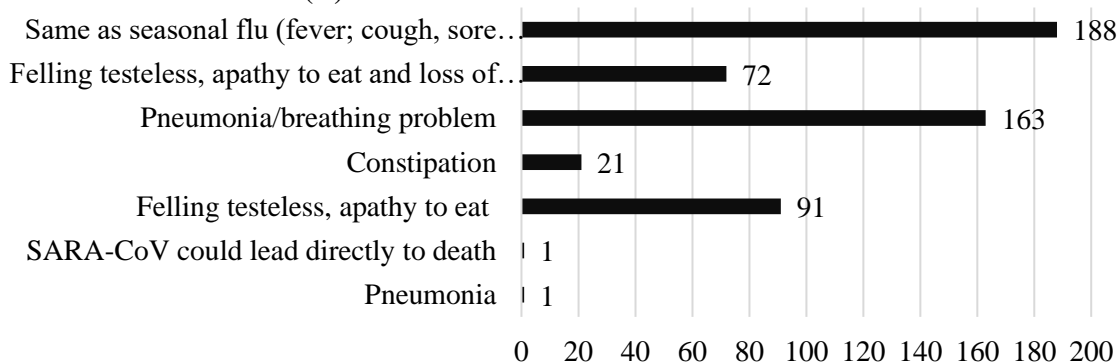
Public knowledge and perception about COVID-19

Most of the participants of the survey had proper knowledge regarding COVID-19 and its symptoms (Figure 1). Almost 80% of the participants knew about the means of transmission of COVID-19 and took proper measures before going out as a means of

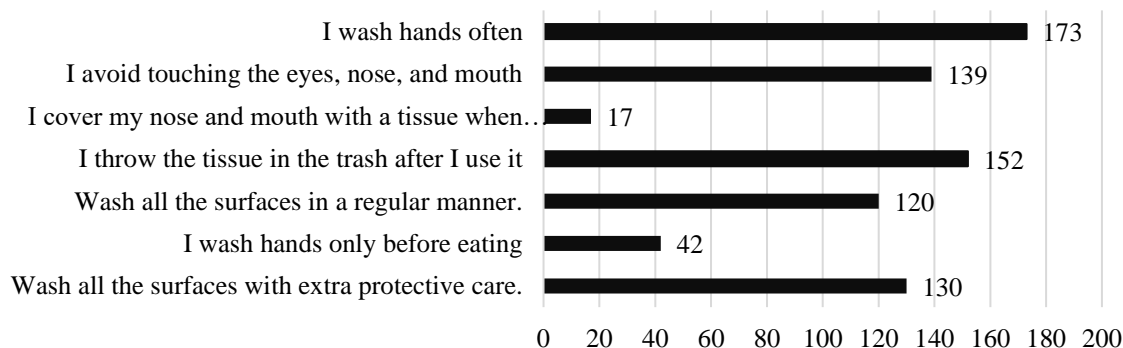
personal protection to ensure that they were not infected. However, most of the participants were students; but unfortunately, had a misconception on the disease transmission. 43% participants believes SARS-CoV-2 infection transmitted sexually, where as 30% participants answered that the way of this virus transmission is animal contact. Almost 80% participants followed preventive measures strictly.



(A)



(B)



(C)

Figure1. Public conception on COVID-19. (A) Public knowledge about COVID transmission; (B) Symptoms of COVID – 19; and (C) Different protection methods used by the participants before going outside during COVID-19 pandemic.

The people were very concerned and worried on some issues during the pandemic. 45% participants tried to avoid going out from home. 66% participants believed that the govt. should restrict the travel from and to the areas of the disease to avoid spread of disease. 50% participants agreed that govt. should close down the educational institutes to keep the infection rate lower. 70% participants wanted that the government should isolate infected patients in special hospitals. Almost 70% participants were agreed with the govt. to continue the lock-down until the infection rate lowered.

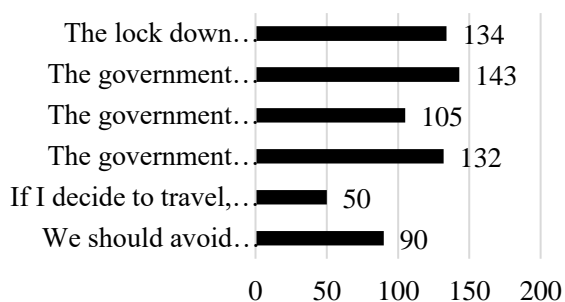


Figure 2. Public concerns on the govt. initiatives to lower the infection rate during the pandemic

Economic conditions

There was a fluctuation seen in the economic condition of the study participants during the pandemic (Table 2). The economic conditions of the participants were determined through their employment. A total of 53.2% of the survey participants were not employed, given the fact most of them were students who were dependent on their parents for their living cost and expenses. Among the survey participants, those who had been previously employed but lost their jobs after the pandemic had to depend on their savings (10.8%) or by taking loans from others (2.2%) or the bank (2.2%) for their financial support.

Among the employed participants of the survey, 40% were in same job as before. However, in some cases working hours were changed. 5% participants had to work more hours than before while 10% participants answered that they had to work less than before. Among the participants, 11.8% were found to take financial help from their relatives or friends, 3.7% got help from local govt. agencies and non-profit organizations (Figure 3).

Table 2. Economic conditions of the survey participants (n=202).

Contents	Answer options	Frequency	Percentage
Current employment status	SAME job as pre-COVID-19	18	39.1%
	SAME job as pre-COVID-19 but I am not getting paid right now	1	0.7%
	he SAME job as pre-COVID-19 but I am taking a leave of absence	2	1.5%
	I have a DIFFERENT job than pre-COVID-19	1	0.7%
	Unemployed	78	83.8%
Working hours compared to pre-COVID-19	Same as before	15	12.4%
	More than before	6	5%
	Less than before	11	9.1%
	No fixed timing	5	4.1%
Financial support during the pandemic	Not applicable	84	69.4%
	No income	14	10.3%
	From savings	15	11%
	Taking loan from banks	3	2.2%
	Taking loan from others	3	2.2%

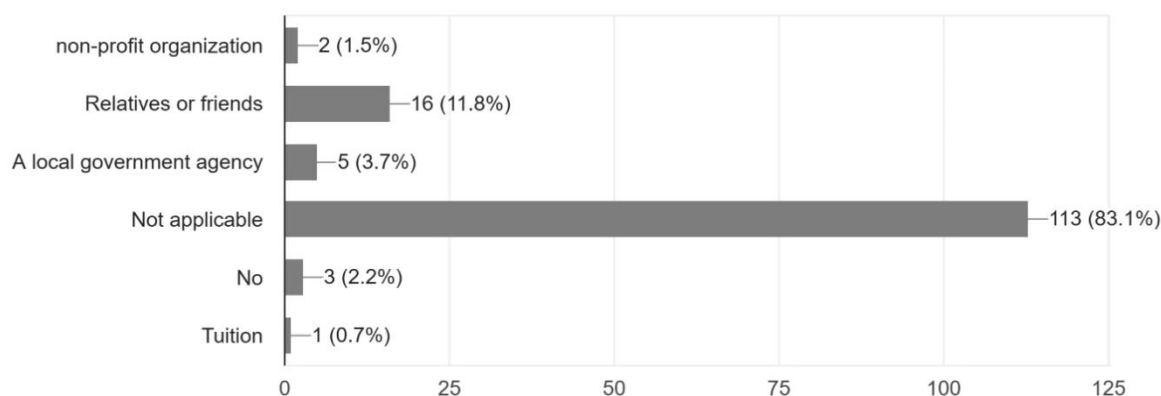


Figure 3. Financial help during the pandemic.

Nutrition and diet

According to the responses from the survey participants, 60% participants felt that their daily diet was much healthier than before. But some felt that their daily diet lacked important nutritional component due to lockdowns (16.9%) which caused scarcity of daily essentials such as groceries. Others on the other hand, felt that their diet was similar as before (33.8%) or they did not know of any change (11%) (Table 3).

Figure 4 shows changes in the daily diet of the survey participants. During the pandemic taking food from outside was decreased may be due to the lockdown. Almost 76% participants were taken homemade food while 24% participants mentioned that they had occasionally taken food from outside through online. Among the survey participants, fruits, vitamin C rich foods and vegetables, fish and meat intake were moderately increased and fast food intake was found very low (Figure 4).

Table 3. Changes in the daily diet of the survey participants (n=202).

Contents	Answer options	Frequency	Percentage
Changes in daily food habit	Yes	77	56.6%
	No	36	26.5%
	May be	23	16.9%
Type of changes in the daily diet due to COVID-19 pandemic	Healthier than before	52	38.2%
	The daily diet lacks important nutritional component due to the lockdown	23	16.9%
	Same as before	46	33.8%
	Not sure	15	11%
Food source	Homemade	104	76.5%
	Ordered from online	32	23.5%

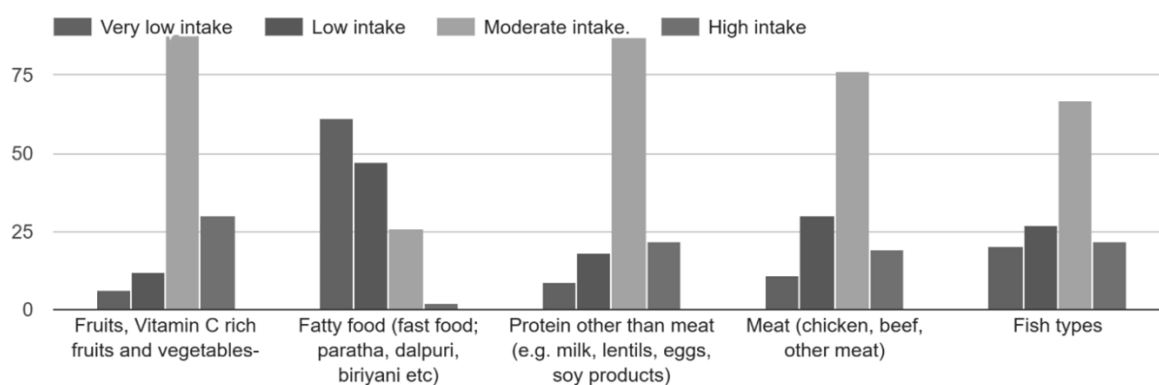


Figure 4. Changes in the daily diet of the survey participants

Mental health and social relations

In the entire questionnaire, maximum number of questions was asked in the last section, which was about the mental health and social relations. The participants answered different questions concerning various aspects of their lives and how the pandemic had an effect on them. Few of the questions in this section used the Likert scale (1-5) to express whether they agreed or disagreed with the statement in the questionnaire. One such question was whether the COVID-19 pandemic had an impact on their mental health. Above 70% participants strongly agreed (scale 1-3) that the pandemic had an

impact on their mental health. Figure 5 shows impact of COVID-19 pandemic on mental health of the survey participants.

This question used the Likert scale (1-5) to express whether they agreed or disagreed with the statement in the questionnaire. Almost more than half of the participants strongly agreed (scale 1-3) that the pandemic had an impact on their mental health.

Among the participants, 53% were in mental stress about their own health and for their loved ones. 46% participants mentioned that this stress hampered their normal activities (Figure 6).

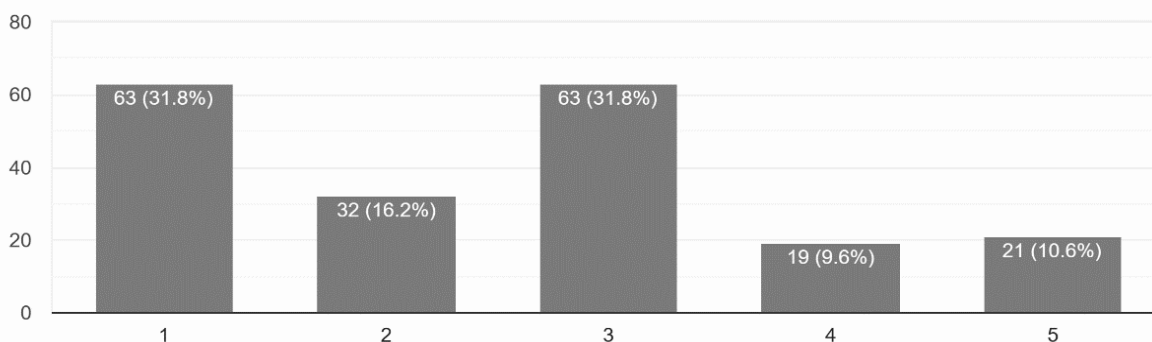


Figure 5. Impact of COVID-19 pandemic on mental health of the survey participants

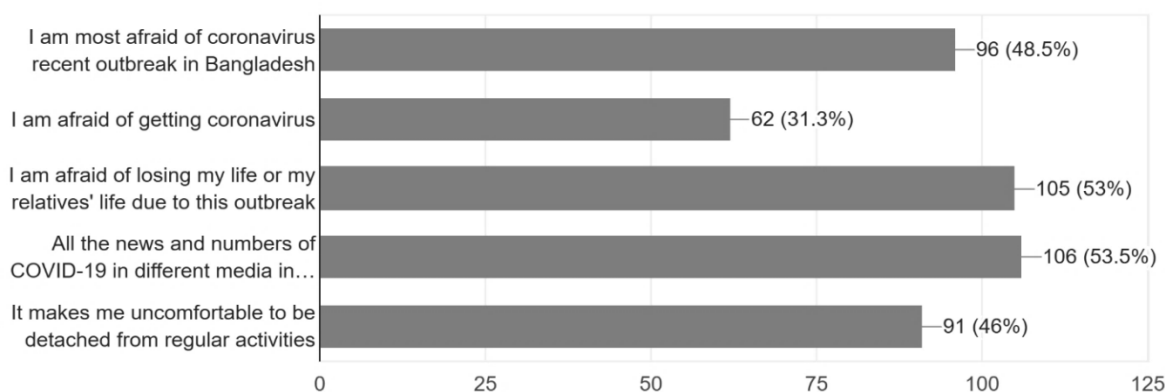
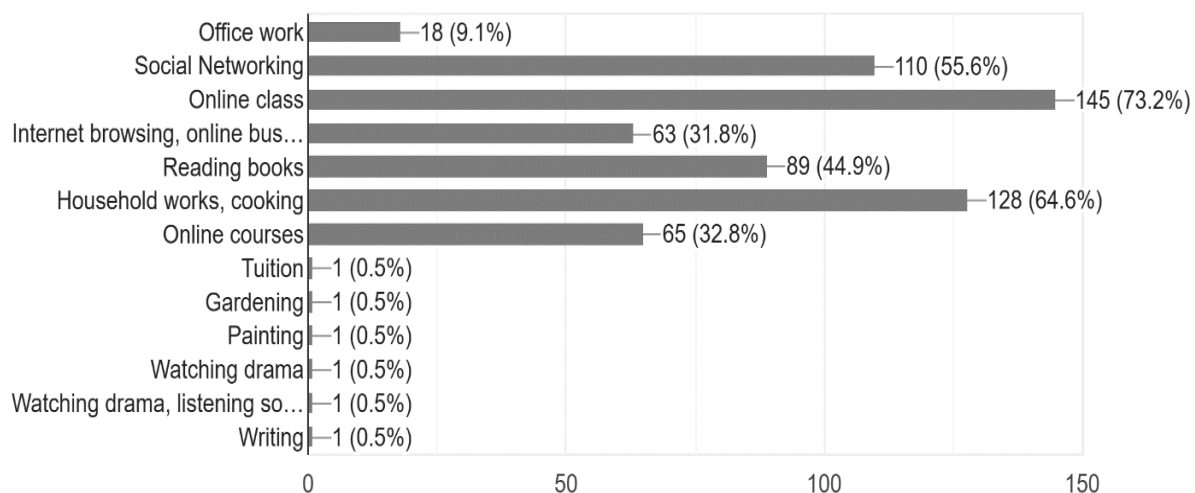


Figure 6. Mental stress of the participants during the pandemic.

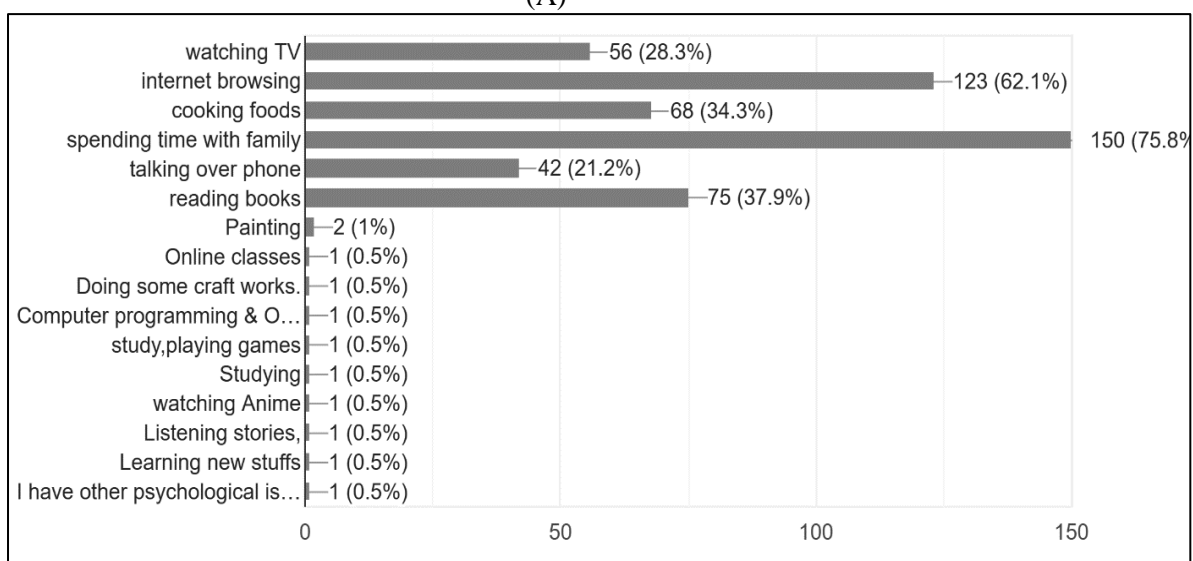
Throughout the lockdown, the participants were engaged in different activities including office work (18%); social networking (55.6%); online class (73.2%); internet browsing (31.8%); reading books (44.9%); household work and cooking (64.6%); online courses (32.8%) and others. 75.8% participants mentioned that to get rid of the anxiety or depression due to the lockdown during the pandemic, they spent

quality time with family, 62% kept themselves busy in internet browsing, 40% spent the pandemic by reading different books and talking over phone with their loved ones and 35% were engaged in cooking and baking (Figure 7).

Survey participants were engaged in different activities to spend most of their time to get rid of anxiety or depression due to lock down for COVID-19 pandemic.



(A)



(B)

Figure 7 (A). Different activities taken up by the participants of the survey during the lockdown. (B) How they tried to reduce their mental stress.

40% of the participants assumed that the treatment and diagnosis procedure currently using in Bangladesh were not appropriate to combat COVID-19 crisis whereas 19% participants were satisfied with govt. policies to combat COVID-19. 32.8% participants petrified that corona pandemic would hamper your upcoming future career plan. 47% participants agreed that they sometimes felt challenge in having their basic needs. 20% participants strictly avoided social contact, large meetings and gathering. 13% participants mentioned that the news of COVID-19 from TV and social media influenced their psychology. 50% participants said that they could financially

sustain their household for only 4weeks with their savings. 13% participants mentioned that they were abused psychologically. 7% participants mentioned about online harassment during the lockdown (Table 4).

The survey managed to also gather information on different activities that the people had taken up during the lockdown. Furthermore, other questions in the survey revealed that many of the participants were concerned about their job security and how the pandemic would affect their future plans. Most of the participants faced psychological stress regarding their career and studies. Fig.5 shows reasons of psychological stress during the pandemic.

Table 4. Mental health condition of the survey participants (n=202).

Contents	Answer options	Frequency	Percentage
Do you think the treatment and diagnosis procedure currently using in Bangladesh are appropriate to combat COVID-19 crisis?	Yes	32	16.2%
	No	78	39.4%
	May be	88	44.4%
Do you think will corona pandemic hamper your present/ upcoming future career plan?	Very much	65	32.8%
	Moderately	32	16.2%
	Quite a lot	51	25.8%
	Somewhat	13	6.6%
	Just a little	20	10.1%
Are you feeling challenge in having basic needs?	Not at all	17	8.6%
	Always	14	7.1%
	Often	31	15.7%
	Sometimes	92	46.5%
	Occasionally	38	19.2%
How often will you avoid social contact, large meetings and gatherings?	Never	23	11.6%
	Always	40	20.2%
	Often	52	26.3%
	Sometimes	57	28.8%
	Occasionally	36	18.2%
How the news of COVID-19 from TV and social media impact on your psychology?	Never	13	6.6%
	Very much	25	12.6%
	Moderately	58	29.3%
	Quite a lot	45	22.7%
	Somewhat	19	9.6%
How many weeks could you financially sustain your household if your workplace closed and/or you received no additional pay?	Just a little	40	20.2%
	Not at all	11	5.6%
	1-2 weeks	69	36.9%
	3-4 weeks	46	24.6%
	5-6 weeks	27	14.4%
Are you feeling any kind of torture/harassment during this lock-down period?	7+ weeks	45	24.1%
	Physical abuse	2	1%
	Psychological abuse	24	12.2%
	Verbal abuse	6	3%
	Online harassment	12	6.1%
Others	14	7.1%	

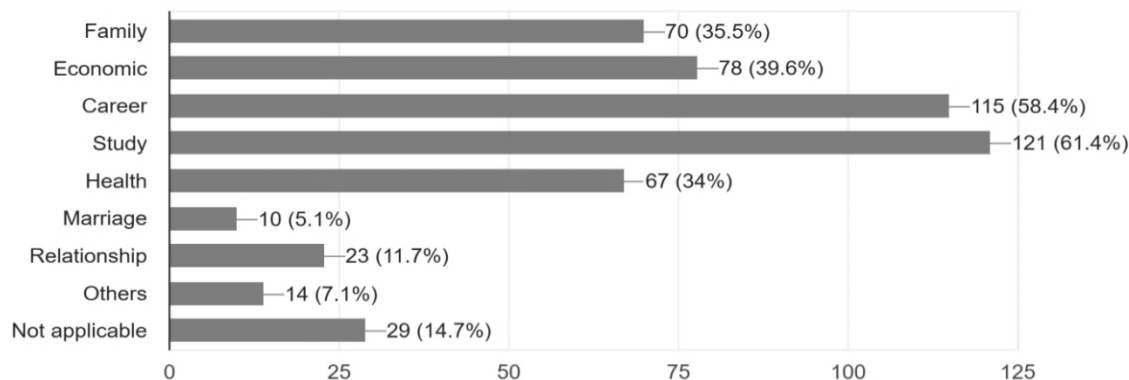


Figure 5. Reasons of psychological stress during the pandemic

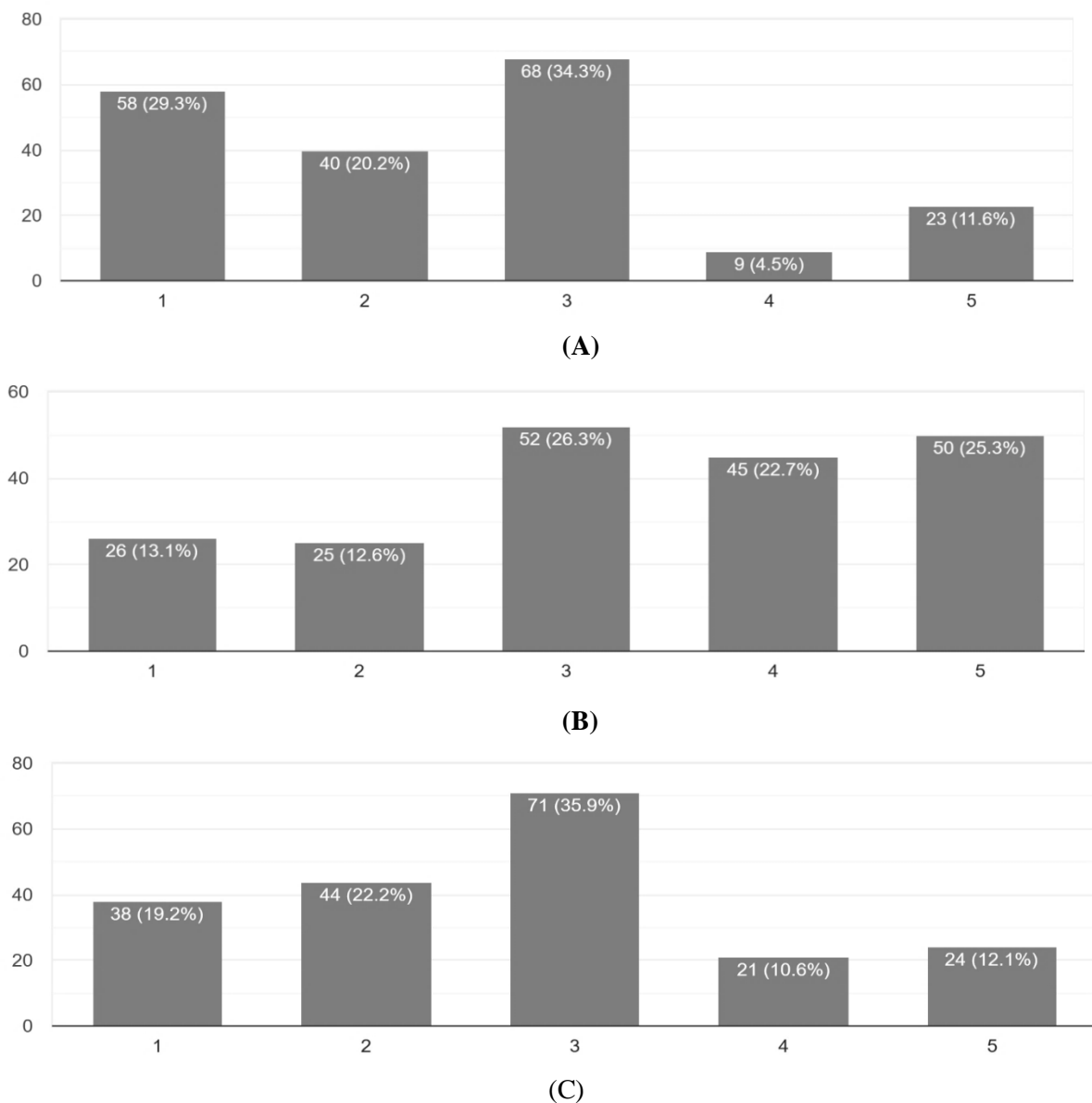


Figure 7. Mental health status of study population. (A) Are they concerned about their job security due to COVID-19 infection (B) Are they hopeless that the COVID-19 situation will not be better in the coming days? (C) Are they concerned about domestic violence due to COVID-19.

This question used the Likert scale (1-5) to express whether they agreed or disagreed with the statement in the questionnaire. Almost more than half of the participants strongly agreed (scale 1-3) that the pandemic had an impact on their mental health.

4. DISCUSSION

The Covid-19 pandemic has triggered a cascade of complex and interconnected consequences across the Bangladeshi population. This study based on an online cross sectional survey was

intended to understand the impact of the COVID-19 pandemic on the psycho-socio, economic and health status of the Bangladeshi Population.

The pandemic's psycho-social impact in Bangladesh is striking. The study found an increase in stress, anxiety, and social isolation among the participants. These findings are consistent with global trends, as the uncertainty and fears associated with the virus, along with measures such as lockdowns and social

distancing, have led to heightened psychological distress (Xiong et al., 2020; Brooks et al. 2020). In Bangladesh, social isolation was notably prevalent, with 30.6% of participants choosing to avoid social gatherings and instead spending more time on social media and online classes. This shift in social behavior could have both short-term and long-term consequences, including effects on mental health, social dynamics, and education. Mental health support is crucial to mitigate the psycho-social impact of the pandemic. Public health initiatives should be aimed at providing accessible mental health services and raising awareness about the importance of seeking help when needed (Serafini et al., 2020).

The economic impact of the COVID-19 outbreak in Bangladesh is significant, mirroring global trends (Nicola et al., 2020; McKibbin and Fernando, 2020). The economic condition of the general population cannot be determined by this survey which was largely dominated by student participants who were still dependent on their parents. However, the study revealed that a portion of the population experienced income loss, job insecurity, and reduced access to basic necessities. Many individuals and families were pushed into financial hardship, highlighting the vulnerabilities within the socioeconomic fabric of the country. About 17% of the participants opted to take financial support from relatives/friends, non-profit organizations, and government agencies. A multi-pronged approach is required to address the economic challenges, including social safety nets, financial relief measures, and employment generation programs (Adams-Prassl et al., 2020). Efforts should be made to ensure that vulnerable populations are not left behind, and resources are allocated efficiently to support those most affected by economic hardship.

The health status of the Bangladeshi population was affected in multifaceted ways. The pandemic disrupted healthcare-seeking behavior, with many individuals delaying or avoiding medical care due to fears of virus transmission and healthcare system strain. However, the study showed that the majority of the participants had adequate knowledge regarding COVID-19 and took appropriate precautions to avoid spreading the virus.

On the other hand, delaying diagnoses and management of non-COVID-19 health conditions were reported to be risky for many patients (Rosenbaum, 2020; Lazzarini et al., 2020). As reported in our study, family members of the respondents were reported to suffer from common health complications, such as Diabetes Mellitus, Hypertension, Kidney disease, Asthma or other respiratory diseases. The health sector in Bangladesh should be prepared to address both COVID-19 and non-COVID-19 health needs efficiently. Public health campaigns and interventions are essential to reassure the population about healthcare safety and the importance of timely medical attention (Nyoko, 2022).

Additionally, efforts to promote and sustain healthier dietary choices are valuable for long-term health outcomes. The study also identified shifts in dietary patterns, with a notable percentage of participants adopting healthier diets. While this could be considered a positive outcome, the long-term sustainability of these dietary changes and their implications for public health deserve further investigation. Surprisingly, the study found that 38.7% of respondents opted for healthier dietary choices during the pandemic, which could be attributed to increased health awareness and a shift in consumption patterns. Due to the lockdown, 76.5% took homemade food, with increased intake of Vitamin C-rich fruits and vegetables, and protein-rich food.

5. CONCLUSION

The findings of this cross-sectional study highlight the intricate and profound impact of the COVID-19 outbreak on the psycho-socio, economic, and health status of the Bangladeshi population. The pandemic underscores the need for a holistic and integrated approach to public health, recognizing the interplay of these dimensions. Policymakers should focus on ensuring access to mental health services, economic relief for vulnerable groups, and strategies to address delayed healthcare needs. Strengthening the resilience of the healthcare system and promoting healthier lifestyle choices can contribute to better overall well-being. This study provides essential insights into the challenges faced by the Bangladeshi population

during the COVID-19 pandemic. Further research and longitudinal studies are needed to monitor the long-term effects and inform evidence-based policies for the well-being and recovery of the population.

LIMITATIONS

The study had several limitations. The first limitation was the fact that the number of participants was significantly small compared to other studies. The second limitation was that most of the participants were students, so they could not represent the views of other professions. The third limitation was that, since this was an online survey, only the younger generation with accounts on social media platforms could participate which left out other age groups' opinions. Despite all the limitations, the survey gave us an outcome that different government organizations can use in the future to form policies that would benefit the public at large during such a health crisis.

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