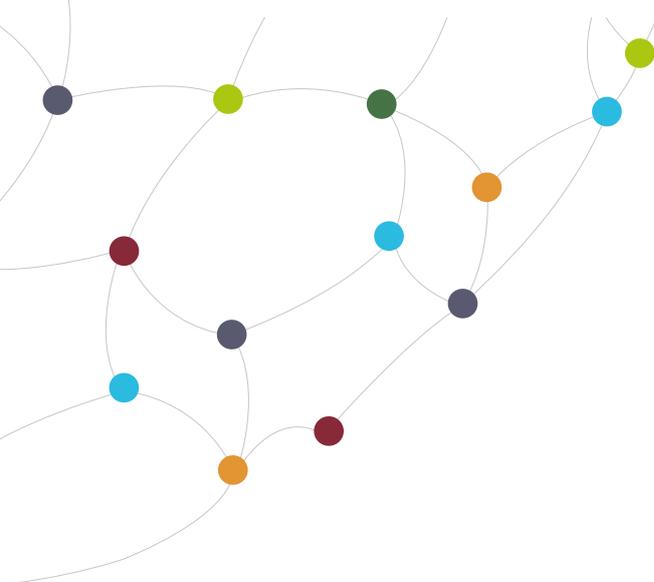


Research priorities for early childhood development in the context of COVID-19:

Results from an international survey • January 2022

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There has been a substantial output of research worldwide on COVID-19 and its impacts on children's development and wellbeing.

In a recent [research roundup](#), the Early Childhood Development Action Network (ECDAN) identified more than 400 publicly available, peer-reviewed COVID-19 studies related to early child development (ECD) and nurturing care in low- and middle-income countries. The findings highlight significant knowledge gaps. For example, most studies address child and maternal health or nutrition, and relatively few focus on early learning, responsive caregiving or child protection. Furthermore, most studies are based on data from upper-middle-income countries, while evidence from low-income countries is scarce. Most research has utilized quantitative

study designs and primarily cross-sectional surveys. Few studies evaluate 'what works' to promote and protect child development during the COVID-19 pandemic.

Moving forward, the ECD community must identify and focus on shared research priorities in the context of COVID-19. To address this need, ECDAN conducted an international survey to identify pressing research priorities, with a specific focus on low- and middle-income countries. The survey identified components of nurturing care (i.e., health, nutrition, child protection, opportunities for learning, and responsive caregiving) that should be prioritized in the next 12 months. Identifying priority research themes can help target funding, resources, and research efforts where they are urgently needed.



METHODS

This project was undertaken in December 2021 using a short online questionnaire. Respondents were asked to provide demographic information and to select up to three urgent COVID-19 research priorities among a list of 15 topics related to early childhood development and nurturing care. This list was generated by reviewing the World Health Organization's (WHO) [Nurturing Care Framework](#) and expert opinion. Space was provided for respondents to list additional research priorities not included in the list.

For each identified priority, respondents were asked to detail specific research questions, including interventions that should be prioritized in future research. The questionnaire also asked respondents to rate various methodologies for studying the identified research priorities on a four-point scale, from not at all important to very important. The questionnaire concluded with open-ended questions regarding the most significant challenges with COVID-19 ECD research, and how organizations, alliances and networks can advance ECD research in the context of COVID-19.

The questionnaire was administered in English and disseminated electronically using SurveyMonkey via the ECDAN email listserv and social media platforms (Twitter, Facebook, and LinkedIn). Responses were collected electronically and descriptive data analysis was performed. We analyzed the text responses for the most frequently selected priorities to determine important research questions within each priority area.



Figure 2

Average rankings (%) of the ECD research priorities included in the questionnaire



Opportunities for early childhood education and childcare	53
Parent-child interactions, responsive caregiving and play behaviours	41
Mental health among caregivers and children	41
Social protection, livelihoods, family income security and social safety nets	36
Children with disabilities or developmental delays	33
Maternal and child health services	13
Screen exposure, physical activity and sedentary behaviours among children	13
Maltreatment and violence towards children and women	13
Water, sanitation, and hygiene	10
Nutrition and family food security	8
COVID-19 transmission, clinical features and direct health effects	7
Caregiver mortality, orphanhood, foster care and institutionalization	4
Injuries among children	2
Breastfeeding	1
Obesity and eating habits among children	1

1. Early childhood education and childcare during the COVID-19 pandemic

The most frequently selected research priority was identifying opportunities to support early childhood education during the COVID-19 pandemic. Respondents highlighted the need for future studies on the effectiveness of remote and home-based learning strategies for children under age 8, including considerations for implementation and scale-up (Box 1). Specifically, there is a need to identify remote learning models for rural areas and communities with limited access to home-based technology, and understand their effects on child development outcomes. In addition, respondents identified a need for future studies to understand the immediate and longer-term effects of disruptions in education on young children's foundational skills. There is also a need for research on improving the quality, equity and accessibility of remote learning for pre-primary education during COVID-19 and other health emergencies.

Box 1

Proposed research questions related to early childhood education during COVID-19

- What is the effectiveness of remote learning for young children in low- and middle-income countries? What can be scaled up?
- What are the immediate and long-term effects of disruptions in education on the development of foundational skills in early childhood?
- What initiatives and programs promote more equitable delivery of high-quality remote learning resources for pre-primary education?

2. Parent-child interactions, responsive caregiving and play behaviours

Understanding the effects of the COVID-19 response, including lockdowns and quarantine, on parent-child interactions and responsive caregiving was the second-highest priority selected (Box 2). Respondents indicated a need for studies to evaluate the effectiveness of a range of parenting programs that could be implemented during health emergencies to promote optimal outcomes for children. Furthermore, respondents identified a need for future studies to examine how the COVID-19 response has affected responsive caregiving, including mask-wearing and separation from extended family caregivers, and its implications for child development outcomes. There is also a need for future studies to identify risk and protective factors for emotionally supportive and responsive caregiving in the context of significant health emergencies.

Box 2

Proposed research questions related to responsive caregiving during COVID-19

- What is the effectiveness of parenting programs in the context of COVID-19? What are the considerations for implementation in low- and middle-income countries?
 - How do caregiving and the nature of caregiver-child interactions change in the context of health emergencies?
- What are the effects on child development?
 - What are the risk and protective factors for emotionally supportive and responsive caregiving in the context of health emergencies?

3. Mental health among caregivers and children

Understanding the effects of the COVID-19 response on both children's and caregivers' mental health was the third most common research priority (Box 3). Respondents indicated a need for future research to examine the effects of the COVID-19 pandemic on the mental health and wellbeing of young children. Also, respondents noted a need for future research to understand better the consequences of poor caregiver mental health on child development outcomes. There is also a need for effectiveness trials to determine scalable interventions to support caregiver mental health during COVID-19 and future health emergencies. For example, this could include online support groups, training caregivers on managing fear and uncertainty, and psycho-social health awareness interventions delivered through storytelling and storybooks.

Box 3

Proposed research questions related to mental health during COVID-19

- What is the effect of the COVID-19 pandemic on young children's wellbeing and mental health?
- What is the effectiveness of scalable interventions to support maternal mental health during COVID-19 and other health emergencies?
- What are the immediate and longer-term effects of poor caregiver mental health on child development outcomes?

4. Social protection, livelihoods, family income security, and social safety nets

The fourth research priority relates to social protection in the context of COVID-19. Respondents noted a need for future studies to determine the impact of social safety nets on family functioning and child well-being during health emergencies. In addition, respondents reported a need for research on how COVID-19 has impacted access to and the availability of social protection for children and families in low- and middle-income countries. This includes questions regarding the role of government and non-governmental organizations in the provision of family income generation and food security initiatives. Lastly, there is a need for future studies to document good practices in social protection systems, policies and financing mechanisms directed at families and children in the context of health emergencies.

Box 4

Proposed research questions related to social protection during COVID-19

- What is the impact of social safety nets on family functioning and child wellbeing in the context of major health emergencies?
- How has the pandemic changed access to and availability of social protection for children and families in low- and middle-income countries? Who have been the key actors?
- What are best practices in social protection systems, policies and financing to support children and families in the context of health emergencies?

5. Children with disabilities or developmental delays

The fifth most common research priority relates to children with disabilities and developmental delays in the context of COVID-19 (Box 5). Specifically, respondents identified a need for future research studies on changes in access to and availability of healthcare and education services for children with disabilities and developmental delays. There is also a need for studies on best practices for telehealth in low-resource contexts, including developmental assessment and ensuring children receive the necessary support. In addition, respondents highlighted a need for research to better understand the challenges and opportunities of teaching young children with disabilities during the COVID-19 pandemic and other health emergencies.

Box 5

Proposed research questions related to children with disabilities or developmental delays

- What is the availability of and access to healthcare and education services for children with disabilities and developmental delays in the context of COVID-19?
- What are the best practices for telehealth to support children with disabilities and their families in health emergencies?
- What are the challenges and opportunities for teaching young children with disabilities during the COVID-19 pandemic and health emergencies?

Research methodologies for addressing research priorities

As shown in Figure 3, respondents noted that diverse research methodologies are required to address the identified priorities, including, for example, experimental and quasi-experimental designs (e.g., to determine intervention effectiveness), cross-sectional designs (e.g., to examine prevalence), and longitudinal designs (e.g., to measure changes over time). Approximately 60% of respondents described these quantitative methods as "very important" for early childhood development research. In the context of COVID-19, quantitative methods might include

mobile phone surveys implemented using interactive voice response, short messaging service (SMS) or computer-assisted telephone interviews and self-completed online questionnaires shared via email or social media platforms. Some respondents highlighted a need for improved access and sharing of quantitative research data during the crisis. There is also a need to ensure data collection tools are made accessible, particularly to assess the quality of responsive care behaviours and interactions.

Figure 3

Research methods reported to be "very important" for addressing ECD priorities in the context of COVID-19

Qualitative studies

69%

Evidence synthesis

68%

Experimental or quasi-experimental studies

60%

Cross-sectional studies

57%

Longitudinal or cohort studies

56%

Respondents emphasised the need for qualitative studies, which draw on data collection techniques such as interviews and observations, to address research priorities. In total, 69% of respondents reported that qualitative methodologies are very important for early childhood development research in the context of COVID-19, including direct observation (which may be done virtually) and participatory methods such as audio-diary, photovoice, and video documenting. Such methods provide

nuanced information on family dynamics and circumstances to help researchers better understand responses to the COVID-19 crisis across diverse contexts. Furthermore, participatory methods help ensure that research serves the needs of communities in which the research is conducted. As one respondent noted, "[There is a need] to ask communities, families and households directly what they feel they need to support children's development during COVID-19."

“As with so much in early childhood development, there is no size that will fit all. Acknowledging and retrieving individual lived experiences is fundamental to complement quantitative studies.”

- Survey respondent

Additionally, respondents emphasized the need for evidence synthesis in the context of COVID-19, including rapid reviews, systematic reviews, and scoping reviews that bring together all relevant information on a research question. Sixty-nine per cent of respondents reported that evidence synthesis is very important in the context of COVID-19. This research method can be helpful to identify gaps in knowledge, establish an evidence base

for best-practice guidance, and help inform policy and practice. Lastly, one respondent called for more intersectional research that goes beyond measuring the effects of the pandemic on children, and instead focuses on identifying strategies to address the root causes of early childhood development shortfalls during COVID-19. This is best achieved through collaboration with stakeholders across health, education and welfare sectors.

Challenges for research in the COVID-19 context

Survey respondents highlighted five key challenges related to ECD research during the COVID-19 pandemic (Box 6). The most commonly reported challenge was a lack of funding for ECD-specific research in general. While this was likely true before the pandemic, the shift in focus towards COVID-19 crisis response may have further depleted research funds, and according to one participant, "has left very little time for reflection". Second, respondents noted an overemphasis on health-related topics

in the context of COVID-19 research, suggesting that studies have not been evenly distributed across other sectors that are critical to child development, such as education and social welfare.

Third, several participants described a lack of collaboration across sectors and different geographical contexts as deterrents to high quality research during the pandemic. Travel restrictions and social distancing conditions have hampered traditional modes of research

collaboration. One respondent noted that most studies to date have been published in English and therefore may not be accessible to many research users in low- and middle-income countries. This may lead to poor knowledge translation into ECD practice and policy. Fourth, respondents highlighted a lack of comparable baseline (i.e. pre-pandemic) data, particularly for early learning indicators and violence towards children and caregivers. This absence of reliable data makes it difficult to draw meaningful comparisons and attribute changes in trends to COVID-19 related factors.

Lastly, respondents noted that challenges with face-to-face data collection are exacerbated during the pandemic,

given logistical and safety concerns for researchers and participants. This has important implications for the representativeness of research findings. Traditional data collection methods make it difficult to reach and capture the experiences of families and service providers in rural communities, for example, and those without access to communications technologies at home; such shortfalls are amplified during times of crisis. Several respondents highlighted the need to better contextualize and adapt existing research tools in LMICs. For example, sending links to online surveys may not be practical in settings where 'cyber hacks' and community mistrust of digital data collection are commonplace.

Box 6

Reported challenges related to ECD research during COVID-19

1. Limited funding to support ECD research during emergencies.
2. Health research has taken precedence during COVID-19, while other sectors related to child development have received lower research priority.
3. Limited collaboration across sectors and regions, hampered by travel and other restrictions.
4. Lack of baseline data and poor quality data to measure the impact of COVID-19 on children and families, including changes over time.
5. Challenges with face-to-face data collection lead to inequities in research participation (i.e., difficult to reach rural households and those without access to technology).

Advancing ECD research in the COVID-19 context

Respondents were asked to explain how organizations, networks and alliances can advance ECD research in the context of COVID-19. The most common responses related to collaboration, and emphasized the need for improved cross-country and intersectoral collaboration, and stronger networking among partners to identify common research goals, compare and collate data, and monitor and evaluate joint progress. Enhanced coordination across sectors would also help minimize “siloes thinking” and the duplication of research efforts (Figure 4).

Furthermore, ECD partners need to create and strengthen online and virtual spaces to share evidence, innovation, and best practices concerning COVID-19 needs and priorities. As one participant suggested, there needs to be a platform “to ‘advertise’ or publicize ECD

studies so that they are more widely known, information can be shared, and collaboration can happen”.

Another respondent emphasized the need to make resources available in different languages to improve the accessibility of research findings moving forward. Many respondents called for greater advocacy, more significant funding, and better resource allocation to generate evidence and mobilize knowledge on how to adapt and scale innovations and initiatives that protect and promote child development during health emergencies. Another participant emphasized the need to ensure that ECD research is “driven and led by local researchers and partners” including improved training and mentorship for researchers in LMICs.

“Organizations, networks and alliances found online could make it easier to conduct research. (There is a need) to build and enlarge networks in this area to connect people who are caregivers, researchers and educators, etc. This could be done by phone calls, and by trying different sources to build connections and do ECD research in an appropriate way.”

- Survey respondent

Figure 4

Word cloud of responses on how organizations, networks and alliances can enhance ECD research in the context of COVID-19



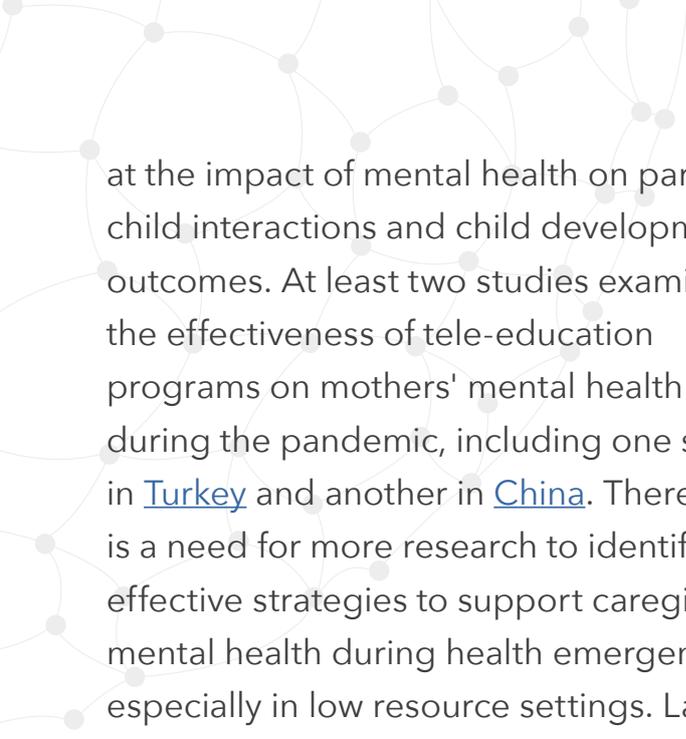
NEXT STEPS

Survey results point to five key priority research areas for early childhood development in the context of COVID-19, highlighting the most urgent needs as perceived by professionals and researchers working in the field. The priorities emphasize the importance of pursuing research that has typically been overlooked, including topics related to responsive caregiving and opportunities for early learning during COVID-19. The priorities identified are intended to help focus the discussion on enhancing early childhood development research. Moving forward, these priorities should be reviewed regularly to reflect developments in the emerging evidence. While global research priorities are critical to further our understanding of child development in the context of COVID-19, the input from survey participants highlight that future research must also be driven by local communities and provide data relevant to their needs.

Several studies in low- and middle-income countries have documented the experiences, attitudes or perceptions of parents, students, and teachers regarding remote learning during the pandemic. For example, in [China](#), parents generally had negative perceptions

regarding remote learning due to its perceived shortcomings relative to in-person learning, young children's poor self-regulation, and parents' limited time and knowledge required to support their children's online learning. Similarly, in [South Africa](#), parents reported difficulties balancing time between their roles as parent and teacher. There is demand for additional studies on the effectiveness of remote learning for young children and the impact of school closures on children's early learning and development. Research on responsive caregiving in the context of COVID-19 in low- and middle-income countries is sparse. One study from rural [Bangladesh](#) investigated the effects of the pandemic on the family caregiving environment but found inconsistent results. There is a need for future studies on risks and protective factors for responsive caregiving in the context of health emergencies and studies on the effectiveness and scale-up of interventions to support parents under such conditions.

While a relatively large amount of data has been collected on maternal mental health during the pandemic, there is a need for future studies to look specifically



at the impact of mental health on parent-child interactions and child development outcomes. At least two studies examined the effectiveness of tele-education programs on mothers' mental health during the pandemic, including one study in [Turkey](#) and another in [China](#). There is a need for more research to identify effective strategies to support caregivers' mental health during health emergencies, especially in low resource settings. Lastly, survey results indicate that research on social protection for children and families during the COVID-19 pandemic should be prioritized. More research on children with disabilities and their access to healthcare and education during COVID-19 is also needed. The pandemic recovery provides an opportunity to target services and strengthen support for children with disabilities.

Taken together, these findings suggest an opportunity for more action-oriented studies to identify what works to effectively support young children and their families in the context of health emergencies. In addition, there is a demand for more qualitative-oriented studies to understand nuance, complexity and context in children, family, and community experiences of and responses

to the COVID-19 pandemic. A limited amount of qualitative COVID-19 research in low- and middle-income countries has explored, for example, the lived experiences of [Yucatec Maya families'](#) and [pregnant women in Bosnia](#).

These identified research priorities can inform governments, donors, international organizations, civil society, the private sector, and private foundations in making decisions around which early childhood development studies to prioritize, both in the current COVID-19 crisis and beyond. Furthermore, the development of virtual spaces and research infrastructure could help foster research collaboration, including research databases, open access data repositories, and the use of core measures and outcomes for research reporting and data sharing. Global research collaboration across sectors and regions is of great importance in furthering our collective understanding of how to effectively protect child development during times of crisis.





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