



Review Article

Reframing urban informality: Gendered impacts of COVID-19 in Bangladeshi slums

Sajal Roy ^{a,*}, Krishna K. Shrestha ^b, Oliver Tirtho Sarkar ^{c,**}, Ashish Singh ^d, Rumana Sultana ^e^a Social Work and Development, Sydney Metropolitan Institute of Technology, Australian Catholic University, Australia & BRAC Institute of Governance and Development.^b School of Social Sciences, Faculty of Arts, Design and Architecture (ADA), The University of New South Wales, UNSW, Sydney, NSW 2052, Australia^c Department of Environment and Development Studies, United International University^d Higher School of Economics, National Research University^e Department of Environmental Science & Management (DESM), Independent University (IUB), Bangladesh

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ABSTRACT

The COVID-19 pandemic has produced disproportionate gendered impacts. These impacts, which are most visible in urban informal settlements, are however, not well analysed in the scholarly literature. This paper examines the consequences of COVID-19 on gendered relations within urban informal workers' groups in Bangladesh, by focusing on how and why this coronavirus has led (or has not led) to urban social crises among informal working-class men and women. Using a systematic review of the literature, the paper demonstrates that the COVID-19 lockdowns have caused significant psychological distress including depression, fear, anxiety, and increased levels of loneliness, and that these impacts are disproportionately higher in women than in men. Moreover, COVID-19 has created severe economic crises for female-headed households living in these informal settlements, by creating sudden unemployment, and by rapidly diminishing the livelihood sources required to support these households. The psychological distresses together with sudden economic downturns have led to a deterioration in gendered relations, creating estrangement within informal workers' families. Furthermore, the existing COVID-19 plans and policies of Bangladesh do not take into account these disproportionate and gendered impacts in the informal settlements. This paper argues that in order to protect these informal settlements against future pandemics in Bangladesh, it is critical to develop plans and policies which include gender and psychological considerations.

1. Introduction

The COVID-19 pandemic as a global humanitarian disaster has exacerbated structural and social inequalities, with particularly negative health consequences for marginalised groups worldwide ([1,2]. The World Health Organization declared COVID-19 a global pandemic [2] and it has already affected 20,812,367 people in 213 countries [3]. In light of the serious spread of contagion, the World Health Organization (WHO) [2] recommended the instigation and subsequent strict maintenance of robust social distancing and hygiene practices. Social distancing as a practice includes banning all kinds of public events and severely restricting both social movement and transportation. Both Global South and Global North countries have supported their locked

down populations with financial aid in order to sustain them in confinement, thus maintaining social distancing through quarantines and lockdowns.

While preventing contagious diseases, governments have often used quarantine, lockdowns, and limited commuting for frontline workers [4]. Indeed, the rapid and deadly spread of the bubonic plague across Europe and the UK in the 17th Century led to both lockdowns, quarantining and even primitive mask wearing on the part of the plague doctors. Essential London city workers took boats up the Thames to work rather than travel over land. The latest series of lockdowns, instigated to halt the spread of COVID-19, is said to have prevented mass casualties, particularly in countries with poor health infrastructure, limited surge capacity, and social inequalities [5]. In the aftermath of quarantines and

* Corresponding author.

** Corresponding author.

E-mail addresses: roysajal.wgs@gmail.com (S. Roy), krishna.shrestha@unsw.edu.au (K.K. Shrestha), tirtho@eds.uiu.ac.bd (O.T. Sarkar), rumana.sultana@iub.edu.bd (R. Sultana).<https://doi.org/10.1016/j.pdisas.2024.100317>

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lockdowns, an estimated 1.6 billion jobs were lost or discontinued worldwide as a result of the restrictions. Due to lockdowns, approximately 56% of informal workers and their families from low- and middle-income countries experienced income loss [5].

In the Global South, the pandemic has had a significant and disproportionate impact on local communities [6], along the lines of social and economic hierarchies. For example, there were disproportionate impacts between communities living in informal workers' settlements vs. communities outside, while within informal workers' communities, there were disproportionate impacts on individuals (men vs women) as well as disproportionate impacts between female-headed households vs male headed households within the informal workers' settlements. In Bangladesh, many urban informal workers have suffered more intensely from the pandemic than other communities. This is due to: (1) the presence of economic variabilities among the people, (2) a major lack of awareness about lockdowns and home quarantine among working class people, (3) the sheer policy dilemmas and limited capacity of the government and (4) challenges facing the collection of data in the field with which to inform decisions. For potential future pandemics, the current study will contribute to identify specific needs of people in informal worker's settlements and the development of effective response mechanisms. Therefore, it will help national policymakers in developing countries like Bangladesh create effective needs-based response plans for informal workers, with a particular emphasis on the COVID-19 pandemic. This research effort also explores whether Bangladeshi policy makers took lessons from other countries to address the crisis.

The COVID-19 pandemic posed significant challenges for the informal workers in Bangladesh. Many Bangladeshi informal workers such as rickshaw pullers, transport workers, toilet cleaners, day laborers, street vendors, hawkers, hotel and grocery store employees lost their jobs, at least temporarily [7]. Before and during this pandemic, informal workers lacked social protection, access to good health care, reliable electricity, and, in some cases, even sanitation infrastructure. Members of this society who are most vulnerable are often engaged in the informal workforce. The shocks and stresses caused by the COVID-19 pandemic put the lives and livelihoods of urban informal workers in danger. This crisis has also had a significant impact on mental health and well-being. Loneliness, depression, anxiety, and sleep disturbance were found to be prevalent in 71% of people during the pandemic [8]. Importantly, female informal workers have been hit harder by COVID-19 and recovered more slowly than the male counterparts [9].

Insufficiently addressed, the specific impacts of the COVID-19 pandemic on informal workers requires more comprehensive analysis. Centred on Bangladesh, the current body of literature includes Achdut and Refaeli [10], Bodrud-Doza et al. [11], Imran [12] and Kamruzzaman [13], but predominantly focuses on the pandemic's impacts on physical health and its economic effects on lives, mobility, and employment. Though the marginalised and informal workers' segment of the society has been the hardest hit by the consequent social and mobility restrictions, these studies have not paid attention to addressing the longitudinal effects of COVID-19 on them and the reconfiguration of gendered relations on informal workers. They also neglected the broader context needed in order to comprehend the implications for women's lives, livelihoods, and social conditions. There is a clear gap in the literature regarding the documentation and synthesis of COVID-19's impacts on the economy, health, and psychology of Bangladesh's informal working-class families.

Addressing the emerging gaps as identified in the current literature, our study aims to provide a preliminary assessment of the multifaceted ways in which COVID-19 has impacted the socioeconomic, health, and family relationships of these informal workers using a gender lens. To fulfil this aim, a systematic review of peer-reviewed and non-peer-reviewed papers was conducted. This systematic review is observational and studies COVID-19 pandemic-led issues and predictors of recovery [14]. Such information is crucial to identifying the features that increase or reduce the impacts of COVID-19 (e.g., work environment,

psychological distress, vulnerable health conditions of the individuals) and to developing appropriate preparedness strategies. Documentation and dissemination of these features and any emerging evidence will be vital in designing appropriate gender-responsive strategies and policies in the face of this pandemic.

The first section of this paper presents both existing and emerging debates around urban informality, and how it functioned during the pandemic. The second section discusses the application of methods and materials to develop our findings. The third section presents a cursory overview of the existing literature to establish the interrelationship between COVID-19's socioeconomic, psychological and gender-based effects. The final section summarises the findings from the study. On the basis of these findings, the paper discusses short to long-term plans for Bangladesh's informal working-class in response to COVID-19.

2. Urban informality, vulnerability to disasters and gender justice

This section establishes an interconnection between urban informality, differential vulnerabilities to humanitarian disaster and gender justice. The study of Rigg et al. [15] identifies that sustainable livelihoods of the poor urban communities and their vulnerabilities are linked to each other. In the context of the Global South, development efforts have been grounded on the idea that poverty among poor households is related to their vulnerability, indicating their livelihoods cannot be considered sustainable [16,17]. Vulnerability often stems from the individual's or community's disadvantaged or exposed condition. This vulnerability can arise from several factors, like social issues (such as caste or gender based), physical factors (such as isolation), environmental factors (such as limited access to land or clean water), or economic factors (such as being unable to participate in markets or access financial resources) [15].

Rigg et al. [15] used 'precarity' to differentiate between the forms of livelihood exposures in the face of various shocks and stresses, whether they are linked to environmental, political, economic, or social spheres. Nevertheless, many scholars have started adopting and incorporating ideas of precarity into the discussion of Global South contexts. Rigg et al. [15] refers to 'vulnerability' as a hereditary or traditional livelihood exposure while 'precarity' as produced, or modern livelihood, exposure. However, some scholars, including Munck [18], have objected using terms like 'precarity' and 'precariat' (referring to individuals who are in precarious conditions) with regard to the Global South, arguing that ideas such as marginality, social exclusion and informality capture the dynamics of class relations and class formation in this region. However, both these concepts have distinct implications for the development of sustainable livelihoods. The livelihood exposure dynamics, triggered by vulnerability and/or precarity is observed to be distinct in considering a variety of explanatory contexts: geographical and sectoral location; historical processes that reproduce each; and the social groups concerning ethnicity, caste, and gender that are particularly affected.

While exploring the dynamics of social vulnerability, Cutter and Finch [19] identifies various common individual and demographic characteristics such as socioeconomic class, race, ethnicity, and gender. Their study confirms that social vulnerability is a complex phenomenon emerging from socioeconomic, political, and institutional factors and extending from local to international scales. The major factors influencing social vulnerability include demographic characteristics such as age, gender, health, family structure, ethnicity, and language ability alongside socioeconomic status such as income, employment, education, type of dwelling unit etc. Additionally, social inequalities like power disparities, and spatial inequalities like level of urbanization, growth rates, and economic vitality in terms of specific geographical areas act as significant determinants of social vulnerability. However, considering the demographic factors, heightened vulnerability is experienced during disaster events by children, the elderly, ethnic minorities, single-parent families, people with disabilities, language barriers, and, notably,

women [20].

Gender, drawing on Butler's [21] insights, provides a context in which the discussion can be extended. Butler [21] questioned the idea of particular gendered behaviours, arguing that what we commonly associate with femininity and masculinity is a learned performance. According to Butler, gender should be considered as a social construction instead of an objective and natural aspect, a set of behaviours that are imposed by societal expectations. Butler confirms that gender is performed and only becomes 'real' through such performances. This perspective implies that gender can be changed or be contested. Ton [22] acknowledges that gender, as a socially constructed concept, is widely accepted but emphasizes that definitions of gender norms vary across different cultures and historical periods.

According to Fraser [23], over the course of the year, struggles for 'recognition of difference' appear to be imbued with emancipatory promise. Many of those who rally around the flags of sexuality, gender, ethnicity, and 'race' seek not only to claim previously denied identities, but also to add a richer, lateral dimension to conflicts over wealth and power redistribution. The combination of recognition and identity has become even more crucial since the turn of the century, but many now have a different charge. Many of the world's social conflicts are now fuelled by claims for acknowledgement of difference. Today's recognition challenges take place against the backdrop of exponentially growing transcultural interaction and communication. These are accelerated migration and global media flows which hybridize and pluralize cultural forms [23]. Everything is contingent on how battles for recognition are conceptualized, in order for them to be linked with efforts for redistribution, rather than displacing and undermining them. Additionally, it entails constructing a theory of recognition capable of accounting for the whole complexity of social identities, rather than one that favours reification [i.e. treating the abstract as if it were concrete] and that is separatist [23].

Urban informality is one such manufactured environment that deviates from established rules. It is a complex process that presents itself in a variety of ways: a lack of legal property rights, noncompliance with regulations and codes, a lack of planning, low-quality and scarce urban services, and poor environmental conditions in human settlements. Urban informality is associated with rapid population growth in cities of the Global South as a result of rural-to-urban migration and high fertility rates, financial hardship and a lack of economic opportunity, governments' inability to enforce zoning codes and plans, and insufficient resources to provide adequate housing for all populations [24]. Furthermore, humanitarian emergencies, conflict, natural disasters, and sickness all contribute to informality [24].

Covid-19 has had a significant impact on urban settlements, particularly among informal workers, in recent years, particularly among informal workers who live in overcrowded poorly maintained housing and who already face pre-existing vulnerabilities. Maintaining the WHO-recommended physical separation/isolation increased the difficulty of planning for this in overcrowded residences, especially in developing countries, who account for one-third of the global urban population, and who have been identified as the most vulnerable to COVID-19 infection. At the moment, an estimated 5.3 million people in Bangladesh live in overcrowded, often poorly maintained urban settlements, with an average population density of 1104 people per square km. The state of housing and water-sanitation-drainage infrastructures, as well as a lack of natural light, ventilation, and general unsanitary circumstances, all have a direct effect on COVID-19 transmission. These factors exacerbate community vulnerability and put high-density residents' innate and adaptive resilience to the test. In this situation, these settlements may be particularly vulnerable due to their insufficient infrastructure. As a result, they are more susceptible to COVID-19 invasion [25]. Being forced to remain at home during COVID-19 also increased women's vulnerability to gender-based violence. For example, domestic violence was exacerbated by the loss of livelihoods, uncertainty, and financial difficulty, as women and girls became victims of

physical and psychological violence in approximately 20% of families [25].

Additionally, according to Koly et al. [26], researchers have observed a rise in anxiety, stress, sleep, and hunger issues during prior outbreaks. Similarly, studies have found an increase in unemployment, food insecurity (in rural and urban regions), violence, and decreased healthcare-seeking during the current pandemic. Although the aforementioned stresses, in addition to fear of getting COVID-19 and the stigma associated with the pandemic, are likely to appear as stress and anxiety among the urban poor, relatively few researchers have examined the pandemic's ramifications for those who live in already precarious, overcrowded settlements.

Rigg et al. [15] explore the intersections between inherited 'old' poverty and produced 'new' poverty, and applies the concept of 'precarity' to examine livelihood exposure. Cutter and Finch [19] write that social vulnerability is in part a product of social inequalities attendant on individual characteristics of people (e.g. age, race, health, income, type of dwelling unit, employment). As noted earlier, gender, according to Butler at least, is not tied to material bodily facts but is rather a fictional social construction, that is therefore open to change and contestation [27]. Ton [22] argues that gender norms across different cultures and time vary anyway in their definition. López et al. [24] notes that humanitarian emergencies, conflict, natural disasters, and sickness all contribute to informality. Koly et al. [26] claim that researchers have observed a clear rise in anxiety, stress, sleep problems and hunger during prior outbreaks. Fraser [23] argues that many of the world's social conflicts are now fuelled by claims for acknowledgement of difference. Today's recognition challenges take place against growing transcultural interaction, increased communication and accelerated migration. Akter et al. [25] warn that residents of overcrowded urban settlements with poor infrastructure may be particularly vulnerable to COVID-19. Staying at home during COVID-19 also exacerbated gender violence due to the loss of livelihoods, uncertainty, and financial difficulty.

The current literature discussed above admits the existence of increased livelihood vulnerabilities due to the pandemic, with some sources also conceding an increase in issues such as, domestic violence. However, there is a need to do a 'deeper dive' into the specific disproportion in negative impacts due to gender differences in these most vulnerable informal workers, who are already living highly precarious lives. This is important so that in the case of future pandemics, (or indeed other disasters) there will be greater awareness as well as a preparedness for the specific and disproportionate impacts on informal workers' psychological well-being and on gendered relationships, especially in those living in precarious housing with poor infrastructure and limited access to health resources.

The framework developed for this paper, outlined in Fig. 1 below,

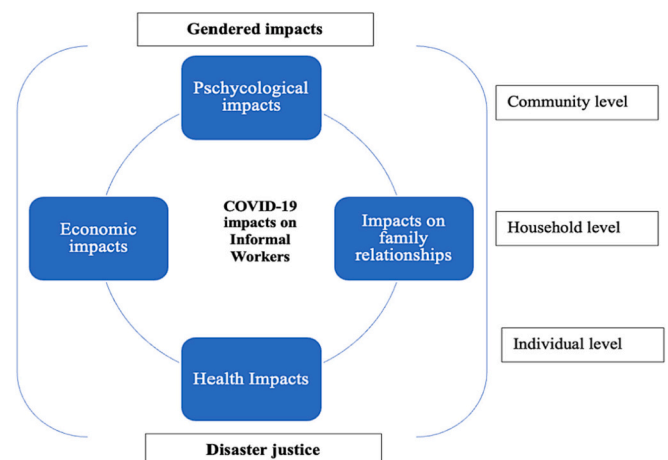


Fig. 1. Gendered impacts and disaster justice amid COVID-19.

starts from the viewpoint of Gendered Impacts, at community, household and individual levels, investigating how 4 key kinds of impact (psychological, economic, health and family) feed into and affect one another.

3. Research methods

In this research, a systematic review method is applied to analyse the gendered impacts of COVID-19 in Bangladeshi informal settlement workers. Systematic reviews are widely used to document various facets of a specific 'subject' [28]. They help policy-makers to formulate emergency response plans based on social, economic, cultural and other contextual factors. Systematic reviews have gained popularity in interdisciplinary research studies. This study has therefore undertaken a systematic review incorporating qualitative assessment of existing peer-reviewed and other literature since 2020, including papers, blogs and online articles centred on COVID-19's impact on socioeconomic conditions, psychological states and gender relations. The current study design uses a qualitative evidence-based synthesis model, known as Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

This research employs the PRISMA Checklist indicators, such as identifying reports to conduct a systematic review of COVID-19-related papers, developing the rationale and objective of the study, identifying eligible criteria for the papers, gathering authentic sources, using specific search strategies, screening the documents based on the criteria, synthesizing the results of the papers, and presenting discussions and conclusions to reflect on the socioeconomic and gender-based issues [29] associated with the consequences of COVID-19. In line with the study's aims, our search strategy includes the following keywords: COVID-19, socioeconomic impact, gendered relations, psychological distress, a Bangladeshi context for paper selection, and criteria for inclusion or exclusion. Initially, 104 papers were chosen based on title and abstract screening. To ensure that the papers chosen were relevant to the research, inclusion and exclusion criteria were used. The selection criterion of literature also included articles written in English, considering the large number of published works on COVID-19 in different contexts and various countries have been circulated in English. The timeline of the article selection began from 2020 (as the first official COVID-19 patient was detected on 31 December 2019) [2]. As a result, the language and timeline selection were based on the availability and accessibility of relevant data.

In this study, papers have been selected based on their focus on COVID-19 in a Bangladeshi context; the socioeconomic consequence of the pandemic on informal workers of Bangladesh; COVID-19's impact on mental and physical well-being; and psychological and gender differentiated vulnerabilities to the crisis. Our exclusion criteria included studies on other epidemics such as Ebola and Zika viruses, studies focusing on COVID-19 in other countries than Bangladesh, and research highlighting the health issues of the pandemic. Papers focusing only on the psychological distress of frontline health workers and those focusing on physical violence against women but not in the COVID context have also been excluded. While reviewing papers based on these eligibility criteria, we included some papers on other contexts and some non-peer-reviewed grey literature because of the lack of available peer-reviewed papers on COVID-19 in a Bangladeshi context. Based on those criteria, this study has included 72 papers and excluded 32 papers. Of the included papers, 22 have contributed to the major findings of this study.

4. Findings

The COVID-19 has had diverse and complex impacts. The Coronavirus outbreak has unleashed a grave socioeconomic threat on the entire world. The UN has identified Corona virus contagion as a significant socioeconomic issue. Gender-based violence is on the rise due to the pandemic-related additional economic and social stresses, as well as

restrictions on movement and social isolation. Many women were forced to 'lockdown' at home with their abusers, while services for survivors of domestic abuse have been either severely disrupted or inaccessible [30]. This study reveals how social distancing measures has led to increased joblessness and mental breakdowns in some cases, particularly among informal workers.

The pandemic has compelled all governments worldwide to enforce social isolation as well as lockdowns [31,32]. The declaration of lockdowns has seriously hampered Bangladeshi informal workers' economic activity. They survive on daily wages. Less freedom has meant less money, and many people lost their jobs completely. We discovered that poverty always worsens family members' mental health, with many suffering from fear, anxiety, depression, isolation, and low self-esteem during the lockdowns. Gender-based discrimination and violence increased along with financial instability and confinement. The already impoverished families' behaviour also changed. Male family members would more frequently abuse their wives due to enforced lockdowns and economic stresses including loss of livelihoods, causing psychological stress and strain on their partners. This study will also discuss how women's emotional pain has then affected relationships in informal working-class families. In other words, COVID-19 has led directly to job losses, psychological distress, and in some cases, gender-based violence for low-income families.

4.1. Economic impacts on the informal settlements during COVID-19

This section explores the pandemic's economic repercussions on Bangladeshi informal workers and discusses how these challenges have affected their mental and physical health. The pandemic has brought scarcity and fragility of income to Bangladesh's informal workers, most of whom rely on daily wages. Many were already living in the worst conditions in overcrowded settlements (Concern [33]) during COVID-19. The extreme suffering of this class is undoubtedly inhumane [34]. This study explored six key socioeconomic challenges facing informal workers and their families during the pandemic.

First, because there is no 'work from home' option for informal workers, they are forced to work outside the home [35]. They had little or no opportunity to take appropriate healthcare measures and were frequently labelled 'super-spreaders' (due to their working outside of home and possibly also due to their crowded living conditions). Second, prior to the pandemic, they could earn up to US \$12 per day depending on their occupation and availability; however, during the lockdown, with no customers or tourists, their income was reduced to zero (Concern [33]). Since March 26, 2020, 9 million Bangladeshi transport workers have lost their jobs as a result of strict inter-district and intra-district transportation restrictions [6]. Third, because of a lack of work, some informal workers were forced to borrow money, according to BRAC Institute for Governance and Development (BIGD) [36]. Fourth, whenever these newly unemployed informal workers went out looking for work, they were stopped by the police or the army and forced to return home without earning anything. Poverty, food insecurity, and even starvation resulted from ongoing restrictions on goods mobility and movability. Family members of informal workers suffered greatly. Fifth, female informal workers, most of whom are employed as domestic help, had lost their jobs due to concerns about the spread of coronavirus. Because they were unable to work, many householders refused to pay their domestic workers. Sixth, the study discovered that women and girls were overrepresented in the informal sector, where they provided enormous amounts of labour [37]. While the list of relief distributions adopted by the Government of Bangladesh included informal (mostly male) workers such as rickshaw-pullers, van-pullers, agriculture workers, day laborers, and transport workers, there was no mention of the 10.5 million domestic workers [37].

4.2. Psychological distress due to COVID-19

In this section, this study explores the association between pandemic-induced joblessness and psychological distress among informal working-class families. People who have been in quarantine typically show signs of psychological distress such as rage, anxiety, depression, stress, irritation, emotional exhaustion, and in some cases insomnia. Relatedly, according to Achdut and Refaeli [10], unemployment itself is a significant source of ongoing stress, particularly when the economy is in decline and job opportunities are scarce. In some cases, job loss stresses can lead to psychological disorders such as a loss of meaning in one's life, a loss of personal identity, and a loss of employment-related feelings of self-worth [10].

The impact of joblessness and its subsequent economic crisis causes considerably high levels of psychological distress in the lives of marginalised individuals. Since COVID-19 has restricted informal economic activities [38], it has created significant mental stress among family members. It was observed that when forced lockdowns were imposed on people, their fundamental needs were unmet [11]. Food security within informal workers' families became increasingly uncertain due to loss of income and economic instability, which also led to multi-dimensional psychological distress in Bangladesh. Approximately 87% of the employment generated by the informal sector depends on daily wages, and no daily wages means that families do not eat [39]. Moreover, the informal class often lacks sufficient solvency to maintain a good quality of life, including access to technology, and are therefore unable even to order food online because they don't have access to or experience with technology.

COVID-19 has caused proportionately greater stress than for informal workers. People who lost jobs and therefore income became economically insecure. Many took out loans from family or friends. The increasing economic uncertainty has created widespread mental distress. The uncertainty of government assistance and the general financial crisis, together with the rapid spread of COVID-19 in the community and the uncertain future of their jobs, caused frustration and extreme distress [40].

Almost half of all Bangladeshi women have caring responsibilities, often on top of outside work [41]. During the pandemic, they had to take on more unpaid domestic activities within their households ([32] [37,31,42,43]). During a lockdown, everyone in the family is forced to stay at home because work outside the house is forbidden, and schools are often closed. During COVID-19, women who used to work as domestic helpers now become unpaid caregivers for their families, while men, also at home, worry about finances, resulting in increased domestic violence due to fear and frustration. Marzo et al. [44] found that female respondents in Bangladesh experienced significantly greater psychological distress than their male counterparts, highlighting the gender-specific impact of these challenges.

4.3. Impacts on family relationships among informal sector workers

This section discusses how the COVID-19 pandemic affected the lives and gendered relationships of informal workers with a focus on the impact of psychological distress. Studies ([45,32][31]) have shown that women are more likely than men to experience psychological distress during crises. We found that women are more concerned about the negative consequences of coronavirus infection than men [46], and their psychological distress is higher. Stress levels among men are also rising however as a result of joblessness, financial setbacks, economic stress, hunger, fear of disease, and business failure. This is having an impact on their gendered relationships. As a result of boredom and frustration, 'gentlemen' can become 'aggressive men', while 'violent men' can become 'fierce men' [47]. Women's growing reliance on men has increased as a result of job losses and financial dependence during the pandemic, forcing many wives to stay in their marriages despite being abused on occasion. Men, being the primary breadwinners, are also less

likely to help with domestic duties.

Gendered relationship issues among informal workers are reflected in the increasing cases of women's abuse by male family members during the pandemic [45]. We identify four key reasons for these abuses: (1) the abuser and the abused sharing an increased amount of time, (2) the rise in daily conflicts as a result of family and domestic problems, (3) increased abuses uninterrupted by normal daily activities, and (4) the abuser's perceived security. Furthermore, Jeneba Jabbar, the director of HRLS¹ program of BRAC² and Social Compliance, links human rights abuses to economic insecurity, stating that when millions of people return to poverty, it can lead to a spike in human rights violations [48,49]. It is clear that the impact of the pandemic has also created significant gender-based violence and gender-differentiated dominance in informal working-class families. The joblessness and cognitive stresses have posed new and frightening challenges to their typical lifestyle.

Islam's study (2020) offers a very interesting scenario of domestic violence during the pandemic. The records of abusive incidents during the pandemic showed that 1672 women and 424 children who reported abuse had never experienced this kind of abuse before [48,49]. The BRAC program in Bangladesh received 700 reports of domestic violence during the first three weeks of the COVID-19 spread [47]. More than 300 incidents of men abusing women were reported to the Manusher Jonno Foundation (MJF) in three districts, according to the foundation. Overall, during COVID-19 violence against women has risen among informal working-class in Bangladesh and globally.

4.4. Gendered health impacts among informal sector workers

Amid the pandemic, informal sector workers primarily relied on pharmacy vendors for any health emergency rather than hospitals or doctors. This is because doctors were not available in the overcrowded urban settlements while all immunizations were suspended [50]. Many non-Covid patients with diabetes and hypertension also suffered due to decreased services from doctors. Some video-call consultations were available, but the doctor's charged fees, and most informal sector workers, particularly women, do not have the required technical skills to use these services.

Moreover, pregnant women and mothers faced increased health challenges during the pandemic. In Bangladesh, informal sector workers who are women and pregnant prefer to go to NGO-funded maternity centres for pregnancy-related issues and delivery. However, during the pandemic lockdowns, their movement was restricted, and some maternity centres were also not functioning to their full capacity, so these female workers had to rely on traditional and untrained birth attendants for delivery and pregnancy issues [50]. Moreover, child-health monitoring and immunization for children under five were suspended, which caused concerns for informal women workers. Community-based family planning programs were suspended, and community health services to households were interrupted, causing extra health pressure on these female workers.

Pandemic-associated job losses and income shocks faced by the informal sector workers led to reduced food consumption [9]. Women were more often expected to reduce their consumption, compared to male household members. As a result, there is the possibility of a long-term nutritional impact on female residents of overcrowded, poorly maintained settlements [51]. Female workers were constantly under financial and work pressure, faced with extra unpaid work in the home as the schools were closed and male members were spending more time at home. So female workers felt constantly tired and experienced

¹ HRLS is a BRAC's program which stands for Human Rights and Legal Aid Services

² BRAC stands for 'Bangladesh Rural Advancement Committee.' It is one of the world's largest non-governmental development organizations, originally founded in Bangladesh.

reduced sleep, and this problem multiplied where there was increased violence from intimate partners. Male workers were also losing sleep due to their sudden financial problems, many having to spend their savings and even to sometimes seek help from neighbours and relatives, which caused shame and embarrassment. Furthermore, prices of drugs for fever and influenza increased and became less available due to lockdown measures and restrictions on transportation services, as well as the hugely increased demand. As a result, male workers faced challenges in managing medicines for their family members [50].

5. Discussion

This study findings prioritize arranging psychological and gender-based assistance for informal workers. The following sections discuss how to lessen a pandemic's negative impact on informal workers' psychological well-being and on gendered relationships, suggesting ways in which the government can help them resolve their issues.

5.1. COVID-19: Psychological and gender impacts

This study highlights the emerging needs of the informal workers in Bangladesh due to COVID-19-related joblessness. The findings suggest three key concerns:

- a) a focus on informal workers,
- b) a focus on their psychological assistance, and
- c) a focus on their gender-based needs.

To address these three-dimensional issues, it is crucial to adopt measures that are tailored to their economic situation and the condition of their living quarters. If the response plan only includes online or short message services or introduces hotlines [47], the victim may not be able to use those services as they don't have access to cell phones or the internet.

Psychological assistance is important for both COVID-19 patients and non-patients. However, it is often influenced by socioeconomic and psychological factors. If psychological distress is severe, the person may have suicidal or self-harm ideation and if the treatment is expensive, the jobless person may be unable to afford it. Gender-based responses are essential. We discuss the importance of various sociocultural factors while developing a COVID-19 response plan. Further, many short- and long-term solutions can be devised to ensure that a larger number of people can benefit from the responses.

The way ahead could include: (1) establishing hotlines, one-stop services and organizing awareness-raising programs and campaigns; (2) arranging immediate and free psychological support for both victims and abusers; (3) relocating victims to immediately reduce psychological distress and (4) recruiting both male and female community volunteers to assist in resolving gendered issues, while keeping the informal working class informed [47]. Aside from these, long-term plans for reducing COVID-19's (and therefore future pandemic's) impact on informal workers should also be explored. One measure could be creating a government database of all informal workers.

5.2. Government's responsibility for the informal working class

The Government of Bangladesh must bear the responsibility to uplift those in poverty. The capacity and willingness of the government are vital in this regard. The applicability of assistance is often dependent however upon the policies and the managerial capacity of the actual government. It may not for example be able to mitigate the financial crisis for the entire jobless working class due to its sheer population size. However, if the government learns from the informal workers' experiences of unprecedented financial and psychological sufferings, they can re-think their responsibility by proper use of this working force in an alternative way. These actions cannot be taken by individuals

themselves; instead, they require the approval and participation of government agencies.

The COVID-19 plans show that Bangladesh's recovery strategy is primarily focused on the 'physical' health sector. A plan for COVID-19 patients' comprehensive psychosocial and auxiliary care, as well as medical care, is also included [52]. Bangladesh is one of the world's most densely populated countries. As a result, the consequences of any pandemic are extremely dangerous for Bangladesh. On March 8, 2020, the first COVID-19-positive case in Bangladesh was identified [53], and the positive case numbers had risen to 1,514,456 by September 6, 2021. Due to infections among the economically vulnerable working class of unorganized sectors, fear-psychosis has also been observed. Due to the high numbers of infected people, the ratio of doctors, hospitals, nurses, physiotherapists, and other related associates proved inadequate [54]. The government has provided funding to non-governmental organizations (NGOs) for the purpose of assessing the level of vulnerability and determining the necessary measures to address these problems. The Bangladesh Ministry of Women's and Children's Affairs' National Helpline Centre for Violence Against Women and Children created a 24-h hotline number [109] for women and children to report any form of abuse [55].

There are also a number of online counselling services and programs offered by government agencies, as well as civil society organizations to assist people in dealing with the psychological issues caused by the COVID-19 outbreak. However, these policies and programs have significant gaps or flaws.

1. First, according to this policy, psychological support will be provided to COVID-19 patients, but not to those who are experiencing psychological distress or abuse as a result of the pandemic.
2. Second, no gender-specific treatment has been included in the policies.
3. Third, there is no special psychological support for female informal workers, who are more vulnerable to the risk of an abrupt economic shock.
4. Fourth, there is a need to ensure that all women, including those from the informal class, are aware of the helplines.

It is also necessary to provide digital devices to informal working-class families so that they can access these online services. The government usually focuses on ensuring the implementation of existing policies and developing new plans to close the gaps. This research identified some of the gaps in the existing COVID-19 response plans, as well as some necessary short- and long-term measures to fill them.

5.3. Reframing urban informality at the time of disasters

This study uncovered limited evidence of contemporary community strategic actions with gender-specific components in the Bangladeshi slums. During disasters such as the COVID-19 pandemic, men and women slum dwellers faced different challenges, including men facing more of the exogenous difficulties (e.g., financial shocks) and women facing more of the endogenous challenges (e.g., mental distress, weak family relationships). This clearly indicates the need for gender-sensitive response planning. While it is evident that there is an ongoing gendered vulnerability during the COVID-19 pandemic, there has not been specific research undertaken on how men are experiencing and dealing with it. Consequently, further investigation is required to understand how various groups of men in urban Dhaka are coping with the long-term impacts of COVID-19.

6. Conclusions

The purpose of this paper was to investigate effects of the COVID-19 pandemic on gendered relationships among Bangladesh's urban informal workers. The study explored the consequent social crises and

the resulting psychological distress. It was found that the pandemic, with its forced lockdowns, has caused a sudden drop or reduction in earning/income sources, while worsening food insecurity and placing extra care burdens on women. This has resulted in gendered abusive behaviour, harassment and even domestic estrangement. Furthermore, this study found that existing policies are mostly based on physical health care and on regaining economic stability; however, issues such as arranging necessary psychological help and gender-based policymaking are also needed. The affected informal workers may require appropriate psychological help to overcome depression due to pandemic-led trauma and post-abuse stress, in order to return to a normal life and join the post-pandemic workforce. Again, the necessity of gender-based policy and a gender-sensitive approach are closely related to the arrangement of gender-based help. Further interdisciplinary and in-depth research is required drawing theoretical and empirical insights on gendered relations and pandemics. Specifically, more in-depth ethnographic studies are required to provide a deeper understanding of this complex relationship.

This study recommends that in order to help the informal working-class during the ongoing (and any future) pandemic, their special needs must be included in the responsive plans and policies. In order to reach these informal workers, the primary concern in policy planning should be building a database containing the information of every informal worker. This database will help reach each informal worker's family in order to provide financial, physiological, psychological and gender-based assistance. Next, the policies can include arrangements like repurposing government schools or organizations as quarantine facilities for informal workers, and arranging their rehabilitation post-pandemic. Evidence shows that the Bangladeshi government was not prepared for a sudden emergency like COVID-19. The economic uncertainty generated psychological disorders among the poorer workers and their family members disproportionately. The government should prepare for further emergencies and arrange alternative jobs for the informal working members of these unorganized sectors. This workforce can be employed by the government and other organizations. Clear co-ordination and a long-term plan are recommended. Psychological counselling for this class is required on a regular basis to avoid domestic violence. The government should ensure rationing and healthcare are available and accessible, and there should be short-to-long-term plans in policies incorporating the abovementioned local and state-driven steps.

CRediT authorship contribution statement

Sajal Roy: Conceptualization, Methodology, Supervision, Writing – original draft, Writing – review & editing. **Krishna K. Shrestha:** Conceptualization, Data curation, Resources, Supervision, Writing – original draft, Writing – review & editing. **Oliver Tirtho Sarkar:** Funding acquisition, Resources, Writing – original draft, Writing – review & editing. **Ashish Singh:** Data curation, Writing – original draft. **Rumana Sultana:** Validation, Writing – original draft.

Declaration of Competing Interest

The authors declare that there is no conflict of interest involved in this study.

Data availability

The authors are unable or have chosen not to specify which data has been used.

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