Improving Children's Mental Health through Remote Mentoring during Covid-19 Shutdowns in Bangladesh

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Sector(s): Education

Fieldwork: Global Development & Research Initiative (GDRI) Foundation

Location: Khulna Division

Sample: 838 households

Target group: Children Students

Outcome of interest: Student learning Mental health Socio-emotional development Soft skills

Intervention type: Coaching and mentoring COVID-19 response

AEA RCT registration number: AEARCTR-0006395

Data: openICPSR

Research Papers: Emotional and Behavioral Impacts of Telementoring and Homeschooling Support on …

Partner organization(s): Centre for Development Economics and Sustainability at Monash University

Covid-19 cut children off from their teachers, who provided them with emotional and behavioral support. To evaluate solutions to this problem in Bangladesh, researchers introduced a remote mentoring program to support mothers as they homeschooled their elementary school children during the pandemic. The program had positive impacts on children's mental health soon after the intervention, but effects dissipated over time.

Policy issue

During the Covid-19 pandemic, governments were compelled to close schools for prolonged periods, which limited students' access to learning, social, and emotional support. At the same time, children had to cope with a sense of uncertainty about the future and, in financially affected families, lower capacity from parents to give them time, attention, and resources. In low and middle-income countries, students experienced mental health issues, isolation, emotional distress, and meaningful learning losses as a result, driving governments to launch programs intended to help students make up for lost learning opportunities.

Learning recovery programs, often delivered remotely, were found to reduce learning losses from school closures, with potential for scalability in low-income contexts. Remote learning solutions might also have the potential to boost children's psychological strengths, develop children's social relationships, and increase children's attention and reasoning in school closure contexts—by partially restoring teachers and parents' ability to support children. However, these programs' emotional and behavioral impacts have been less studied, especially among children in poverty.

Can e-learning and homeschooling assistance during long school shutdowns mitigate or revert negative impacts on students' behavior and emotions?

Context of the evaluation

Starting in March 2020, schools in Bangladesh were closed for eighteen consecutive months in response to the COVID-19 pandemic, disrupting education for 37 million children in the country. To mitigate the learning impacts of closures, the Government of Bangladesh launched an initiative to broadcast asynchronous school lessons. The government opted for delivering the lessons through radio and television, rather than via internet, due to limited connectivity in rural areas—in 2019, 67 percent of rural Bangladeshi households did not have access to the internet. Yet, more than 50 percent of rural households also did not have a television and only 3 percent listened to radio stations at the time, meaning most rural families were not able to provide their children with the remote learning options available during the shutdown.

This study explored an alternative avenue for delivering remote learning that was accessible to 95 percent of rural families in 2019—telephones. By 2019, 63 percent[1] of Bangladesh's population of 165.5 million[2] lived in rural areas, of which 20.5 percent lived in poverty conditions.[3] The study took place in rural areas of Bangladesh's Khulna Division and was aimed at rural elementary students in grades 1-3 and their mothers. The children were about 7.5 years old on average and equally made up of girls and boys. Participant households earned around US$135 per month and mothers had approximately six years of schooling.

An enumerator for the research team speaks with a child in Bangladesh's Khulna Division about homeschooling and remote mentoring's impact on learning and socioemotional health during the Covid-19 pandemic.

Photo: Asad Islam

Details of the intervention

Researchers conducted a randomized evaluation to test the impact of telementoring, a learning support intervention delivered via mobile phones, on elementary school students' behavior and emotions. The researchers started the program in July 2020 in collaboration with the local implementing partner Global Development and Research Initiative Foundation (GDRI). At that point, schools had been closed for four months because of Covid-19.

Researchers worked with GDRI to identify, among their existing contacts, households that had one or more children in grades 1-3 at a public school and owned a cell phone. A total of 838 households from 200 villages in the Khulna Division were surveyed and randomly assigned to two groups:

- *Telementoring group (419 households):* Each household was randomly matched with a mentor—a university student volunteer trained by the research team to deliver the intervention. At the program outset, mothers in the households were equipped to homeschool their children with printed solutions to English and mathematics textbook problems and a study plan specifying the textbook chapters to be covered in each week of the program. The program was delivered in thirteen consecutive weeks, during which mothers were instructed to follow the study plan and received weekly, 30-minute phone calls from their mentor. Mentors helped mothers set weekly homeschooling goals and provided advice about homeschooling challenges. Mentors worked with mothers and their children, who also joined the session, to walk them through solutions to homework problems. Mentors then asked the children to solve similar problems while they discussed best parenting practices with the mothers. Parenting practices were introduced ahead of the session via text messages and covered positive parenting and gender equality in education, among other topics. At the end of the session, mothers received the parenting practices text message again; mentors also assigned new homework and set the date and agenda for the following meeting.
- *Comparison group (419 households):* Households in this group did not receive the intervention.

Using the Strengths and Difficulties Questionnaire (SDQ) by Goodman[4], researchers surveyed mothers to learn about their children's difficulties with conduct (i.e., violating social norms and rules), hyperactivity/inattention (i.e., difficulty concentrating on details), emotional problems (as measured by symptoms such as consistent headaches, fear, feeling unhappy, or being clingy), and peer relationships. SDQ responses translate into scores ranging from 0 to 10, with lower scores indicating more positive behavior. Researchers collected this information one month and a year after the intervention, in January and December 2021.

Results and policy lessons

Children in the households that received telementoring experienced less mental health problems relative to those in households in the comparison group. These effects were observed a month after the intervention and dissipated a year later.

Short-term effects on mental health:

One month after the telementoring stopped, children the telementoring group had an SDQ score that was 1.2 units lower than the comparison group's score of 10.9 (an 11.3 percent decrease). Relative to the comparison group's conduct score of 2.4, telementored children decreased their conduct issues by 0.43 score units or almost 18 percent. Similarly, students who received telementoring had a 0.7 lower hyperactivity/inattention score than the comparison group's score of 4.2 (a 17 percent decrease).

These results indicate that reestablishing regular instruction for students via telementoring may have helped them obey rules and abide by social mores (which are associated with good conduct) and soothed their worries about being out of school and lagging behind (which are associated with hyperactivity/inattention).

On the other hand, difficulties related to emotions and peer relationships remained the same across both groups. Absent effects on peer relationships could be due to mothers' difficulty to see and report on how their children interacted with classmates while schools were closed. As for emotional difficulties, it is possible that they are more shaped by parents' mental well-being and provision of childcare than mentoring during lockdowns. In fact, another study of the same intervention[5] found that mothers' mental health did not change with telementoring, which could be why emotions scores remained unchanged.

Long-term effects on mental health:

The effects on conduct and hyperactivity/inattention dissipated one year following the program, even though the intervention had lasting impacts on children's learning and mothers' parenting and involvement, as measured in the researchers' predecessor study.[6] The difference in how these outcomes evolved suggests that improvements in emotional and behavioral health were not linked to learning gains or changes in parental behavior. Rather, continuous interactions with mentors may have played a crucial role in the reduction of mental health problems.

Taken together, these results suggest that remote mentoring and educational support from educators to mothers and children can mitigate learning losses and mental health problems during school shutdowns, but continuous assistance is needed to solve these problems. Such interventions could be relevant to low- and middle-income countries experiencing crises that drive school closures, including conflict, political unrest, teacher strikes, and natural disasters.

Hassan, Hashibul, Asad Islam, Abu Siddique, and Liang Choon Wang. 2023. "Emotional and Behavioral Impacts of Telementoring and Homeschooling Support on Children." AEA Papers and Proceedings, 113: 498–502.DOI: 10.1257/pandp.20231012

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1. World Bank Open Data, Rural population (% of total population) – Bangladesh, 2019, https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=BD

2. World Bank Open Data, Population, total – Bangladesh, 2019 https://data.worldbank.org/indicator/SP.POP.TOTL?locations=BD

3. Asian Development Bank, Poverty Data: Bangladesh, 2019 https://www.adb.org/where-we-work/bangladesh/poverty

4. Goodman, Robert. 1997. "The Strengths And Difficulties Questionnaire: A Research Note." *Journal of Child Psychology and Psychiatry* 38, no. 5 (July): 581–586. doi: https://acamh.onlinelibrary.wiley.com/doi/epdf/10.1111/j.1469-7610.1997.tb01545.x

5. Hassan, Hashibul, Asad Islam, Abu Siddique, and Liang Choon Wang. 2024. "Telementoring and homeschooling during school closures: A randomized experiment in rural Bangladesh." Working paper. https://users.monash.edu/%7Easaduli/pub/telementoring.pdf

6. Hassan, Hashibul, Asad Islam, Abu Siddique, and Liang Choon Wang. 2024. "Telementoring and homeschooling during school closures: A randomized experiment in rural Bangladesh." Working paper. https://users.monash.edu/%7Easaduli/pub/telementoring.pdf