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COVID-19 in Bangladesh: A systematic review of the literature from march 2020 to march 2021

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COVID-19 in Bangladesh: A Systematic Review of the Literature From March 2020 to March 2021

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Abstract

In the last couple of years, one name that has shaken the world is undoubtedly the COVID-19 pandemic. Not only because of its global impact and scale, but also because the pandemic has challenged the way we have structured our surrounding that includes but not limited to the health infrastructure and procedure to deal with global crisis. In this connection, the comprehensive goal of this study is to discover the research that has already been conducted last year since the inception of Corona in Bangladesh. In addition, this study will also examine the pervasiveness and affiliation of social and economic issues, health and psychological issues, individual perceptions regarding COVID-19, key challenges and strategies, concern for public policy public health, online education, agriculture and food security, expansion in crime refugee crisis, and the condition of domestic violence during pandemic. The study has used electronic databases such as *Web of Science*, *PubMed*, *PubMed Central*, and *Scopus* to collect data from published material on COVID-19. This study has reviewed significant papers while eradicating redundancy among them and have maintained 43 pertinent articles from them. Among the 43 selected articles for analysis, fourteen were qualitative (32.56%), six were mixed (13.95%), and the rest were quantitative (53.49 %) in nature and in methodology. In summary, this study would help in identifying the issues and factors that are interconnected and have worsen the COVID-19 situation in Bangladesh so that the government and other stakeholders can reassess their position in defining COVID-19 and relative disasters and would format policy to control the spread of this global pandemic.

Keywords: empirical study, PRISMA guidelines, Bangladesh, content analysis

Introduction

The pandemic COVID-19, originated from the city of Wuhan in China at the end of 2019 has touched the border of more than 200 countries and territories (Worldometer, 2021). Since the devastating *Spanish Influenza* pandemic in 1918, the 20th century has experienced two more hazardous pandemics: The *Asian Flu* in 1957 and the *Hong Kong Flu* in 1968 and both of them have ensued in Asia. At least four epidemics have been documented in the twenty-first century alone: The *Bird Flu* in 2009, *SARS* in 2002, *MERS* in 2012, and *Ebola* between 2013 and 2014. (Baldwin et al., 2020). These viruses have an accelerating rate of transformation, and cases of mass dissemination from individual-to-individual. Severe complications for the patient of corona are noted that includes but not limited to acute respiratory syndrome. This lethal virus alone has afflicted around 219 nation and have caused a surge in the prevalence of cases (Alam et al., 2020).

World Health Organization (WHO) on March 11, 2020, declared that COVID-19 is a pandemic of global scale because of its expansion (WHO, 2020). It emphasizes that COVID-19 has intensified the pain of the people all over the world. In this connection, as economic concerns are linked to public health crises, socioeconomic, and livelihood issues, the expansion of COVID-19 has undoubtedly forced the global economy to bend its knees.

Comprehending people's response to infectious diseases is also challenging since there is no evidence of the anticipated growth curve for the pandemic. In this regard, different public health interventions have been put in place throughout South Asia. Since September 10, 2020, there have been more than 5 million illnesses and 94,000 deaths in Southern Asia alone which is a worrisome condition as one-third of the world's population (1.7 billion) lives in highly populated areas with little resources to support their necessities (Siam et al., 2020). In this connection, Bangladesh is a fascinating scenario to investigate from such a South Asian aspect as the hallmark of the pandemic.

Bangladesh, a developing country in South Asia with a high population density of little over one person per square kilometer, has an overall population of 161.3 million (inadequate medium income). On March 8th, 2020, Bangladesh discovered its first COVID-19 case and soon after on March 18th, 2020, Bangladesh reported its first death from coronavirus infection. Reports found that the patient was a 70-year-old man with a history of numerous medical issues (Reuters Staff, 2020). As of March 7, 2021, there were 5,50,330 cases and 8,462 deaths in Bangladesh, making it one of the worst-hit countries (WHO, 2021). 60% of the population of Bangladesh is between the ages of 15 and 64 years; therefore, only 4.7% are over 65 (Islam et al., 2020a) that refers that a great population is always in the threat of COVID-19 infection. Bangladesh is particularly sensitive to infectious diseases as the population is high and infectious viruses like COVID-19 spread faster in communities where population is high in density.

Consequently, Bangladesh has the significant challenge in restricting new cases and minimizing fatality of corona patient. Anxiety, depression, phobias, insomnia, and trauma-related with lockdowns has all exacerbated by the fear of contacting with an infectious virus especially in a time when the anxiety of losing a loved one is high. The rumor and misinformation regarding COVID-19 has also been disseminated in the society and the scarcity of adequate patient treatment units are all contributing factors behind this fear (Ahorsu et al., 2020). Such a pandemic crisis has generated a global and therefore substantial social, economic, and public health problem at an unprecedented and multidimensional stressor.

In this comprehensive evaluation, researchers in Bangladesh are looking at the types of studies that were carried out a year after the outbreak began. This report also examines the effects of COVID-19 on different sectors of the country's pandemic preparedness efforts. This study is empirical in nature and conducted from March 2020 to March 2021, and 43 original papers were evaluated for a meta-analysis. This paper has also studied the accepted norms, standards and practices in preventing the virus from spreading in addition this study makes necessary suggestions for future investigators.

Materials and Methods

Inclusion and Exclusion Criteria

Only original articles are included in this study which are peer-reviewed, published in full-length format in English language between March 2020 and March 2021 in the *Web of Science*, *PubMed*, *PubMed Central* and *Scopus* databases (see *Figure 1*). As we aimed to check the studies conducted on the COVID-19 situation in Bangladesh, articles published in different languages were excluded. In addition, different types of articles such as case report, commentaries, pictorial essay, review article, editorial etc. were excluded too.

The authors sought to evaluate the empirical data on COVID-19 research in Bangladesh from March 2020 to March 2021. A literature search was conducted to identify the articles in *Web of Science*, *PubMed*, *PubMed Central* and *Scopus* with the search term *COVID-19 in Bangladesh*, *socio-economic impact of COVID-19 in Bangladesh*, *psychological impact of COVID-19 in Bangladesh*, and *COVID-19's impacts on migrant workers in Bangladesh*. Initial screening was done by checking the title and the abstract of the article and subsequently, the full text was assessed. After removing the duplicates, 43 articles were considered for the study (*Figure 1*). The empirical study also identified the year of publication of the article or research paper, the applied methodologies, significant findings, authors' distribution, cooperation between countries, and future directions (*Table 1*). The analysis shows that (32.56%) of the studies followed a qualitative design, (53.49%) were quantitative in nature, and the rest (13.95%) followed a mixed-method approach. These review articles cover different fields such as the socio-economic area, mental health and psychological issues, people's perception regarding COVID-19, COVID-19 and key challenges, strategy and policymaking system, public health sector, online education during lockdown and COVID-19, agriculture and food security, criminal activities amidst the outbreak, refugees and Rohingya issues and the quality and quantity of domestic violence during pandemic.

Outcome Variables

Author's contribution, study design, methodology of the study, publishing year, a summary of the articles, domains of the study, and funding details were outcome variables for this study. Affiliated institutions were considered to ascertain the authors' geographical locations.

Distribution of the Studies

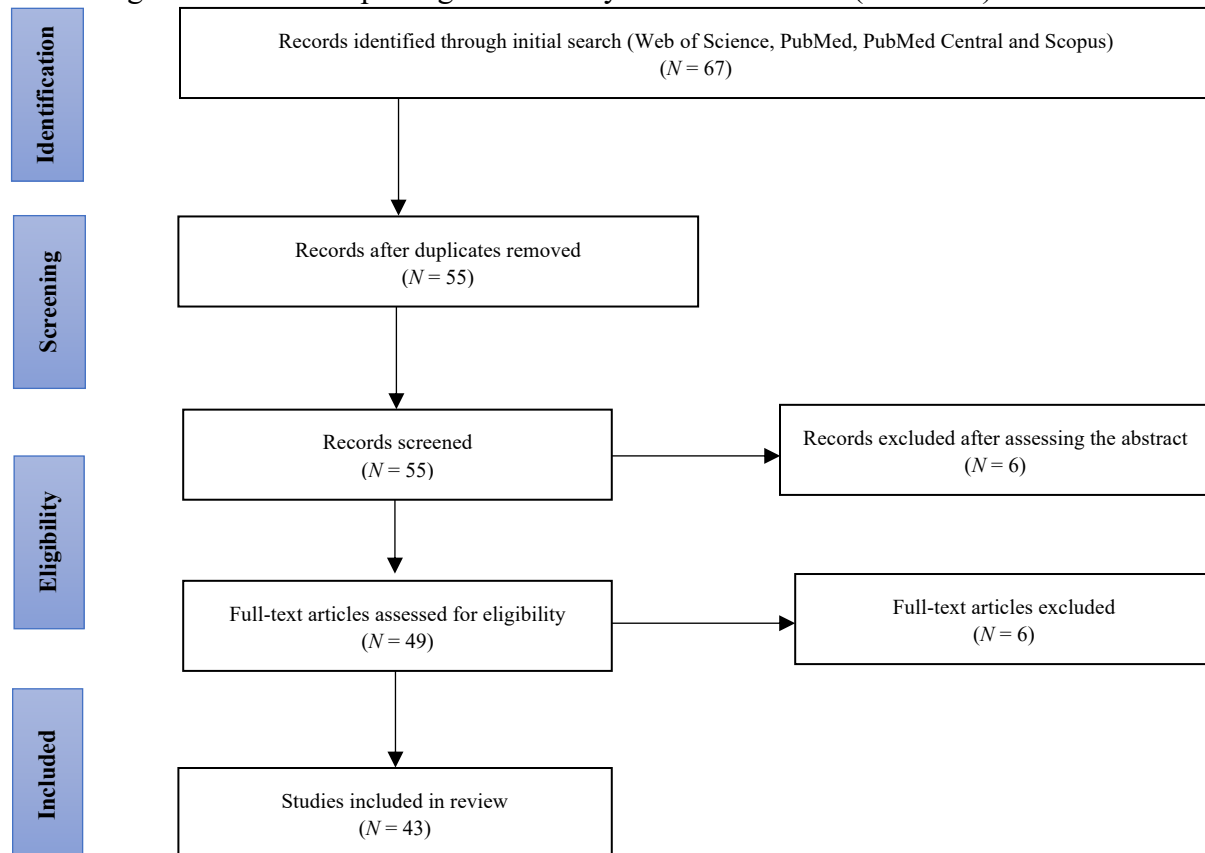
We have searched the original papers in *Web of Science*, *PubMed*, *PubMed Central* and *Scopus*. We have appraised 43 pieces for this review and articles published from March 2020 to March 2021 are also included (*Table 1*).

Data Analysis

To conduct the research and analyses for this study, we used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (PRISMA; Moher et al., 2009). PRISMA is a basic set of features for reporting in evidence-based systematic reviews and meta-analyses. A four-stage *process flowchart* and a *checklist of 27 items* make up the PRISMA guidelines (Moher et al., 2009). The reports relevant to a review are identified, screened, and included according to the criteria described in the flow diagram (Fleming et al., 2014; Selçuk, 2019). This checklist has 27 items covering areas including titles, abstracts, introductions, techniques, findings, discussions, and budgets for the conducted studies (Selçuk, 2019).

During the initial phases of COVID-19 pandemic, hundreds of publications maintaining the situation in Bangladesh were published. In this connection, after the abstract-identification process, 67 paper were selected based on the initial aim of electronic search resulting in the elimination of 12 papers that were previously found to be submitted twice. From the found 55 papers, 6 were unsuitable for further review as the minute reading of the 6 articles did not provide required information for the current research. After fixing the total number to 49 articles, a full text reading and comprehending process was undertaken and it was found that another 6 articles did not fulfill the requirement and eligibility criteria for the current research. While maintaining the ethical guidelines, requirements of the research questions, criteria for inclusion, and the impetus for conducting the research, we finally opted to include 43 papers.

Figure 1. Flowchart Describing the Search Strategy and Inclusion/Exclusion of Studies by Following the Preferred Reporting Items for Systematic Reviews (PRISMA) Guidelines



Findings

Applied Methods

Among the 43 collected studies, fourteen were qualitative (32.56%), six were mixed (13.95%), and the rest were quantitative studies (53.49%) (Table 1).

Domains

In the assessment, eleven studies have been identified from a socio-economic point of view (25.58%), COVID-19 and Psychological issues (13.95%), five studies (11.62%) encircled COVID-19 and key challenges and people's perception during the pandemic, both strategy and policymaking systems and public health covered (9.30%), online education (6.98%), agriculture and food security (4.65%), at trice criminal activities, Rohingya issues and domestic violence possessed (4.44%) area of the whole assessment (Table 1). Majority of the studies conducted last year in 2020 has been considered for examination while considering the socio-economic factors, mental health, significant difficulties and perceptual points of view. In contrast, this year's studies (2021) evaluated the later subjects like the quality of domestic violence, Rohingya issue, online education, criminal activities, COVID-19 policymaking systems and so on (Table 1).

Table 1. Article Summaries

#	Study Detail	Summary
1.	<p>Authors: (Islam et al., 2020a) Title: COVID-19 pandemic: An analysis of the healthcare, social and economic challenges in Bangladesh Methods: Mixed method Sample Size: Not specific Population: Undefined</p>	<p>This research aims to assess the country's healthcare, social, and economic challenges. Factors impacting the spread of COVID-19 including a lack of well-equipped clinics, diagnostic services, awareness, incorrect knowledge, poverty, and vulnerable facts. Due to its dense population, Bangladesh is more sensitive to the effects of climate change than other countries. It was impossible to confirm exact data due to COVID-19 and its retrospective study design, therefore results may be skewed.</p>
2.	<p>Authors: (Rayhan & Akter, 2021) Title: Prevalence and associated factors of intimate partner violence (IPV) against women in Bangladesh amid COVID-19 pandemic Methods: Quantitative Sample Size: 605 Population: Bangladeshi married women who lived with her intimate partner (aged 16–45 years)</p>	<p>The COVID-19 epidemic has prompted researchers to look at the incidence of intimate partner violence and the factors that contribute to it. The study focused on married women in Bangladesh and collected data from them and their partners. Interpersonal violence among spouses has been linked to a variety of characteristics in this epidemic. Finally, amid the COVID-19 pandemic crisis, this paper IPV on women in Bangladesh showed in-depth, but various tactics (which might not have been addressed in this work) that the authors have probably disregarded.</p>
3.	<p>Authors: (Paul et al., 2021) Title: Psychological and livelihood impacts of COVID-19 on Bangladeshi lower income people Methods: Mixed method Sample Size: 576 Population: Lower income group of people</p>	<p>According to the study, the influence of COVID-19 on low-income households in Bangladesh's suburbs was investigated. The impact of COVID-19 on the mental health and economic well-being of lower-income people of Bangladesh is examined in this paper. It's possible that the authors have overlooked any potential policy consequences of their research (which may or may not have been addressed in this paper).</p>
4.	<p>Authors: (Karim et al., 2020) Title: COVID-19's impacts on migrant workers from Bangladesh: In search of policy intervention Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>Experts estimate the migrant laborers' annual contributions to Bangladesh's socioeconomic growth is \$15 billion. The COVID-19 disaster has harmed their social and economic status. Numerous workers have been sent back to Bangladesh, and much more fear returning. It exacerbates social and economic issues such as unemployment, family finances, and foreign investment. The authors of this study neglect the psychological, physical, and cultural effects of COVID on Bangladeshi migrant labors.</p>
5.	<p>Authors: (Ruszczuk et al., 2021) Title: Contextualizing the COVID-19 Pandemic's impact on food security in two small cities in Bangladesh Methods: Qualitative Sample Size: 201 Population: Lower income groups</p>	<p>This study examines the state of food security and coping strategies in two rural Bangladeshi towns. As a result of the prolonged lockdown, inhabitants (particularly low-income groups) were unable to find work and faced substantial or complete income losses. There is no difference in the techniques and value of social capital between local administrations and large cities when it comes to food distribution. On the disadvantage side, it appears that the authors are entirely uninformed on the subject.</p>

#	Study Detail	Summary
6.	<p>Author: (Rashid, 2020) Title: Impact of COVID-19 on selected criminal activities in Dhaka, Bangladesh Methods: Qualitative Sample Size: Undefined Population: Police-records for different types of offenders</p>	<p>During the pandemic in Bangladesh, the Dhaka Metropolitan Police made their crime data public so that people could see how certain crimes have changed over time in Bangladesh's capital city, Dhaka. Auto Regressive Moving Average Model is used to predict how many people are arrested for different types of crimes in 2020. According to what we know so far, drug traffickers may have been able to take advantage of lack or less regular surveillance. It doesn't include important factors like the offender's situation or social consequences, and it doesn't include COVID-19's predicted rate of crime, which are also important.</p>
7.	<p>Authors: (Rahman et al., 2020a) Title: COVID-19 epidemic in Bangladesh among rural and urban residents: An online cross-sectional survey of knowledge, attitudes, and practices Methods: Quantitative Sample Size: 1520 (Aged 18 years and above, regular internet and Facebook users) Population: Bangladeshi adults</p>	<p>An investigation into the knowledge, attitudes, and practices (KAP) of rural and urban Bangladeshi residents were the primary purpose of this research. According to the findings, routine KAP inquiries can be an effective monitoring tool for COVID-19 management in Bangladesh and can give basic information on the prevention and control of the disease. COVID-19 is a new strain of coronavirus and there is no sufficient preliminary research or data to compare this study's findings to those of other studies. Generalizing conclusions from a limited sample might be risky at this point of time.</p>
8.	<p>Authors: (Ahamed et al., 2020) Title: Lockdown policy Dilemma: COVID-19 pandemic versus economy and mental health Methods: Mixed method Sample Size: Not specific Population: Undefined</p>	<p>In this research, the effectiveness of policies and the impact of lockdown metrics on the people's mental health and economy are examined. The costs of limiting the epidemic outweighed the benefits in terms of economic and mental health, according to the researchers. In addition, it examines the success of various initiatives in other countries to see if there is a similar trend in Bangladesh. Almost all of the information used in this research came from government entities. Data analysis results may be exposed to a degree of bias due to the circumstance of data collection.</p>
9.	<p>Authors: (Al-Amin et al., 2021) Title: Status of tertiary level online class in Bangladesh: Students' response on preparedness, participation and classroom activities Methods: Quantitative Sample Size: 844 Population: Different universities students of Bangladesh</p>	<p>To monitor classroom activity and teacher preparation, the Bangladeshi government employed the internet. Despite occasional issues with attendance and class activity, Bangladeshi students are largely prepared for online education. Rural and urban students differ greatly in their performance during online classes. This study of Bangladeshi preparations and classroom activities provides some insight into these areas.</p>
10.	<p>Authors: (Ferdous et al., 2020) Title: Knowledge, attitude, and practice regarding COVID-19 outbreak in Bangladesh: An online based cross-sectional study Methods: Quantitative Sample Size: 2,068 (Age group 12-64 years) Population: Bangladeshi residents</p>	<p>The purpose of this study was to learn how much Bangladeshis know, and what do they feel about COVID-19, as well as how they think about it. The fast spread of COVID-19 in Bangladesh has prompted a multitude of responses. This study was cross-sectional. So, it's possible that causal conclusions can't be verified. Second, self-reporting has limitations compared to face-to-face interviews, including partiality. The survey only included people with internet access, thus, the results may not represent the entire Bangladesh's population.</p>
11.	<p>Authors: (Rahman et al., 2021) Title: COVID-19 responses among general people of Bangladesh: Status and individual view toward COVID-19 during lockdown period Methods: Quantitative Sample Size: 616 Population: All Bangladeshi general people</p>	<p>In order to curtail the outbreak, the people of Bangladesh had their understanding, attitude, and practice of COVID-19 and that is studied and examined in this article. This report also acknowledges that some essential information is not yet available in public space because of the massive information influx. An examination of social, psychological, and health issues is also required in order to provide the most accurate version of the study.</p>
12.	<p>Authors: (Anwar et al., 2020) Title: COVID-19 and Bangladesh: Challenges and how to address them Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>Travel prohibitions, social isolation, remote workplaces, and land locking are among the non-therapeutic techniques being used by numerous countries to limit the spread of coronavirus epidemics. There are specific difficulties in implementing these regulations in Bangladesh because of its high population density. Mitigating measures are difficult to implement in many sections of the country because of the government's limited resources. To put it another way, the primary dataset required here depicts the entire Bangladeshi context scenario in all of its complexity.</p>
13.	<p>Study: (Imtiaz et al., 2021) Domain Name: COVID-19 in Bangladesh: Measuring differences in individual precautionary behaviors among young adult Methods Applied: Quantitative Sample Size: 350 Study Population: Dhaka and Tangail's educated young adult</p>	<p>According to this study, young adults' preventive behavior is critical in the fight against pandemics. In spite of the fact that the country's young adult population constitutes a third of the total population, their mental health is of paramount importance. In the eyes of authors, higher education and mental health are the most crucial factors that regulate their significant behavior. As a result of this study's focus on urban educated adults young, the authors put minimum significance on elderly adults or illiterate young people.</p>

#	Study Detail	Summary
14.	<p>Author: (Hossain, 2021) Title: COVID-19 impacts on employment and livelihood of marginal people in Bangladesh: Lessons learned and way forward Methods: Qualitative Sample Size: Not specific Population: Marginal people in Bangladesh</p>	<p>COVID-19 has a terrible effect on Bangladesh's disadvantaged people, according to a study. The continued epidemic has resulted in significant employment losses and income cutbacks among people who work in the informal economy. Unemployment and poverty are on the rise in both urban and rural areas across the country. Descriptive studies are insufficient to describe the genuine condition of the minorities in Bangladesh.</p>
15.	<p>Author: (Haider, 2020) Title: Economic impact of COVID-19 on Bangladesh: Agenda for immediate action and planning for the future Methods: Quantitative Sample Size: Not Specific Population: Undefined</p>	<p>For our country's economic stability following the epidemic, the authors suggest boosting women's employment and generating more revenue. As a result of a lack of education, technical advancement, and public awareness of these issues, this literature does not adequately address these issues.</p>
16.	<p>Authors: (Tabassum et al., 2021) Title: Online education during COVID-19 in Bangladesh: University teacher's perspective Methods: Quantitative Sample Size: 353 Population: Universities teachers</p>	<p>Due to crisis in pandemic, all sectors of the country have suffered, including the educational system. Online education has been introduced to close this gap whereas university teachers did not require to use virtual sites before the pandemic. So, they don't need to learn how to use it. The authors list some drawbacks for example the lack of technical knowledge and network issues. The researchers have only demonstrated the dilemma of the teachers, however, there are many other issues such as student financial issues, lack of gadgets, and network connectivity issues in rural areas.</p>
17.	<p>Authors: (Mollah & Parvin, 2020) Title: Governance of COVID-19 pandemic in Bangladesh: Crisis and challenges. Methods: Qualitative Sample Size: 50 Population: Undefined</p>	<p>This research was designed to evaluate the crisis and challenges of handling COVID-19 in Bangladesh. The information was collected from populations and governance of managing COVID-19. This study only focuses on educational issues at the elementary level but does not address the long-term influence of the higher education sector. This paper also failed to discuss the potential ways of income for vulnerable people. Finally, the number of respondents was limited for a proper assessment.</p>
18.	<p>Authors: (Mahmud et al., 2021) Title: Economic impact of COVID-19 on the vulnerable population of Bangladesh Methods: Quantitative Sample Size: 203 Population: Vulnerable population in Bangladesh</p>	<p>This article has shown the effects of COVID-19 have a huge impact on the economy of the vulnerable population of Bangladesh. This study only focuses on the economic impact of vulnerable populations. Welch two-sample t-test analysis was not properly applied. Another recent data (Bangladesh Bank) shows that there are high intentions of saving among people.</p>
19.	<p>Authors: (Rana et al., 2021) Title: Effect of COVID-19 in Bangladesh: Challenge and overcome Methods: Quantitative Sample Size: 260 Population: Bangladeshi residents of various sectors and professions</p>	<p>This study assesses the primary issues faced by Bangladesh during COVID-19 and suggests solutions. Most items in Bangladesh lack human conscience and social distance, contributing to COVID-19 proliferation. However, there was no clear investigation of the impact of long-term lockdown in this study. However, it is difficult to attribute the spread of the coronavirus to a lack of societal awareness.</p>
20.	<p>Authors: (Alam et al., 2020) Title: The impact of COVID-19 pandemic on the economic growth in Bangladesh: A conceptual review Methods: Qualitative Sample Size: Not specified Population: Undefined</p>	<p>To assess the impact of COVID-19 on Bangladesh's economic indicators, such as ready-made garments (RMG), gross domestic product (GDP), foreign remittances, financial institutions, and manufacturing are examined. For economic advancement, this study recommends that the government must plan, coordinate, and educate. There is no evidence of other countries' GDP for a comparative analysis and that has minimized the findings of this research.</p>
21.	<p>Authors: (Ahmed & Rahman, 2020) Title: COVID-19 trend in Bangladesh: Deviation from epidemiological model and critical analysis of the possible factors Methods: Quantitative Sample Size: Not specific Population: Undefined</p>	<p>This article investigates the possible causes of the COVID-19 outbreak in Bangladesh that deviated from the epidemiological model. The number of experiments was restricted for observation, which is the primary reason for the divergence from the model. The study also suggests that longer summers may have played a role in reducing the number of cases reported.</p>
22.	<p>Authors: (Emon et al., 2020) Title: Impact of COVID-19 on the institutional education system and its associated students in Bangladesh Methods: Quantitative Sample Size: 2460 Population: Randomly selected among all districts in Bangladesh</p>	<p>The primary objective of this study is to investigate the influence of the present COVID-19 pandemic on Bangladesh's educational system. According to this report, COVID-19 is harming education and students' career in Bangladesh. Due to the interruption of other areas of learning, it is reasonable to predict that COVID-19 will have a significant influence on Bangladeshi students as well. While COVID-19 has stated how its use affects education, all potential remedies to alleviate the difficulties are missing.</p>

#	Study Detail	Summary
23.	<p>Authors: (Haque et al., 2020) Title: The impact of COVID-19 on socio economic condition of city people: lessons from the selected KCC Area Methods: Quantitative Sample Size: 158 Population: Different types of occupational people</p>	<p>The impact of the outbreak on the Khulna City Corporation (KCC) in Bangladesh was quantified in this paper. A survey found that 35% of respondents were dissatisfied with the situation, while only 1% were extremely satisfied. The current socioeconomic elements influencing participants' livelihood and personal well-being were evaluated quantitatively. This study's quantitative analysis may not fully capture the spectrum of qualitative mood evaluations.</p>
24.	<p>Authors: (Baird et al., 2020) Title: Adolescence in the time of COVID-19: Evidence from Bangladesh Methods: Mixed method Sample Size: 2095 Population: Adolescents</p>	<p>This article looks at how COVID-19 and other economic and educational issues affect teen health in Bangladesh. An increase in food insecurity, anxiety, and other mental health issues among teens has a significant financial burden on families. Due to school closures, teenagers have had to spend more time in completing chores at home which significantly decreases their future career possibilities. Affecting disproportionately low-income children and adult. The writers have missed adolescent education and health as indicator for the research.</p>
25.	<p>Authors: (Ehsan & Jahan., 2020) Title: Analyzing the impact of COVID-19 on the mothers of Bangladesh: Hearing the unheard Methods: Mixed method Sample Size: 223 Population: Mothers of various professions, age groups, family backgrounds</p>	<p>The COVID-19 epidemic was investigated to see how Bangladeshi women coped with the pandemic. They are also searching for new voices not yet heard by the academic community in the US and elsewhere. The pandemic's impact on mothers varies based on their occupation, their husband's, and their family structure. Because of COVID-19's picture, there is no fragmented or divided mother coherence in this study.</p>
26.	<p>Authors: (Khan & Howlader., 2020) Title: Breaking the back of COVID-19: Is Bangladesh doing enough testing? Methods: Quantitative Sample Size: Not specific Population: Undefined</p>	<p>Examines the critical question of whether Bangladesh can withstand additional testing in light of the dangers posed by India and Pakistan. Increased testing levels and increased testing capacity helped Bangladesh find more cases than India and Pakistan combined, according to the research. Data was gathered from the website <i>worldometers.info</i> and evaluated using basic statistical techniques. It's essential to employ more advanced statistical tools before considering a single website for a study of this nature.</p>
27.	<p>Author: (Haque., 2020) Title: The COVID-19 pandemic and the public health challenges in Bangladesh: A commentary Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>The purpose of this study is to shed information on the present coronavirus (COVID-19) pandemic in Bangladesh and the government's response. Ability to identify, inform, and mobilize community ahead of an emergency were the primary issues of investigation in this study. Checkpoints and COVID-19 hot zones are among the options being considered. This study's retroactive design may have hampered objectivity by preventing a full examination of the data.</p>
28.	<p>Authors: (Kumar & Pinky, 2020) Title: Addressing economic and health challenges of COVID-19 in Bangladesh: Preparation and response Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>As well as the government's response, this article discusses COVID-19's economic and public health impacts in Bangladesh. In terms of total corona infections, Bangladesh ranks among the worst-hit countries. The COVID-19 outbreak has hindered the country's economic growth especially the GDP. This has resulted in improved COVID-19 patient recovery rates and economic metrics. Despite the epidemic's economic and health implications, no recovery strategy for Bangladesh is offered in the study.</p>
29.	<p>Authors: (Ahmed et al., 2022) Title: COVID-19 outbreak in Bangladesh and associated psychological problems: An online survey Methods: Quantitative Sample Size: 500 (18–57 years) Population: Bangladeshi People</p>	<p>The COVID-19 epidemic is now hitting Bangladesh, albeit mental health issues have received less attention than physical health issues. Results showed that two-thirds of the subjects had depression or anxiety, and a third was extremely apprehensive or tensed. Mental health difficulties were more common in people between the age of 18 and 30. An online survey or cross-sectional study has inherent limitations, and there is the potential for psychiatric concerns to be misjudged.</p>
30.	<p>Authors: (Biswas et al., 2020) Title: A systematic assessment on COVID-19 preparedness and transition strategy in Bangladesh Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>The current study assessed Bangladesh's pandemic preparedness and made recommendations for adapting with new reality and recovering normalcy over the long term. Global health systems have been devastated by the COVID-19 epidemic of the year 2020. If COVID-19 readiness and transition strategy are to be thoroughly evaluated in rural and especially the backward parts of Bangladesh, it will not be possible. To get better outcomes and policies, we'll need new and compatible strategies.</p>
31.	<p>Authors: (Shoaib & Arafat, 2020) Title: Impacts of COVID-19 on agriculture in Bangladesh Methods: Qualitative Sample Size: 57 Population: Different backgrounds participated relates on agricultural sector</p>	<p>The agro-food industry has been legally shielded from any responsibility for the nationwide spread of COVID-19 infections by legislation. No unneeded area or resources should be wasted to keep the production process running smoothly. Pre-printed survey forms were used to conduct one-minute phone and email polls. A qualitative analysis alone cannot accurately assess COVID-19's impact on Bangladesh's agriculture and agri-based food industry. The detailed visual analysis is necessary with a mixed approach.</p>

#	Study Detail	Summary
32.	<p>Authors: (Homaira et al., 2020) Title: COVID-19 in the Rohingya refugee camps of Bangladesh: Challenges and mitigation strategies Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>The unique challenge faced by Rohingya refugees is discussed in this article. The authors have divided their proposed translational strategies to decrease COVID-19 transmission into the community, the health care system, and at the national level. There are challenges that go beyond health, politics, and education in the Bangladeshi Rohingya refugee camps discussed in this article. Difficult economic times, social issues, and other causes can all lead to major roadblocks.</p>
33.	<p>Authors: (Siam et al., 2021) Title: Dynamics of COVID-19 transmission in Dhaka and Chittagong: Two business hubs of Bangladesh Methods: Quantitative Sample Size: Not specific Population: Undefined</p>	<p>COVID-19 has been contained by restricting economic and social activity across the country. The researchers want to perform an epidemiological study in Dhaka and Chittagong, Bangladesh's two largest cities, to track and trace the development of COVID-19. The researchers disregard other essential techniques.</p>
34.	<p>Authors: (Rahman et al., 2020b) Title: Assessment of knowledge, attitudes and practices towards prevention of coronavirus disease (COVID-19) among Bangladeshi population Methods: Quantitative Sample Size: 1549 Population: Adult population across Bangladesh including Dhaka city and rural areas</p>	<p>This study discovered how well-informed the Bangladeshi population is regarding the pandemic. A survey found that approximately 80% had knowledge of social distancing, but only half of them actually practice them. Men reported know twice much about social separation than women (p=0.000). In this research, there were limits on information regarding attitudes, and actions to avoid coronavirus disease. This study could have been illustrated with all possible solutions and strategies.</p>
35.	<p>Authors: (Siam et al., 2020) Title: Insights into the first seven-months of COVID-19 pandemic in Bangladesh: Lessons learned from a high-risk country Methods: Quantitative Sample Size: Not specific Population: Undefined</p>	<p>This study grasps the various aspects of public health risk, including epidemiological patterns and existing public health vulnerabilities. Google COVID-19 Community Mobility Reports gave us the human mobility data. Potential policy Learning from a high-risk country is not appropriate to the situation of Bangladesh. With high population density and less developed countries, new compatible policies are needed to address this epidemic.</p>
36.	<p>Authors: (Huda et al., 2020) Title: An evaluation of factors affecting the management of COVID-19 in Bangladesh Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>The goal of this study is to obtain an understanding of COVID-19 administration in Bangladesh and discover aspects that are significant to developing nations management of the pandemic. The main flaws of this work are that it largely depends on its contents from secondary sources and the material supplied has inaccuracies of data. Once the facts of the matter are known, support and opposition can be determined.</p>
37.	<p>Authors: (Islam et al., 2020b) Title: COVID-19 pandemic and level of responses in Bangladesh Methods: Qualitative Sample Size: Not specific Population: Undefined</p>	<p>Dhaka, Bangladesh's dynamic center for research consultation and publication is the subject of this descriptive secondary literature study. According to the findings, males with COVID-19 positive status were more likely to die than females with COVID-19 positive status. This was a brief secondary literary evaluation, but the situation in every sector is quite critical. There may be some discrepancies between the study's findings and the original problem scenarios.</p>
38.	<p>Authors: (Islam et al., 2020c) Title: Exploring COVID-19 stress and its factors in Bangladesh: A perception-based study Methods: Quantitative Sample Size: 340 Population: Bangladeshi adult populations</p>	<p>COVID-19 epidemic has caused widespread mental health issues. An online poll on Bangladeshis (mean age 26.23, SD 6.39, 65.90%) was utilized to study the COVID-19 pandemic. However, despite the self-developed question used to address Bangladeshi pandemic culture, a human stress evaluation connected to COVID-19 may be limited by a lack of proven tools.</p>
39.	<p>Authors: (Nath et al., 2020) Title: Analyzing COVID-19 challenges in Bangladesh Methods: Mixed method Sample Size: Undefined Population: Different sectors of Bangladesh</p>	<p>The authors show the impact of COVID-19 in poor nations like Bangladesh. They said pandemics might treble our poverty rate. It also affects our socio-economic and educational sectors. Behind the pandemic scenario, there are other issues such as the problem of medical equipment, education, agriculture, and industrial sectors. Authors haven't researched other areas like unemployment, unconsumed people, and social life.</p>
40.	<p>Author: (Mohiuddin, 2020) Title: COVID-19 and 20 resolutions for Bangladesh Methods: Quantitative Sample Size: Undefined Population: Bangladesh</p>	<p>Slum dwellers in Dhaka are fast increasing in great numbers as Bangladesh is a low-middle-income country. A huge number of slum dwellers abandon their jobs every day, according to IEDCR and BRAC which cost an overall loose of BDT 33 billion. Unemployment compels these people to break the law as well. A shortage of basic needs, medical facilities, increased unemployment and less of knowledge regarding NGO's are the concern of the authors.</p>
41.	<p>Authors: (Aktar et al., 2020) Title: Impact of COVID-19 on stock market in Bangladesh Methods: Quantitative Sample Size: Not specific Population: Undefined</p>	<p>This study looked at how the financial markets reacted to the COVID-19 outbreak. The study found that as COVID-19 cases grow, stock market's returns plummet. It occurs frequently in the early stages of a confirmed case. This study indicates a daily return of 10% and a daily return of -1.65%. The daily COVID-19 confirmed case increase is 56.7%. While the statistics show the stock-market reacts swiftly to pandemics, the speed changes over time. Interest rate, economic growth, and inflation rate are all absent from this Stock Market Research.</p>

#	Study Detail	Summary
42.	<p>Authors: (Khan & Hossain., 2020) Title: COVID-19 outbreak situations in Bangladesh: An empirical analysis Methods: Quantitative Sample Size: Not specific Population: Undefined</p>	<p>The research described the existing problems of COVID-19 in Bangladesh in a clear and comprehensible manner. This paper's main goal is to analyze present condition of Bangladesh and to anticipate infections and mortality on a long-term and a short-term scale, using a method known as Infection Trajectory-Pathway Strategy (ITPS). Possible policy (which may not have been addressed in this work) was likely overlooked by the writers.</p>
43.	<p>Authors: (Begum et al., 2021) Title: Mental health difficulties of adults with COVID-19 like symptoms in Bangladesh: A cross-sectional correlational study Methods: Quantitative Sample Size: 1427 Population: Bangladeshi residents aged more than 18 years</p>	<p>An online survey was undertaken to assess the mental health of Bangladeshi COVID-19 patients. Those who reported <i>COVID-19-like symptoms</i> had an increased risk of stress, anxiety, and depression. The study's retrospective methodology made data verification difficult, resulting in twisted results. The recruitment methods for the study was limited to internet users only.</p>

COVID-19 and socio-economic views dealt with issues such as unemployment, family utilization of reserve funds, and reduced cash flow. Long periods of lockdowns have restricted residents' livelihood options, causing severe or total income loss. Similarly, people worry about poverty, hunger, and job loss that has led to non-compliance. COVID-19 looks to be limiting Bangladesh's economic growth. Results shows that even the rich people are facing economic challenge and are becoming poorer compared to their previous position. In contrast in the past, the corona has harmed the oppressed (formal settlers) and micro-entities (formal or informal). People are straining to make ends meet all around the country. The disease would double the poverty rate in United States. This epidemic has reduced monthly income too. COVID-19 also affects mental health. In this connection, human stress is linked to economic hardships, food scarcity, lack of formal education, and limited career alternatives.

According to a well-known study by Begum et al. (2021), 26.9% of people suffer from anxiety, 52.0% from depression, and 55.6% from severe stress. Every day, the stress, concern, depression, and other behavioral disorders made routine doctor visits impossible. Men and women in their mid-20s and early 30s were more likely than other age groups to have poor mental health. Stress, anxiety, and depression are more common in this age group and having *COVID-19-like* symptoms than the overall population. Students are increasingly addicted to Facebooking and online gaming, causing loss of morality and mental disease. People in Bangladesh especially in the rural areas are not aware of the impact of the outbreak. In this regard, nearly all (98.7%) of the people wore facial masks in crowded places, 98.8% have reported to health officials, and 93.8 percent clean their hands with soap and water (Ferdous et al., 2020). Participants commonly misdiagnosed COVID-19's key clinical symptoms. They had no knowledge that chronically unwell older people are the most susceptible cases of Corona.

New information can help prevent COVID-19 infection but due to the invasion of information, primary data is not yet available to the public. Other issues include but not limited to study the lack of medical equipment, education, agriculture, and the industrial side of the pandemic. Unexpected decisions, lack of kit and testing opportunities are some of the explored explanations. The deficiency of medical equipment and human behavior can contribute to the spread of the virus as a result, infection among male and mortality rates among male is higher compared to female. With limited resources, many mitigating measures are difficult to implement, making social separation impossible.

Most if not all governments did not have any specific strategy for COVID-19. As the coronavirus outbreak expands globally, governments have imposed non-therapeutic measures including travel

bans, quarantines, and social divisions in addition they also have targeted areas of COVID-19 hotspots, and awareness building programs using social media and satellite television. These efforts also aim to increase the number of beds in private and community hospitals. Our research shows that staying at home can significantly reduce the number of COVID-19 cases and in some place by half percent.

As a result of the COVID-19 outbreak, thousands of people died every day. The health agency lacked pandemic coherence. A smaller rural population and particular eating habits may also help reduce the high infection rate. Tackling COVID-19 has both short- and long-term health concern and implication issue for Bangladesh. In April alone, there were 5780 cases of infections, 347 deaths, 775 ICU patients, and 694 severe cases (Khan & Hossain, 2020) and the data shows that the death of male is higher compared to female. Forensic evidence from the Regent and JKG hospitals revealed deep-seated wrongdoing. In this connection, the health policy of any country should be transparent and accountable in all aspects and to all stakeholders. Notwithstanding, the cost of health care, medicine and drugs, and necessary food items have almost doubled and the resources in people's hand have been limitized within this time (Islam et al., 2021).

This pandemic's worst victim is the education sector. The main challenge was to give or deliver online education to rural population. Even developed countries have faced the challenge of internet connectivity, impractical internet, and energy incoherence. Rural and urban learners differ greatly in many ways in the online classroom due to background and social mobility. The quality of education depends on several factors such as socio-economic status, access to technology and technological equipment. parental capacity to provide resource, etc. COVID-19 may have a significant impact on students' education, pedagogy, and syllabus modification and reflection of this has already being viewed in SSC and HSC examination.

Especial attention has been given to agro-food based food supply chain, but the condition is worrisome due to the impact and spread of COVID-19. It is highly encouraged to leave no land barren, and government is encouraging to reduce wastage. The outbreak has deteriorated Bangladesh's already precarious food and nutrition security.

An unbroken historical examination shall analyze the immediate repercussions of the official stay-at-home command following COVID-19. They found that the total incidence of drug trafficking and arrests have increased by 75%. (Rashid, 2020). While actual arrests for illegal drug trafficking have increased by 75%, and actual and predicted total arrests for car theft have decreased. Another important piece of proof of rising drug trafficking is found in print media. Extreme poverty is rising, and people are losing jobs. Finally, they are involving in illegal activities and crimes including drug trafficking and hijacking. During the pandemic, the lack of routine monitoring of drug paddling have benefited smugglers.

Due to limited access from outsiders, transmission among the refugees were limited to the community (Homaira et al., 2020). In addition, medical facilities in the camp have saved hundreds of lives. This district was one of the first to test for COVID-19. Sample collection and processing were delayed because of the limitation of diagnostic centers in Rohingya camps. This pandemic has causes societal unrest, raises disparities and disproportionately that has affected women and girls more than man. Domestic violence has increased to a severe level and have become a public health concern. Domestic violence against women diminishes women's quality of life. Recently,

45.29 percent of female respondents reported IPV, 44.12 percent reported emotional abuse, 15.29 percent physical abuse, and 10.59 percent for sexual abuse (Rayhan & Akter, 2021). Educated men are less likely to perpetrate IPV than uneducated man. Thus, the pandemic also forces to rethink the position of women in the society and considering laws to tackle problem of domestic violence during epidemic of this nature.

Conclusions

The Novel Coronavirus has already taken hundreds of lives and wreaked devastation on nations worldwide. COVID-19 has become a global emergency affecting everyone's lives. The unprecedented multidimensional stressor of this pandemic has caused a global social, economic, and medical crisis. The economic burden of this epidemic has adversely impacted food insecurity and the health care system. This situation will negatively impact the economy and other industries too. It is affecting the health economics and industrial production in several countries. Current commodity prices hike, both in the regular market and during crises is a major concern for middle-income people. It has also been connected to an increase in criminal behavior. Bangladesh has suffered greatly since COVID-19 pandemic. A well-thought-out plan both for short and long term is essential at a policy level. Based on our previous knowledge of pandemics and our present understanding of COVID-19, public health needed to be given top most priority. Improving healthcare facilities and staff training is crucial in this situation. A culture of prevention and control of COVID-19 must be built across the country.

Theoretical Implications

Multiple theoretical ramifications flow from this investigation. First, this study found that COVID-19 had a more significant impact in Bangladesh than anywhere else due to the circumstantial factors. Several review papers have adhered to the PRISMA methodology. Afterward, a thorough assessment of 43 pieces was carried out in detail. As a result, we've compiled all of the articles into a single table. Based on those studies and materials, we've summarized our findings. COVID-19 has quickly disrupted global life and will have long-term and short-term consequences on several sectors, including economic issues, health and psychological issues, public health, online education, agriculture, and food security, criminal activities, refugee crisis, and the increase of domestic violence amidst pandemics.

Practical Implications

For the government of Bangladesh and those involved in battling COVID-19 for example the front-line workers, the findings of this study have practical relevance. Human lives and livelihoods should be considered at a top priority. In addition, the Government of Bangladesh should take some additional measures to target the people and fill their knowledge gaps, improve motivation for acceptable behavior, and create a culture of prevention and control of COVID-19 at a national level. In addition, 43 pieces of literature are cited in this study, making it a comprehensive evaluation. Researchers in the future will be benefit from this publication because it serves as a comprehensive compilation of literature reviews too. We are hopeful that our study will address a void in the literature regarding COVID-19 pandemic.

Limitations and Future Research

This study aimed to determine how specific parameters were associated with COVID-19's impact. This article incorporates substantial material to construct a review paper utilizing the PRISMA model. There would be methodological inconsistencies and data saturation biases. Future research should also examine rural residents' opinion on COVID-19 and related cybercrime, community participation and awareness during and after COVID-19, pandemic fanaticism, and the presence of prevalence risk factors.

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