




BMJ Open Nurturing care during COVID-19: a rapid review of early evidence

Kerrie Proulx ^{1,2}, Rachel Lenzi-Weisbecker,¹ Rachel Hatch,¹ Kristy Hackett ^{1,3}, Carina Omoeva,¹ Vanessa Cavallera ⁴, Bernadette Daelmans,⁵ Tarun Dua⁴

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¹Research and Evaluation, FHI 360, Durham, North Carolina, USA

²Alliance for Human Development, Samuel Lunenfeld Research Institute of Mount Sinai Hospital, Toronto, Ontario, Canada

³Epidemiology Division, University of Toronto Dalla Lana School of Public Health, Toronto, Ontario, Canada

⁴Department of Mental Health and Substance Abuse Use, WHO, Geneva, Switzerland

⁵Department of Maternal, Newborn, Child and Adolescent Health and Ageing, WHO, Geneva, Switzerland

Correspondence to

Dr Kerrie Proulx;
kerrie.proulx@gmail.com

ABSTRACT

Objectives The COVID-19 pandemic has brought significant changes to family life, society and essential health and other services. A rapid review of evidence was conducted to examine emerging evidence on the effects of the pandemic on three components of nurturing care, including responsive caregiving, early learning, and safety and security.

Design Two academic databases, organisational websites and reference lists were searched for original studies published between 1 January and 25 October 2020. A single reviewer completed the study selection and data extraction with verification by a second reviewer.

Interventions We included studies with a complete methodology and reporting on quantitative or qualitative evidence related to nurturing care during the pandemic.

Primary and secondary outcome measures Studies reporting on outcomes related to responsive caregiving, early learning, and safety and security were included.

Results The search yielded 4410 citations in total, and 112 studies from over 30 countries met our eligibility criteria. The early evidence base is weighted towards studies in high-income countries, studies related to caregiver mental health and those using quantitative survey designs. Studies reveal issues of concern related to increases in parent and caregiver stress and mental health difficulties during the pandemic, which was linked to harsher and less warm or responsive parenting in some studies. A relatively large number of studies examined child safety and security and indicate a reduction in maltreatment referrals. Lastly, studies suggest that fathers' engagement in caregiving increased during the early phase of the pandemic, children's outdoor play and physical activity decreased (while screen time increased), and emergency room visits for child injuries decreased.

Conclusion The results highlight key evidence gaps (ie, breastfeeding support and opportunities for early learning) and suggest the need for increased support and evidence-based interventions to ensure young children and other caregivers are supported and protected during the pandemic.

INTRODUCTION

Early childhood development is universally endorsed in the 2030 Sustainable Development Goals. The WHO, UNICEF and World Bank Group launched the Nurturing Care Framework in 2018 and advocate for optimal child development and multisectoral

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This examines families' and children's well-being during the COVID-19 pandemic from a holistic, multisectoral lens and highlights how education, health, and child protection all have a role in improving support for families so that the pandemic does not break the provision of nurturing care and wipe out decades of progress, especially for vulnerable families and children.
- ⇒ The review includes evidence from more than 30 countries, including low/middle-income contexts. As with other pandemic features, results show that not all families are affected equally: financially vulnerable families are much more likely to experience negative ramifications. The pandemic is also disproportionately affecting parents and other caregivers with young children, particularly mothers, those with pre-existing mental health difficulties and those caring for children with disabilities.
- ⇒ Future research is needed on studies related to nurturing care during the pandemic from low/middle-income countries, topics focused on issues related to opportunities for early learning, and those that use qualitative or mixed methods research designs. There is also a need for robust evaluations of parenting and other interventions to support families and children during emergencies that demand physical distancing measures and movement restrictions.

interventions that support families and reach very young children. The most formative experiences of young children come from nurturing care received from parents, other family members, caregivers and community-based services. Nurturing care is characterised by a stable environment that promotes children's health and nutrition, responsive caregiving and early learning opportunities, and protection from safety risks and maltreatment. Families need support to provide nurturing care for young children, including material and financial resources, national policies such as paid parental leave, and provision of community-based services in health, nutrition, education, and child and social protection (for further details, see <https://nurturing-care.org>).

The COVID-19 pandemic has brought significant changes to family life, society and essential health and other services. Starting from March 2020, large-scale physical distancing measures and movement restrictions (ie, school closures, day-care closures, stay-at-home orders, lockdowns) lead widespread and sudden disruption across every continent. Early on the pandemic, global stakeholders raised concerns that critical components of nurturing care may be harmed, and child development was at risk due, in part, to reduced access to essential healthcare services, deteriorating economic circumstances, and caregiver stress and mental health—risks that were particularly pronounced in low/middle-income countries and among vulnerable populations.^{1,2}

This rapid evidence review captures the emerging evidence during the first 7 months following COVID-19 being declared a pandemic in March 2020. It consolidates early evidence on the effects of the pandemic on three components of nurturing care: responsive caregiving, early learning opportunities, and child safety and protection from violence and neglect.³ Indeed, evidence from past epidemics and pandemics shows that public health emergencies were associated with increased caregiver social isolation and stress,⁴ disruption to family routines,⁵ traumatic stress among caregivers,⁶ family conflict and anxiety,⁷ early termination of breast feeding,⁸ and reduced play among children and engagement in team-based sports.⁹ The current review did not examine child health and nutrition—the other two components of nurturing care—because reviews have already been published in these areas. The current evidence synthesis was explored through different outcomes that are critical for nurturing care and child development. Responsive

caregiving includes the good mental health of parents and caregivers, warm and responsive parent–child relationships, breastfeeding support to promote emotional bonds and attachment, and fathers' engagement in caregiving. Early learning includes access to formal and home-based learning, parent–child reading and other early learning activities, and safe play spaces. Children's safety and security include protecting children against injury, neglect and abuse, including child protection and referral services for suspected maltreatment. The review findings can help identify and conceptualise priority issues for early years' policy and programming during health emergencies and identify the literature gaps where future studies are required.

METHODS

We employed abbreviated systematic review methods to generate evidence in a short time (ie, 8 weeks). A single reviewer completed the study selection and data extraction with verification by a second reviewer, and we omitted formal quality assessments of the included studies. The population of interest is young children (birth–8 years old) and their caregivers, including birth parents, adoptive parents and caregivers. Studies involving children up to 18 years old and their caregivers are included if the studies had results for children under 8 years old. Published quantitative or qualitative studies that document their full methodology are included. Preprints and grey literature are included to ensure representativeness and reflect the rapidly evolving nature of COVID-19 pandemic impact evidence. Studies were published between 1 January 2020 and 25 October 2020.

Table 1 The three components of nurturing care³ during COVID-19 investigated in the rapid review

Components of nurturing care	Types of outcomes included in the review
<p>Responsive caregiving This is about the ability of the parent/caregiver to notice, understand and respond to their child's signals in a timely and appropriate manner, and is considered the foundational component because responsive caregivers are better able to support the other components of nurturing care.</p>	<ul style="list-style-type: none"> ▶ Caregiver mental health and stress ▶ Parent–child interactions ▶ Family functioning ▶ Fathers' engagement in caregiving ▶ Gender roles and norms ▶ Breastfeeding support for emotional bonding ▶ Skin-to-skin contact ▶ Family and social support
<p>Opportunities for early learning This is about any opportunity for a young child to interact with a person, place or object in their environment, and recognises that every interaction (positive or negative) or absence of an interaction contributes to the child's brain development and laying the foundation for later learning.</p>	<ul style="list-style-type: none"> ▶ Pre-primary education ▶ Remote or distance learning ▶ Parent–child reading and other early learning activities ▶ Outdoor play, physical activity and sedentary behaviour ▶ Screen time
<p>Safety and security This is about safe and secure environments for children and their families. It addresses physical dangers, emotional stress, environmental risks, and access to food and water.</p>	<ul style="list-style-type: none"> ▶ Safe play spaces and prevention of child injuries ▶ Protecting children from physical punishment, mental or emotional abuse, and neglect ▶ Social care services including cash transfer to the most vulnerable families ▶ Access to clean water and sanitation ▶ Good hygiene

As outlined in [table 1](#), we focused on studies that reported outcomes related to responsive caregiving, access to and opportunities for early learning, and children's safety and security during the pandemic. We searched two databases (ie, PubMed and ERIC) based on a search strategy developed and pilot tested in collaboration with a research team and librarian skilled in systematic review processes. Also, the review team manually searched the websites of more than 80 multi-lateral and bilateral organisations, internal NGOs (non-governmental organisations) and the grey literature. Lastly, we screened the reference lists of the included studies for further relevant citations. We restricted the search to English, French, Spanish and Portuguese papers because these were the research team's languages. Identified records were exported and managed on Zotero. After removing duplicates, the titles and abstracts of the remaining records were screened against the eligibility criteria, followed by full-text screening. Next, we extracted data from the studies using a standardised form, with a second reviewer assessing for completeness and accuracy. Data extracted included, but were not limited to, investigators/authors, year of publication, setting, context, details of the methods and data collection, participants, outcomes, results and conclusions. Data extraction was guided by the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) checklist items. The preliminary stages of the synthesis involved organising the extracted data by itemising the data into thematic areas and tabulating the results to systematically identify patterns within and between studies and variations across studies. Finally, because of the heterogeneity of the available primary studies, we synthesised the results narratively in the report (see online supplemental file 1 for the full search strategy).

Patient and public involvement

No patient was involved. Advisory group members and service-user researchers provided input into the research reporting and interpreted results after review completion. These individuals brought their personal experience of the topic under review. They helped ensure that the review provides clear and relevant information for those involved in health and child development programming. The consultation and group discussion provided a check on the credibility of the synthesis, developing review implications and identifying evidence gaps. Stakeholders, including the public and health professionals, will be informed of the results through an online and publicly accessible research brief suitable for a non-specialist audience.

RESULTS

The initial search yielded 4295 papers from the database search, 86 publications through the organisational website search and 29 additional papers identified through reference lists. After the title, abstract and full-text review, 112 publications were included in the review. Excluded items were primarily irrelevant to the components of nurturing care and the population under review. The PRISMA flow diagram in [figure 1](#) provides an overview of the study selection process.

The findings show that 89 of the 112 studies (79%) were conducted in high-income countries. In contrast, research from low/middle-income countries was far more limited during the earlier period of the pandemic. We identified relevant studies from the following low/middle-income countries: Bangladesh, Brazil, Cambodia, China, Ethiopia, India, Iran, Mexico, Nigeria and Turkey. In total, 53% of the papers focused predominantly on issues related to responsive caregiving. The most common topics under this theme related to parent and caregiver stress, burnout, depression and anxiety during

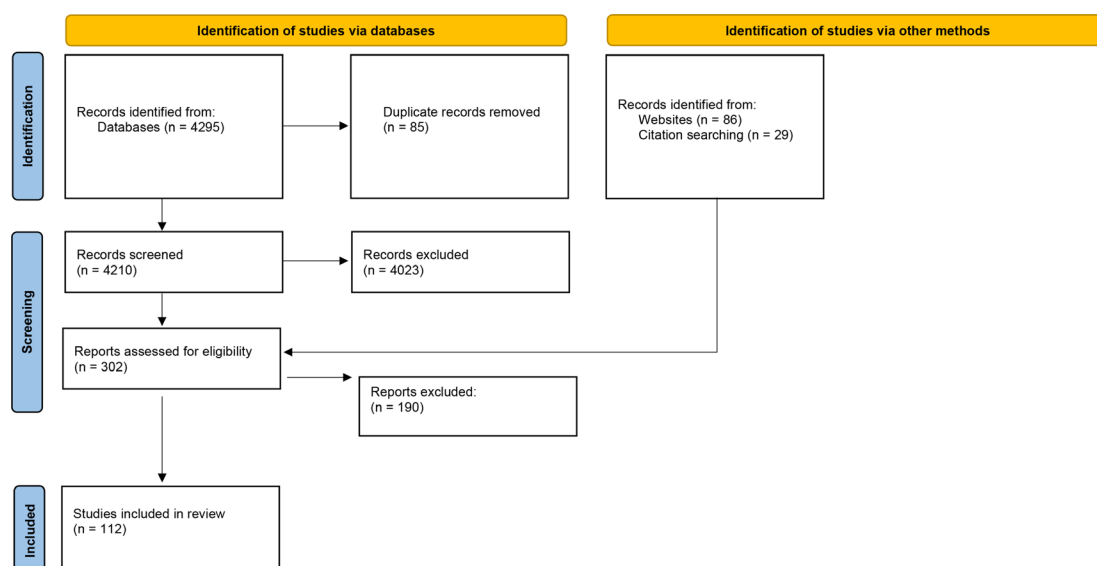


Figure 1 PRISMA diagram. PRISMA, Preferred Reporting Items for Systematic reviews and Meta-Analyses.



the COVID-19 pandemic. In total, 32% of the studies examined children's safety and security, including child abuse and neglect referrals to child protection services and emergency department visits for child injuries. Lastly, only 19% of studies focused on early learning and play during the COVID-19 pandemic, including screen time among children, outdoor play and physical activities and home-based learning. Furthermore, results indicate that 85% were quantitative studies (primarily cross-sectional surveys). In contrast, only 8% were qualitative studies, and 7% were mixed methods designs. Thus, the early evidence base is weighted towards studies in high-income countries, studies related to caregiver mental health and those using quantitative survey designs. In contrast, there are relatively fewer studies from low/middle-income countries, topics focused on issues related to opportunities for early learning during the pandemic, and those that use qualitative or mixed methods research designs. Key findings of included studies are synthesised in the following sections. A summary of each study can be found in the online supplemental file 2.

Responsive caregiving: parent and caregiver stress and mental health

The review indicates that caregivers' and primarily mothers' mental health has been among the most researched topics related to nurturing care during the early stages of the pandemic, with more than 30 studies across various geographical and demographic contexts examining the implications of the COVID-19 pandemic on parent and caregiver stress, burnout, depression and anxiety.^{10–45} The presented evidence indicates that the pandemic has been detrimental to caregiver stress and mental health, particularly for parents and other caregivers of young children and mothers,^{14 16 30 31 33} being single,³⁰ economically vulnerable families^{14 27 42} and those with pre-existing mental health issues.^{14 42} In addition, studies suggest that parents and caregivers of children with disabilities showed a heightened prevalence of depressive symptoms, anxiety and stress during the pandemic.^{11 18 30 43} While this evidence base is heterogeneous, with variations in the data, context and methodology, the findings generally reveal that the pandemic and its related containment measures was associated with increases in caregiver stress and poor mental health.

For example, a study of 192 Italian mothers found that 29% of mothers who had given birth during COVID-19 physical distancing measures and movement restrictions had an Edinburgh Postnatal Depression Scale (EPDS) global score above the cut-off score of >12, compared with only 12% in the control group who had given birth during the same period the year before COVID-19.⁴⁵ Likewise, a study of 651 Finnish parents of children (aged 5–8 years old) found that 26% met the clinical EPDS cut-off score for potential depression during the pandemic, compared with 15% among the same sample of parents with data collected between 2014 and 2019.³³

While the literature identified multiple and often overlapping COVID-19-related stressors that adversely affected parents' mental health, economic insecurity stands out as one of the most consistent sources of parent and caregiver stress.^{12 24 25 28 42 46–49} For example, using data from 2174 Bangladeshi mothers with children aged 0–5 years old, Hamadani *et al.*²⁵ found that 96% of respondents experienced a reduction in paid work during COVID-19 physical distancing measures and movement restrictions, with average monthly family income falling from US\$212 to US\$59; and food insecurity increasing by more than 50%. Self-reported maternal depressive symptoms, as measured by the Centre for Epidemiologic Studies-Depression Scale, increased dramatically during the COVID-19 period compared with before the pandemic; and nearly 70% of the sample reported that their anxiety had risen during the COVID-19 physical distancing measures and movement restrictions. A US study of 561 parents and other caregivers of young children (aged 2–7 years old)—who were hourly workers—found that most respondents reported a loss of household income (69%) and job loss (60%), which linked with increased anxiety, depression, anger and irritability, as well as worse sleep quality among caregivers.²⁴ The results indicate that parents' and children's well-being was strongly associated with the number of crisis-related hardships.

Numerous studies found that parent and caregiver stress, depression and anxiety during the COVID-19 pandemic were associated with reduced responsive caregiving, including, for example, lower parent-child closeness and more avoidant or harsher parenting attitudes and behaviours.^{10 13 16 27 28 32 37 38 41 42 48} For example, a New Zealand study found that parents of young children (aged 4–5 years old) who experienced more significant depressive symptoms and perceived stress during COVID-19 physical distancing measures and movement restrictions reported harsher parenting and less warm/responsive parenting, as measured by the Parenting Styles and Dimensions Questionnaire; and parent-child relationships were also of lower quality.³² In addition, a US study of low-income families with preschool-aged children found that parental job loss and income loss during the pandemic were strongly associated with parents' depressive symptoms, stress, diminished sense of hope and negative parent-child interactions, including losing their temper or yelling at their child.²⁷ However, parents who lost their job but did not experience corresponding household income decline (perhaps due to economic stimulus relief and other social protection measures) were more likely to report enjoying spending time with their child during the COVID-19 pandemic and engaging in positive parent-child interactions, such as playing with or hugging their child, compared with those who experienced a decline in household income. The authors suggest that efforts to support families' economic security may help address parents' and other caregivers' mental health needs and reduce adverse parenting risks during the pandemic. Studies also noted more couple

conflict⁵⁰ and increased substance use⁵¹ among parents and caregivers experiencing stress and anxiety during the pandemic. One study found mothers rarely used mental health services during the COVID-19 pandemic due to various barriers, such as a lack of time or energy, service cost, not believing they needed such services and uncertainty on access.¹⁴

Studies found that partner support and cooperative co-parenting,^{13 14 20 32} and moderate physical exercise^{17 29} were associated with better mental health and coping among parents and caregivers during the pandemic. Lastly, some studies point towards mixed and potentially positive impacts of the COVID-19 restrictions on deepening family ties, improving couples' relationships, and developing new family hobbies or activities.^{13 22 46 52-54} However, such positive benefits were typically found among parents and caregivers of older children (ie, adolescents) and families with several protective factors, including financial stability, comfortable and safe homes, enough food to eat, good health and healthy couple relationships.^{22 46} Unfortunately, few studies from the early pandemic discussed potential interventions to support parents and other caregivers with COVID-19-related stress, anxiety, and mental health issues or ways to protect parents' capacity for responsive caregiving, signalling a significant gap in the evidence.

Responsive caregiving: breastfeeding support

Five studies related to breastfeeding support during the pandemic indicate reduced breastfeeding support and care.⁵⁵⁻⁵⁹ For example, over a quarter of respondents in a national UK study struggled to access breastfeeding support during the pandemic, and some stopped breastfeeding before they intended to.⁵⁵ Among the women who stopped breast feeding during the pandemic, the most common reason was the lack of breastfeeding support and face-to-face help with practical issues, such as latching. Some valued digital consultations for lactation support were made available. In contrast, others reported feeling violated and described how they felt discomfort recording their infant trying to latch onto the breast.⁵⁹ Some breastfeeding women said positive benefits during COVID-19 physical distancing measures and movement restrictions, including having more time to focus on breast feeding, fewer visitors, more privacy and more support from fathers.⁵⁸ Notably, we did not find studies on breastfeeding support in low/middle-income countries during this early pandemic period. Also, there was an absence of studies related to skin-to-skin contact and social support during labour, other components that are important for early bonding.

Responsive caregiving: fathers' engagement in childcare

In total, eight studies reported that fathers took on more childcare responsibilities during the COVID-19 pandemic.⁶⁰⁻⁶⁷ For example, a survey of 1536 Australian parents of children (aged 0–16 years old) reported that fathers averaged 2.21 daily hours on active childcare

before the pandemic, and this average increased to 3.64 hours during the pandemic, thereby narrowing the childcare gap between mothers and fathers.⁶² Therefore, the evidence suggests that increases in fathers' time at home during COVID-19 may have, at least temporarily, reduced gender gaps in childcare division. However, mothers continued to carry the burden of extra childcare and household responsibilities.⁶⁸ Furthermore, gendered employment patterns were exacerbated during the pandemic.^{60 67 69-71} Mothers were more likely than fathers to lose their jobs during the crisis, spend less time on paid work and be interrupted during work hours, principally by childcare. We did not find studies with an explicit focus on parents and other caregivers of infants and young children and how they have negotiated childcare responsibilities and household work during the pandemic, which may be more time-consuming and demanding than for parents of school-aged children and adolescents. There was also a lack of studies discussing male caregivers' perspectives and caregiving experiences during the pandemic.

Opportunities for early learning

Evidence on home-based early learning during the COVID-19 pandemic is limited. What is available indicates that children in early childhood or pre-primary education often did not have contact with teachers or access to remote early learning during school closure.^{66 72 73} For example, a study of Ethiopian parents and caregivers of young children found that only 10% of children who enrolled in pre-primary schooling had been in contact with teachers or school principals during school closures.⁷³ In this study, half of parents and caregivers reported supporting educational or learning activities for pre-primary children, with significant differences by household wealth and across regions. Children living in rural or remote areas had significant disadvantages regarding access to electricity, technologies, and children's books or learning materials. Other studies provide evidence of frustration and negative attitudes among caregivers about distance learning benefits and values, especially for preschool-aged children.⁷⁴⁻⁷⁶ Some studies report that home-based learning is challenging for young children for various reasons, including limited learning materials and technological barriers.^{77 78} Children looked after by grandparents faced challenges due to little awareness about online technologies.⁷⁷ Some studies find that parents engaged more in adult-child reading and other learning activities during the pandemic,^{66 73} while others reported they engaged less than before.⁷² Parents who met the criteria for probable major or severe depression and parenting stress during the pandemic were less likely to perceive being prepared to educate their child at home.⁷⁹ Ultimately, the number of studies related to formal or informal opportunities for early learning was scarce during the first months of the pandemic, marking a critical evidence gap.

Early learning: play and physical activity during COVID-19

Nine studies reported that COVID-19 restrictions, such as the closure of schools and playgrounds, the cancellation of sports and activity classes, and reduced social interactions with peers, were linked to reduced outdoor play and physical activity and more sedentary behaviour among children.^{72 80–88} In some studies, parents noted concerns about the lack of social interaction, sedentary behaviour and limited physical activity during COVID-19 school closures.^{21 79 80} A study of parents of children (aged 2–4 years) reported that almost half of the children spent no time playing with another child in their household during COVID-19 physical distancing measures and movement restrictions.²¹ One study found that nearly 9 out of 10 Canadian parents reported increased screen time since the beginning of the pandemic among young children aged 18 months old to 5 years old.⁸¹ More than half of the parents in this study reported that children's physical activity decreased during the pandemic, citing challenges due to the lack of indoor space and the variety of available toys. Another study found a dramatic decline in children's outdoor physical activity and much higher screen time use (average of 5 hours/day) during the initial period of the COVID-19 outbreak, compared with before the restrictions.⁸³ Play indoors did not seem to replace active play outdoors, resulting in a net decline in children's play-based activities. Cities and areas with the highest number of COVID-19 cases, and thus most stringent restrictions, had the most significant drop in children's outdoor play.⁸⁴ Living in houses (as opposed to apartments) was correlated with increased outdoor activities.⁸⁶ Notably, despite an urgent need, we did not find studies on the implementation or evaluation of training programmes for families to improve play interactions, home routines, and capacity to communicate with children during home quarantine or physical distancing measures.

Safety and security: child protection from violence and neglect

Thirteen studies across seven countries, mainly using publicly available administrative data, suggest that referrals of potential abuse, neglect and maltreatment to child protective services were substantially lower during the COVID-19 pandemic than before COVID-19 measures were put in place.^{89–101} Thus, evidence indicates that COVID-19 has reduced child maltreatment referrals. For example, a study based on data from January 2015 to May 2020 for New York City's Administration for Children's Services reports there were 29% fewer allegations of child maltreatment for March 2020—when school closures first began—compared with previous years.⁹⁶ In addition, education personnel and other mandated reporters reported substantially fewer child maltreatment allegations, including childcare personnel and medical health personnel during this time. Non-mandated reporters, including family members and neighbours, also made fewer referrals, which may be linked to social distancing

and limited contact between children and those outside their households. Bullinger *et al* found in the USA that while emergency calls for domestic crimes rose in March and April 2020, calls for potential child abuse fell, potentially due to the lessened visibility of child victims than adults.^{90 91} Furthermore, surveys of child protection workers similarly reported decreased referrals and more difficulty identifying children and families in need during COVID-19 large-scale physical distancing measures and movement restrictions.^{99 102 103} These changes do not reflect an actual reduction in the incidence or prevalence of maltreatment. Instead, the decrease in referrals is likely due to the given physical distancing measures and movement restrictions that preclude children from having in-person contact with educators and other mandated reporters.

Two studies indicate a striking rise in child abuse-related injuries among babies and toddlers during the pandemic.^{104 105} Comparing cases of children's head trauma caused by suspected abuse, there were 10 cases at an urban medical facility in the UK over the March–April 2020 period, representing an increase of 1493% compared with the previous 3 years preceding the onset of the COVID-19 pandemic.¹⁰⁵ Although alarming, it is important to consider that COVID-19 has led to significant healthcare delivery changes. Many centres have diverted non-COVID-19-related health emergencies to specific healthcare facilities, which may account for increased abuse of head trauma at institutions. One study found that COVID-19 job loss among parents and caregivers was significantly associated with psychological maltreatment, including verbal threats, belittling and ridiculing, with more significant effects for younger children.¹⁰⁶

Safety and security: child injuries

Nine studies from eight countries reported a significant reduction in emergency department presentations and operations for injuries among children during government-imposed physical distancing measures and movement restrictions, primarily related to admissions and operations for sporting-related injuries and those that occur on playground bans on sports and access to playgrounds.^{107–115} Thus, data on emergency department visits and injuries suggest that children's environments shifted during COVID-19 school closures and movement restrictions and presented different child safety threats. For example, a study based on data from a large acute paediatric hospital in London, UK found that the prevalence of referrals for child injuries was reduced by nearly two-thirds from 17 March to 28 April 2020 during COVID-19 physical distancing measures and movement restrictions, compared with the same period in 2019.¹¹¹ In contrast, some centres found a relative increase in child injuries during the pandemic, including bicycle injuries,^{107 109} burn injuries,¹¹⁶ ingestions and poisonings,¹⁰⁸ and electrical injuries.¹¹⁴ The general demographic of those presenting with injuries also changed during the pandemic compared with before the pandemic, with a

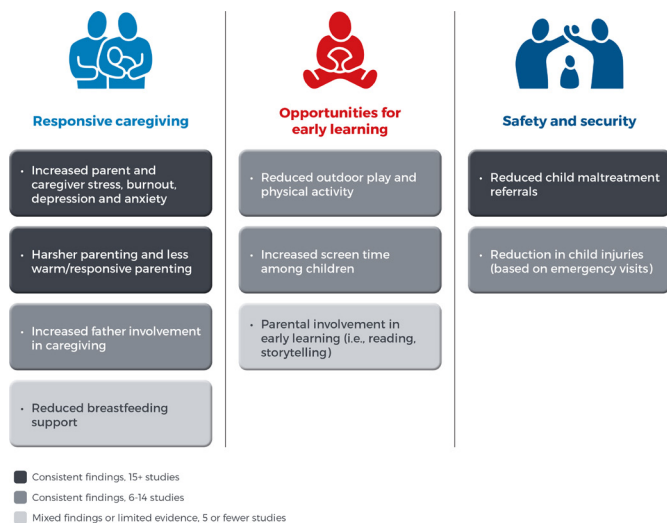


Figure 2 Key review findings on nurturing care during the COVID-19 pandemic.

significantly younger median age.^{111 113 115} Parents and other caregivers may have treated more minor injuries at home or, in some cases, may have avoided seeking medical attention due to the concern of contracting COVID-19 in hospital facilities. Physical distancing measures, including a ban on sports and children's use of playgrounds during the COVID-19 pandemic lockdowns, are likely linked to the overall reduction in child injuries seen through emergency room admissions. At the same time, there may have been a shift in care-seeking behaviour, with parents and caregivers being more anxious about attending the hospital due to the risk to themselves and the child contracting COVID-19.

DISCUSSION AND CONCLUSION

Emerging evidence from the COVID-19 pandemic, mainly drawn from parents and other caregivers' surveys, shows striking similarities in how essential components of nurturing care—responsive caregiving, support for young children's learning, and children's safety and security—have been disrupted. As shown in figure 2, many studies were devoted to examining mental health during the early pandemic period and reveal issues of concern related to increases in parent and caregiver stress and mental health difficulties, which was linked to harsher and less warm or responsive parenting in some studies. Also, there was a relatively large number of studies (ie, more than 15) examined child protection during the pandemic and consistent results show a reduction in maltreatment referrals, suggesting that traditional mechanisms for responding to potential child neglect and maltreatment may not be as effective during school closures and large-scale physical distancing measures. Furthermore, there are consistent results across studies to suggest that fathers' engagement in caregiving increased during the early phase of the pandemic, children's outdoor play and physical activity decreased (while screen time increased), and emergency

room visits for child injuries decreased. In contrast to the above, there were far more limited studies, and some inconsistent findings, related to opportunities for early learning and support for breast feeding.

The papers point towards at least four implications. First, there remains a substantial unmet need to expand and diversify research studies on social protection during health emergencies to ensure that families meet their essential income needs and food and housing security, which may reduce parenting stress and reduce the risk of harsh and non-responsive parenting. Second, improving studies on access to and use of mental health and psychosocial support services to reduce parenting stress and harsh parenting are needed. Third, evaluations of interventions to promote early learning and play, which are scalable and appropriate during physical distancing measures and movement restrictions, are needed. Lastly, more research is needed on child protection systems that can help educators and other mandated reporters to identify signs of child abuse and neglect specific during school closures.

A report of case studies of programme implementation to support nurturing care during COVID-19 illustrates several examples of how organisations in various contexts have adapted to support nurturing care efforts during COVID-19.¹¹⁷ For instance, programmes have organised emergency food delivery services for vulnerable families. Others have developed new training materials for frontline workers that integrate both mental health and nurturing care components. Gaps in the evidence base remain, with a lack of studies in low/middle-income countries and an urgent need for action-oriented implementation studies—those that go beyond identifying trends and begin to pinpoint 'what works' to effectively promote and protect nurturing care during health emergencies such as COVID-19.

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Contributors KP is responsible for the overall content as the guarantor and coordinated the review, screened citations and full-text articles, abstracted data, interpreted the results and wrote the manuscript. RL-W and RH screened citations and full-text articles, abstracted data and edited the manuscript. KH helped conceptualise the research, interpreted the results and edited the manuscript. CO coordinated the review, obtained the funding and edited the manuscript. All authors approved the final version to be published.

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ORCID iDs

Kerrie Proulx <http://orcid.org/0000-0003-0267-9021>

Kristy Hackett <http://orcid.org/0000-0002-3969-659X>

Vanessa Cavallera <http://orcid.org/0000-0001-5623-9721>

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