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Aftermaths of COVID-19 Lockdown on Socioeconomic and Psychological Nexus of Urban Population: A Case in Hyderabad, Pakistan

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Abstract: The COVID-19 pandemic started in the last week of December, 2019. An emergency was declared throughout the globe as the virus spread over 208 counties within a short amount of time. This pandemic had significant negative impacts on common men living in densely populated countries, including Pakistan. Hence, this research aimed to record people's perception of the 7th largest settlement in Pakistan, namely Hyderabad. This study mainly focused on socioeconomic and psychological parameters. The close-ended questionnaire was designed concerning the Depression, Anxiety, and Stress Scale (DASS-21). The DASS-21 is an optimal tool for recording the emotional values of depression, anxiety, and stress. A total of 400 questionnaires were filled out; they used a 5-point Likert scale. Significant socioeconomic issues were noted, such as lower household income, economic recession, job cuts, inaccessible Internet services during online teaching or working from home, etc. The primary challenges in the lockdown situation were Internet access (4.06) and anxiety (4.86) in the female population. There were higher levels of depression (N = 200), anxiety (N = 341), and stress (N = 125) in the local inhabitants. Other notable problems were illuminated, such as restrictions on social gatherings, electricity load shedding, and lower incomes. This study concludes that the degree of psychological problems varied according to the typology of gender. Based on study findings, this study recommends the prompt execution of policies considering possible future pandemics to restrain anxiety and depression in the female population. The local government is also advised to revitalize infrastructure to provide uninterrupted power supplies and Internet facilities. The income-generating channels should be open for lower-income households concerning future lockdowns.

Keywords: lockdown; COVID-19 pandemic; DASS-21; Likert scale; people's perception

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1. Introduction

The rapidly growing population and urbanization are the major concerns of the world [1]. Urbanization is one of the causes of compact development and higher density in most urban settlements. Congested city centers are an open invitation for contagious diseases and viruses [2]. A new type of virus, formed by a novel Coronavirus, was found to be lethal around the globe. The seafood marketplace of Wuhan City, in the province of Hubei, China, was the origin of this virus in December 2019. On 11 February 2020, the World Health Organization (WHO) gave a name to the new virus: SARS-CoV-2 or novel Coronavirus (2019-nCov). On 11 March 2020, the WHO declared a pandemic [3]. Since its inception, the novel Coronavirus has caused massive damage all over the world. Even though the isolation method has worked in the past to stop the spread of viruses,

i.e., Ebola, Severe Acute Respiratory Syndrome (SARS), and cholera, many regions of the world have never experienced such practices. Although COVID-19 has weakened over time, it continued to wreak havoc in every country on the earth. The number of deaths and infections reached 1.2 million and 42.6 million, respectively, by 24 October 2020. Multiple factors, like higher population density, healthcare systems, administration policies, and general public perceptions, triggered the impact of the virus throughout the globe [4,5]. Without a vaccine, the lockdown was thought to be the main tactic used to control the outbreak. The lockdown not only lessened people's earnings, but also impacted the daily-waged middle-class households [6]. During the lockdown period, isolation was traumatic for people and caused psychological issues, e.g., anxiety, depression, stress, violence, etc. Studies showed that the higher depression scores were linked to changes in job status or lack of employment opportunities while practicing social distancing [7,8].

The first case of coronavirus in Pakistan was found in the last week of March 2020. According to preliminary information on the reported cases, this virus had a powerful and substantial impact on the urban population [9]. The experts suggested social distancing as a strategy to stop the spread of COVID-19 because of its tendency to spread via human interaction. Pakistan had thousands of validated COVID-19 instances as of 10 May 2020. The Pakistani Government ordered a lockdown of all educational institutions on 14 March 2020. COVID-19 was a revolutionary virus because the life cycle of the world stopped due to new restrictions, like social separation and social distancing. Such restrictions were imposed for the first time since the outbreak of COVID-19 [10]. Therefore, this research aims to investigate the aftermath of COVID-19 in the urban population of Pakistan concerning the socioeconomic and psychological impacts of the COVID-19 lockdown. In this regard, the following research questions were designed:

i. What were the key issues faced by the people of Pakistan during the COVID-19 lockdown?
ii. What were the consequences of the COVID-19 lockdown on the residents of Pakistan considering socioeconomic problems, like household income, remote education and working conditions, government's role, etc.?
iii. What were the psychological issues faced by the people of Pakistan during the COVID-19 lockdown?
iv. How did psychological issues impact residents of Pakistan considering their gender, like male and female?

To answer the aforementioned questions, the study area was selected as Hyderabad, Pakistan. In literature, no studies have been found considering this study area and research problems. With the help of this study, the consequences of the pandemic were evaluated to discover the issues faced by the citizens of Pakistan.

This article is divided into five sections. The first section is the "Introduction" of this research, which delivers the relevant information relating to the research topic. The second section, "Literature Review", deals with previous reviews and research publications considering the study theme. The literature was chosen on the topic and the research questions of the study. The third section is "Material and Methods", which describes the research design used to achieve the objectives of this study. This chapter describes data collection methods and analytical techniques. The fourth section is "Results and Discussion", which elaborates on the main findings of the study. The fifth section is the "Conclusions", which summarizes the whole manuscript with concluding remarks. The conclusion obtained from overall research work may further help to mitigate the related issues that lie within the scope of the study.

2. Literature Review

The COVID-19 outbreak has significantly disrupted worldwide businesses and human activities. COVID-19 has changed the living conditions all over the world [11–15]. The world economy could not fight this virus or other emerging issues. The unemployment rate kept on mounting as more than half the world's population was experiencing lockdowns

for the first time. The International Labor Organization (ILO) highlighted that 81% of the world's working population lived in places where lockdown was recommended. Imposing lockdowns during the pandemic era was the requirement of the time to save precious lives. However, the consequences of the lockdowns were lethal for lower-income populations living in congested cities [16]. Because of the extreme climate change, degraded ecosystems, and loss of biodiversity that nations confront, the COVID-19 catastrophe challenged human adaptability to an unknown future [17].

2.1. Global Effects of COVID-19 Lockdown

Numbers of verified COVID-19 cases were reported by over 214 different countries [18]. The coronavirus illness was persistent in America and Europe. Consequently, COVID-19 rapidly expanded over most of Asia, including South Korea, Singapore, and Malaysia [19]. By the end of April 2020, this virus had spread to more than 200 nations, infected 3 million individuals, and killed approximately 200,000 people. The most impacted countries were listed as the United States of America (USA), Spain, Italy, France, Germany, Iran, Turkey, China, and the United Kingdom (UK). The international economy was suppressed, and the unemployment rate was at its peak. Advanced and under-developing countries were found to be incapable of fighting against the novel coronavirus [20].

The largest number of COVID-19 infections was reported in Brazil. However, Brazil did not report cases of COVID-19 until late February 2020. Afterward, the whole country received the maximum number of infections and casualties. Brazil's economy was significantly impacted by the pandemic. The Brazilian stock market experienced a 15% decline from 9th to 13th March 2020. This was the greatest weekly drop since the 2008 financial crisis. Further, the GDP decreased by 11.4% in the second quarter of 2020 compared to the same period in 2019. Brazil ranked sixth globally in terms of COVID-19 deaths in September 2020, with over 4 million confirmed cases and 125,000 fatalities. The second-most infected country was the USA. Singapore was applauded in terms of an immediate response against COVID-19. Singapore recognized the first case in December 2019, after China. Singapore used various strategies that were implemented by countries which already faced similar outbreaks [21].

Each nation on the globe responded to the pandemic with versatile coping mechanisms. With about two billion inhabitants, South Asian countries can be rated as the least developed compared to the other parts of the world. The biggest number of COVID-19 cases have been reported in South Asian countries, for example, India, Pakistan, Sri Lanka, Maldives, and Bangladesh [22]. Bangladesh is one of the emerging nations in Asia with a higher-than-average rate of poverty and slum dwellers. Bangladesh was also one of the developing countries where people economically suffered during lockdowns [23]. The socio-psychological effects were significant, since COVID-19 was termed as a very contagious disease. A suicide instance in Bangladesh was recently documented due to socio-psychological pressure. The most significant perspective emerging from the psychological pressure was fear of COVID-19. Uncertainty was a noteworthy socio-psychological concern in Bangladesh during the pandemic.

Although technology is an essential tool to work remotely and to obtain education from home, these tactics failed to control the spread of the virus in developing and underdeveloped countries. Poor people cannot afford expensive modern technology accessories, like smartphones, Internet devices, computers, etc., as compared to rich people [24]. Disruptions caused by the pandemic made academic staff members unable to perform their jobs efficiently. Time constraints, hectic schedules, and juggling work and family obligations became even worse for academic experts. These problems frequently compounded disparities based on gender, geography, and disciplinary diversity [25]. Distance learning posed obstacles for students and teachers who needed time and preparation to shift from traditional in-person lectures to a virtual format [26]. The entire educational system was impacted by COVID-19, from kindergarten to professional higher learning. The closing of educational facilities impacted about 900 million students. Children from low-income

families were not eligible for free school lunches. Additionally, urban populations with higher incomes had better access to technology for online education than lower-income groups [27].

The COVID-19 outbreak was a severe threat to the world's educational system [28]. Roughly 2.2 billion kids around the world were seen fighting the COVID-19 infection and stopped their schooling. Students were struggling with Internet, electricity, and technology concerns [29]. Information about Pakistan's COVID-19-affected students can be seen in Figure 1.

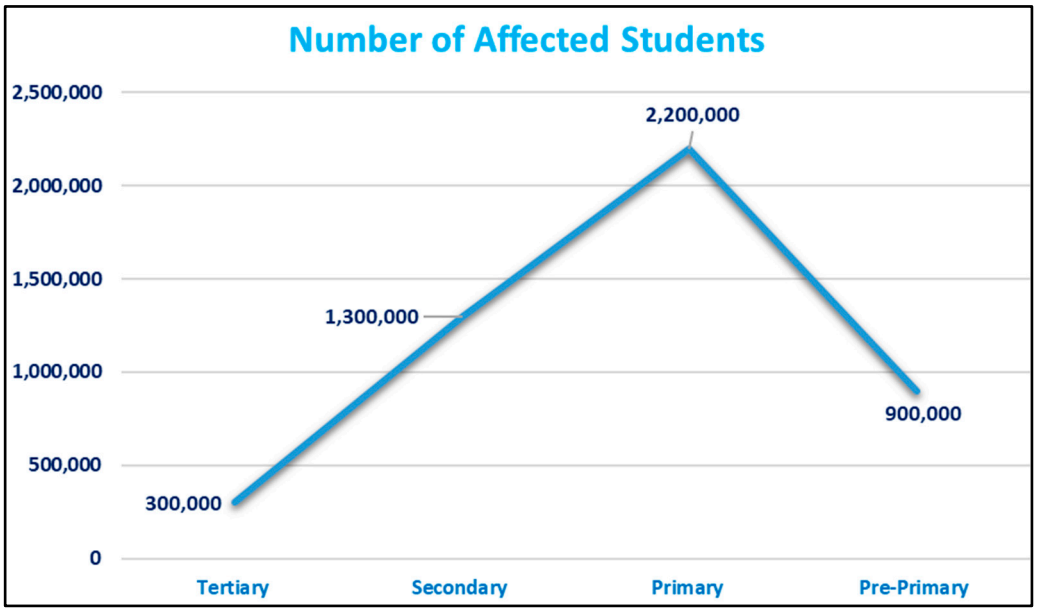

Figure 1. The number of students impacted by Pakistan's educational institutions closing due to COVID-19 [30].

It is clear from Figure 1 that the minimum number of affected students was found in the tertiary level of education. The tertiary level provides advanced knowledge to students, including research and skills in specialized fields, entrepreneurship, career advancements, etc. Meanwhile, the tertiary level offers degree programs, such as Bachelor's (undergraduate), Master's (postgraduate), Doctoral, and other professional degrees. To control the spread of coronavirus, the Pakistani government banned traditional academic activities and switched to online learning platforms. People were worried about the easy retrieval of digital technology. In Pakistan, only 22% of the population has access to Internet facilities.

According to the Organization for Economic Cooperation and Development (OECD), the COVID-19 control measures decreased global economic activities, resulting in a 50–100% loss of production in several industries [31]. All economic sectors were affected by the COVID-19 virus. Only Nepal, Pakistan, and Sri Lanka's economies experienced negative economic growth in 2020; all other South Asian states experienced positive growth. This unpredictability in economic growth showed that COVID-19 affected almost all macroeconomic factors, such as exports and imports, consumption, savings, and investment. However, at the micro level, COVID-19 had an impact on enterprises' income, profit, and cost. In the meantime, households were most negatively affected in terms of employment, health, education, and food security [32]. The dip in income and employment has been linked to both the lockdown and the fear of COVID-19 infection [33]. On the other side, national responses to the disease resulted in an unprecedented economic crisis [18]. Unavoidably, the pandemic brought a series of new difficulties in several aspects of life, particularly in the area of the economy [34].

The COVID-19 outbreak severely impacted the tourism industry. According to a study by the World Travel and Tourism Council, Nepal's tourism industry supported more than

1.05 million employments and generated Nepali Rupees 240.7 billion in 2018. A nationwide lockdown in Nepal and a delay in visits resulted in the loss of thousands of jobs in 2020 [35]. Meanwhile, the economic features of South Asian countries are reviewed in Figure 2.

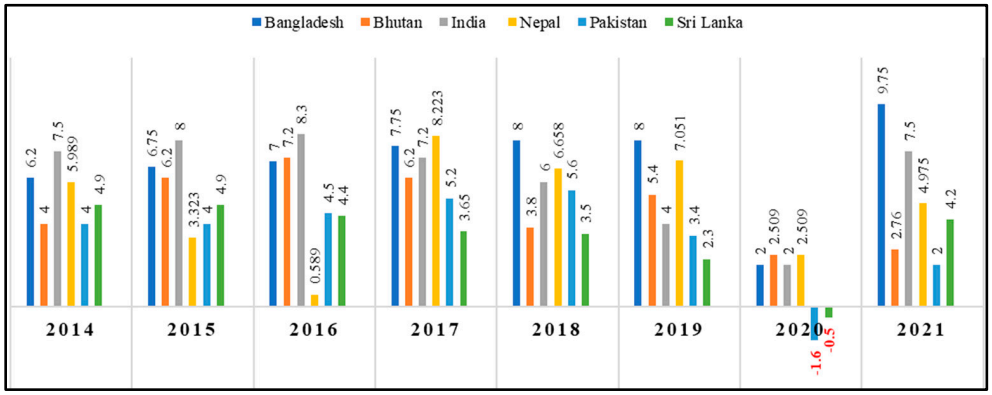

Figure 2. Economic growth in South Asian countries from 2014 to 2021 [32].

As depicted in Figure 2, Pakistan's economy was severely damaged in the year 2020, with almost −2% negative economic growth.

The psychological effects of COVID-19 included self-harm, anxiety, stress, depression, sleeplessness, helplessness, severe anxiety, panic attacks, obsessive–compulsive disorder, fear of dying and being infected, loneliness, thinking about past traumatic events or epidemics, restlessness, post-traumatic stress disorder, guilt anxiety, and continuous sadness [36]. Much research has revealed that anxiety and depression disorders have risen by about 30% in the majority of countries [37]. Lockdowns were imposed in numerous countries to restrict the spread of the virus. Fear, anxiety, depression, suicide deaths, and a general decline in welfare were all notable psychiatric symptoms that emerged with the spread of the virus. The COVID-19 epidemic in the United States resulted in a significant number of psychosocial cracks. When the COVID-19 virus first emerged, the USA experienced a negative psychological impact. Stress and depression were also noticed during lockdowns and social distancing practices. Thus, it was evident that the COVID-19 pandemic's confirmed cases and mortality rates affected mental health. Lockdowns affected people depending on their age cohorts, e.g., teenagers become bored while stuck in one place; the elderly are restricted from accessing parks and playgrounds; and adults are overburdened to complete their routine tasks [38]. When extensive measures were taken, especially quarantine, it forced people to abandon their regular outside activities. Most people became lonely and depressed. As a result, they became drug-addicted and attempted to harm themselves [39].

2.2. Impacts of COVID-19 Lockdown on Pakistan

More than 260,000 COVID-19 infections and 5700 fatalities were confirmed in Pakistan as of 23 July 2020. Women showed higher levels of anxiety and despair than men, suggesting that the COVID-19 epidemic had a massive psychological impact on women [40]. The outbreak initially hit Sindh Province. As of 17 April 2020, Punjab had 3276 confirmed cases and was declared as the epicenter. So far, 2008 cases have been documented in Sindh, Baluchistan, Khyber Pakhtunkhwa, Islamabad Capital Territory (ICT), Gilgit Baltistan (GB), and Azad Jammu and Kashmir (AJK) [41].

Like other nations, Pakistan's healthcare workforce actively participated in caring for COVID-19 patients in hospitals and community centers. Nonetheless, medical staff lacked the essential skills necessary to treat patients with mental disorders. Therefore, the majority of COVID-19 recovery patients still experienced anxiety and required psychiatric treatment [42]. Pakistan is a lower-middle-income country as per United Nations statistics [43]. The COVID-19 pandemic additionally increased poverty in developing nations that were experiencing difficulties on the socio-economic front. This was because of the

higher unemployment rate and the extended gap between the rich and the poor. To figure out how unemployment and poverty affected the economy, one can look at three relative GDP growth scenarios: a high recession with a GDP growth rate of 0% to 1.5%, a medium recession with a GDP growth rate of 1.5% to 2.5%, and a low recession with a GDP growth rate of 2.5% to 3.5%.

According to predictions, the recent pandemic caused Pakistan's employment to decline from its baseline level of 3.86 million to 0.21 million (low economic recession scenario). It further dipped to 0.62 million (severe economic recession scenario). The Pakistani government imposed a complete lockdown from 23 March to 9 May 2020. This affected many industries, such as leather, sports, and garments. People who worked in the public sector had permanent jobs with full payment of salaries during the lockdown. People who worked in the informal sector lost their jobs and faced salary cuts during the pandemic.

Most of the local rural population did not have access to modern information and communication technologies (ICTs). Only 16% of Pakistan's population was thought to use smartphones that could connect to the Internet, while 53% used traditional mobile phones devoid of Internet facility. Thus, it was very hard for students to obtain access to fast Internet connections and ICT equipment. Because of the lockdown and excessive COVID-19 cases in Pakistan, the ratio of commuters traveling within the country dropped by 70%. As per the literature, the tourism industry in Pakistan lost about USD 6 million in 2020 [30]. Unofficial labor was weakened due to social security issues, poor healthcare facilities, and the wastage of valuable resources. Nearly 53% of Pakistani households' savings dropped during the pandemic era. Therefore, it was mandatory to conduct a study that would be able to discover the socio-economic and psychological issues of the population during the pandemic time. Hence, this study was conducted for the first time to determine the repercussions of COVID-19 faced by the developing societies of Pakistan. For this purpose, certain essential methods were followed that will be reviewed henceforth.

3. Material and Methods

3.1. Study Area

According to the Pakistan Bureau of Statistics, 35% of Pakistan's population, i.e., around 55.74 million individuals, was employed before the start of the COVID-19 pandemic. However, the implementation of the lockdown resulted in the suspension of economic activities. The employment ratio declined to 22%, i.e., approximately 35.04 million people. Sindh is the second-most populous of the four provinces in terms of population [44,45]. The worst-affected province was Sindh, which experienced a 23% decline in the number of workers throughout the pandemic. Hence, this investigation was carried out in the busier city of Hyderabad. Hyderabad is the second-largest city in Sindh and serves as a substantial commercial and economic hub in the region. Hyderabad is situated between 25°22′45″ N and 68°22′6″ E longitudes and is approximately 150 km away from Karachi City [46–48].

The city of Hyderabad is divided into four Talukas: Hyderabad City, Latifabad, Qasimabad, and Hyderabad Rural [49]. Post-pandemic studies have not been conducted often enough to record the impacts of lockdown and social distancing practices. Therefore, Hyderabad, the 7th-largest city in Pakistan and 2nd-largest in Sindh Province, was selected to record the socioeconomic and psychological problems of the local population. In particular, this study determined the aftereffects of the COVID-19 pandemic on the residents of Hyderabad concerning depression, anxiety, stress, and related socioeconomic issues. A map of the study area can be viewed in Figure 3.

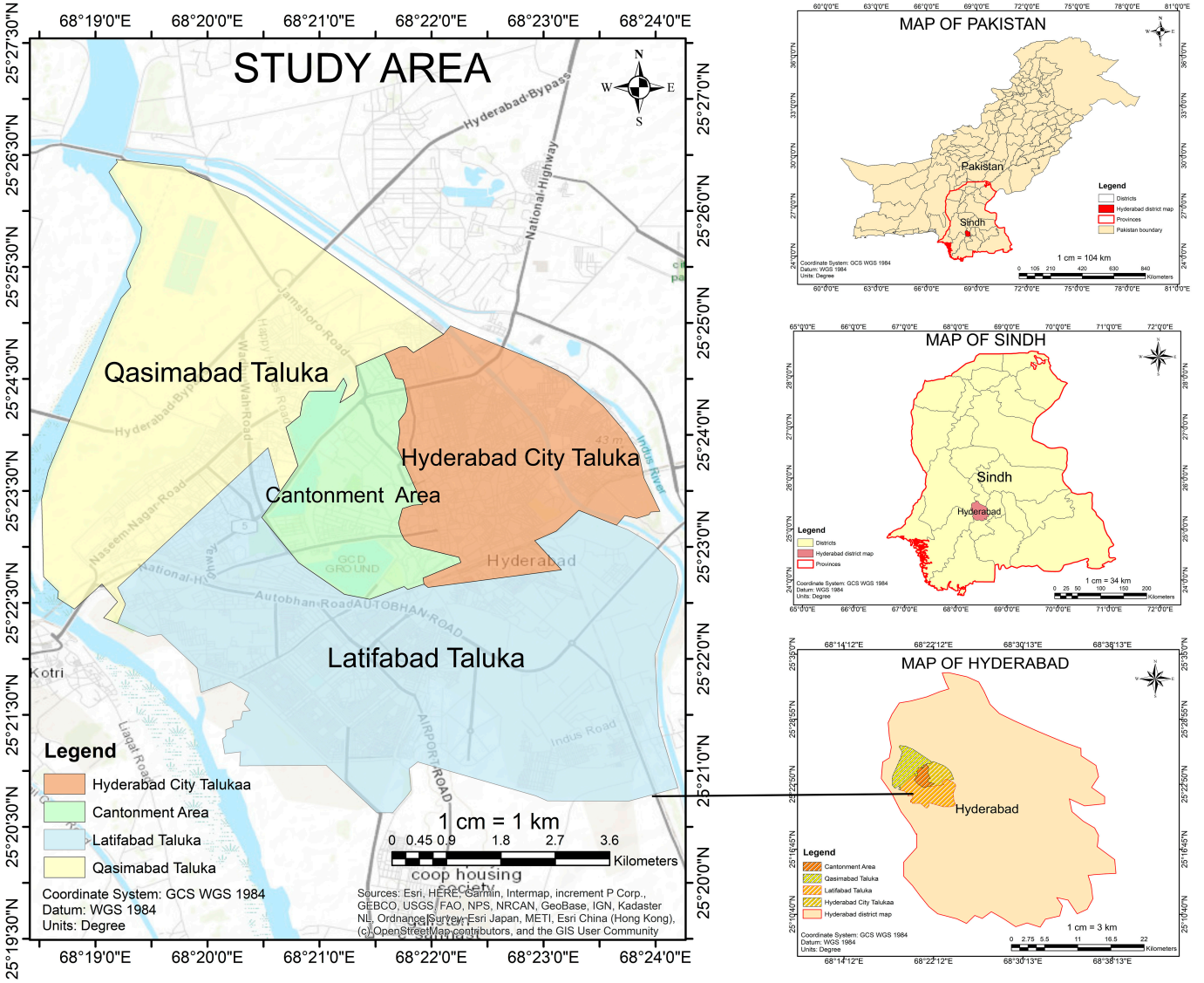

Figure 3. Urban land-use map of District Hyderabad, Pakistan.

3.2. Study Factors

Study factors were extracted from the reviewed literature to refine the impacts of COVID-19, as revealed in Table 1.

Concerning Table 1, this research focused on the following parameters: the decline in social interaction, online education, changes in employment patterns, unemployment disparities, and income (household income, personal income).

Table 1. Different authors' definitions of research factors.

Factors	Author(s)	Definitions
COVID-19	[50]	The Coronavirus Disease 2019 (COVID-19) is an infectious disease that is brought on by coronavirus 2, which causes severe acute respiratory syndrome (SARS-CoV-2).
Lockdown	[38]	A lockdown is an emergency plan that means people cannot move from one part of the building to another.
Socio- Economic	[51]	Combining the words "socio" and "economic," we have "socioeconomic." Economic refers to sources of revenue, whereas socio refers to society or social difficulties.

Table 1. *Cont.*

Factors	Author(s)	Definitions
Pandemic	[39]	The Greek term "pandemos," where "pan" means "all" and "demos" means "people or population," or "all the people," is where the English word "pandemic" originates. An epidemic that spreads beyond national borders and affects all (or nearly all) individuals is referred to as a pandemic.
Epidemic	[39]	According to the WHO, an epidemic is a term used to describe a sudden geographic spread of a disease ("epi" means "upon"). It describes an increase, sometimes fast, in the number of cases of disease beyond what is usually expected in the local population.
Quarantine	[21,36]	A transmittable disease exposure quarantine is the separation and restricted mobility of people who are at risk of spreading the disease to others. The first accepted strategy to stop the spread of COVID-19 is self-quarantine.
Depression	[52]	Depression is a mood disease that makes it difficult for people to feel normal at work, in social situations, or with their families.
Anxiety	[53]	Anxiety is a mental and physical reaction to a self-image that is made up of perception and deliberately thought feelings of tension.
Stress	[54]	Stress is the body's response to any demand.
Well-Being	[55]	The condition of being at ease, healthy, or content.

3.3. Sample Size and Strategy

Three Talukas, i.e., Hyderabad City, Latifabad, and Qasimabad, were chosen as the study locations for the survey. Taluka is a second-tier administrative unit after the district in Pakistan. These study sites are thickly populated and renowned for agglomerated economic activities. This was the reason behind the choice of these populous target areas. Stratified and judgment (purposeful) are two distinct sampling approaches which were executed during the data collection process [56]. The stratified and judgment sampling techniques are extensively used in social sciences. A stratified method was executed to reduce sampling bias while selecting male and female strata equally. On the other hand, judgment sampling was utilized to reach lockdown-affected areas. Judgment sampling is an efficient tool for researchers to collect data based on study parameters. Judgment sampling is also handy for small sample sizes. Thus, both sampling tools were utilized to procure reliable data to complete the objectives of this study [57]. However, for better accuracy, 400 questionnaires were employed to procure a consistent data set executing Morgan's sampling standards [58]. The data collection process was started in September 2023 and completed in December 2023. The population characteristics of the study area were taken into consideration while designing the sample size. Nonetheless, the sample size was determined as 400 (male = 200, female = 200) [59]. For further sampling clarifications, please see Table 2.

Table 2 demonstrates the sampling plan of the study. The standard level of 10% was considered to determine the sample population (173,269) [60]. As per Morgan's sampling criterion, 400 questionnaires were completed to procure authentic data.

Table 2. Sampling plan for the study.

S. No.	Talukas	Population (Census Result, 2017)	10% of Total Population	Sample Size
1	Latifabad	672,504	67,250	**400**
2	Qasimabad	304,899	30,490	
3	Hyderabad City	755,290	75,529	
Total		**1,732,693**	**173,269**	

3.4. Methodology

This study is based on multiple factors, like socioeconomic status, stress levels, and barriers to earning during the lockdown situation [61,62]. The research methodological flow chart is divided into three phases according to the nature of the study. Three phases of methodology, i.e., pre-analysis, technical, and post-analysis, are depicted in Figure 4.

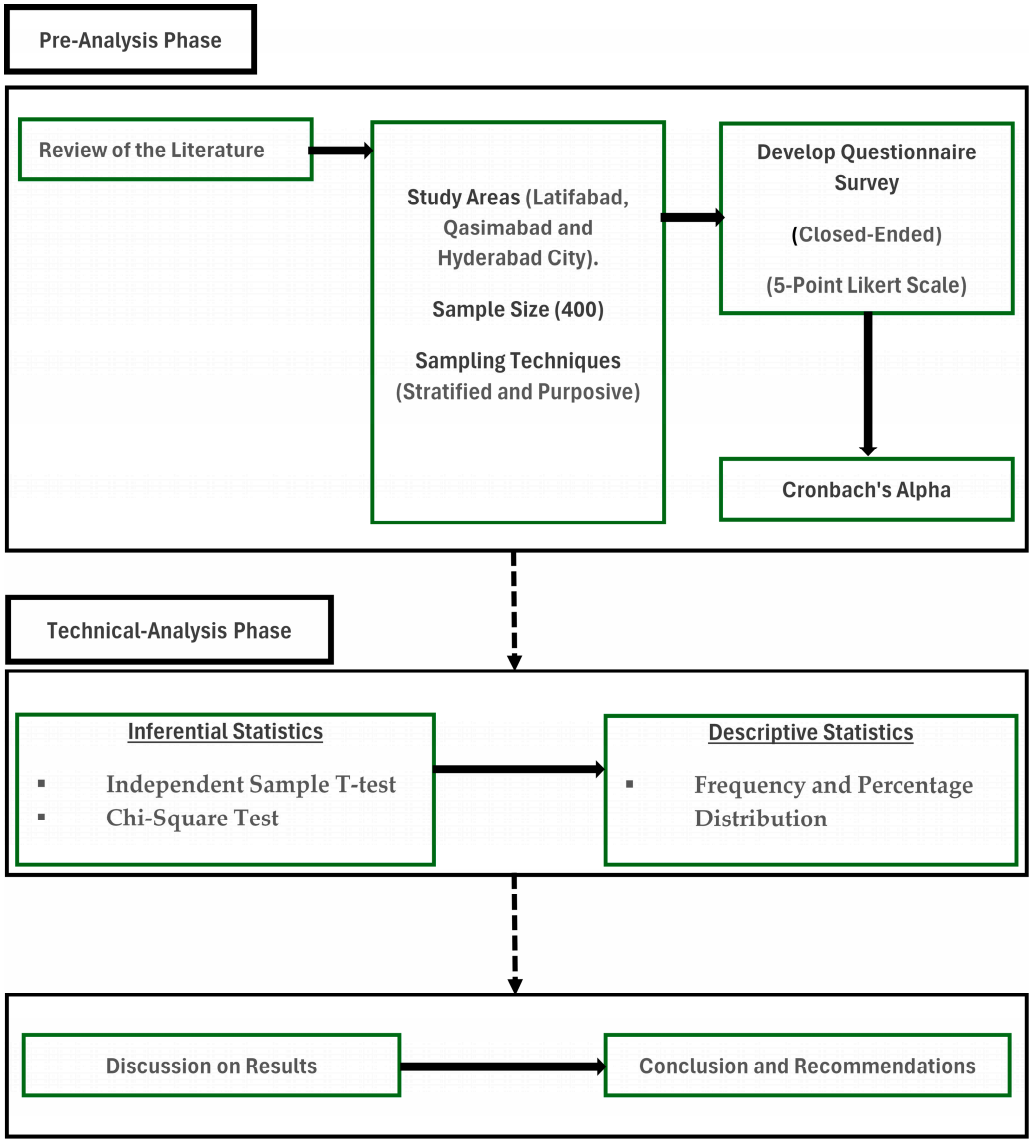

Figure 4. Research design diagram.

As highlighted in Figure 4, three phases, i.e., pre-analysis, technical analysis, and post-analysis, were designed to achieve the study's objectives. A Likert-scale-based questionnaire was developed to record people's perceptions concerning psychological and socioeconomic indicators [63]. In this regard, the following characteristics were selected: the decline in social interaction, online education, employment activities, unemployment disparities, and income (household income, personal income).

3.5. Theory behind the Study's Framework

A theoretical framework was designed for this study. The self-explanatory Figure 5 can be reviewed here.

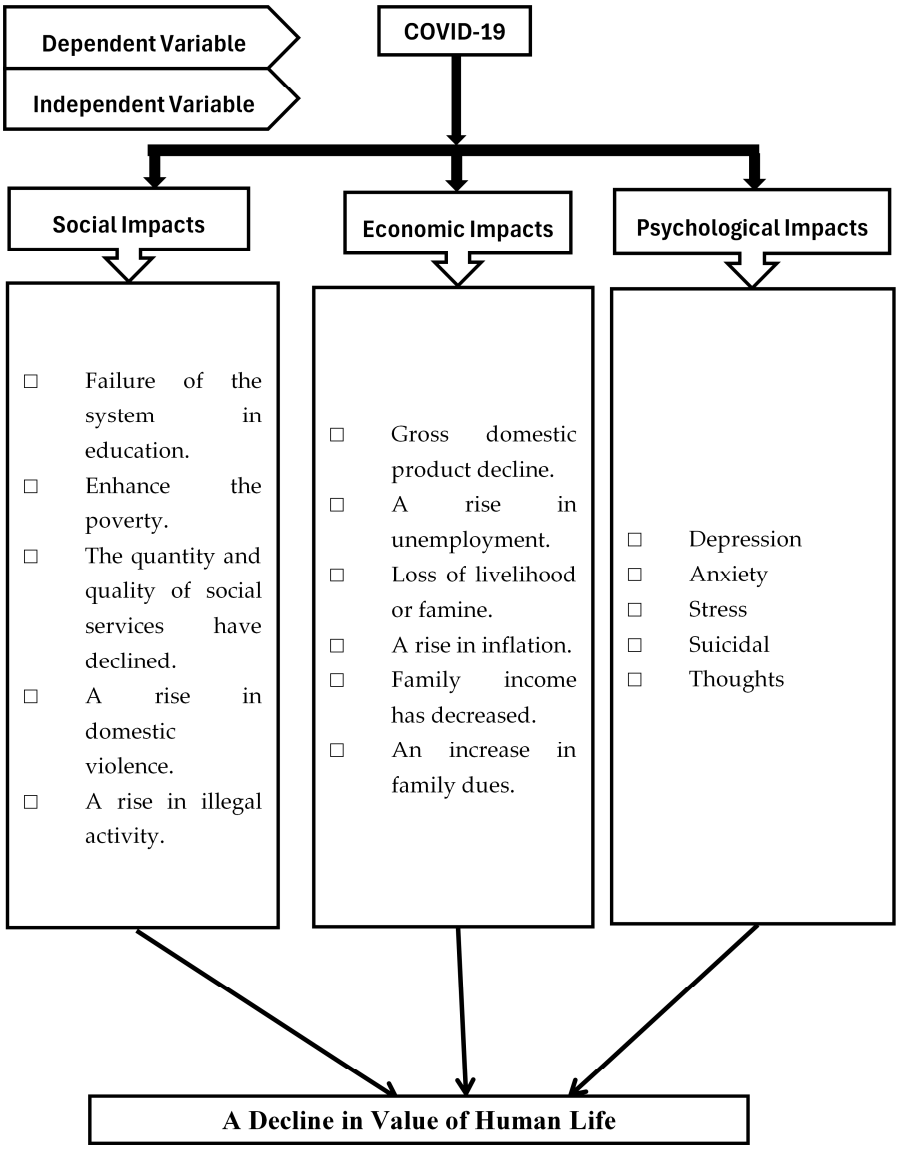

Figure 5. COVID-19's theoretical framework.

Figure 5 describes the study's goals in detail and displays the independent and dependent variables. This diagram also presents the COVID-19 lockdown's impact variables in an unbiased manner. Keeping Figure 5 in view, the study variables were picked to analyze the consequences of the COVID-19 lockdown in Pakistan. Nevertheless, the data were manually compiled and evaluated using the Statistical Package for Social Sciences (SPSS-23.0). The data were summarized using descriptive facts, and then statistical tests were performed.

4. Results and Discussion

4.1. Questionnaire Respondents

In total, 400 participants (200 men and 200 women) were targeted with the help of stratified and judgment sampling techniques. Later, the data were examined to answer the research question, i.e., how the COVID-19 lockdown affected people's lives considering employment, education, mental health, and the household economy. This study gives a thorough overview of the effects that the COVID-19 pandemic had on people's daily lives.

Table 3 highlights the demographic profile of the respondents in frequencies and percentages, for example, the gender result (200 male participants, 50%, and 200 female participants, 50%). The age groups were as follows: under 18 years (27 participants; 6.8%),

18–30 years (307 participants; 76.8%), 31–40 years (52 participants; 13.0%), 41–50 years (12 participants; 3.0%), and over 50 years of age (2 participants; 0.5%). Regarding education level, the statistics were noted as no formal education (6 participants; 1.5%), primary education (2 participants; 0.5%), matriculation (2 participants; 0.5%), and intermediate education (27 participants; 6.8%). For the tertiary level, undergraduate education (233 participants; 58.3%), graduate education (66 participants; 16.5%), postgraduate education (39 participants; 9.8%), and Ph.D. education numbers (25 participants; 6.3%) were noted. The profession-wise data were collected as follows: students (275 participants; 68.8%), service providers (51 participants; 12.8%), business owners (11 participants; 2.8%), professionals (29 participants; 7.2%), and unemployed (34 participants; 8.5%). To identify the economic condition of participants, household income data were found as follows: less than 20, 000 Pakistani Rupees (PKR) (45 participants; 11.3%); PKR 20,000 to 40,000 (88 participants; 22.0%); PKR 41,000 to 60,000 (100 participants; 25%); and more than PKR 60,000 (167 participants; 41.8%).

Table 3. Respondents' socio-demographic characteristics.

Socio-Demographic Characteristics	Frequency	Percentage
Gender		
Male	200	50%
Female	200	50%
Age (Years)		
<18	27	6.8%
18–30	307	76.8%
31–40	52	13.0%
41–50	12	3.0%
>50	2	0.5%
Education Level		
No Formal Education	6	1.5%
Primary	2	0.5%
Matriculation	2	0.5%
Intermediate	27	6.8%
Undergraduate	233	58.3%
Graduate	66	16.5%
Postgraduate	39	9.8%
Ph.D.	25	6.3%
Profession		
Students	275	68.8%
Service	51	12.8%
Business	11	2.8%
Professional	29	7.2%
Unemployed	34	8.5%
Household Income		
<20 K	45	11.3%
20 K–40 K	88	22.0%
41 K–60 K	100	25.0%
>60 K	167	41.8%

Because of the stratifications, researchers were able to target low-income residential neighborhoods (please see Table 3). Keeping in view the highest inflation rate as compared to the regional countries (approximately 30% in 2023 and about 24.78% in the year 2024), most of the respondents' income levels were noted below PKR 60,000. Only 167 respondents' income levels were above PKR 60,000. It has been verified that the mentioned household income levels can be considered as lower compared to the US Dollar exchange rate, i.e., USD 1 = PKR 280. Income levels equal to PKR 100,000 per month can be considered as lower to middle income levels. All values less than the aforementioned level can be regarded as lower income levels.

4.2. Reliability Analysis

The verdicts of this inquiry are verified by the reliability statistics. Table 4 describes the reliability statistics of the data. This test further validated that questionnaires were authenticated to complete the objectives of this study. The Cronbach's Alpha value was determined as 0.702.

Table 4. Reliability statistics.

Number of Filled Questionnaires (400)	No. of Questions	Cronbach's Alpha
	51	0.702

4.3. Socio-Economic Effects

The socio-economic effects of the COVID-19 lockdown are shown in Figure 6.

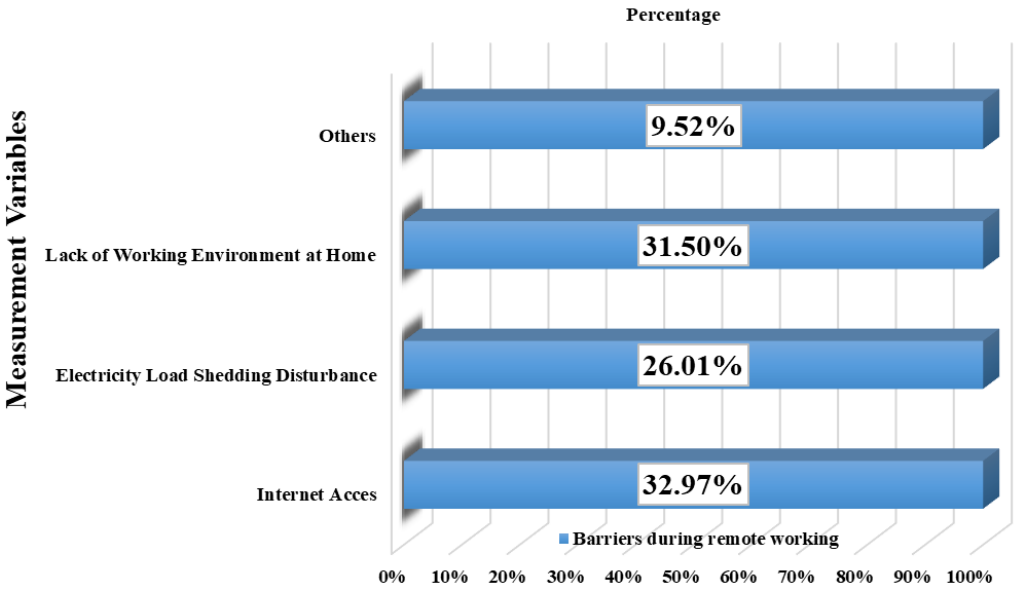

Figure 6. Barriers to remote working.

Figure 6 revealed challenges in working from home during the pandemic. The majority of the respondents, i.e., 32.97%, were facing problems in accessing Internet facilities, 26.01% of respondents faced electricity load shedding, 31.50% of respondents lacked a working environment at home, and 9.52% of respondents highlighted other difficulties.

The disturbance factors during online classes are shown in Figure 7.

Figure 7 indicates the data on the perceptions of students regarding obstacles to obtaining an online education. About 45.19% of students reported problems with Internet access, 33.33% of responses highlighted electricity load shedding, 19.26% of respondents did not manage their time, and 2.22% of respondents were uncomfortable taking classes at home remotely.

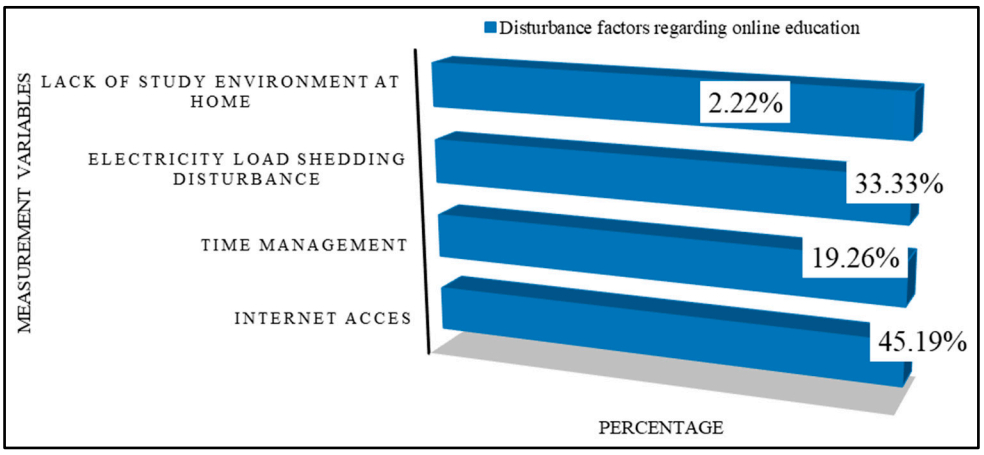

Figure 7. Disturbance factors regarding online education.

Figure 8 depicts the key issues in the lockdown situation. The majority of the respondents (59.75%) agreed with all specified issues, e.g., job downsizing, abandoned prayers at Masjid (mosque), shortage in household income, being stuck in one place, and restrictions on attending social gatherings.

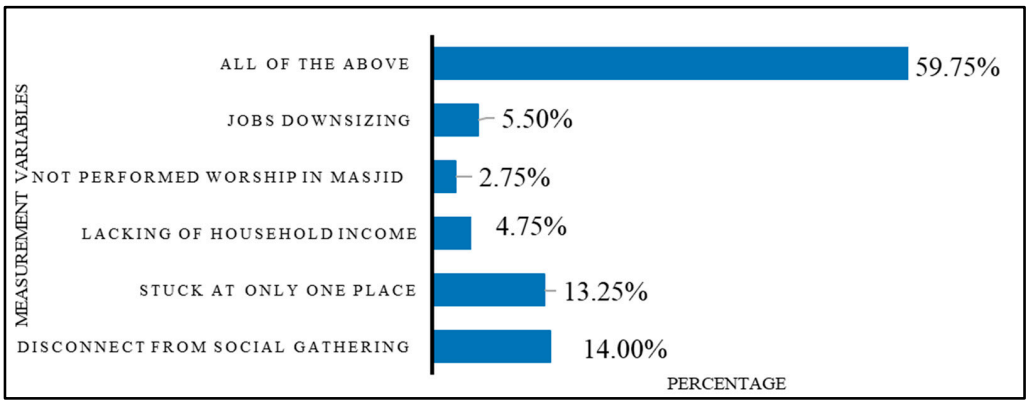

Figure 8. Identification of main factors during a pandemic.

As shown in Figure 8, the responses were noted as per the discussed variables: 14% were disconnected from social gatherings, 13.25% spent time at only particular places like home, a hostel, etc.; 5.50% experienced business downsizing; 4.75% faced shortages in household income; and 2.75% did not perform prayers at the mosque.

Figure 9 confirms the public perception concerning the government's role in managing COVID-19 patients and the pandemic situation.

As seen in Figure 9, most of the people (38.50%) did not have any hope or doubt in the government's role; 32.25% did not have any expectations from the government; and 29.25% showed their trust in the government's actions.

Figure 10 describes people's perceptions about COVID-19. Most of the respondents talked about poor health infrastructure, difficult situations, and dishonesty in the government's role in fighting against the pandemic.

Concerning Figure 10, most of the respondents (41.75%) raised the issue of poor health infrastructure in handling COVID-19 patients. Exactly 36% of the respondents termed the pandemic era as a difficult situation, and about 22.25% of respondents did not show their trust (dishonesty) in the government's actions taken to fight against the pandemic.

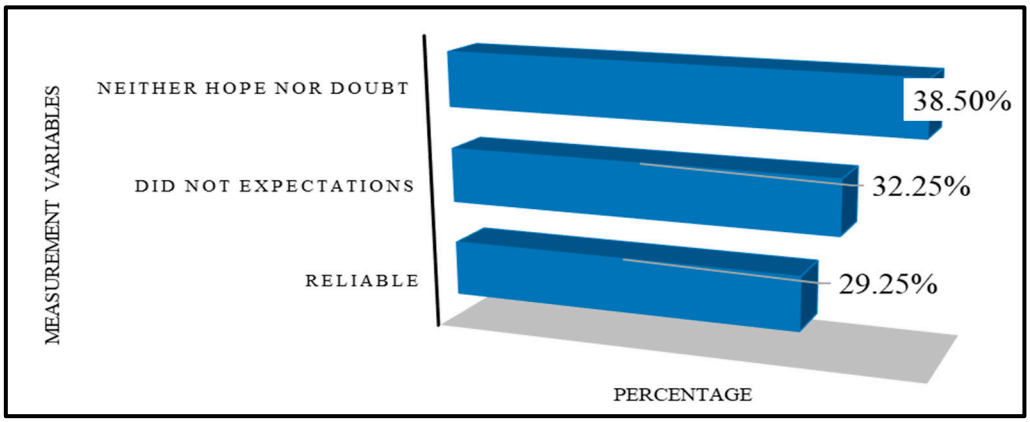

Figure 9. Public perception about the government's role during the pandemic.

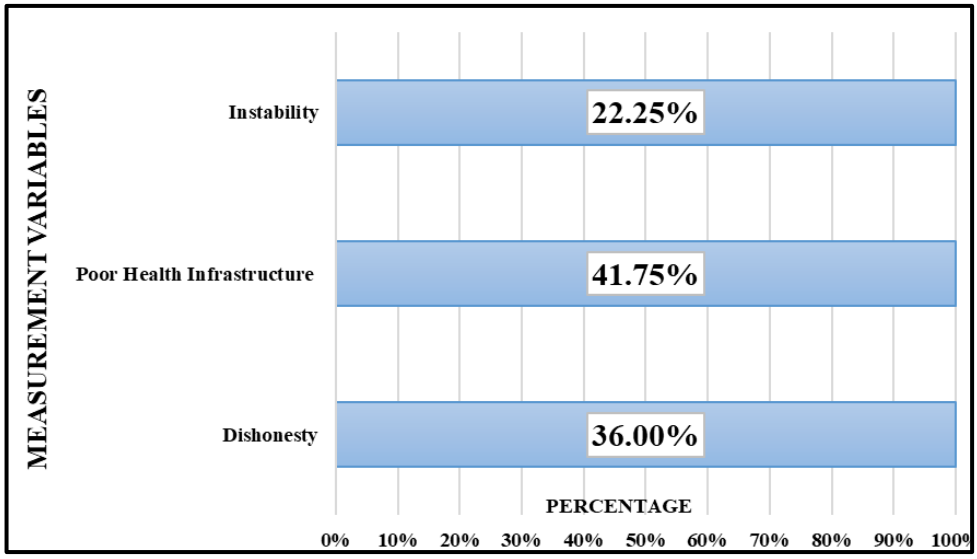

Figure 10. Factors of public perception about the government's stability.

4.4. Respondent's Classification Based on the Government's Implementation of the Lockdown

From this point on, the results will be discussed to clarify people's perceptions about the lockdown during the pandemic.

Figure 11 elaborates on the opinions of the population about the effects of the lockdown on students' learning abilities.

In Figure 11, the results showed that 65.75% of respondents strongly agreed, 27.50% of respondents agreed, and 1.75% of respondents were undecided. However, 1.75% of respondents disagreed, and 3.25% of respondents strongly disagreed.

Figure 12 elaborates on the opinions of the people about the raising of social issues in society due to the lockdown.

As highlighted in Figure 12, 52.25% of respondents were found to agree, 28.50% of respondents strongly agreed, and 13% of respondents were undecided. However, 5.50% of respondents disagreed, and 0.75% of respondents strongly disagreed.

Figure 13 elaborates on the opinions of the people about the effects of the lockdown in relation to poverty statistics.

In Figure 13, the poll showed that 50.25% of respondents strongly agreed, 36.75% agreed, and 10% were undecided. However, 1% and 2% of respondents disagreed and strongly disagreed, respectively. Therefore, it can be stated that people's incomes were seriously affected during the pandemic era because of lockdowns and social distancing.

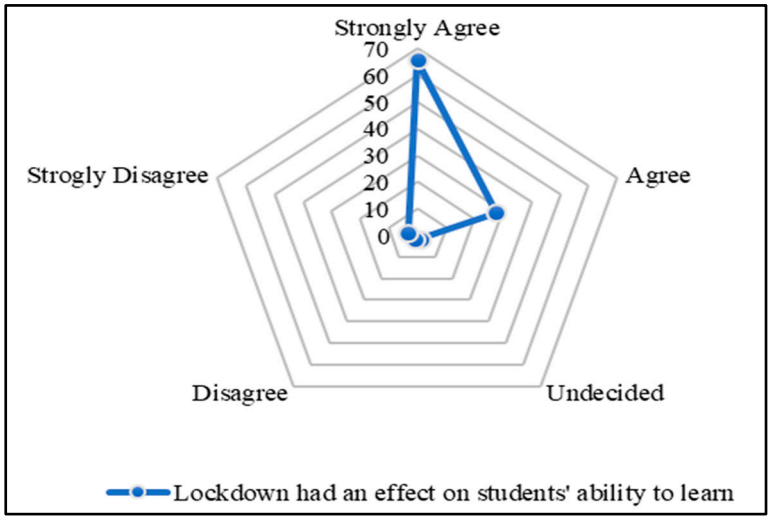

Figure 11. Lockdown affected students' ability to learn.

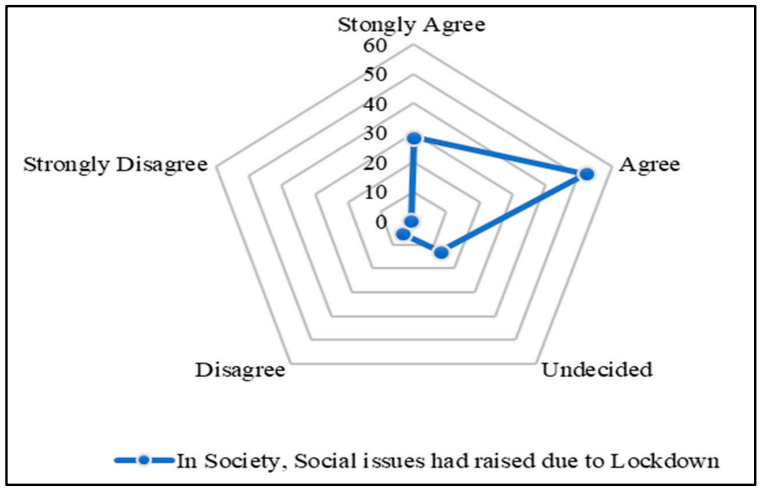

Figure 12. Social issues during lockdown.

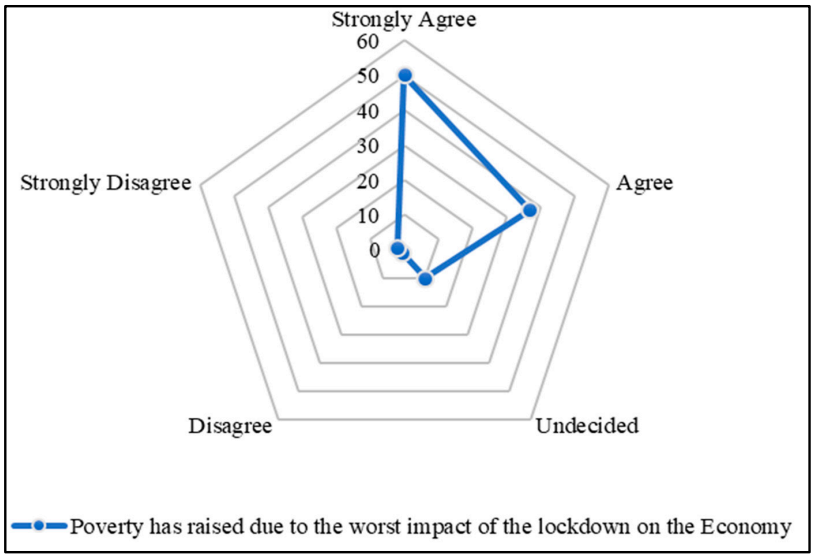

Figure 13. Poverty statistics during lockdown.

Figure 14 indicates the satisfaction of the people with the different officialdoms that worked to help the people; for example, non-governmental organizations (NGOs) came forward to assist vulnerable segments of society during the COVID-19 lockdown situation.

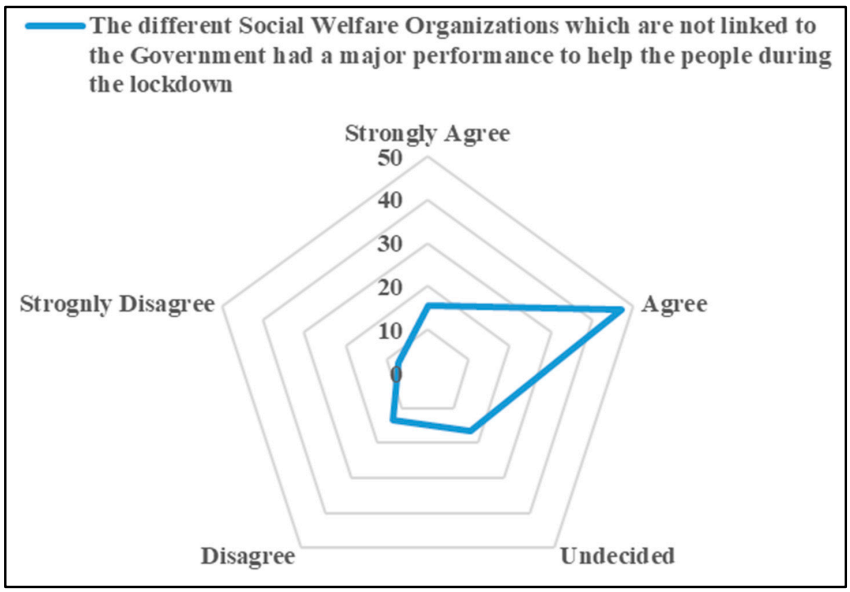

Figure 14. Role of non-governmental social welfare organizations during the lockdown.

As depicted in Figure 14, 47% of respondents were found to agree, 15.50% of respondents strongly agreed, and about 16.75% of respondents were undecided. However, 13.50% of respondents disagreed, and 7.25% strongly disagreed with the role of NGOs in assisting susceptible societies during lockdown.

4.5. Chi-Square Statistic

The chi-square statistic was executed to measure the socioeconomic impacts of the COVID-19 lockdown. Table 5 reveals the people's opinions when they were asked to clarify the hurdles related to remote working conditions. The problems were emphasized as Internet access (male = 71, 35.5%; female = 47, 23.5%), electricity load shedding (male = 68, 34.0%; female = 52, 26.0%), unsuitable working environment at home (male = 48, 24.0%; female = 83, 41.5%), and others (male = 13, 6.5%; female = 18, 9.0%), respectively.

Table 5. Socio-economic variables adopted by researchers on a study population during lockdown situation.

S. No.	Variable	Response	Gender		Chi-Square	*p*-Value
			Male (%)	Female (%)		
1.	What type of barriers during work from home/remote working are faced by you?	Internet Access	71 (35.5)	47 (23.5)	17.172	<0.05
		Electricity Load Shedding Disturbance	68 (34.0)	52 (26.0)		
		Lack of Working Environment at Home	48 (24.0)	83 (41.5)		
		Others	13 (6.5)	18 (9.0)		

As illuminated in Table 5, the variable statement statistically proved the significant difference, i.e., the P-value was ascertained as (<0.05). The variable statement was endorsed despite the significant difference between male and female respondents. Both genders rated the numerous barriers faced during remote working conditions.

With this discussion, it was verified that the first objective of the study was successfully achieved in relation to clarifying socioeconomic problems. From this point on, the results will be discussed concerning the second study's objectives, i.e., to explain the psychological impacts of COVID-19 on local inhabitants during the pandemic.

4.6. Psychological Impacts

Table 6 shows the levels of psychological problems categorically as frequencies and percentages.

Table 6. Levels of psychological problems.

Variables	Categories	Frequencies	Percentages (%)
Level of Depression	Moderate	70	17.5
	Severe	130	32.5
	Extremely Severe	200	50.0
Level of Anxiety	Moderate	20	5.0
	Severe	39	9.8
	Extremely Severe	341	85.3
Level of Stress	Normal	13	3.3
	Mild	24	6.0
	Moderate	59	14.8
	Severe	179	44.8
	Extremely severe	125	31.3

As per certain parameters shown in Table 6, an extremely severe proportion was found while measuring the level of anxiety (frequency 341, percentage 85.3). The same values for levels of depression and stress were counted as frequency 200, percentage 50) and frequency 125, percentage 31.3. For further elaborations, Figures 15–17 were designed to categorize depression, anxiety, and stress according to their measurement levels, like extremely severe, severe, or moderate.

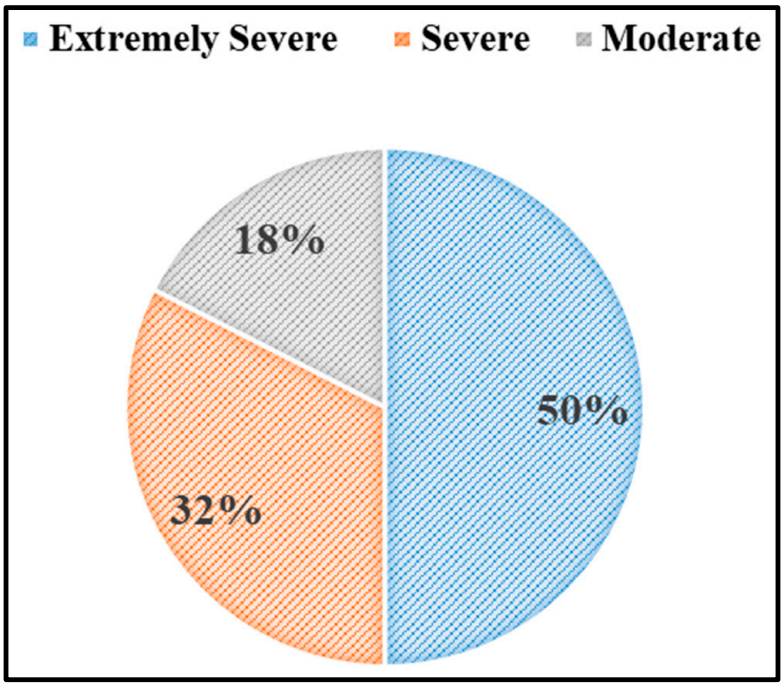

Figure 15. Levels of depression.

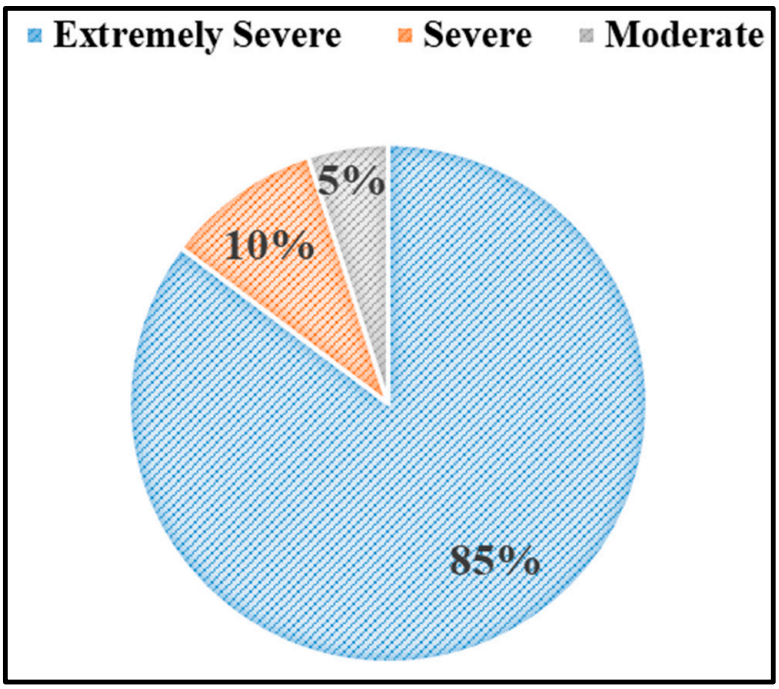

Figure 16. Level of anxiety.

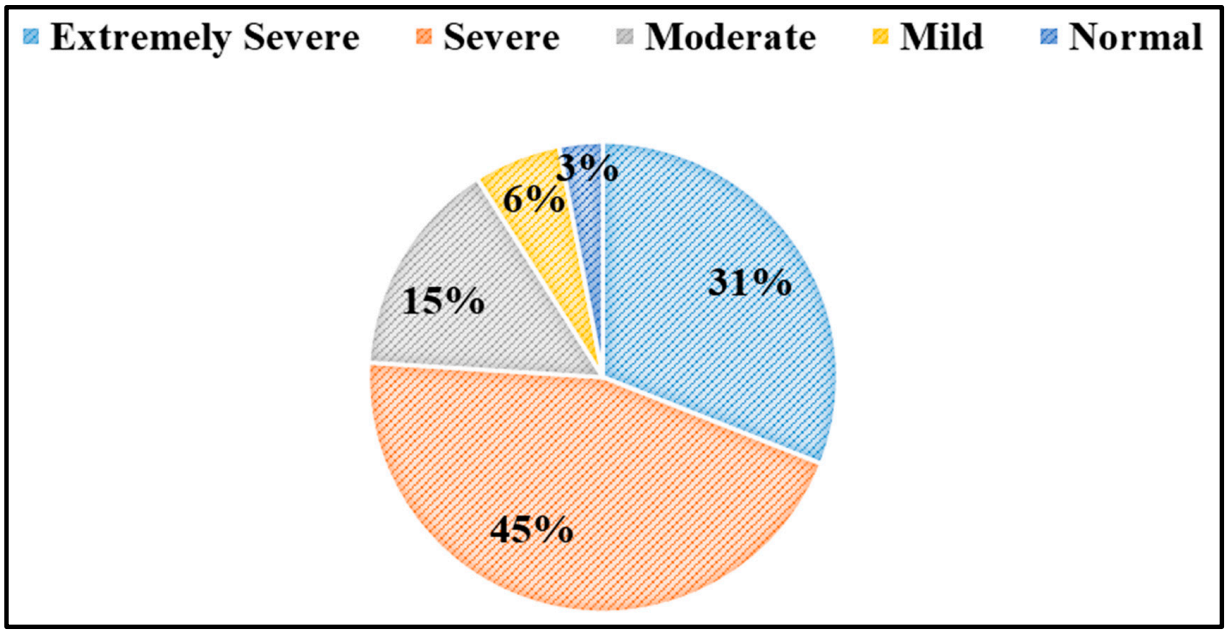

Figure 17. Level of stress.

Figure 15 indicates the level of depression category-wise. The extremely severe proportion was noted as 50%.

As highlighted in Figure 15, the depression severity proportion was noted as 32%. The moderated depression value was found to be 18%.

Figure 16 specifies the level of anxiety category-wise. The extremely severe proportion was recorded as 85%. The severe proportion was 10% and the moderate proportion was 5%.

As verified in Figure 16, the severe and moderate levels of anxiety were determined as 10% and 5%, respectively.

Figure 17 represents the level of stress category-wise.

As noted in Figure 17, the extremely severe and severe proportions were noted as 31% and 45%. The moderate, mild, and normal values were recorded as 15%, 6%, and 3%, respectively.

4.7. Analysis of the Paired-Sample T-Test to Identify the Gender Difference

Three study variables relating to psychological issues, i.e., depression, anxiety, and stress, were analyzed, and their significant differences were computed accordingly. Table 7 indicates the gender differences in psychological problems in the participants, together with their mean (M) and standard deviation (SD) values.

Table 7. *t*-test comparison of male and female differences in psychological variables.

Variables	Group	M	SD	Difference (*t*-Test)	*p*	95% CI	
						LL	UL
Level of Depression	Male Female	4.32 4.32	0.80 0.70	t (390.295) = 0.000	1.000	−0.14	0.148
Level of Anxiety	Male Female	4.74 4.86	0.56 0.43	t (373.900) = −2.271	0.024	−0.21	−0.01
Level of Stress	Male Female	3.83 4.06	1.19 0.73	t (331.993) = −2.373	0.018	−0.42	−0.04

Note. M = mean; SD = standard deviation; CI = confidence interval; LL = lower limit; UL = upper limit.

As emphasized in Table 7, for the variable level of depression, the M and SD values for males and females were noted as M = 4.32, SD = 0.80 and M = 4.32, SD = 0.70. For the rest of the variables, i.e., level of anxiety and level of stress, the scores were calculated as M = 4.74, SD = 0.56 and M = 4.86, SD = 0.43 for males and M = 3.83, SD = 1.19 and M = 4.06, SD = 0.73 for females. The mean levels of stress and anxiety in the female population were found to be comparatively greater. The groups of males and females were significantly different in terms of the selected variables. In this way, the second objective of the study was also completed. The results are represented in the simplest way for the understanding of the students and reviewers. Meanwhile, the key findings of the study are described hereafter.

4.8. Findings

The key findings regarding objective 1 are as follows:

i. The loss of education from preschool to undergraduate students during the pandemic was one of the social effects of the COVID-19 lockdown. This happened because online learning cannot be a suitable option due to certain difficulties, like slow Internet connectivity, obstacles in understanding new technology, and time wasted in certain essential settings during communication. These factors have an impact on students' performance. The major problem was rated as Internet disconnectivity and its slow speed. Internet access was required for online education and working for both students and professionals who engaged remotely from home or other places. Online setups are still unsuccessful in developing nations, particularly in Pakistan, where there is a lack of awareness of modern technologies and outdated ICT infrastructure.
ii. Since the pandemic's effects were not uniform, the way people lived changed significantly. Inflation also harmed people's quality of life because it reduced their purchasing power and savings.
iii. The financial losses that people experienced during the pandemic and the rise in unemployment caused by the general business shutdown were noted as the economic effects of the COVID-19 lockdown.
iv. Socioeconomic status appeared to be an important factor in determining the pandemic's effects, and the same was considered as a major contributor considering the

uneven financial burden on families. Because they believed that the government was unable to handle emergencies, they did not rely on government policies.

The key findings regarding the 2nd study objective are as follows:

i. Most participants reported that the pandemic had an influence on their mental health in terms of their emotions, actions, attitudes, etc., since they had fewer opportunities for public and social interactions.
ii. The majority of the respondents reported experiencing fear, depression, anxiety, stress, uncertainty, and a loss of hope during the lockdown.
iii. This study highlights the psychological issues that occurred during the COVID-19 lockdown based on gender. Stress, anxiety, and depression were discovered in both men and women. However, the comparison test between both genders revealed greater mean levels of stress and anxiety in women.

The research showed that the COVID-19 pandemic was a catalyst for a range of psychological difficulties that people experienced, for example, a lack of social support, a decline in mental or physical health, and extensive use of modern gadgets for learning and recreation. Extreme fear, worry, panic attacks, uncertainty, anxiety, and helplessness were the major reported psychological discomforts. COVID-19's mutations, unpredictability, and threats worsened the economic crisis. Many people lost their jobs, businesses failed, and enterprises shut down. The pandemic's threat to human life caused several physiological and psychological issues. On the other hand, the pandemic helped many individuals to experience the true value of life, the importance of family, and the need to develop new personal abilities. It is essential to draw conclusions from the situation and take practical steps to enhance future preparedness for any infectious disease outbreaks. Future forecasting and modeling of disease spread may assist in utilizing modern technology efficiently.

4.9. Practical Implications and Policy Recommendations

The effects of the global pandemic on the socio-economic and psychological health of the urban population were the focus of this study. The researchers concluded that the pandemic severely affected people's daily lives. The impact of the global pandemic was clarified with the help of people's perceptions considering socioeconomic and human psychological parameters. This study offers practical implications and policy recommendations for the government, people, and related stakeholders. To confront and prepare for future pandemics, epidemics, and other natural disasters; it is advised that programs, policies, and strategic plans be created to curtail the lethal damages on societies and the economies. This research proposes the following practical implications and policy recommendations based on the study's findings to smartly manage future pandemics:

i. This study found that students from low socioeconomic backgrounds lacked access to Internet services. Hence, students faced difficulties in attending online classes. Many students subsequently experienced academic gaps and lower attendance. Therefore, the government should take measures to offer low-cost Internet packages to students and provide manageable uninterrupted Internet facilities.
   Professional training for teachers regarding effective online learning should also be provided. Teachers were not able to offer a consistent level of assistance and support to all students. Some study participants experienced difficulties in teaching virtually. Therefore, it is suggested to train teachers in order for them to be able to teach remotely. The lack of technology awareness reduced the capabilities of the students to receive knowledge. The majority of the scholars faced attendance shortfalls, which appeared in the final examination. To assist citizens in fighting against the virus spread, training and awareness-raising efforts are required from time to time.
ii. The structure of social protection should be developed to assist the pandemic-affected people. Social protection measures should be provided at gross root levels to aid lower-income populations living in urban slums. Public- and private-sector or-

ganizations should come forward encouraging households to find multiple sources of income during lockdowns and social distancing.

iii. Every medical pandemic relies on the health system, since saving precious lives is a top priority. An advanced healthcare system is required to facilitate future pandemics and emergencies. No one can predict the occurrence of natural disasters. Hospital bed capacity should be enhanced with suitable availability of ventilators and oxygen. Every year in Pakistan, the health sector deals with epidemics, like the dengue virus and heatstroke cases. To handle emergencies, a stable health system is required.

iv. To fight possible future pandemic situations, there is a dire need to create a new population database. For instance, it is important to identify poorer individuals, as these can be accessed in a timely manner for the provision of essential food supplies and medical aid. A database should be formed to classify vulnerable areas at the local level for each city.

v. Small- and medium-sized businesses are essential to the development of the local economy. The informal sector is mostly relied upon to minimize unemployment; however, this sector greatly suffered in lockdown. A program supporting the growth of small- and medium-sized businesses is obligatory to create new job possibilities and offer subsidized loans. This element may contribute to people's financial well-being.

In this way, we were able to evaluate the negative consequences of the COVID-19 lockdown and investigate people's daily challenges. Policymakers, administrators, legislators, and mental health clinicians can find this discussion helpful in creating ways to deal with future pandemics.

4.10. Study Contributions

The current study confirmed the conclusions of earlier studies and added new information to the literature regarding the social, economic, and psychological effects of the COVID-19 pandemic in Pakistan. Overall, this pandemic has taught us a variety of lessons, notably the importance of being ready for sudden emergencies. The COVID-19 virus affected the entire world; however, the lockdown's side effects were even more disturbing and dangerous. Now, it is high time to start over and make the necessary arrangements for the future. More importantly, we need to make sure that something similar will never occur again. For the first time in Pakistan, post-pandemic effects are measured considering densely populated, lower-income neighborhoods. The policy implications and recommendations are also formulated to minimize the threats of future pandemics. The female population in the country was found to be comparatively vulnerable during the pandemic era. This factor may contribute to framing policies for the welfare of the female population living in urban centers of the country. This study also can be a reference document for public- and private-sector agencies to limit the negative effects of pandemics.

5. Conclusions

The emergence of COVID-19 and its effects on humans completely stopped the wheel of life. More than 200 countries were negatively impacted by the COVID-19 pandemic. Due to restrictions on mobility and social gatherings, enormous pressure developed with the implementation of social distancing and lockdowns. Hence, this study aimed to determine the socioeconomic and psychological effects of the pandemic on people's daily lives. The study area was selected as Hyderabad. The sampled data (400 samples) were collected from three Talukas, i.e., Latifabad, Qasimabad, and Hyderabad City. Following data analysis and assessment, this study concluded that the pandemic had a detrimental impact on various levels of economic activities and psychological wellness. The impact on mental health, education, and the economy was evident during lockdowns. Most of the respondents (41.75%) raised the issue of poor health infrastructure in handling COVID-19 patients. Exactly 36% of the respondents termed the pandemic era as a demanding situation, and about

22.25% of respondents did not show trust (dishonesty) in the government's actions to fight against the pandemic. To work and obtain education remotely, the main problems faced by the residents were highlighted, e.g., Internet access (male = 71, 35.5%; female = 47, 23.5%), electricity load shedding (male = 68, 34.0%; female = 52, 26.0%), unsuitable working environment at home (male = 48, 24.0%; female = 83, 41.5%), and others (male = 13, 6.5%; female = 18, 9.0%). Serious psychological issues were also noted with the help of this research. An extremely severe proportion was found while measuring the level of anxiety (frequency: 341, percentage: 85.3). The values for levels of depression and stress were counted as frequency: 200, percentage: 50 and frequency: 125, percentage: 31.3. Other notable findings are also elaborated upon, i.e., disconnected from social gatherings (14%), spent time at only a particular place (13.25%), business downsizing (5.50%), shortage in household income (4.75%), and abandoned prayers at mosques (2.75%). Almost every citizen was traumatized and felt depression, anxiety, and stress symptoms during lockdowns. Therefore, necessary steps should be taken to minimize the effects of possible future pandemics. This research may guide the formulation of prevention strategies that can be used to manage future pandemic crises. This study may provide a platform for the local authorities to develop plans to treat the pandemic professionally. The findings of the study may be useful not only for Pakistan, but also for the rest of the world in the fight against future pandemics.

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of Department of City & Regional Planning Research & Ethics Committee (protocol code 04316, 15/12/2023).

Informed Consent Statement: The informed consent was obtained from all the participants prior to the data collection process. All participants were informed that data will only be used for academic purposes and that their per-sonal information will not be disclosed at any stage. All participants were aged above 18 years.

Data Availability Statement: All data generated or analyzed during this study are included in this article.

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Conflicts of Interest: All the authors declare no conflicts of interest.

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