
IMPACT OF COVID-19 PANDEMIC ON DISABLED CHILDREN AND THEIR MENTAL HEALTH IN KARACHI, PAKISTAN

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ABSTRACT

Due to the spread of COVID-19, educational institutions in Pakistan and around the world were forced to close, and there was an immediate transition to distance education. Although COVID-19 affected nearly everyone and everywhere in society, students with physical and mental disabilities are one of the most vulnerable groups owing to activity limits. Due to their inability to sit still for extended periods of time, SEN students were unable to complete online courses. Also, SEN schools were closed. Students with special needs stayed at home for an extended period of time, which habituated them to being at home. As a result, they abandoned their schools, and their eating habits were altered, leading to an increase in their obesity, developmental delays, and behavioral problems.

KEYWORDS

COVID-19, SEN Student, Mental-health, Behavioral issues, Closure of schools

INTRODUCTION

COVID-19 was initially identified as pneumonia of unknown origin in December 2019 in Wuhan, China. On March 12, 2020, the World Health Organization (WHO Director-

General's Opening Remarks at the Mission Briefing on COVID-19 - 12 March 2020, 2020) proclaimed a pandemic due to the rapid spread of COVID-19 throughout China and the rest of the world. Across 224 nations as of December 21, 2021, the total number of confirmed cases is 275,974,553, and the number of fatalities is 5,380,300(Coronavirus Death Toll and Trends - Worldometer, 2021).

The government has taken several measures to combat the risk of disease transmission. These measures include travel restrictions, compulsory quarantines for travelers, bans on public gatherings, the closure of schools and colleges, social distance, company closures, self-isolation, and demands for individuals to work from home or remotely. In an effort to stop the rapid spread of a virus infection, governments throughout the globe have imposed lockdown. These safety procedures are detrimental to the international business, education, healthcare, and tourism sectors (A. Mahdy, 2020).

The COVID-19 epidemic has damaged all levels of education. (Nicola et al., 2020) Globally (in 192 countries), educational institutions have closed either temporarily or permanently, affecting around 1.7 billion pupils globally. (A. Mahdy, 2020) Many institutions throughout the world postponed or canceled all campus activities in an effort to decrease the number of gatherings and, as a result, the transmission of the virus. However, these measures had bigger economic, medical, and social repercussions.

Due to the elimination of classroom instruction in various schools, colleges, and universities, undergraduate and graduate students now benefit from the online teaching method. This type of training provides an alternative method for minimizing contact between students or between students and teachers. (A. Mahdy, 2020) But because of the digital divide and the economic gap, many students can't get an online education because they don't have the money or resources they need.

The lack of internet access, personal computers, televisions, and even radios in the homes of many children in Karachi, Pakistan, particularly those from low-income households, exacerbates existing learning inequities. Students who lack access to the tools required for home-based education have limited chances to complete their education. Many individuals run the risk of never returning to school, which would ruin years of education (Nasir & Hameed, 2021).

Students with disabilities are more susceptible to the changing learning environment in such settings (Zhang Y, Ma ZF. 2020). It is unknown whether students with disabilities/health concerns will likely encounter mental health consequences as a result of COVID-19's societal impact. It is anticipated that people with disabilities or health difficulties may encounter a greater number of pandemic-related

stressors. In addition to the concerns of COVID-19 and the accessibility of education, not all Emergency response plans contain provisions for people with impairments. Due to the inaccessibility of their course materials, individuals not only face a greater health danger but also a greater educational risk; they miss the classroom atmosphere (Zhang Y, Ma ZF. 2020) concerning the learning process of children with special needs, it was revealed that they are more anxious than their non-disabled peers and consequently cannot study online, particularly when transitioning between classes (Zhang Y, Ma ZF. 2020). Children with learning disabilities (LD), especially autistic children, whose routines and connections with teachers were abruptly disturbed by the shift to online learning, were significantly impacted by its rapid adoption (Asbury et al., 2020). Homeschooling a child with LD is more difficult than homeschooling a child without LD. The parents felt it more as they were required to accompany their child with LD at all times and lacked the school-based support that these children often receive (Asbury et al., 2020) As there is no certainty regarding the reopening of schools in Pakistan as a result of the ongoing pandemic, it can be quite worrisome for parents. However, even if the schools do open, it will be difficult for the LD pupils to separate themselves and adhere to the other COVID changes.

Education in Pakistan is already in a precarious state, and it is difficult to retain a large number of young people in school. The lockout highlights existing problems and creates new ones for educational instruction in Pakistan, not the least of which is the prediction that as partial shutdowns continue, the dropout rate will continue to rise as more impoverished households send their children to work instead of school. The mental health effects of a pandemic are a complex and varied topic. According to an earlier study, both the pandemic and its prophylactic measures had an effect on the mental health of those affected. On the basis of timely information regarding the psychological effects of the COVID-19 epidemic and the community's responses, it is possible that the community will exhibit elevated levels of psychopathological symptoms. (Nasir & Hameed, 2021)

Given the evolving nature of the coronavirus situation, healthcare institutions and the general public require a synopsis of studies on its mental health impacts. The objective of this review is to give a synopsis of significant information about the psychological effects of the COVID-19 outbreak on affected communities. This study will investigate potential important implications for mental health outcomes management. In addition, when new varieties of the corona continue to emerge, crucial issues for future research will also emerge.

LITERATURE REVIEW

This corpus of studies analyzes the severe repercussions of the COVID-19 pandemic, including the problems that may be encountered by children with special needs and the

emotional and behavioral difficulties they may encounter. Examples of psychological responses to pandemics include maladaptive behaviors; emotional distress and defensive responses; anxiety; fear, frustration, loneliness, anger, boredom, melancholy, stress, avoidance behaviors; sleep issues; schizophrenia; and obsessive-compulsive disorder (OCD). According to the study, restrictive measures such as quarantine, isolation, and social distancing impact not only the mental health of disabled individuals but also their emotional responses to the pandemic itself. The shutdown of schools in Karachi disrupted both the educational system and the limited health facilities in the city. For this study, a sample that was intended to be representative of the population of SEN schools and rehabilitation centers was analyzed.

The scope of the research

This study investigates how the reality of pandemics influences the social and emotional health of school-aged children and others. Social and emotional concerns associated with outstanding students' mental health can have a substantial impact on their daily lives, producing difficulties in their social, academic, and emotional performance and even affecting their families' mental health. The research focuses on SEN pupils' overall health, mental health, and additional developmental disabilities. Due to changes in their daily routines and a lower tolerance for ambiguity, which may exacerbate their symptoms, these children have additional challenges in the presence of COVID-19.

A description of the problem

Currently, there is a need in Pakistan for studies or research that explore the influence of the COVID-19 pandemic on the lifestyles of special-needs children, particularly with regard to their education and schooling. In addition, there is no data collected on their patterns indicating their behavioral changes and learning styles.

RESEARCH OBJECTIVES

1. To explore the impact of COVID-19 on special children's health, mental health, and development.
2. To find out the dropout rate of students because of severe illness in a pandemic.
3. To explore the impact of COVID-19 on developmental delays.

RESEARCH HYPOTHESIS

1. COVID-19 has a significant effect on the health, mental health, and development of children.
2. There is a significant relationship between absences from school and dropout rates in special schools.
3. There is a significant impact of fewer teaching and learning opportunities on the

further delay of milestones in SEN children.

RESEARCH METHODOLOGY

Sample Technique

A self-developed questionnaire was constructed, which is used as a tool for collecting data. The respondents were requested to fill out the questionnaire shared via email.

Sample Size

The sample size for the research is 31, which includes therapists, guardians, teachers, and principals of the target population. The feature asked was gender of the survey participants.

Instrument

The questionnaire was created after analyzing and examining other studies that were comparable to ours, and the data from these studies was used as the instrument for this study. The questionnaire includes both general questions about the respondents' demographic information as well as questions about our research project.

Variables

Independent Variable: Effect of Covid-19 on special children.

Dependent Variable: Mental health and development health of child, absences from school, dropouts from schools

In the current quantitative inquiry, phenomenology is employed as a data-gathering approach. To gather the knowledge essential for descriptive and applied research of how people construct meaning from the events of their lives, to characterize the process of meaning-making rather than the product, and to explain how individuals interpret the events of their lives (Merriam & Tisdell, 1955-, 2016). Students enrolled in SEN programs in Karachi were the intended sample population for this investigation. As part of an investigation into the effects of the COVID-19 study on the students' physical and mental health as well as their potential for further developmental delay and withdrawal from school, data was gathered and submitted by students attending SEN schools via Google forms and questionnaires in accordance with phenomenological research methods.

FINDINGS

Due to the rapid spread of the COVID-19 outbreak, schools across Pakistan were forced to close, and there was an immediate transition to online distance education. The vast majority of teachers in Pakistan are accustomed to the more traditional form of face-to-face training; hence, online instruction is a challenge for them. Students with physical and mental impairments are one of the most vulnerable groups in society due

to the limitations placed on their activities. Students with disabilities are one of the most susceptible populations, despite the fact that COVID-19 affects nearly every member of society.

In addition, there is little human interaction when students study online, resulting in greater mental stress among these students. Consequently, the focus of this study is on disabled students, the challenges they confront, and contemporary teaching practices for emergency situations, with a particular emphasis on mental health for students with and without learning difficulties. In the realm of special education, one of the most effective strategies is an organized routine, but this has been abandoned. Parents of children with special needs have struggled through a process of trial and error to determine what works and what doesn't to encourage their children to engage with virtual education and/or in-person education, both of which look significantly different than they did prior to the implementation of COVID-19.

Concern parents feel more alone and helpless because there aren't many online resources available to them and their parents don't know how to teach them. Parents are anxious and fear that their children, who are already running behind schedule, will suffer even more. However, it is unquestionably the duty of the government to ensure that children with special needs receive the same consideration and respect as children without disabilities.

Data Collection and Evaluation

Considering the sample size of the study, the Z-test was chosen to assess the significance of the hypothesis when interpreting the statistical analysis results. In contrast, descriptive statistics were employed to examine the respondents' demographic information.

Testing Hypotheses Using the Z-Test

When the variances are known and the sample size is large, the z-test is utilized to evaluate if two population means are distinct. A z-test is a test for the null hypothesis in which the z-statistic follows a normal distribution. A z-statistic, often known as a z-score, is a statistical representation of research data.

The Degree of Importance

The significance level, also called alpha, is a metric that tells you how strong the evidence must be in your sample before you can say that the influence is statistically significant and reject the null hypothesis.

Limitations

The sample size is restricted to 31 special education schools. It was unable to reach out

to diverse SEN schools. Why is there reluctance on the part of SEN schools to disclose information in response to our survey form? No information regarding SEN schools or children participating in such studies in Pakistan has been obtained as of yet.

Delimitation

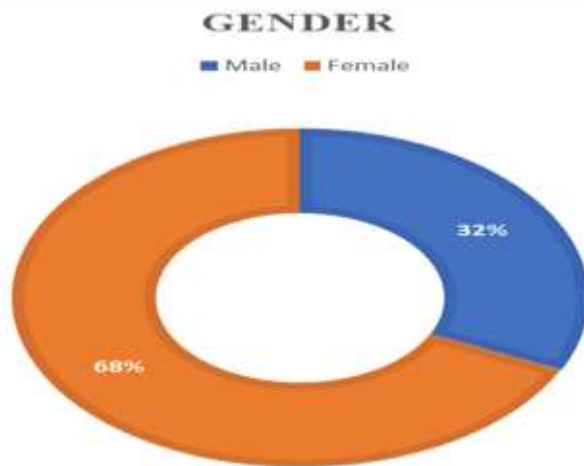
This research was undertaken for SEN schools and therapy centers in Pakistan. This research was conducted for SEN pupils' health, further developmental delays, and mental health. The closing of a school has an effect on the lives of pupils with special needs.

Interpretation of the Results

Four distinguishing statistics

Using descriptive statistics, we have given the following information about the people who took part in our study:

Table 4.1				
Gender				
Data Range		Frequency	Percent	Cumulative Percent
Valid	Male	10	32.0	32.0
	Female	21	68.0	100.0
	Total	31.0	100.0	

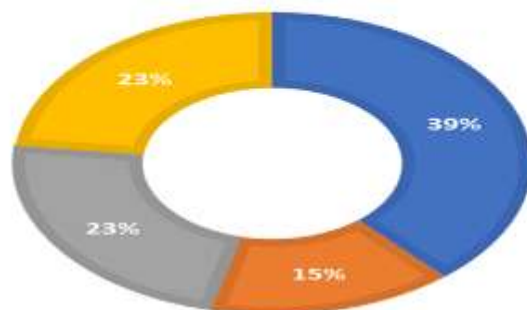


According to the above table, 32% of the participants were male and the remaining 68% were females.

Relationship with Students				
Data Range		Frequency	Percent	Cumulative Percent
Valid	Therapist	12	39.0	39.0
	Principal	5	15.0	54.0
	Guardian	7	23.0	77.0
	Teacher	7	23.0	100.0
	Total	31.0	100.0	

RELATIONSHIP WITH STUDENT

■ Therapist ■ Principal ■ Guardian ■ Teacher



Considering the statistics of the details of relationship with students, 39% of the respondents were therapists, 23% each were guardians and teachers of the students and remaining 16% were principal. All of the respondents belong to the city of Karachi.

Results of Hypothesis

Based on the sample size of our research work, i.e. 31, Z-test is considered to be the most appropriate to evaluate the validity of research hypothesis and the responses obtained from the respondents using the self-developed questionnaire. To perform the statistical analysis, the level of significance i.e. P value of 0.05 has been assumed and the results have been drawn on the basis of responses collected.

Rule of Decision

At the level of significance of P = 0.05, the critical value of Z is construed between -1.645 to +1.645, which means that if calculated value of Z does not lie between the critical values of Z as mentioned above, the research hypothesis will be considered as valid and vice versa.

DISCUSSION

According to the Table 4.3.1., Z-test has been applied on the responses obtained from the respondents using SPSS (Statistical Package for the Social Sciences). On the basis of results of statistical analysis, the calculated value of Z is more than the critical value of Z for one tailed test (i.e. $2.39 > 1.645$) as well as the obtained P value is less than the level of significance (i.e. $0.0084 < 0.05$), which interprets that the research hypothesis is considered as valid and the null hypothesis has been rejected and are not considered as valid.

Statistical Results		
	Research Hypothesis	Null Hypothesis
Mean	1.870967742	1.612903226
Known Variance	0.116129	0.245161
Observations	31	31
Hypothesized Mean Difference	0	0
Z	2.390458286	
P(Z<=z) one-tail	0.00841368	
z Critical one-tail	1.644853627	
z Critical two-tail	0.016827361	

In this study, we are determining whether or not SEN students have had general health, mental health, and developmental effects as a result of this pandemic, as well as their severity level and other behavioral issues since the beginning of the epidemic. Some parents withdrew their children from school because of financial hardships as a result of the SEN education closure caused by the pandemic, which affected and exacerbated their behavior problems. We collected information from 31 SEN schools. We discover that many of the surveyed students did not have COVID-19, and just 7 students tested positive, of whom 3 died due to a compromised immune system and cerebral palsy quadriplegia. However, the majority of students polled have behavioral difficulties and additional developmental disabilities. Students exhibit fear, despair, and behavioral disorders as a result of the pandemic. A majority of students struggle with memorization and sadness due to the pandemic. The majority of students dropped out, and when their school reopened, they did not return due to the severity of their symptoms, financial difficulties, or because they went abroad with their parents.

Based on the survey results, it can be concluded that the COVID-19 pandemic, which led to the closure of educational institutions worldwide, and the lack of resources in Pakistan prevented SEN children from participating in school activities. This had an effect on their learning and development, as well as their emotional health. School activities have a significant part in the learning of kids; moreover, school-aged children

engage in a variety of physical activities, such as athletics, swimming, and jogging, which SEN students lacked owing to the school's closure, disrupting their learning and developmental process. It was also determined that parents cannot rely solely on their own abilities to help their children learn at home. These children are typically energetic, so they do not attend online lessons for long periods of time. They feel helpless and more isolated due to the absence of online tools and their parents; inability to effectively instruct them. Parents are anxious and fear that their children, who are already falling behind their normal schedules, will suffer further. Nonetheless, it is unquestionably the obligation of the government to ensure that children with special needs receive same significance and consideration as children without disabilities.

RECOMMENDATIONS

We suggest that just as students with disabilities belong in education, so too does accessibility research. It is time for the accessibility community to broaden our efforts by investigating technology use and developing assistive technology for kids with impairments in the school and classroom. We hope that these insights into the student experience illustrate the importance of understanding how education fails and succeeds in serving students with disabilities, and where technology might play a role in enhancing this. For disabled students, we need to think differently and include a positive aspect for them, not for us.

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