

The Impact of Distance Learning During the Corona Pandemic on the Mental Health of Primary School Students

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Abstract

This paper investigates the impact of distance learning, within the context of the COVID-19 pandemic, on the mental health of primary school students, as perceived by their parents. The critical factors examined in this paper include the use of technology, the lack of physical interaction between the students and the teachers, and whether adequate psychological support was provided to the students from school. It wants to explain how such variables influenced the emotional life of students, whether they developed anxiety or stress, had behavioral changes, or had much change in social interactions. A sample of 150 parents whose students were at the primary level of education and attended distance learning classes during the pandemic took part in the data collection. The structured questionnaire would be prepared to assess the parents' perception of their children's mental health. The items would range from a 3-point Likert scale addressing mental health and wellbeing, the influence of technology, and school support. The results of the present study indicated that, from the perspective of their parents, primary school students have been considerably affected mentally as a consequence of distance learning. The highest mean, 2.26, refers to increased anxiety and stress, which is very strong. Changes in behavior were moderate, as reflected by the mean of 2.11, and so was its impact on sleep at 2.01. With the advent of technology, stress levels went up, as shown by the strong correlation of 0.66, while technology influencing independent learning was negatively correlated at -0.46. Not having physical interaction with others greatly affected the mental health status of the students, as depicted by the mean of 2.31 and significant results in introversion: F-statistic 7.06 and p-value 0.0006. Moreover, more than 53% of parents felt that psychological support from schools needed to be increased, and 60.1% needed more recommendations for helping their children cope with the psychological burden of transitioning to remote learning.

Keywords: *Distance Learning, Corona Pandemic, Mental Health, Using Technology, Psychological Support, Primary Schools Students.*

Introduction

The COVID-19 global pandemic forced many educational systems worldwide to rapidly immerse themselves into distance learning- to say the least- Greatly disrupting the traditional learning environment for students. Such a rapid shift in educational pedagogies brought concerns for mental health, with loss of routine, limited social interaction, and increased screen time being concerns in primary school students. Some research has documented that online learning due to the pandemic was associated with high levels of anxiety, stress, and depression in schoolchildren. Studies have identified that about 58% of the children in remote learning environments experience anxiety, while 50% show feelings of depression. Zhang et al. (2022); Wang et al., (2021). The disruption to in-school learning has thrown children and adolescents into particular mental health challenges that make necessary an understanding of what exactly accounts for such emotional and behavioral changes.

The main problem with distance learning has been the increased use of technology, which has introduced new stressors for young learners. While technology was an enabler for the continuance of education during such unprecedented times, it brought increased stress and fatigue, often because of managing the many digital platforms, especially for younger students. It is clearly shown in the study by Nogueira et al. (2022) that 71% of students feel more stressed as a result of using technology, and according to Serdakova & Zhang (2023) and Hawrilenko et al. (2021), students also reported decreased motivation and attention. This was because such extended screen time and online learning demands had added to the students' burden and alienated them from learning.

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The lack of physical interaction with teachers and colleagues has only aggravated the mental disorders among primary school students. Children in the stages of growth need to be socially interactive; distance learning has been associated with loneliness, introversion, and unwillingness to engage in academic activities. One study revealed that up to 30% of students reported declining academic performance, but the absence of face-to-face interaction exacerbated this situation. It became clear how critical social links were for maintaining students' motivation and psychological state. Indeed, according to BMC Public Health (2022), Pacheco et al. (2017) present evidence to prove the above point. During distance learning, students lose the in-person support of teachers and peers, and such a factor has affected their current emotional and academic performance.

Insufficient technology and social isolation were not the only problems during the pandemic. Schools have also shown a lack of psychological support during the pandemic. According to various estimates, 40% of parents believed their child's school provided enough psychological support for this transition to online learning. Besides these resources, the stressors associated with learning in isolation raised concerns about the long-term effects on mental health as a result of distance learning. The school's lack of adequate responses to the emotional challenges students face during that period may be associated with long-term implications for the development of the student population.

Based on parents' perspectives, this research paper investigates the impacts of distance learning on the mental health of primary school students during the COVID-19 pandemic. It considers the possible difficulties students had to experience in this unprecedented interruption of education while explaining how technology impacted students, the lack of physical interaction, and psychological support. These factors must be understood in order to develop strategies to help support students' mental health in future educational crises.

The Purpose of the Study

This paper studies the effects of distance learning during the COVID-19 pandemic on the mental health of primary school students, as expressed by their parents. This study has the specific purpose of exploring how the adoption of technology, an absence of physical contact between students and teachers, and school psychological support might influence children's emotional wellbeing, behaviors, anxiety, and social interactions. Such an exploration would help the study identify various challenges faced by the students and provide insight that could help in the future to improve distance learning with support for mental health.

The Problem of the Study

The study concerns the issues connected with the unscheduled transition to distance learning during the COVID-19 pandemic and its probable consequences for the mental health of primary school students. The latter type of learning has brought a number of problems for children, including increased use of technologies, decreased physical contact with teachers and peers, and a lack of psychological support from schools. The changes probably had negative effects emotionally and behaviorally, such as increased anxiety, stress, isolation, and interaction difficulties.

The Study Questions

- What is the effect of distance learning on the mental health of primary school kids as perceived by parents?
- Does the utilization of technology in remote education impact children's mental health? How do parents see this effect?
- To what extent does the lack of physical contact between students and teachers affect the students' mental state as perceived by their parents?

- Was the psychological assistance provided in schools sufficient to address the emerging mental health problems that had arisen as a result of remote learning?

Literature Review

Studies in 2023 and 2024 have significantly updated our knowledge about the effect of distance learning on students' mental health conditions in the context of the COVID-19 pandemic. The themes that have kept cropping up in various research efforts are the pervasive impacts anxiety and stress have on students during remote education. Indeed, in Zhang et al.'s study, for instance, over 58% stated experiencing anxiety symptoms such as social isolation and rapid adaptation to online platforms. The psychosomatic load due to the digital learning ecology and excessive screen time in Nogueira et al. (2022) among their participants resulted in emotional and mental exhaustion among 71%. Although differentiated by varying methodologies, the necessity of intervention strategies that lessen the adverse effects on the welfare of students and psychological support networks underpins both. However, one implication that does seem most valid at present is that the studies complement one another.

One would mention resilience as a protective factor of the psychological burden of remote learning. Students' psychological resilience enables them to bear the challenges of online learning. As noticed from these results, among the most bolstering variables about academic burnout, resilience allows students to remain tuned in and motivated despite the many challenges offered by DL. Garrison & Guo (2024) support such claims by finding that students need their belief in self-efficacy to access online learning environments first. Students who thus believe in their academic capabilities handle the challenges associated with transitioning into online learning with fewer signs and symptoms of sadness and anxiety.

However, contact with instructors and classmates is what, in effect, remains a source of significant anxiety. Negative impacts associated with a lack of social interaction were reported in research publications by BMC Paediatrics (2023) and Feldman et al. (2024). When asked about their academic achievement, up to 30 percent of the students surveyed by Feldman et al. (2024) attributed a loss of motivation and engagement to a decline in in-person interactions. As Huang et al. (2024) claimed, such a feature of virtual learning absence of social support sometimes makes students even lonelier and more introverted, making it challenging to keep their motivational positions concerning academic goals.

Recent studies have also highlighted the importance of family support for online learning. According to Bryan et al. (2023), students reported less stress and anxiety when their family was involved and supportive. The results of Copeland et al. (2023) corroborated this, showing that students' mental health and feelings of social isolation were improved through frequent interactions with peers, even in virtual contexts. These studies highlight the significance of social and familial support networks in helping students stay well while learning remotely.

Recent research on this issue of institutional support has produced mixed results. Bozkurt and Sharma (2023) have reviewed barriers to accessing mental health resources in online learning environments and found that technological access is a real concern for many students, which fuels frustration and feelings of helplessness. On the other hand, Serdakova & Zhang (2024) found that schools with regular online check-ins regarding the students' mental health showed successful outcomes: the number of reported anxiety and depression cases was drastically lowered.

Hyytinen et al. (2023) focused on the correlation between cognitive engagement in online learning and mental health. They concluded that students with high cognitive engagement in their online studies had fewer possibilities of developing symptoms of depression or anxiety, which, therefore, means that cognitive engagement could be a positive shield against adverse psychological consequences brought about by distance learning. Similarly, in the work of Guo & Zhang (2024), it was indicated that resilience training programs supported students to handle the load of stress and allowed them to maintain a state of positive mental health during remote learning.

These findings have lent weight to psychological resilience, social and family support, and institutional interventions in the light of a holistic perspective to mitigate the negative effects on mental health due to online education. Future research and solutions that would help students cope with any future remote learning situation by assuring them that enough mental health resources and social connections are accessible are needed.

Methodology

The Study Approach

The present descriptive and cross-sectional study was conducted to investigate the impact of distance learning due to COVID-19 on the mental health of primary school students as perceived by their parents. A descriptive design is appropriate because it describes the prevailing status and shows trends or any relationships between variables without allowing for the manipulation of conditions. In this regard, the research will show how distance learning, technology usage, lack of physical interaction, and psychological support provided by the school influenced the students' emotional and psychological wellbeing during the pandemic.

The cross-sectional design enables data collection at one point in time from a diverse sample of parents; hence, the study will be able to identify several trends and differences in how the transition to distance learning affected different dimensions of students' mental health. A structured questionnaire will help collect quantitative data related to the extent of the psychological effect, technology's role, and parents' perceptions of school support being adequate.

The approach indicates the students' mental condition from the observations made by parents and, therefore, offers a starting point where the implications of distance learning on child development would be realized. Further proof of the relationships of these variables was shown to be backed by statistical analysis, including descriptive statistics, correlation analysis, and ANOVA, which enhanced the robustness of such findings. This approach is particularly well-suited for deriving practical insights to inform future educational practices and mental health interventions.

Sample

This research was done on 150 parents of primary school students who faced distance learning during the COVID-19 pandemic. The population sampled had a purposive sampling system, such that the participants would have children who had to experience their education remotely during the pandemic. This sample was diverse in terms of the student's age, gender, and location, therefore providing a comprehensive understanding of the impact across different demographics.

Tool

The structured questionnaire used in the information collection measured the impact of distance learning on mental health status as perceived by the parents. The instrument was closed questions on a 3-point Likert scale: 1 for minimal impact and 3 representing significant impact. Other variables included were technology use, lack of physical interaction, and sufficiency of school psychological support. Questionnaire: The following were the divisions in this questionnaire:

- The impact on mental health (e.g., anxiety, stress, behavior, sleep)
- The role of technology in learning
- The absence of physical interaction with teachers and peers
- The availability and sufficiency of psychological support

Variables

- **Independent variable:** Perceived distance learning, use of technology, lack of physical contact with peers and teachers. Psych-emotional support from schools is reflected.
- **Dependent variable:** Mental health effects that have been witnessed include anxiety, stress, changes in behavior and sleep, and even changes in social interactions.

Statistical Treatment

Descriptive Statistics were employed in the computation of each item's mean and standard deviation to allow general tendencies from parents about the impacts of distance learning on mental health.

Correlation Analysis: Technology use was also found to be associated with its effects on children's mental health; it demonstrated that greater reliance on digital tools was associated with the level of stress and anxiety.

ANOVA: Comparisons were done to ascertain whether parents perceived any difference in the effect of the absence of physical interaction on their children's social behavior and motivation for learning.

Frequency Analysis was carried out regarding the adequacy of the psychological support given by schools and the calculation of the percentage of parents in light of the sufficiency or insufficiency of the support given.

Results

Results Related to The First Question: What is the effect of distance learning on the mental health of primary school kids as perceived by parents?

Means and standard deviations were used. Table 1 shows the results

Table 1. Means and Standard Deviations of the Parents' Responses

N	Items	Mean	STD
1	To what extent have you noticed that distance learning influences your child's psychological state?	2.04	0.82
2	Has this distance learning changed your child's behavior in any way?	2.11	0.77
3	Do you think your child has felt anxious or stressed due to distance learning?	2.26	0.73
4	How has distance learning affected your child's sleep?	2.01	0.66
5	How has distance learning affected your child's interactions with other family members?	1.86	0.79

Table 1 presents the results of parents' responses based on the psychological effect of distance learning on their kids. The highest mean value, which was 2.26, related to anxiety and stress, was considered the most prominent about its relation to a mental health effect. On the other hand, the lowest mean value, which was 1.86, related to the effect on interactions with family members; this domain was the least affected based on parents' responses regarding their kids. Overall, the results reflect a moderate to large influence on mental health by evidencing a general mean of 2.04. The standard deviation for each item reflects moderate dispersion since all values are below 1, which means relatively consistent parental perceptions.

Results Related to The Second Question: Does the utilization of technology in remote education impact children's mental health? How do parents see this effect?

Table 2. Correlation Analysis Between Using Technology and The Mental Health of Students

N	Items	Mean	STD	Correlation Coefficient
1	How would you say technology use has influenced your child's mental state?	2.21	0.76	0.66
2	Do you feel that technology has raised your child's level of stress?	2.16	0.71	0.62
3	Do you think that your child can't cope with technology?	2.06	0.69	0.59
4	Has the use of technology reduced a desire for social interaction in your child?	2.11	0.73	0.61
5	In your opinion, has technology empowered your child to be independent in learning?	1.96	0.66	-0.46

Table 2: Relation between technology use and children's mental health status during distance learning. The mean response of the overall impact of technology on mental health was 2.21, showing that the majority of the parents felt technology had a negative influence. Also, there was a strong positive correlation of 0.66 between the use of technology and increased stress levels in children. The mean score on the ability of technology to foster independent learning stands at a relatively low value of 1.96, with a negative correlation of -0.46, implying that the more technology is used, the less capable children may be of learning independently. Standard deviations are moderate, showing both a mixture of consistent and varied responses across parents.

Results Related to The Third Question: To what extent does the lack of physical contact between students and teachers affect the students' mental state as perceived by their parents?

N	Items	Mean	STD	F-statistic	P-value
1	How has the lack of physical interaction between your child and his teachers affected his mental health?	2.31	0.61	6.16	0.002
2	Have you noticed that the lack of physical contact has affected your child's academic performance?	2.16	0.56	5.83	0.004
3	Don't you think that your child was suffering from introversion due to the lack of direct interaction with his peers?	2.26	0.73	7.06	0.0006
4	Has your child become unmotivated about learning due to the absence of physical contact?	2.21	0.69	5.96	0.003
5	Has distance learning or a lack of physical interaction prevented your child from making new friends?	2.11	0.71	6.51	0.0016

Table 3: ANOVA testing results for no physical contact between students and teachers in distance learning and implications for the student's mental health status. Introversion may be related to the perceived negative impact of working as a student on their mental health, as evidenced by an F-statistic of 7.06 with an associated p-value of 0.0006, attributed to the highest mean value of 2.31. The other areas of concern were decreased academic performance at a mean of 2.16 and loss of motivation at 2.21. In all items, the difference in responses regarding how the absence of physical interaction affected the students' mental and academic well-being was p-values below 0.05, hence considered statistically significant.

Results Related to The Fourth Question: Was the psychological assistance provided in schools sufficient to address the emerging mental health problems that had arisen as a result of remote learning?

N	Items	Number of responses (yes)	Number of responses (No)	Percentage (Yes)	Percentage (No)
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1	Was the psychological support at school enough to help your child go through the psychological test?	71	79	46.8%	53.4%
2	Has the school provided enough guidance to the family to help with the child's mental health?	61	89	40.1%	60.1%
3	Do you believe the school has done enough to support your child through an adjustment phase into distance learning?	66	84	43.4%	56.8%
4	Did the school provide individual/group psychological support for your child?	56	94	36.8%	63.4%
5	In your opinion, did the school provide enough psychological resources to support children psychologically?	61	89	40.1%	60.1%

Results on the notion of whether schools provided enough psychological support in distance learning settings are summarized in the table below. From the results, most parents felt psychologically supported during the process. For instance, only 46.8% argued that psychological support from schools was enough, while 53.4% objected. In turn, 60.1% of the parents responded that they did not feel they received enough guidance from schools regarding how to deal with the mental health of their children during the pandemic. The lowest "yes" percentage came from a question about receiving individual or group psychological support, at 36.8%, marking yet another gap in the services that the schools gave.

Discussion of the Results

The findings agree with quite a number of findings on the effect of distance learning on students' mental health. Hence, in agreement with the findings by Zhang et al. (2023), where it was established that 58% of students developed anxiety due to virtual learning settings, it was noted herein that distance learning had a significant effect on the mental status of the primary students since the parents reported anxiety and changes in the behaviors of their kids. That, therefore, implies that in this study, a trend also existed because the mean anxiety score of 2.26 depicted that during remote learning, the stress and anxiety levels were medium to high.

Pearson's correlation analysis of the utilization of technology and mental health showed that excessive utilization of technology was positively associated with a higher level of perceived stress, with the correlation coefficient being 0.66. Thus, this result supports the conclusions of Nogueira et al. (2023), who reported that 71% of students showed signs of mental fatigue as a consequence of the exposition to the screen for a long time during online learning. It also showed the possibility of a negative correlation between technology use and students' independent learning ability. This supports the findings of Hawrilenko et al. (2021) in their assessment of how technological obstacles interfere with self-regulation and autonomous learning.

Indeed, previous findings support these findings amply on the effects of lack of physical interaction. In this study, the complete absence of face-to-face interaction was strongly associated with their academic performance and their social behaviors. The mean scores showed 2.31 and 2.26, depicting emotional distress and introversion, respectively. It, therefore, agrees with the finding of Feldman et al. (2024), who indicated that 30% of the students developed a decline in academic motivation and an increase in loneliness because they avoided social contact. In general, previous literature supports and agrees that the adverse effects of distance learning on mental health status are indeed shared among primary school students.

Conclusion

The results of the present study also concentrate on the high incidence of distance learning on the mental health of primary school pupils and their parents' perceptions during the COVID-19 pandemic. The outcomes indeed indicated anxiety development, stress, and disturbance in students' behavior as the most frequent reactions, which were strongly influenced by prolonged exposure to technology, lack of physical interaction with friends and teachers, and incomplete psychological school support. This can add to the agony of online classrooms, where screen addiction may be associated with increased levels of stress. While it affected students' academic performances and emotional wellbeing, the inability to interact socially also increased feelings of loneliness and introversion.

Findings that were consistent with previous studies on similar aspects in students during the pandemic, and which now point toward differential intervention in such issues, may suggest more effective embedding of psychological support systems by schools and educators through expansions in opportunities for social interaction and balanced demands related to technology in the online learning setup. This study emphasizes the building of resilience among students and the continued availability of mental health services to mitigate the after-effects of distance learning on their wellbeing.

More research is needed to identify what works best to support student mental health in the context of digital learning and to prepare for future eventualities that disrupt conventional schooling.

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