

# *Psychological And Social Effects Of The Pandemic On Children*

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## Abstract

**Introduction:** Coronavirus disease 2019 (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus, which spread globally since 2019. In addition to its impact on physical health, the pandemic has had significant consequences on the psychological and social well-being of children. Social isolation, activity restrictions, and changes in daily life have greatly affected the mental health of this age group.

**Objective:** This study aims to analyze the psychological and social effects of the COVID-19 pandemic on children, focusing on its impact on anxiety, depression, behavioral disorders, and overall well-being.

**Materials and Methods:** This study employed an empirical approach through a survey conducted with parents of children who exhibited symptoms of mental disorders during the pandemic. The survey included questions regarding behavioral changes, stress levels, adaptation to online learning, and technology use during isolation.

**Results:** Preliminary data suggest a significant increase in anxiety and depression disorders among children during the pandemic. The most severe impact was observed in those who experienced prolonged isolation, lack of social interaction, and increased exposure to technology. Parents reported an increase in sleep disorders, difficulties in concentration, and behavioral changes.

**Conclusions:** The COVID-19 pandemic has had a profound impact on children's mental health, increasing cases of stress, anxiety, and social difficulties. It is essential for educational and healthcare institutions to develop appropriate strategies to address these challenges and promote a supportive environment for children's well-being. Additionally, measures should be taken to reduce children's exposure to online stressors and to promote the safe and healthy use of technology.

**Keywords:** COVID-19 pandemic, children's mental health, social isolation.

## I. INTRODUCTION

In December 2019, an outbreak of pneumonia of unknown etiology was reported in Wuhan, Hubei Province, China. The initial cases were epidemiologically linked to the Huanan Seafood Wholesale Market. Laboratory analyses of respiratory tract samples led to the isolation of a novel virus, whose genetic sequence showed a high similarity to the severe acute respiratory syndrome coronavirus (SARS-CoV). Consequently, this pathogen was named SARS-CoV-2 and classified as a betacoronavirus within the Sarbecovirus subgenus. The rapid global spread of SARS-CoV-2 and the significant number of fatalities led the World Health

Organization (WHO) to declare a pandemic on March 12, 2020. To date, the pandemic has had profound health, economic, and social impacts, resulting in substantial human loss and the deterioration of global economic conditions (Ciotti et al.).

COVID-19 was classified as a global pandemic by WHO within a relatively short period, with approximately 98 million confirmed cases and nearly 2 million deaths by January 2021 (Chilamakuri & Agarwal). Coronaviruses, which constitute a large family of enveloped viruses with a single-stranded, positive-sense RNA genome, have the ability to infect both humans and a wide range of animal species. These viruses were first described in 1966 by Tyrell and Bynoe, who isolated them from patients suffering from the common cold. The name "coronavirus" originates from the morphological structure of the virions, which appear as spherical formations with surface projections resembling a solar corona (Velavan & Meyer).

Most governments faced the exponential spread of COVID-19 with little time to adapt effective remote teaching systems (Springer Link). The COVID-19 pandemic has caused one of the most significant disruptions to education systems in modern history, affecting over 1.6 billion students in more than 200 countries. The closure of educational institutions impacted more than 94% of the global student population, bringing profound changes in learning and teaching methods. Social distancing and mobility restrictions have reshaped traditional educational practices, while many researchers have contributed studies on the pandemic's impact on education (Pokhrel & Chhetri).

One of the crucial aspects of the pandemic has been its impact on pediatric populations. On January 28, 2020, the first case of SARS-CoV-2 infection in a child was reported in Wuhan, China. With the declaration of COVID-19 as a pandemic, the incidence of pediatric infections increased significantly, although no fatalities were reported among children under nine years of age. Most infected cases resulted from family transmission, while only 4.4% of infected children experienced severe symptoms, compared to a much higher percentage in adults (Zari-Zardini et al.).

The spread of SARS-CoV-2 has primarily been facilitated through direct transmission via respiratory droplets and aerosols released by infected individuals. This virus has a high infectious capacity and can be transmitted through close contact, including indirect contact with contaminated surfaces. Studies suggest that various factors, such as population density, ventilation conditions, and the lack of protective measures, significantly contribute to its transmission rate (Ministry of Health, UNICEF, USAID).

The current clinical management of COVID-19 is based on an integrated approach involving symptom control, preventive measures, and infection control strategies. Patients with mild symptoms receive supportive care and self-isolation, while severe or critical cases require intensive interventions, including oxygen therapy, mechanical ventilation, and the administration of antiviral or anti-inflammatory drugs in specific cases (Sayeeda Rahman et al.).

An essential aspect of pandemic management has been the development and implementation of physical distancing measures, mass vaccination, and global health awareness campaigns. Moreover, advancements in early diagnosis and personalized treatment have contributed to reducing complications and achieving better disease control. Despite these efforts, the continuous mutations of SARS-CoV-2 and the emergence of new variants remain ongoing challenges in managing the pandemic.

### **1.1. Diagnostic Methods for SARS-CoV-2**

To identify an active SARS-CoV-2 infection, the use of advanced molecular techniques is essential. The primary diagnostic tests involve analyzing the virus's genetic material through nucleic acid amplification tests (NAAT), with the most common method being reverse transcription polymerase chain reaction (RT-PCR). This test is performed on samples collected from the upper respiratory tract, such as nasopharyngeal, nasal, or oropharyngeal swabs (Ministry of Health, UNICEF, USAID).

For pediatric diagnosis, the approach is similar to that of adults, beginning with epidemiological tracing to determine possible exposure to infected individuals. Following this, saliva, stool, and blood samples are recommended to identify viral genetic material via RT-PCR. Research indicates that nasal swabs are more sensitive and accurate compared to pharyngeal swabs for detecting the virus in the early stages of infection.

In addition to molecular tests, diagnostic imaging techniques such as computed tomography (CT) scans provide an additional tool for confirming the disease. Studies have shown that some patients with pneumonia visible on CT initially tested negative with RT-PCR, highlighting the importance of using multiple methods for a more accurate diagnosis (Hade Zari-Zardini et al.).

Recent developments in diagnostics include rapid antigen tests, which help identify acute cases, particularly in settings with limited laboratory resources. Although these tests have lower sensitivity than RT-PCR, they remain useful for early detection and the isolation of potentially infectious individuals.

## **I.2. Management and Treatment**

Preventive measures play a crucial role in controlling the spread of SARS-CoV-2. Wearing masks, maintaining a distance of at least 1.5 meters, and regular hand hygiene are key practices that help reduce infection. Additionally, early identification and a 14-day isolation period for affected individuals constitute an effective strategy in limiting the virus's transmission (World Health Organization, March 8, 2020).

For children who test positive for the virus but remain asymptomatic, a two-week home isolation period is recommended to prevent transmission. During this time, treatment is based on supportive care, including the use of symptomatic medications to manage the clinical condition. Studies indicate that most infected children exhibit mild to moderate symptoms without developing severe pneumonia or high fever. On average, recovery in pediatric patients occurs within a period of 7 to 14 days (Hade Zari-Zardini, Hossein Soltaninejad, Farzad Ferdosian, Amir Ali Hamidieh & Mina Memarpour-Yazdi).

## **I.3. The Impact of COVID-19 on Children**

Children and adolescents have faced unique challenges during the pandemic, influenced by their age and socio-economic context. Although they are at lower risk for severe forms of the disease, the psychological and social impacts have been significant. The pandemic has exacerbated existing inequalities and affected their mental well-being, increasing the incidence of anxiety, depression, and behavioral concerns (Julie Pajek, Kathryn Mancini, Marsheena Murray, 2023).

Restrictive measures, such as school closures and social distancing, have led to isolation and reduced social interaction, negatively impacting children's emotional and psychological development. Studies show that those who have experienced prolonged restrictions have struggled with social adaptation, sleep difficulties, loss of appetite, and heightened feelings of stress and fear. Furthermore, art-based interventions, support programs, and psychosocial care led by specialists have proven effective in improving their mental well-being (Salima Meherali, Neelam Punjani, Samantha Louie-Poon, Komal Abdul Rahim, Jai K. Das, Rehana A. Salam, Zohra S. Lassi).

Although children have been less susceptible to severe COVID-19 symptoms, they have been significantly affected by the psychosocial consequences of the pandemic. Restrictions on movement, lack of outdoor activities, and disruptions in daily routines have created feelings of monotony, frustration, and uncertainty. Increased cases of domestic violence, exposure to harmful online content, and the risk of exploitation have also been concerning factors. Children from marginalized groups are particularly vulnerable, facing additional challenges such as rising poverty, lack of access to education, and the risk of child labor exploitation (Minerva Pediatrica).

Overall, the impact of COVID-19 on children's health and well-being will continue to be felt in the long term. Therefore, it is essential to implement measures to assess and address their health and psychological challenges, providing ongoing support and appropriate interventions to minimize the negative effects of the pandemic.

## II. Research Objective

This research aims to provide an in-depth analysis of the SARS-CoV-2 (COVID-19) infection and its impact on children by examining the epidemiological, clinical, and psychosocial aspects of the disease. Specifically, the study seeks to identify key factors affecting children's mental health during and after infection, as well as to evaluate effective strategies for the management, diagnosis, and treatment of this disease in the pediatric population. Additionally, this paper contributes to the collection and synthesis of scientific literature on preventive measures and the long-term implications of the pandemic on children's health.

## III. Materials and Methods

This research aims to assess the impact of the COVID-19 pandemic on children's mental health by utilizing a qualitative methodology and an in-depth analysis of scientific literature.

### Materials:

The data sources for this study include scientific literature published by both international and local authors, comprising articles indexed in scientific journals, reports from international organizations such as the WHO and CDC, manuals, brochures, and data obtained from official online sources. Additionally, structured questionnaires will be used to assess the perceptions and experiences of children and their families during the pandemic.

### Methods:

This study employs a qualitative research methodology, which includes:

- Theoretical and systematic literature analysis to identify factors influencing children's mental health during the pandemic.
- Qualitative methods for data collection through structured questionnaires distributed to targeted groups, aiming to evaluate children's and caregivers' experiences and challenges.
- A descriptive approach for data interpretation and formulation of findings in the form of detailed reports, adhering to international scientific research standards.

## IV. Results

The findings from this research have proven to be accurate yet challenging, as not all participants were willing to respond to the questionnaire.

The collected data will be further refined and analyzed throughout the study, and final results will be drawn from field interviews, with each question examined separately.

Surveys were conducted with approximately 100 citizens on different days, with the majority of interviews carried out with women, particularly mothers, who reported facing various issues with their children and relatives.

In addition to mothers, pediatricians were also consulted, providing insights into the high number of patients visiting both private and public clinics due to the COVID-19 pandemic, as well as concerns expressed by parents regarding their children's well-being.

The impact of the pandemic on children, extending beyond adolescence, appears to be concerning and persistent, with untreated disorders in many cases. However, a small percentage of respondents reported that their children no longer experience problems and consider them fully recovered.

In the following sections of this study, graphical representations will be provided to visually illustrate the responses to each question. This graphical presentation will enhance the accessibility and clarity of the findings, allowing for a better understanding of the study at first glance.

Moreover, the findings of this research aim to raise awareness and serve as a call to action for responsible institutions to implement preventive measures to mitigate serious concerns related to the social, economic, and educational impacts of the pandemic, both locally and internationally.

This comprehensive study seeks to provide meaningful systematic knowledge, incorporating participants' perspectives on both short-term and long-term consequences. In addition to field research, references were drawn from numerous publications, including a study authored by five researchers, titled:

*"Chapter: Psychological Distress Among Adolescents During the COVID-19 Pandemic and Their Experiences with Online Learning" (September 2022).*

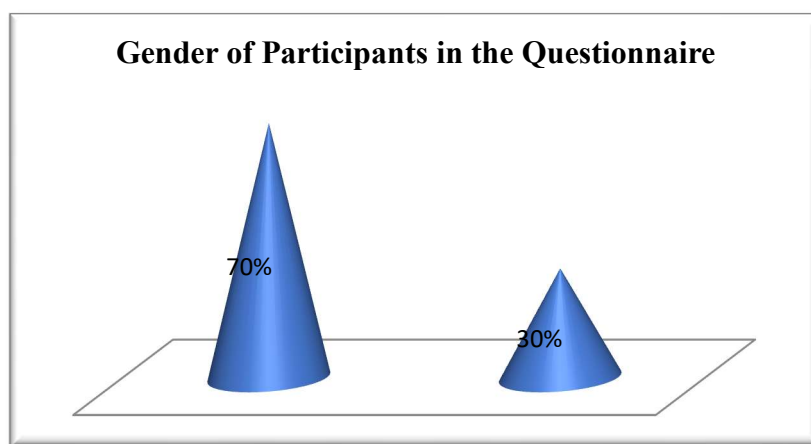
A meta-analysis of 100 studies on the impact of the COVID-19 pandemic on children's mental health revealed that children and adolescents were significantly more likely to experience high levels of depression and anxiety during and after isolation.

**Gender Distribution:**

70% of respondents were mothers, while

30% were fathers, expressing concerns about the effects of COVID-19 on their children and the consequences following isolation and online learning.

Figure 1 illustrates the gender distribution of survey participants.



**Survey Data Analysis**

**Gender Participation**

The questionnaire data illustrate the gender distribution of survey respondents. As depicted in the diagram, 70% of participants were female, while only 30% were male. This finding is also supported by scientific research, indicating that women, particularly mothers, were more actively engaged in addressing concerns related to their children's well-being during the COVID-19 pandemic.

**Age Distribution**

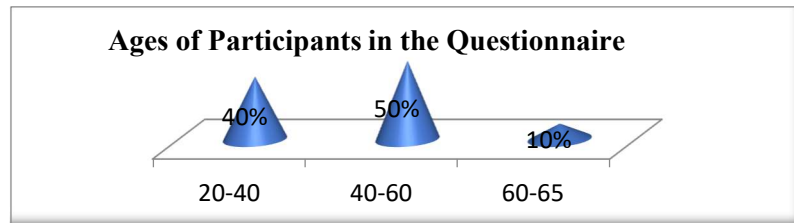
Regarding age demographics:

50% of respondents were aged 40–60 years.

40% of participants belonged to the 20–40 age group.

The smallest percentage (10%) consisted of respondents aged 60–65 years.

Figure 2 visually represents the age distribution of participants in this study.



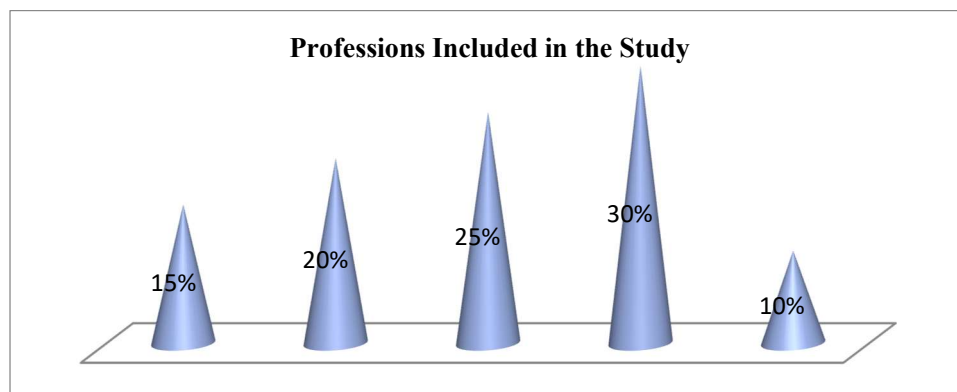
The surveyed participants were categorized into different age groups, as illustrated in the previous diagram. This segmentation allows for a clearer understanding of how different age demographics perceive and respond to the impact of the COVID-19 pandemic on children's mental health.

#### Professions Represented in the Study

The study included respondents from various professional backgrounds, providing diverse insights into children's mental health management. Some of the key professions represented in the survey include: Teachers, Pediatricians, Nurses, Homemakers, Other professions.

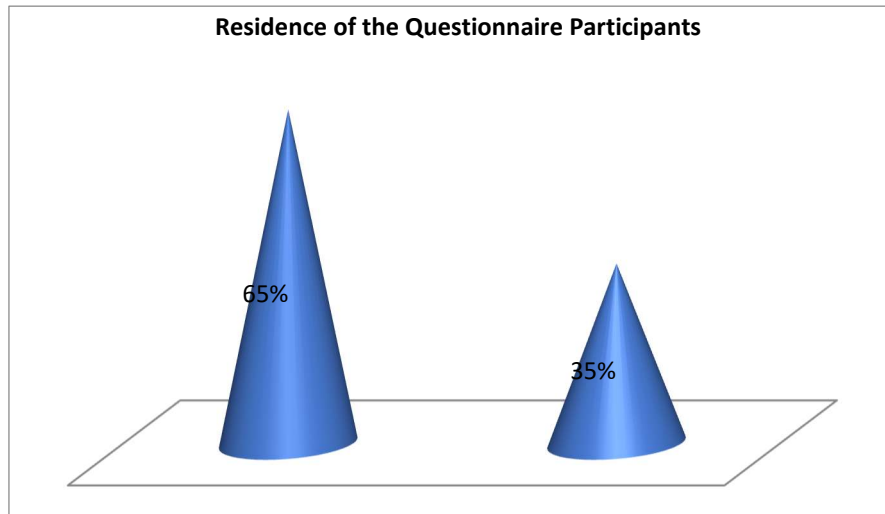
These professionals shared their experiences and perspectives on how they managed their children's mental health challenges during and after the pandemic.

Graph No. 3: Representation of Professions Included in the Study



The data from this survey indicate that information was collected from individuals with diverse professional backgrounds, including both employed and unemployed participants. **Graph No. 3** illustrates the distribution of professions included in the study, providing an overview of the professional diversity among respondents. The study involved teachers, nurses, pediatricians, homemakers, and individuals from other professions. The data were gathered through direct interviews with the respondents, aiding in the analysis of different perspectives related to the research topic. This professional diversity allows for a broader and more detailed assessment of the factors influencing the study's findings.

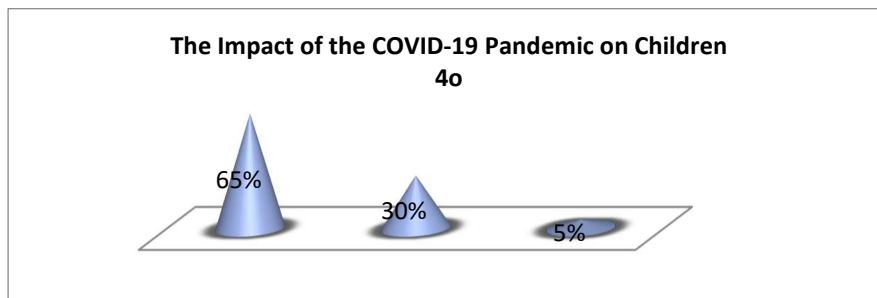
Graph No. 4 illustrates the residence of the respondents



Based on the above diagram, there is a significant percentage difference, with 65% of the survey participants residing in urban areas and a lower percentage of 35% from rural areas.

**Impact of the Pandemic on Children's Mental Health:** According to the conducted survey, the impact of COVID-19 on children's mental health has been predominantly high-risk. Many respondents expressed that the pandemic had a substantial effect on their children. A smaller group reported a moderate impact, while a very small percentage stated that they had not observed any changes in their children.

Graph No. 5: Represents the Impact of the COVID-19 Pandemic on Children



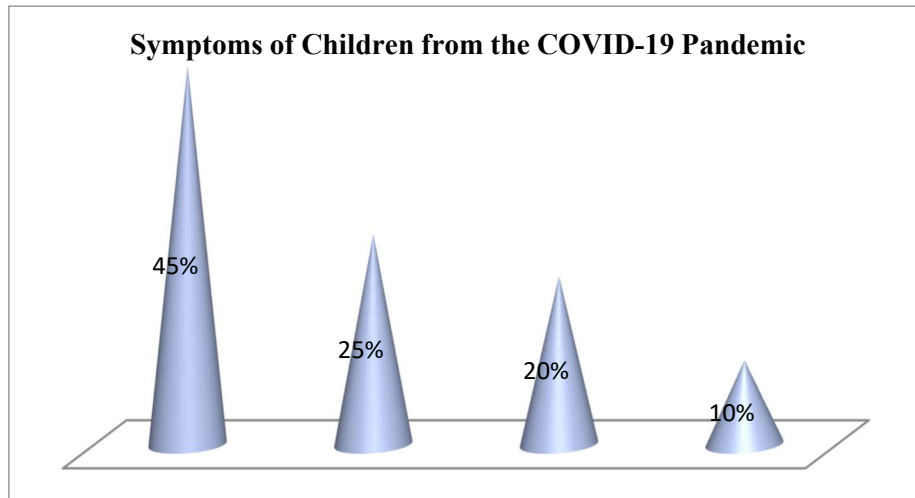
From the collected data, a high percentage of parents (65%) reported that the pandemic, including distance learning and quarantine, had a significant impact on their children. Meanwhile, 30% observed a moderate impact, and only 5% stated that there was no impact at all.

**Symptoms and Changes in Children:**

According to the conducted survey, the symptoms and behavioral changes observed in children include:



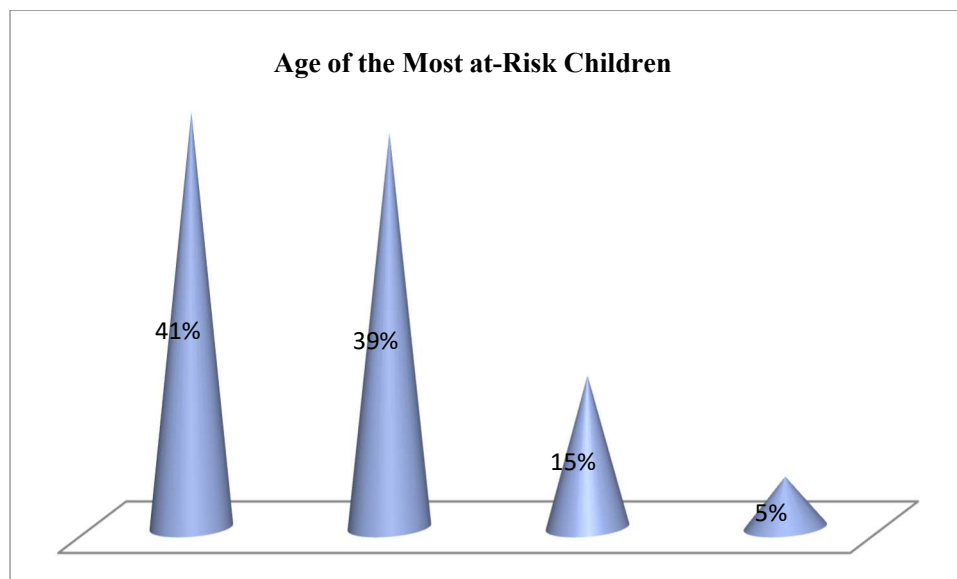
Graph No. 6: Displays the Symptoms in Children Caused by the COVID-19 Pandemic



**The Most Affected and At-Risk Age Groups:**

The most at-risk age group was found to be children aged 5-10 years. The next most affected group was 10-15 years, followed by the 15-18 age group. The least at-risk age group was older children and adolescents.

Graph No. 7 Represents the Most At-Risk Age Groups of Children

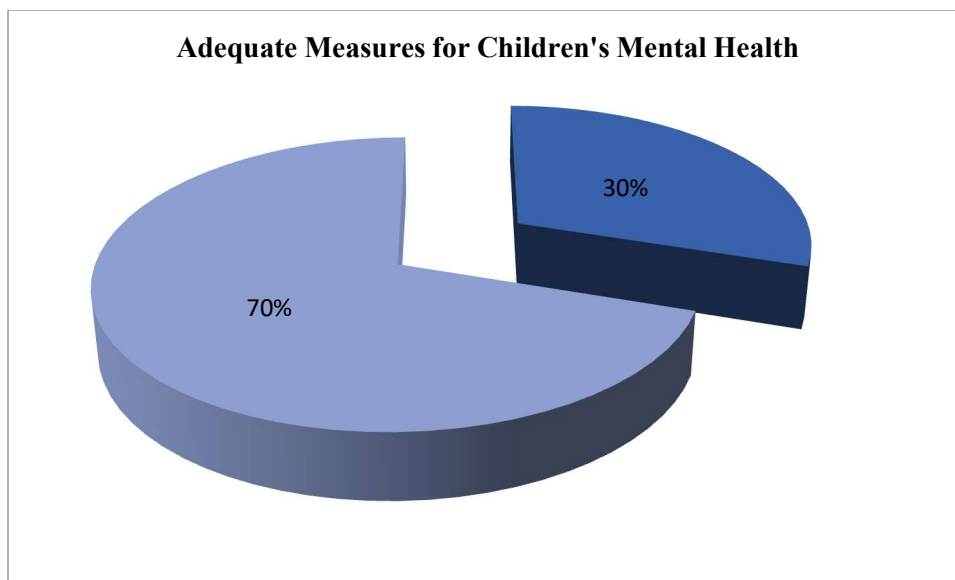


The data included in the study show the distribution of age groups of children most at risk from the COVID-19 pandemic. According to the results, the 5-10 age group accounts for the highest percentage of affected children at 41%, followed by children aged 10-15 years at 39%. Meanwhile, adolescents aged 15-18 years represent 15% of those affected, while other age groups make up 5%. These findings suggest that younger children are more vulnerable to the impacts of the pandemic, highlighting the need for tailored protective measures and psychological support for this category. The survey categorized age groups, and their distribution is presented in the above diagram, which is dominated by the 5-10 age group.



Measures Taken for Prevention and Early Intervention by Responsible Institutions: Through this survey, we conclude that sufficient preventive measures and interventions have not been implemented by the responsible institutions. A majority of parents expressed their dissatisfaction, while a small portion acknowledged that some interventions and measures have been taken regarding this issue.

Graph No. 8 illustrates whether sufficient measures have been taken for children's mental health.



Based on the collected data, a significantly high percentage of 70% believe they are not satisfied with their children's situation after the pandemic, while the remaining 30% think that appropriate measures have been taken.

Support for Parental and School Programs as a Primary Preventive Measure in Strengthening Children's and Adolescents' Mental Health:

Following the interviews, we understood that the majority of our society believes there has been a lack of support from parental and school programs. Children need support, as the pandemic has caused them to fall behind and has led to significant stress among most children, making this a concerning situation. However, a portion of respondents believe that both parental and school support have been sufficient.

## V. Conclusions

The data obtained from this study clearly indicate that the COVID-19 pandemic has had a significant and multifaceted impact on children's mental health. In addition to changes in their lifestyle, the pandemic has negatively affected children's socio-emotional and cognitive development, causing difficulties in concentration, increased levels of stress and anxiety, and challenges in adapting to daily routines.

The study aimed to determine the prevalence of common mental health issues among children and identify risk factors associated with these disorders, including social isolation, emotional insecurity, changes in family dynamics, and exposure to the economic consequences of the pandemic. Furthermore, it has been observed that children's quality of life has been significantly affected by the lack of social and physical activities, emphasizing the need for structured and long-term interventions to address these challenges.

This research, conducted during the period of July-August 2024, sought to assess not only the direct impact of the pandemic on children's psychological well-being but also the effectiveness of the measures taken to manage these challenges. The findings suggest that a more coordinated approach among educational, healthcare, and community institutions is essential to developing sustainable strategies for protecting children's mental health.

In conclusion, the study recommends that future research should extend to other regions, including both rural and urban areas, to ensure broader and periodically updated data on children's mental health status and the effectiveness of preventive and therapeutic measures.

## V.I. Recommendations

Development of specialized modules for mental health awareness in school curricula, including stress management techniques, coping skills development, and the promotion of children's emotional well-being.

Strengthening the role of school psychologists and mental health professionals to provide specialized support for children who have experienced psychological impacts from the pandemic. This should include increasing the number of psychologists in educational institutions and ensuring continuous training for them.

Establishing dedicated centers for children's psychological and social support within communities, offering individual and group counseling, art therapy, and play-based activities to aid in their psychosocial rehabilitation.

Organizing awareness campaigns for parents and teachers on the importance of children's mental health and ways to support them. Educating parents about early signs of mental health issues is key to timely and effective intervention.

Providing institutional support for families who have experienced loss and trauma during the pandemic, through social and psychological assistance programs to help children regain a sense of security and emotional stability.

Creating community programs to foster children's social interaction, such as support groups, cultural activities, and sports, which contribute to strengthening their psychological and emotional health.

Integrating technology as a supportive tool for mental health by developing digital platforms with psychological advice, stress management applications, and virtual spaces for safe communication between children and mental health professionals.

Continuously collecting data on children's mental health and analyzing it to develop more precise and targeted policies for improving psychological well-being.

Implementing an intersectoral approach, fostering collaboration between public health institutions, education, non-governmental organizations, and the community to create comprehensive and effective strategies for children's mental health.

Encouraging further studies on the long-term impact of the pandemic on children's psychological development, analyzing factors such as sleep quality, behavioral changes, and academic performance.

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