COVID-19 AND CHILDREN'S MENTAL HEALTH

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The harmful effects of this pandemic [COVID-19] will not be distributed equally. They are expected to be most damaging for children in the poorest countries, and in the poorest neighbourhoods, and for those in already disadvantaged or vulnerable situations.

—United Nations (2020)

This pandemic has magnified every existing inequality in our society—like systemic racism, gender inequality, and poverty.

—Melinda Gates (American philanthropist, 1964–)

The COVID-19 pandemic can have serious consequences for children, parents, and their families. It can create several types of stressors on children and affect family life. In this review, most studies were relatively short-term—from 2020 to 2021. Research is needed on the effects of COVID-19 over a longer term. Most early studies suggest that school closings and social isolation have negative consequences, especially for children's mental health and their families'. The review highlights the negative effects of COVID-19 in children with special needs. Finally, mental health interventions and recommendations, including those for school reentry programs, are provided. Future research needs to focus on the effectiveness of evidenced-based, age-appropriate mental health services. If the pandemic continues, continued monitoring of the impact of the pandemic on children's and family's mental health will be needed.

The COVID-19 pandemic can have serious consequences for children, parents, and other family members. Measures used to control the pandemic—such as school closures, restrictions on social life, social distancing, and job restrictions or loss—can affect children's development and impact family functioning. The COVID-19 pandemic has created several types of stressors on children; these include fear of quarantine; fear of getting the infection; frustration and boredom; inability to get adequate information about the pandemic; lack of in-person contact with classmates, friends, and teachers; limited personal space at home; and concerns about the family's finances.

This is the way the U.S. Surgeon General's Advisory (2021) described how the COVID-19 pandemic affected the mental health of children:

During the pandemic, children, adolescents, and young adults have faced unprecedented challenges. The COVID-19 pandemic has dramatically changed their world, including how they attend school, interact with friends, and receive health care. They missed first days of school, months or even years of in-person schooling, graduation ceremonies, sports competitions, playdates, and time with relatives. They and their family may have lost access to mental health care, social services, income, food, or housing. They may have had COVID-19 themselves, suffered from long COVID symptoms, or lost a loved one to the

disease—it's estimated that as of June 2021, more than 140,000 children in the US had lost a parent or grandparent caregiver to COVID-19. (p. 9)

To help people understand how children and families have been functioning during the COVID-19 pandemic, Salmon (2021) offered the following:

> We need to take account of the multiple systems within which families live. Mothers with children at home have been identified as suffering more than other groups; they are vulnerable to heightened depression, anxiety, and other mental health problems, especially when they are living in conditions of financial and food insecurity, poverty, job loss, and other systemic pressures. Caregiver psychological difficulties and stress have implications for children's mental health and development. Specifically, increases in caregiver mental health problems—and of pandemic-related stressors more generally—can increase the risk of negative, relationship damaging cycles between parent and child, which can maintain and escalate children's mental health problems. Caregiver mental health problems can also reduce children's opportunities for engaging in everyday conversations that are crucial for cognitive and emotional development. (p. 564, with changes in notation)

RISK FACTORS

Following are some risk factors that may affect a child's mental health during the COVID-19 pandemic (U.S. Surgeon General's Advisory, 2021):

- Being worried about COVID-19
- Experiencing disruptions in routine
- Experiencing financial instability, food shortages, or housing instability
- Having adverse childhood experiences such as abuse, neglect, community violence, or discrimination
- Having had mental health challenges before the pandemic
- Having parents or caregivers at elevated risk of burnout
- Having parents or caregivers who are frontline workers and thus unable to avoid potential exposure to the virus
- Living in an area with severe COVID-19 outbreaks
- Living in an urban area
- Losing a family member or caregiver to COVID-19

Following are groups of children who are at greater than average risk of developing mental health problems during the COVID-19 pandemic (U.S. Surgeon General's Advisory, 2021):

- Children in immigrant households
- Children in rural areas
- Children involved with the juvenile justice or child welfare system, runaway children, and children experiencing homelessness
- Children who are discriminated against in the health care system
- Children with intellectual and developmental disabilities
- Children with multiple risk factors
- Children with previous mental health conditions

- Ethnic minority children
- LGBTQ+ children
- Low-income children

FAMILY LIFE AND COVID-19

Here are some examples of how COVID-19 affects family life (Barth et al., 2021; Bauman, 2021; Caroppo et al., 2021; Centers for Disease Control and Prevention, 2022; Gosangi et al., 2021; Jones et al., 2021):

- Changes in routines may lead to social and interpersonal problems (e.g., having to physically distance from extended family members, friends, and worship community).
- School closures may lead to lack of daily structure, inadequate educational exposure, or lack of special services (e.g., changing from a structured learning environment to a virtual learning environment; changing from an in-person school environment to a home environment; facing limits on day care; facing problems in technology access and connectivity, especially for children with special needs; having no access to essential developmental services like occupational, behavioral, or speech therapy; having no access to athletic programs or vocational educational programs; experiencing fatigue from online video conferencing—commonly referred to as "Zoom fatigue").
- Breaks may occur in the continuity of health care (e.g., the child may miss well-child and immunization visits; have limited access to mental, speech, and occupational health services; and experience changes in personal health).
- The child may experience grief from missing significant life events (e.g., birthdays, graduations, talent shows, proms, vacations, and births).
- Security and safety may be diminished (e.g., the child may experience housing and food insecurity, increased exposure to intimate partner violence and abuse, online threats of harm, threat of physical illness, and uncertainty about the future).
- Changes may occur in emotions and personality (e.g., the child may experience emotion regulation difficulties; hypervigilance; feelings of despair, anxiety, and distrust; fear of catching the virus or infecting caregivers; panic; guilt associated with infecting others; isolation; loneliness; boredom; and restriction).
- Changes in time spent online may place children at an increased risk for online sexual exploitation, cyberbullying, risk-taking behavior, and exposure to other potentially harmful online content.
- Decreased physical activity may lead to cardiovascular risks (e.g., increased waist circumference, higher blood pressure, higher total cholesterol, increased body mass index, and childhood obesity).
- Changes in the family environment—parents becoming depressed, stressed, angry, or bored and misusing substances—may lead to increased tension within the family (e.g., increased family discord, inconsistent discipline, child maltreatment, intimate partner violence, and sexual violence).
- Changes in lifestyle may lead to greater use of alcohol and cannabis.

- Changes in routines can also lead to beneficial effects (e.g., closure of schools can lead to a reduction in the child's anxiety; fewer infections in the child's environment; an increase in learning because disruptive factors—such as an unfavorable class structure, unkind teachers, direct bullying, and discrimination based on ethnicity or sexual orientation—are eliminated; more sleep; and more time for parents to give individual time to the child).

RESEARCH STUDIES WITH CHILDREN AND FAMILIES ON COVID-19

The studies described below represent a sample of the many studies conducted worldwide that have focused on the effects of the COVID-19 pandemic on children and families. At the time of this review, most studies were relatively short-term. Research is needed on the effects of COVID-19 over a longer term. Most studies suggest that the school closings and social isolation connected with COVID-19 have negative consequences for children and their families. However, although children may have decreased opportunities to interact in person with one another and thus may become more emotionally removed from their peers, they also may become more intimately involved in family relationships (Polack et al., 2021) or experience a reduction in internalizing, externalizing, and other problems (Penner et al., 2021). Table COVID-1 shows consequences of possible family events associated with COVID-19.

UNITED STATES

Preschool and middle childhood. A survey was conducted from May to June 2020 with 169 mothers of preschool children. It showed that the COVID-19 pandemic had an adverse effect on the mental health of the children (e.g., elevated depressive and externalizing symptoms; Glynn et al., 2021).

In a survey conducted from March to April 2020, many of the 561 parents (hourly service workers) with a young child (ages 2 to 7 years) reported that they experienced hardships during the COVID-19 pandemic (Gassman-Pines et al., 2020). The parents experienced job loss, income loss, caregiving burden, and illness, and both parents' and children's mental health worsened.

In May to July 2020, a study of 469 parents of middle to high socioeconomic status and their children aged 2 to 13 years found high stress levels during the COVID-19 pandemic (Eales et al., 2021).

Middle childhood. In April and May 2020, 129 families of various socioeconomic levels reported that stress levels increased in both children (*M* age = 9.9 years) and parents during the COVID-19 pandemic (Feinberg et al., 2021).

In May 2020, a survey was conducted of 595 families of various socioeconomic levels with children aged 7 to 17 years. It found that parents who had limited access to COVID-19 information reported that their children had more fear, impairment, and safety behaviors than parents who had better access to COVID-19 information (Gregus et al., 2022).

In the fall of 2019 and again from February to May 2020, 116 Latino American families and their 215 children (*M* age = 9.7 years) were surveyed (Sun et al., 2021).

The findings revealed that school closings tended to have a positive effect on sibling relationships in families with higher socioeconomic status and child enculturation.

Table COVID-1
Sources of Anxiety and Behavioral or Emotional Consequences Associated with Impacts of COVID-19 on Families

Family Event	*Sources of Anxiety*	*Behavioral or Emotional Consequences*
General impact	Death in family or of someone close Lack of in-person contact with others Physical illness Quarantine/lockdown Reduced physical activity Travel restrictions Uncertainty about pandemic's duration	Academic regression Acting-out behavior Anxiety Depression Emotional distress Frustration and boredom Problems with self-regulation PTSD-like symptoms Sleep problems Stress Substance use
Job loss	Difficulties paying rent or mortgage Financial insecurity	Anxiety Depression Loss of life satisfaction
Marital conflict	Child maltreatment Disagreement about child care Intimate partner violence	Disappointment Discomfort Hurt feelings
Dissolution of marriage	Uncertainty	Anger Depression Guilt Pain

Adolescence. In May and June 2020, 682 families with an adolescent-age child were surveyed. The results showed that during this time parents and children lived and worked in a more confined space, had routines disrupted, and experienced heightened noise and crowded conditions (Cassinat et al., 2021). As a result, several parenting processes and family relationships changed: (a) Parents reduced the amount of autonomy they gave to their children, (b) more conflicts arose between mothers and children, fathers and children, and siblings, and (c) intimacy decreased between fathers and children and between siblings. Overall, the COVID-19 pandemic led to increased strain and stress within many families.

From birth to 17 years of age. In June 2020, 1,100 parents with children from birth to 17 years of age participated in a national survey (Patrick et al., 2020). The findings indicated that "Worsening mental health for parents occurred alongside worsening behavioral health for children in nearly 1 in 10 families, among whom 48% reported loss of regular child care, 16% reported change in insurance status, and 11% reported worsening food security" (p. 1).

AUSTRALIA

Adolescence. A survey of 248 adolescents (*M* age = 14.4 years) was conducted 12 months before and two months after the COVID-19 pandemic started when restrictions were implemented. The findings indicated that depression and anxiety increased and life satisfaction decreased (Magson et al., 2021). Adolescents who had increased mental health problems had more worries, online learning difficulties, and conflicts with parents. In contrast, adolescents who adhered to stay-at-home orders and yet felt socially connected had fewer mental health problems. The investigators concluded that adolescents in their sample were "more concerned about the government restrictions designed to contain the spread of the virus, than the virus itself" (p. 44).

CANADA

Preschool and middle childhood. A study was conducted between May 2020 and January 2021 with mothers of 375 low-income children between 4 and 6.5 years of age. It showed that both the children and their mothers experienced challenges related to the mothers' taking on the role of a teacher and balancing their children's remote learning with other responsibilities during the COVID-19 pandemic (Burns et al., 2022). Children faced challenges related to not being motivated to study and having limited socialization with other children. Overall, the online educational experiences were difficult for many children and their mothers.

In a survey conducted between May and November 2020 of 183 low-income Canadian mothers, mental health was found to be better when they had a high degree of satisfaction with social supports during the COVID-19 pandemic and when their young children (*M* = 5.31 years) had a stable history of early childhood education and care (Saleem et al., 2022).

Middle childhood. From 2017 to 2019 and again from May to July 2020, 846 mother–child dyads (children ages 9 to 11 years) were surveyed (McArthur et al., 2021). Children were less depressed and happier when they had positive parent–child connections, healthy device use (e.g., limits on duration), and healthy sleep habits (e.g., adequate duration of sleep).

Middle childhood and adolescence. From May to September 2020 and from June to November 2020, 742 parents and 215 children between 10 and 18 years of age were surveyed (Rizeq et al., 2021). The mean time between the two surveys was 42.2 days. The results indicated that children and parents with preexisting psychosocial and economic vulnerability were more likely to have increased mental health difficulties and stress.

CHINA

Middle childhood. A study of 733 middle school children (7th to 9th graders) and their parents between April and May 2020 indicated that mental health difficulties were associated with online learning difficulties and with cyberbullying (Ye et al., 2022). In addition, children had fewer mental health difficulties and were more academically engaged if they had authoritative parenting and positive student–teacher relationships. In contrast, under authoritarian parenting, children had more mental health difficulties.

CHINA AND TURKEY

From birth to 20 years of age. A meta-analysis of 23 studies conducted in China and Turkey from December 2019 to September 2020 with 57,927 children showed increased rates of depression, anxiety, sleep disorders, and posttraumatic stress symptoms (Ma et al., 2021).

ENGLAND

Middle childhood and adolescence. In a survey conducted in July 2020, COVID-19's negative impact on the mental health of children 10 to 16 years of age was found to be more evident among those who lived in one-parent, one-child, and low-income households (Hu & Qian, 2021).

ITALY

Middle childhood. In a study conducted in April 2020, 277 parents of children aged 6 to 13 years were surveyed. Those who believed that they were competent in managing parental tasks had children who had better emotional well-being (e.g., better emotional regulation and less lability/negativity; Morelli et al., 2020).

NEW ZEALAND

Middle childhood. In a survey conducted in April 2020, 362 parents of children between 5 and 7 years of age reported that partner support and cooperative coparenting limited harsh parenting practices and improved warm/responsive parenting and the quality of the parent–child relationships (McRae et al., 2021).

TURKEY

Middle childhood. A study was conducted between May and June 2020 with 309 parents of children between the ages of 9 and 12 years (*M* age = 10.3 years). It found that the COVID-19 pandemic led to negative changes in children's nutrition, sleep, television/internet use, social activity, coursework time, and school success (Zengin et al., 2021).

U.S. SURGEON GENERAL'S ADVISORY REPORT

Following are the highlights of the U.S. Surgeon General's Advisory (2021) report on the early effects of the COVID-19 pandemic:

Since the pandemic began, rates of psychological distress among young people, including symptoms of anxiety, depression, and other mental health disorders, have increased. Recent research covering 80,000 youth globally found that depressive and anxiety symptoms

doubled during the pandemic, with 25% of youth experiencing depressive symptoms and 20% experiencing anxiety symptoms. Negative emotions or behaviors such as impulsivity and irritability—associated with conditions such as ADHD—appear to have moderately increased. Early clinical data are also concerning: In early 2021, emergency department visits in the United States for suspected suicide attempts were 51% higher for adolescent girls and 4% higher for adolescent boys compared to the same time period in early 2019. Moreover, pandemic-related measures reduced in-person interactions among children, friends, social supports, and professionals such as teachers, school counselors, pediatricians, and child welfare workers. This made it harder to recognize signs of child abuse, mental health concerns, and other challenges. (p. 9)

HEALTH CARE CLAIMS AND EMERGENCY DEPARTMENT VISITS IN THE UNITED STATES

An examination of a database of over 32 billion private health care claims in the United States indicated that the COVID-19 pandemic had serious consequences for children's mental health (Fair Health, Inc., 2021). For children ages 13 to 18 years, when the results in March and April 2020 were compared to those for the same months in the previous year, it was found that mental health claims had increased by almost 100% and claims for intentional self-harm and substance abuse had increased by over 90%. In addition, a comparison of claims for children of this age in April 2020 and April 2019 showed that claims for generalized anxiety disorder had increased over 90% and claims for major depressive disorder and adjustment disorder had increased over 80%. Finally, when claims from the spring of 2020 to November 2020 were compared with claims in the corresponding months of 2019, it was found that claims of children ages 6 to 12 years for obsessive-compulsive disorder and tic disorders had increased (26.8% and 28.7%, respectively).

During 2020, there was a 31% increase over the previous year in mental health–related emergency department visits among children aged 12 to17 years (Yard et al., 2021).

CHILDREN WITH SPECIAL NEEDS AND THE COVID-19 PANDEMIC

Special Health Care Needs

A study was done of 1,159 families that were living in the United States and had children 5-11 years or younger with special health care needs (e.g., developmental, intellectual, or physical disabilities or chronic medical conditions). It found that these parents had more emotional distress than parents whose children did not have special health care needs and their children had more behavioral problems (Liu et al., 2022).

Neurodevelopmental Disability

A study conducted in Australia focused on the effects of the COVID-19 pandemic on the mental health and social-emotional and physical well-being of 302 families that had a child from 2 to 17 years of age with a neurodevelopmental disability (e.g., ADHD, autism spectrum disorder, cerebral palsy, intellectual disability, a rare genetic condition, Tourette syndrome; Masi et al., 2021). Caregivers reported that during the pandemic these children had an increase in mental health symptoms and

health problems, viewed more television and digital media, exercised less, had reduced sleep quality, and ate more poorly. About one-fifth of the families reported an increase in the dosage of medication administered to their child. In addition, COVID-19 impacted the caregivers' own well-being. Over half of the respondents were not satisfied with services received during COVID-19, and less than one-third reported that telemental health services (mental health care services provided over a distance via telephone or videoconference) worked well for their child.

Other research indicates that remote learning during the pandemic has had a disproportionately negative impact on children with ADHD living in the United States (Becker et al., 2020).

Special Needs

In a study conducted in the United States a year after the pandemic started, it was found that younger elementary-age children with special needs (unspecified) struggled more than older children with the transition to online instruction (Averett, 2021). The shift to online instruction introduced a new source of stress for children with special needs, their teachers, and their parents (e.g., difficulty navigating apps, a lack of real-time feedback and interaction, increased distractions at home, or a lack of structure). Disruption of in-person schooling has been especially challenging for children who require high levels of routine and regularity and for those who need special accommodations and services. In some cases, parents reported positive experience with online instruction, especially when schools offered support services and when there were fewer distractions at home. Thus, online instruction is more of a challenge for some children with special needs than for others. If deemed safe, it would be helpful if schools could offer in-person services for children with special needs. Offering instruction and services via Zoom also might be beneficial.

A survey conducted in April 2020 with 116 Turkish parents who had a child with special needs (a child who had a global developmental delay, autism spectrum disorder, hearing impairment, or language delay and was receiving special education) indicated that COVID-19 had negatively affected their families (Yesil et al., 2022). Daily routines worsened, and there were decreases in the time devoted to reading, play, overall activity, and special education practices.

Early Brain Injury and Associated Conditions

A study was conducted between March 2020 and March 2021 with 64 Canadian parents who had children between the ages of 3 and 14 years (M = 6.4 years) with early brain injury and associated conditions. It found that over 40% of the parents described moderate to extreme negative influence of the COVID-19 pandemic on their children's mental health (Williams et al., 2021). Mental health concerns were associated with children's social isolation, parents' mental health and economic concerns, and the number of siblings in the home. Children's age, sex, brain injury severity, and level of intellectual functioning were not associated with mental health concerns.

Developmental Disabilities and Challenging Behaviors

A survey was conducted in England from May to July 2020 with 88 parents of young children aged 30 to 59 months with moderate to severe developmental disabilities and challenging behaviors. It found that the parents had limited information about the COVID-19 pandemic specific to children with developmental disabilities (Paulauskait et al., 2021). The parents also had difficulties following social distancing and isolation rules, experienced disruption of health and social care services, experienced deterioration in their own mental health, and reported regression of their child's skills.

Conduct Problems and Callous-Emotional Traits

A study of 303 parents and children (*M* age = 6.4 years) living in the United States from April to July 2020 showed that higher levels of parental harshness were related to higher levels of conduct problems and callous-emotional traits in children. Lower levels of parental warmth were related to higher levels of conduct problems, but not callous-emotional traits, in children (Waller et al., 2021).

Physical and/or Intellectual Disabilities

In a study conducted in England in June and July 2020 with parents of 125 children (*M* age = 12.3 years) with physical and/or intellectual disabilities (76% had an intellectual disability), 61% of the parents reported that their children engaged in less physical activity and had more mental health problems than they had before the lockdown (Theis et al., 2021).

Obsessive-Compulsive Disorder

The following case illustrates how the pandemic led to feelings of helplessness in a child with an obsessive-compulsive disorder (Rousseau & Miconi, 2020).

CASE COVID-1. LUCIA

Lucia is a 10-year-old girl who went to an emergency room because of an exacerbation of her obsessive-compulsive disorder symptoms and suicidal ideation. Her preexisting hand-washing rituals had become pervasive. She reported having the impression that the only way to escape death was to commit suicide by jumping off her apartment building. Surprisingly, she minimized the pandemic, stating "I don't care." However, her mother reported that Lucia had recently become terrified at the idea that her budgies [birds] could be killed by a virus and added that the cognitive behavioral therapy that they were receiving was not currently working well. To increase Lucia's sense of control and power, the clinician asked Lucia to help to keep her grandparents safe by Skyping with them every day and reading them a story. Lucia and her mother stated that they felt better after the meeting. (p. 1204, with change in notations)

Autism Spectrum Disorder

A review was done of 37 articles appearing from December 2019 to February 2021 that dealt with the COVID-19 pandemic and children with an autistic spectrum disorder living in Europe, Asia, and North America. In the articles, parents reported that school closures resulted in a loss or reduction of educational services, child

care support, behavioral therapies, and related programs (e.g., one-on-one support, trained teachers, educational assistants, behavioral interventions; Lee et al., 2021). Along with handling existing family obligations and responsibilities, parents assumed additional responsibilities associated with caring for their children with an autism spectrum disorder.

Parents also reported that their children with an autism spectrum disorder showed more challenging behaviors at home (e.g., increased frustration, aggression, and outbursts). And the families experienced more disruptions in daily routines, limited or no access to support workers, limited assistance from grandparents and extended family members, loss of employment, and loss of recreational opportunities. Because of the isolation associated with the quarantine, parents had heightened levels of psychological distress (e.g., anxiety, stress, helplessness, limited psychological well-being). Parents also experienced anxiety related to safety—how to protect their child from the viral infection when communication about the virus was difficult.

Parental reports indicated that some behavior therapists adapted their interventions so that the parents could deliver programs at home and provided online consultations with the parents. Online services were intermittently effective, particularly for minimally verbal children and for those with complex needs.

The review brought to light the many inequities in health, educational, and social services (e.g., limited access to timely diagnosis and developmental interventions) by means of which the pandemic brought about further discrimination and exclusion of marginalized communities because of unequal power relationships across economic, political, social, and cultural dimensions. The review concluded that there is ample evidence that COVID-19 has had a negative impact on the mental health and well-being of children with an autism spectrum disorder and their families.

The following case illustrates the possible consequences of a disruption of routine and lack of understanding in the case of a child with autism spectrum disorder (Rousseau & Miconi, 2020).

CASE COVID-2. NATHAN

Nathan, a 7-year-old boy with nonverbal autism spectrum disorder, was brought to a hospital emergency room because of an increase in severe aggression toward himself, his mother, and his siblings (e.g., biting, hitting). Nathan's school had been closed the week before. Initially, his mother was overwhelmed, and terrified by the virus as well as by the prospect of spending several weeks at home with her son in a very small apartment. From our interview, we came to understand that Nathan was reacting both to his mother's anxiety and to substantial changes in his routine. The extended family was mobilized to facilitate the planning of a short- and medium-term respite for the mother. At the end of the interview, the clinician explained to Nathan why his mother was afraid. He listened carefully before establishing a brief but intense eye contact with her. (p. 1205)

INTERVENTIONS

The COVID-19 pandemic has led to school closures, which have caused children to spend more time at home and more time online; other consequences have been

sleep disruption, limitations on physical activity, possible exposure to intimate partner violence, and possible child maltreatment (Melhem & Brent, 2021). These factors increase the risk of children developing mental health disorders—including possible suicide behavior—that require interventions when they occur.

During the COVID-19 pandemic, mental health interventions should focus on children, parents, siblings, and family dynamics in the context of acceptable telemental health services; where needed, there should also be an outreach component that includes in-person visits or video or phone calls (Browne et al., 2021). Having young children engage in pandemic-related pretend play may help them cope better with the COVID-19 pandemic (Thibodeau-Nielsen et al., 2021). Online cognitive-behavioral therapy may be effective in decreasing levels of both anxiety and depression in adolescents and in increasing their coping skills (Uysal et al., 2022).

Positive parenting also can limit the stresses associated with COVID-19 (Gregus et al., 2022). Exhibit COVID-1 shows nine recommendations for developing and deploying child telemental health services. And the recommendations made by the United Nations to help minimize the negative effects of the COVID-19 pandemic on children are shown in Exhibit COVID-2.

Exhibit COVID-1
Nine Recommendations for Developing and Deploying Child Telemental Health Services

RECOMMENDATIONS FOR CHILD TELEMENTAL HEALTH SERVICES

1. Identify emergency funding source(s) to acquire and deploy technology tailored to the clinical setting or service.
2. Identify priorities for using technologies.
3. Identify ways to get technology to families safely and in accordance with public health policies.
4. Train clinicians to use telehealth technology and provide ongoing guidance and supervision.
5. Proactively train families to use telehealth technology and then provide needed support.
6. Identify current state licensing policies related to child telehealth services.
7. Establish clinic email with an autoresponder in multiple languages.
8. Collect data on uptake, utilization, outcomes, and costs of telemental health services.
9. Consider brief check-ins (e.g., via electronic or phone) throughout the week with children who would benefit from more regular monitoring, have difficulty focusing or securing privacy, or have increased distress.

Source: Adapted from Tolou-Shams et al. (2021).

Exhibit COVID-2
Recommendations Made by the United Nations to Minimize the Negative Effects of the COVID-19 Pandemic on Children

RECOMMENDATIONS MADE BY THE UNITED NATIONS

- Expand social protection programs to reach the most vulnerable children and shield them from a food security crisis.
- Prioritize the continuity of child-centered services, with a particular focus on equity of access— particularly in relation to schooling, nutrition programs, immunization, and other maternal and newborn care and community-based child protection programs.
- Provide practical support to parents and caregivers, advising them on how to talk about the pandemic with children and how to manage their own mental health and the mental health of their children, as well as giving them tools to help support their children's learning.
- Promote the adaptation of standard physical distancing and lockdown strategies.
- Ensure that children have access to COVID-19 testing, treatment, and vaccines when they become available.
- Prioritize the restoration of child services as lockdown measures wind down.

Source: Adapted from United Nations (2020).

Interventions involving philosophy for children (having children reflect and share on moral issues and personal values with the aim of satisfying their basic psychological needs and their need for autonomy) and mindfulness procedures (paying attention to the present moment open-mindedly and without judgment) may be useful in helping children cope with the effects of COVID-19 (Malboeuf-Hurtubise et al., 2021).

Children who lose parents or caregivers because of COVID-19 will need special services, such as programs for bereaved children and equitable access to vaccines (Hillis et al., 2021). Exhibit COVID-3 shows a Marshall Plan designed to help the mental health of children after the COVID-19 pandemic.

Exhibit COVID-3
A Marshall Plan for Children's Mental Health After COVID-19

PROPOSED MARSHALL PLAN

As society gradually recovers from this pandemic and the spotlight focuses on the larger political and economic gamesmanship that so often consumes the headlines, child mental health issues are at risk of being ignored. To mitigate that risk, a coordinated and collaborative national commitment—something like a Marshall Plan for children's mental health after COVID-19—will be essential to ensure that the next generation does not comprise the longest-living victims of the pandemic, with higher rates of anxiety, poverty, depression, suicide, and other negative consequences. Such a plan might be coordinated by a national children's oversight committee overseen by state-level "children's cabinets"

(which are successfully operating in many states), with local adaptation and implementation driven by community needs. Implementing such a national plan will take both a reallocation of existing money and an influx of new funding, tied to outcomes to make sure that children are getting what they need to thrive.

Description of the Marshall Plan
The four features of the plan follow:

- First, locally driven services should provide skills training and supports to families, whenever and wherever needed. This means making child and family support services available to any parent or caregiver who requests them in locations convenient to the family, not only to the provider entity.
- Second, parents' basic mental health and economic security needs need to be met fairly and equitably, with services delivered according to severity of need, rather than zip code of residence.
- Third, good data are needed to guide access to and outcomes associated with services.
- Fourth, a new financial infrastructure model is needed that is built on an alternative payment system that bills in accordance with children's social, emotional, and developmental needs, not insurance protocols.

Source: Hoagwood and Kelleher (2021, pp.1216,1217, with changes in notation).

Reentry Program
Children with social anxiety will face significant challenges when schools reopen. And other children may face elevated stress levels and other challenges when they return to school, especially if they enjoyed home schooling more than in-person schooling. Schools and mental health services will need to be prepared to offer services to these children. If a school-wide reentry program focuses on (a) sharing and understanding emotions, worries, and concerns, (b) developing positive coping strategies, (c) increasing friendship empowerment, and (d) making use of icebreakers, it can play an important role in fostering resilience and positive development during the COVID-19 pandemic (Capurso et al., 2021). A description of such a program is provided at https://doi.org/10.5334/cie.17.

How Parents Can Help Children Cope with the COVID-19 Pandemic
Here are some ways in which parents can help children during the COVID-19 pandemic quarantine (Babore et al., 2021; Centers for Disease Control and Prevention, 2022; Francisco et al., 2020; Glynn et al., 2021; Morelli et al., 2021; Schmidt et al., 2021; U.S. Surgeon General's Advisory, 2021):

- Be a voice for mental health in their community.
- Be attentive to how their children spend time online (see Exhibit COVID-4).
- Be alert for any change in sleep, eating, or other behaviors, such as excessive worry or sadness, unhealthy eating or sleeping habits, or difficulty with attention and concentration.

- Create flexible but consistent daily routines, including time for schoolwork and chores, a specific bedtime and wake-up time, and playtime with and without the family.
- Develop new rituals and routines in daily life and encourage more autonomous behavior in their children.
- Explain to their children why it is necessary for schools to close (e.g., to keep children healthy).
- Help their children make the transition back to in-person school.
- Help their children stay socially connected by reaching out to friends and family via phone, video chats, social media, or even video games or by writing cards or letters to family members and friends whom they may not be able to visit.
- Increase physical activities at home and encourage their children to play outdoors.
- Keep their children healthy by scheduling well-child and immunization and vaccination visits (as appropriate), seeking continuity in mental health and occupational and speech therapies (e.g., via telemental health services), and helping their children to eat healthy foods.
- Listen to their children and encourage their children to express their fears and other feelings.
- Look out for warning signs of distress and seek help when needed.
- Minimize their children's access to firearms, prescription medications, and other potential means of self-harm.
- Monitor their own behavior and adopt positive self-care behaviors, remembering that less stress in the mother and other caregivers may lead to healthier adaptive functioning in their children.
- Practice being a good role model by washing hands often, wearing a mask in public spaces, and maintaining social distance as appropriate.
- Provide for technology-free time.
- Provide stability and support to help children cope with mental health problems, and seek professional help and use distress emergency hotlines when needed.
- Reassure their children about their safety and well-being.
- Set aside time to play with their children.
- Show empathy for their children's emotions, concerns, and frustrations at the losses that the pandemic is causing in their lives (e.g., not being with friends, no school routines, no sport activities).
- Talk to their children about the situation and give honest and accurate information.
- Tell their children about the resources shown in Exhibit COVID-5.
- Use authoritative discipline.
- Work with their school to provide online interactions and/or live communications between teachers and students, if needed.

Exhibit COVID-4
Questions Families Need to Consider About Children's Use of Technology

CHILDREN'S USE OF TECHNOLOGY

Time

- How much time is my child spending online?
- Are online activities taking time away from healthy offline activities, such as exercising, seeing friends, reading, and sleeping?
- Are there healthy limits I can set on my child's use of technology, such as limiting screen time to specific times of the day or week or limiting certain kinds of uses?

Content

- Am I aware of what devices and content my child has access to?
- Is my child getting something meaningful and constructive out of the content they are looking at, creating, or sharing? How do I know?
- Are there healthier ways my child could engage online? (Examples: Finding meal recipes, researching options for a family outing, video chatting with a relative)
- Is being online riskier for my child than for some other children? For example, does my child have a mental health condition that might make them react more strongly to certain kinds of stressful or emotional content? Is my child being bullied? If so, how does the bullying affect their mental health and academic performance?

Impact

- How does my child feel about the time they spend online?
- Is my child engaging because they want to or because they feel obliged to?
- How can I create space for open conversations with my child about their experiences online?
- How do I feel about my own use of technology?
- Can I be a better role model for my child?

Source: U.S. Surgeon General's Advisory (2021, p.18, with changes in notation).

Exhibit COVID-5
Resources for Children

RESOURCES

- If you're in crisis, get immediate help: Call the National Suicide Prevention Lifeline at 1-800-273- 8255. Through the Lifeline you can chat with trained counselors 24/7 or get help in other ways.
- AAKOMA Mental Health Resources (The AAKOMA Project): Resources to support the mental health of youth of color and their caregivers (https://aakomaproject.org/resources/)
- FindTreatment.gov (SAMHSA): Information on substance use and mental health treatment
- How Right Now (Centers for Disease Control and Prevention): Resources for coping with negative emotions and stress, talking to loved ones, and finding inspiration (https://www.cdc.gov/howrightnow/)
- Kids, Teens, and Young Adults (National Alliance on Mental Illness): Resources for young people to get mental health support (https://www.nami.org/Your-Journey/Kids-Teens-and-Young-Adults)
- Mental Health for Immigrants (Informed Immigrant): Tips for managing the mental health of immigrants and others (https://www.informedimmigrant.com /guides/mental-health-undocumented-immigrants/)
- Mental Health Resource Center (JED Foundation): Information about common emotional health issues and how to overcome challenges (https://jedfoundation.org/mental-health-resource-center/)
- One Mind PsyberGuide: A guide to navigating mental health apps and digital technologies (https://onemindpsyberguide.org/about-psyberguide/)
- Supporting Emotional Wellbeing in Children and Youth (National Academies of Medicine): Tools for children, teens, and parents to learn how to cope with challenges (https://nap.nationalacademies.org/resource/other/dbasse/wellbeing-tools/interactive/)
- Trevor Project: Suicide prevention and crisis intervention resources for LGBTQ+ young people (https://www.thetrevorproject.org/resources/)
- Youth Engaged 4 Change: Opportunities for youth to make a difference in their lives and in the world around them (https://engage.youth.gov/)
- Youth Wellbeing Initiatives (National Council for Mental Wellbeing): Collection of initiatives to improve mental wellbeing in youth and young adults (https://www.thenationalcouncil.org/our-work/focus-areas/public-health/mental-health/)

Source: Adapted from U.S. Surgeon General's Advisory (2021, p. 15, with changes in notation).

Web Resources for Parents and Families

A website sponsored by Parents Helping Parents has a section called "COVID-19 Resources for Families" (https://www.php.com/elearning-category/covid-19-resources-for-families/). This section provides useful information (including webinars) about 14 different topics, such as "Special Needs Parenting Tips," "Optimizing Your Home Environment for Online Learning," and "My Child Doesn't Learn Well in Front of a Computer: What Can I Do?"

Exhibit COVID-6 has a list of a number of resources to help families in a time of stress.

Exhibit COVID-6
Resources to Help Families in a Time of Stress

RESOURCES

- Children's Mental Health Resources (CDC): Resources for supporting children's mental health (https://www.cdc.gov/mentalhealth/tools-resources/children/index.htm)
- COVID-19 Parental Resources Kit (CDC): Resources for supporting children's social, emotional, and mental health during the COVID-19 pandemic (https://www.cdc.gov/mentalhealth/stress-coping/parental-resources/index.html#:~:text=CDC%20developed%20this%20COVID%2D19, mental%20health%20challenges%20and%20helping)
- Family Resource Center (Child Mind Institute): Family resources on child mental health, including discussions of various topics involving mental health and disability and COVID-19 (https://childmind.org/resources/)
- HealthCare.gov or InsureKidsNow.gov: Information on enrolling in health insurance coverage
- HealthyChildren.org (American Academy of Pediatrics): Parenting tips and other resources (https://healthychildren.org/English/Pages/default.aspx)
- MentalHealth.gov: What to look for, how to talk about mental health, and how to get help
- NetSmartz (National Center for Missing and Exploited Children): Online platform to teach children online safety in age-appropriate ways (https://www.missingkids.org/netsmartz/resources)
- Parents' Ultimate Guides (Common Sense Media): Information about the safety of current media and technology trends and apps for your children (https://www.commonsensemedia.org/parents-ultimate-guides)
- What's on Your Mind? (UNICEF): Guide for talking to children about mental health (https://www.unicef.org/mental-health-on-my-mind)

Source: Adapted from U.S. Surgeon General's Advisory (2021, p. 18).

Concluding Comment on Interventions and COVID-19

To understand the effects of COVID-19, we will need to consider changes in children's social-emotional experiences and behavior, in parental behavior and concerns, and in family dynamics, including intimate partner violence. Future research will need to focus on the delivery of evidenced-based, age-appropriate

mental health services and, if the pandemic continues, continued monitoring of the impact of the pandemic on children's and families' mental health (Meherali et al., 2021).

In her essay "Child Abuse in a Pandemic," Angelina Jolie (2020) pointed out, "The long-term consequences of the COVID-19 pandemic for children won't be understood for years. But we can already see the heavy cost in missed schooling, lost opportunities, mental anguish and an increased exposure to life-changing violence. It is time to elevate children's needs to the forefront of the discussion of how we build a better society" (p. A13).

During and after the COVID-19 pandemic, to help in increasing their coping, wellness, and resilience skills, children and their families will need to be provided with services in an equitable manner, To do so, we will need to work not only with children but also with their parents—particularly their mothers, who are likely to be the primary caregivers—and their teachers, who will need support for their own physical, emotional, and mental health needs (Idoiaga et al., 2020; Luthar et al., 2021).

Children who face childhood trauma (e.g., child maltreatment, intimate partner violence, or other forms of violence) will experience the effects of the COVID-19 pandemic differently from those who have more normal childhoods (see Sattler, 2022, for more information about child maltreatment). And when they reach adulthood, they are likely to face additional challenges, including intimate partner violence and the "continuation or reemergence of the social isolation, injustice, powerlessness and sense of on-going threat that shaped their childhoods" (p. 403; Taggart et al., 2021).

Taggart (2021) goes on to say,

> Survivors of childhood trauma are people, in all the multiplicity of identity and history that this brings. Some of us will face on-going violence and abuse as adults, and many of us will be disproportionately at risk during this pandemic and in its aftermath. It is vital that mental health services take the specific needs of trauma survivors into account, and that future, post-pandemic research pays attention to the needs of people for whom the current crisis is a continuation or re-emergence of the social isolation, injustice, powerlessness and sense of on-going threat that shaped their childhoods. (p. 403)

DECLARATION OF A NATIONAL EMERGENCY

In October 2021, the American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry, and Children's Hospital Association declared a national emergency in child and adolescent mental health associated with the COVID-19 pandemic (American Academy of Pediatrics, 2021). In their declaration, the three professional organizations highlighted the soaring rates of mental health challenges among children, adolescents, and their families and the exacerbation of problems that existed prior to the pandemic. Further, they noted that the pandemic has had a disproportionate impact on children from communities of color. Visits to emergency departments of hospitals have increased for all mental health emergencies, including suspected suicide attempts. The safety and stability of children and families has been affected by increasing rates of depression, anxiety, trauma, loneliness, and suicidality among children. To deal with the

COVID-19 pandemic crisis, the three groups advocated implementing the steps shown in Exhibit COVID-7.

Exhibit COVID-7
Steps Needed to Help Families and Children Cope with the COVID-19 Pandemic

HELPING FAMILIES AND CHILDREN COPE WITH THE COVID-19 PANDEMIC

The American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry, and Children's Hospital Association asked policymakers at all levels of government to join them in implementing the following steps:

- Increase federal funding dedicated to ensuring all families and children, from infancy through adolescence, can access evidence-based mental health screening, diagnosis, and treatment to appropriately address their mental health needs, with particular emphasis on meeting the needs of under-resourced populations.
- Address regulatory challenges and improve access to technology to assure continued availability of telemedicine to provide mental health care to all populations.
- Increase implementation and sustainable funding of effective models of school-based mental health care, including clinical strategies and models for payment.
- Accelerate adoption of effective and financially sustainable models of integrated mental health care in primary care pediatrics, including clinical strategies and models for payment.
- Strengthen emerging efforts to reduce the risk of suicide in children and adolescents through prevention programs in schools, primary care, and community settings.
- Address the ongoing challenges of the acute care needs of children and adolescents, including shortage of beds and emergency room boarding, by expanding access to step-down programs from in-patient units, short-stay stabilization units, and community-based response teams.
- Fully fund comprehensive, community-based systems of care that connect families in need of behavioral health services and supports for their child with evidence-based interventions in their home, community, or school.
- Promote and pay for trauma-informed care services that support relational health and family resilience.
- Accelerate strategies to address longstanding workforce challenges in child mental health, including innovative training programs, loan repayment, and intensified efforts to recruit underrepresented populations into mental health professions, as well as attention to the impact that the public health crisis has had on the well-being of health professionals.
- Advance policies that ensure compliance with and enforcement of mental health parity laws.

Source: American Academy of Pediatrics (2021, para. 5, with changes in notation).

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