ABSTRACT

Title of dissertation:	IMPACT OF COVID-19 ON PARENT AND CHILD MENTAL HEALTH IN INDIA: A MIXED METHODS LONGITUDINAL STUDY
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The COVID-19 pandemic has affected individuals around the world. Parents of young children have experienced significant strain as they have attempted to balance their work obligations as well as take care of household duties and attend to the needs of their young children. Several studies have demonstrated the detrimental impacts of COVID-19 on parent and child mental health. However, the majority of studies are quantitative, cross-sectional in nature, and were conducted during the early phases of the pandemic. Moreover, there is limited work on the topic of parent and child mental health within the COVID-19 context among families in India. Thus, the current mixed-methods longitudinal study aimed to fill these gaps in the literature by attempting to examine the impact of COVID-19 on child mental health and parent mental health among families with young children in India. The study also aimed to understand the moderating effects of parenting behaviors with relation to child COVID-19-related stress and child mental health difficulties, and the moderating effects of social support with relation to parent COVID-19-related stress and parent mental health difficulties. One hundred and forty parents of children between the ages of 4 to 8 completed a survey between October 2020 and February 2021 (Time 1), of which 85 parents completed it between May 2021 and July 2021 (Time 2), and 70

completed it between July 2022 and October 2022 (Time 3). Qualitative in-depth individual interviews were conducted with a subset of the sample (n=20) between July 2022 and December 2022 to gain a better understanding of challenges experienced by parents and how the pandemic impacted them and their children in various ways over the course of the pandemic. The findings indicated that the stress caused by changes brought about by the pandemic was related to parent and child mental health in India. Parents in India experienced several challenges that impacted their mental health. Factors contributing to those challenges, and in turn, possibly their mental health are discussed. Parenting behaviors such as parental nurturance and restrictiveness were also related to child mental health and served as moderators of the relation between child COVID-19-related stress and child mental health difficulties; parental nurturance emerged as a protective factor while parental restrictiveness was a possible risk factor. Perceived social support was negatively linked with parent mental health difficulties, and it also served as a buffer in the relation of parent COVID-19-related stress and parent mental health difficulties at Time 1. Qualitative findings also indicated that support from spouse, other family members, friends and co-workers helped parents cope with the challenges associated with the pandemic. In sum, the findings of this study helped identify important risk and protective factors for parent and child mental health within the COVID-19 context in India. The findings have important clinical implications that inform future intervention efforts to support children and families during related stressful events.

IMPACT OF COVID-19 ON PARENT AND CHILD MENTAL HEALTH IN INDIA: A MIXED-METHODS LONGITUDINAL STUDY

by

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Impact of COVID-19 on Parent and Child Mental Health in India: A Mixed-methods Longitudinal Study

Since its outbreak, COVID-19 has caused significant stress among individuals around the world. Isolation, changes in routine and work-life balance, and monetary concerns have been just some sources of stress for individuals and families internationally (Griffith, 2020; Prime et al., 2020). Since early 2020 until recently, one population that has faced considerable strain comprises parents of young children, as they have attempted to balance fulfilling their job obligations, while also taking care of their children and assuming other household responsibilities (Schieman et al., 2020). Factors such as quarantine, sheltering in place, school and child-care center closures, as well as the inability to socialize with others have been found to result in high levels of stress among parents and caregivers (Brooks et al., 2020). Several studies have highlighted the negative effects of COVID-19-related stress on parent mental health and child mental health, as well as on parenting behaviors and associated child outcomes (e.g., Joo & Lee, 2022; Kauhanen et al., 2022; Vescovi et al., 2021). However, most work has been cross-sectional in nature, and very little research has focused on families in India. It is important to study the impact of the pandemic among parents and children in India due to the unique stressors experienced (e.g., the breakdown of the healthcare system and significant loss of life due to the Delta variant wave); slower vaccination rate (compared to Western nations); and fewer outdoor recreation options due to the inability to maintain social distancing given the high population density), coupled with the poor rates of seeking mental health services due to stigmatization (Bhowmik, 2021; Padukone et al., 2018). In addition, most existing work comes from quantitative studies, and there is a need for a more complete understanding by synthesizing both quantitative and qualitative data. Thus, the aims of the current mixed-methods longitudinal

study were to gain a better understanding of the impact of COVID-19 on parents with young children in India with relation to parent and child mental health, as well as identifying risk and protective factors for parent and child mental health within this context. A convergent mixed methods design was used to compare and discuss the similarities and differences of quantitative (survey) and qualitative (individual interviews) data. Survey data from parents with children between ages 4 to 8 years, collected at three different time points (October 2020 to February 2021, May 2021 to July 2021, and July 2022 to October 2022), was used to examine the relations between COVID-19-related stress, and parent and child mental health. More specifically, in the current study, I examined the impact of COVID-19-related stress experienced by children on child mental health and if parental nurturance and parental restrictiveness moderated those relations. I also examined the impact of COVID-19-related stress experienced by parents on parent mental health, and if social support (support from family, friends, co-workers) moderated that relation. Data from the individual interviews with a subsample of 20 parents was used to further explore those relations in depth, with a specific focus on understanding the challenges that parents experienced, how the challenges impacted parent mental health, how the pandemic impacted child socio-emotional, academic and physical development, and how parents coped with the challenges associated with the pandemic.

Guiding Theory

The current study in grounded in Prime et al.'s (2020) model of risk and resilience in family well-being during COVID-19. Prime et al.'s conceptual model is guided by systemic models of human development and family functioning that emphasize that development is determined by multiple layers of ecological organization, that there are multiple determinants of mental health for both children and families, and that different people in the family may

influence each other in a non-linear manner. This framework is thus influenced by family systems theory (Kerry & Bowen, 1988), the bioecological model (Bronfenbrenner & Morris, 2006), the family stress model (Conger et al., 2002), and the developmental systems theory (Lerner & Damon, 2006). A brief description of each of these theories is presented below.

Family systems theory (Kerr & Bowen, 1988) posits that individuals within a family unit interact with each other to influence each other's behavior as well as the family as a whole (Turnbull et al., 2006). Needs and abilities of one family member will likely affect all other family members. Similarly, change in one person within the family unit is likely to bring about a change in other members as well as the entire family unit. Relationships between family members are assumed to be reciprocal as opposed to linear.

The bioecological model (Bronfenbrenner & Morris, 2006) posits that an individual's behavior is influenced by their own individual characteristics (e.g., age, gender, personality traits) and genes, different levels or systems, and the interactions between these systems. These include the *microsystem* (groups that the individual has direct contact with and plays a role in, such as his or her family; peers and teachers in his or her school); *mesosystem* (interactions between those within the individual's microsystem; e.g., interactions between child's parents and teachers); *exosystem* (formal and informal social structures that indirectly impact the individual, such as the neighborhood, parents' workplace); and *macrosystem* (ideologies and attitudes of the larger cultural context). This theory is applicable to my study as I examined the relation between COVID-19-related stress experienced by children and child mental health, and if parenting behaviors (elements of the microsystem) moderated this relation among children in India. I also examined if social support (elements of the microsystem) moderated the relation

between COVID-19-related stress experienced by parents and parent mental health among parents in India.

The *family stress model* (Conger & Conger, 2002; Conger & Elder, 1994) suggests that socioeconomic disadvantage may predict child outcomes via its effects on parents. The model posits that economic hardships (e.g., parental job loss) leads to greater economic pressure on parents (e.g., inability to pay bills), which in turn leads to parent psychological distress (e.g., parental anxiety and depression). Greater parental psychological distress, is likely to affect the quality of interparental relationships and parenting, which in turn, may likely impact child and adolescent mental health and adjustment. This is applicable to my study as I examined the relation between COVID-19-related stress and parent mental health. Through my qualitative data, I also examined specific factors contributing to parent mental health difficulties, impacting parenting behaviors, which in turn may have had an impact on child mental health within the COVID-19 context.

Developmental systems theory (Lerner & Damon, 2006), influenced by the fields of biology, evolution and psychology, is based on the premise that human development outcomes are influenced by the contexts (e.g., family, school, peers, culture) in which development unfolds, and that development is shaped by the interactions between multiple factors. Genetics may not be singled out as the primary influence, and the impact of any given causal factor is contingent upon the state of the system as a whole (Griffiths & Hochman, 2015). In the current study, I investigated the role of parenting behaviors within the COVID-19 context on child mental health in India. In addition, through my qualitative portion of the study, I attempted to understand the role of *culture-specific* unique factors that may have contributed to the challenges

that parents experienced over the course of the pandemic, which in turn may have impacted their mental health.

Building on the above-mentioned theories, Prime et al.'s model postulates that the COVID-19 pandemic will impact child mental health and adjustment in a cascading fashion, such that social disruptions caused by the pandemic (e.g., inability to socialize with others, closure of schools and childcare centers) will lead to high levels of psychological distress, parenting stress, and mental health difficulties among caregivers, which in turn will affect the quality of relationship between caregivers as well as between caregivers/parents and children, and between the siblings. This in turn, will likely impact child mental health and other child outcomes (academic and peer relationships). The model also states that the links between these variables is not unidirectional, but rather, "the links operate within a mutually reinforcing system, whereby stress and disruptiveness in one domain begets the same in another" (Prime et al., p. 632). Lastly, the model suggests that pre-existing vulnerabilities within the families (e.g., economic hardship, racism and marginalization, caregiver/child mental health and special needs, health conditions, family related dysfunction, and history of trauma and adversity) may moderate the impact of the social disruptions caused by the pandemic on parent and child outcomes, and thereby serve as risk or protective factors. Based on this theory, I examined: (1) the relation between child COVID-19-related stress and child mental health, and whether parenting behaviors such as nurturance and restrictiveness moderated this association concurrently and longitudinally; (2) the relation between parent COVID-19-related stress and parent mental health, and whether social support (from family, friends, co-workers) moderated this association concurrently and longitudinally.

Effects of COVID-19 on Child Mental Health

Numerous studies have demonstrated the deleterious impact of COVID-19 on child mental health. To my knowledge, six systematic reviews (Meherali et al., 2021; Nearchou et al., 2020; Racine et al., 2021; Samji et al., 2021; Panchal et al., 2021; Kauhanen et al., 2022) have been published on the mental health of children and young people during the COVID-19, all of which highlight its negative effects on child mental health. For instance, a meta-analysis by Racine et al., (2021) indicated high rates of mental health difficulties among children globally; pooled variance estimates of clinically elevated depression and anxiety systems were 25.2 percent and 20.5 percent respectively. Authors also found the prevalence of clinically elevated depression and anxiety symptoms higher among girls, while depression symptoms were higher in older children. Along similar lines, Jones et al (2022) found that 37.1 percent of U.S. high school students reported experiencing poor mental health (stress, anxiety and depression) during the pandemic, and that 19.9 percent and 9.0 percent had seriously considered suicide and attempted suicide, respectively, in the past year. Data for Jones and colleagues' study were collected between January and June, 2021.

In addition to depression and anxiety symptoms, children experienced several other mental health issues. Racine and colleagues (2020) found that children experienced a range of mental health and behavioral difficulties during the early stages of the pandemic (February and March, 2020) such as depression symptoms, anxiety symptoms, inattention, irritability, worry, and fear of death of a relative. In addition, fatigue, agitation, nightmares and other sleep issues as well as poor appetite were noted. The authors of this study reviewed a total of 3404 abstracts and 175 full text articles, of which 6 met full inclusion criteria (4 conducted in China, and 2 in USA). Their inclusion criteria were: (1) empirical article, (2) written in English, (3) data collected during COVID-19, (4) sample being below the age of 18, and (5) included data on prevalence of

mental health symptoms. The article also highlighted some risk and protective factors. Risk factors for higher mental illness symptoms among children included experiencing financial strain (Rosen et al., 2020), living in infected areas (Jiao et al., 2020; Xie et al., 2020), and fear of infection and perceived life threat (Liu et al., 2020; Xie et al., 2020). Lastly, higher distress and anxiety among parents were associated with distress in children (Rosen et al., 2020). In terms of protective factors, awareness of COVID-19 (Zhou et al., 2020), media entertainment (e.g., watching videos/shows on YouTube), reading, and physical exercise (Jiao et al., 2020) were noted.

Another review article by Panchal and colleagues (2021) highlighted similar findings (i.e., increased mental health difficulties during COVID-19). This review included 61 articles with 54,999 children and adolescents (mean age = 11.3 years, 49.7 percent female). Commonly reported mental health concerns were anxiety symptoms (range = 1.8 – 49.5 percent), and depression symptoms (range = 2.2 – 63.8 percent); 59.6 percent of children reported increased rumination, while 3.2 percent of children met diagnostic criteria for Post-Traumatic Stress Disorder. In addition, irritability (range = 16.7 – 73.2 percent) and anger (range = 30.0 – 51.3 percent), were also frequently reported by children and adolescents. Children and adolescents with special education needs, neurodevelopmental disorders, and with mental disorders before the lockdown were at greater risk of experiencing more emotional symptoms, conduct problems, and hyperactivity/inattention problems. In addition, excessive media exposure, lack of routine, being female, and being an adolescent were noted as significant risk factors for anxiety, while being female, being an adolescent, high number of COVID-19 cases in the area, increased social media use, and being exposed to a relative doing first-line job responsibilities related to COVID-19 were risk factors for depression. Risk factors for symptoms of ADHD worsening included

sleep problems, being male, being a child (versus an adolescent) and parental stress. Healthy parent-child relationships, parent-child communication, having predictable routines and structure, and engaging in play and physical activity were found to be protective for anxiety and depression.

Similar findings (i.e., increased fear, anxiety and depressive symptoms and psychological distress) have been reported by other systematic review studies (e.g., Samji et al., 2022; Kauhanen et al., 2022). For instance, the review by Kauhanen and colleagues (2022) included 21 studies; 20 out of the 23 studies (87 percent) showed increased levels of anxiety, depression or psychological distress. Similarly, the review paper by Samji et al (2022) found that the prevalence of anxiety symptoms ranged from 8 to 75 percent, while that of depressive symptoms was 11 to 64 percent. However, these findings come primarily from cross-sectional studies; some reviews included only cross-sectional studies (e.g., Meherali et al., 2021; Nearchou et al., 2020), while more than 70 percent of the included studies in some other reviews (e.g., Panchal et al., 2021; Samji et al., 2022) were cross-sectional in nature. Thus, there is a need for more longitudinal work that is able to capture change in the nature of the relations between COVID-19's impact and child mental health over time. In addition, the majority of research studies examining the impact of COVID-19 on child mental health (e.g., Babore et al., 2021; Magklara et al., 2023; Orgiles et al., 2020) has included a very wide age range (e.g., ages 3-18) as their sample. It is likely that children at different ages may be impacted differently in terms of their mental and behavioral health due to the pandemic. There is very little work focusing on the pre-school and elementary school aged children specifically.

It is important to study the effects of COVID-19 on mental health among pre-school and early elementary school aged children for several reasons. Firstly, early childhood is a critical

period for social, cognitive, emotional and mental development (Shonkoff & Phillips, 2000). The experiences that children have during this period may have long-lasting effects with regard to shaping development and well-being (Anderson et al., 2003; Knudsen, 2004). Given that social interactions are highly important at during this stage (e.g., Bukowski et al., 2015; Denham et al., 2014; Rubin et al., 2015), the inability to engage in social interactions with peers due to COVID-19 may impact the development of children in the early childhood stage differently compared to those in other periods of development. Secondly, children in this developmental period may be particularly vulnerable to stress as they may have difficulty understanding the changes that may be brought about by the pandemic, resulting in worry (Vasileva et al., 2021), and may have limited ability to express their feelings verbally (Eisenberg et al., 1997; Locke, 2017). Thirdly, there is a large body of research that shows that child mental health may also impact children's later educational and academic performance (e.g., Burnett-Zeigler et al., 2012; Murphy et al., 2016). Thus, understanding the effects of COVID-19 on mental health among pre-school and young elementary school-aged children is important as it may lead to the development of treatments, programs and policies. In the current study, I examined the impact of COVID-19-related stress experienced by children on child mental health in India.

Parenting Behaviors as Moderators of the Relation Between COVID-19-Related Stress and Child Mental Health

Given that different children may be impacted differently due to the potential negative effects of COVID-19, it is important to identify factors that may moderate its effects. Indeed, within the COVID-19 context, studies have identified some variables that moderated the association between COVID-19's impact and child mental health, such as financial issues, parental distress, child age, child gender, pre-existing mental health issues, family relationships

and physical exercise (Panchal et al., 2021; Racine et al., 2020; Samji et al., 2022). However, there is very limited work examining parenting behaviors as moderators of COVID-19 stress and child mental health, despite evidence suggesting its possibility. For instance, it is well known that parenting behaviors have found to predict child mental health (e.g., Drake & Ginsburg, 2012; Havewala & Wang, 2021). Parental nurturance, as evidenced by parents' practices of being flexible, supportive, engaged, and allowing child emotional expression (Locke & Prinz, 2002; Rickel & Biasatti, 1982) has been linked to positive self-esteem (e.g., DeHart et al., 2006), and cognitive development (Farah et al., 2008), as well as reduced aggression (Arım et al., 2011). Parental restrictiveness, on the other hand, explained as parents' practice of enforcing control with a strong emphasis and expectation of obedience (Rickel & Biasatti, 1982), has been linked to poor self-esteem (Garber et al., 1997) and internalizing problems such as anxiety and depressive symptoms (Doyle & Markiewicz, 2005; Pomerantz & Wang, 2009).

Parenting behaviors have also found to buffer the effects of stressful life events on child mental health difficulties (e.g., Anderson et al., 2015; Capp et al., 2016). There are several ways in which positive parenting behaviors could buffer the effects of stressful life events on child mental health difficulties. For instance, warmth and nurturance provided by parents can give the child a sense of emotional support, which may help them feel safe, secure and better equipped to cope with stress and adversity (e.g., Raby et al., 2015). Relatedly, parents who encourage open expression of emotion in their child may lead to better emotional awareness within their child (Denham et al., 2010), which in turn, could help them (the child) better deal with the stressful situation. Similarly, good parent-child communication (e.g., having open lines of communication built on trust; non-judgmental active listening; asking open-ended questions; providing empathetic responses) may help the child feel heard and understood. Moreover, parents could

serve as role-models; by showing warmth, responsiveness and modeling effective coping behaviors, parents may help build resilience in their child (Masten & Coatsworth, 1998), which in turn, could lessen the negative impact of stressors on their mental health.

Studies on the topic within the COVID-19 context have also demonstrated how parenting behaviors may serve as moderators of the relation between COVID-19-related stress and child mental health. For instance, in a study on 504 adolescents in China, during which adolescents self-reported on their COVID-19-related stress, mental health, and perceived parenting, it was found that perceived parents' critical comparison (parents' engagement in criticism, comparison and shaming behavior) intensified the negative link between COVID-19-stressful life events and youth mental health (Cheong et al., 2022). In another study conducted on 247 parents residing in the U.S. who had children between the ages of 10 months to 17 years, it was found that children of parents who engaged in higher levels of emotion coaching of their children's negative emotions, and who maintained more stable home routines, were more likely to be buffered against the effects of the pandemic stress with relation to experiencing internalizing and externalizing difficulties (Cohodes et al., 2021). However, both studies were cross-sectional in nature, and thus the directionality of the relations between the variables cannot be assumed. In addition, while one study focused solely on 7th-graders, the other included parents of children who fell within a very wide age range (10 months to 17 years); thus, we are limited in our understanding with regard to the effects of parenting behaviors as moderators of the COVID-19 stress and child mental health specifically among preschool and early elementary school aged children. Furthermore, no studies, to the best of my knowledge, have examined the moderating role of parenting behaviors with relation to COVID-19-related stress and child mental health in India, and I aimed to fill these gaps in the current study. Given that culture influences parenting,

a brief overview of parenting in India, and research on the effects of parenting styles on child socio-emotional and mental health outcomes within the Indian context is presented in the next subsection.

Parenting in India.

The term "parenting" can be explained as the process or state of being a parent, during which one nourishes, guides, and protects the child as she or he goes through various stages of development (Brooks, 1991). Darling and Steinberg (1993) defined a parenting style as "a constellation of attitudes toward the child that are communicated to the child and create an emotional climate in which parents' behaviors are expressed". Many researchers have written about parenting styles and their effects, but Baumrind's (1971) classification is considered to be the most comprehensive. She distinguished between three types of parental child rearing typologies, namely *authoritative* (demanding but also warm and responsive), *authoritarian* (demanding but not warm and responsive), and *permissive* (responsive but not demanding).

Cultural values guide parenting, and influence parental beliefs and cognitions and thereby affect parenting practices (Bornstein, 2012). The *tightness and looseness of cultures* (Gelfand et al., 2007) may be one framework that may help understand the role of culture on parenting. This framework refers to the degree of adherence/flexibility with regard to social norms and rules to be followed. In tight cultures such as many East Asian countries (e.g., Singapore, Japan, South Korea) and some European nations (e.g., Germany), there is a strong emphasis on conforming to the social norms; deviation from the norms may lead to severe consequences such as ostracization. In addition, in tight cultures, the role of different family members is very clearly defined. On the other hand, loose cultures (e.g., United States, Australia, Netherlands) may have

more flexibility in terms of following social norms, and there may be a higher tolerance for ambiguity and change.

India is a very diverse country in terms of beliefs, languages, customs, and religion, and thus may demonstrate elements of both tightness and looseness. Traditional Indian culture shows characteristics of tightness, where family structures and societal roles are well defined (Barnhart et al., 2016). Indian culture, collectivistic in nature, values interdependence, family ties, and shared goals (Mishra 1994; Saraswathi & Pai, 1997). These cultural values impact parenting and parenting practices. For instance, parents in India emphasize values such as loyalty, obedience, respect for parents, elders, conformity, and authority of elders (Sahithya et al., 2019). It is typical of Indian parents to be strict and controlling, and these behaviors may be viewed as acceptable and typical by children, as these parental behaviors are aimed at fostering subordination and interdependence among children, something that is valued in the Indian society (Mousavi, et al., 2016). In addition, Indian parents also give a lot of importance to education and academic and career achievements (Joshi, 2005), which may place excessive pressure on Indian children and youth to excel with relation to academics.

According to a study published in 2014, India's position on the tightness-looseness scale was more towards the side of tightness in comparison to other 67 countries (Uz, 2014). However, the balance between tightness and looseness in India has been changing over time (Inglehart et al., 2014). While in certain ways, Indian culture remains tight and values traditional norms, globalization and exposure to diverse perspectives may be influencing factors to changing its balance on the tightness-looseness scale. This is likely to impact parenting practices and in turn, child outcomes.

Another factor worth mentioning here is religion. The majority of population follows Hinduism, but people following the religions of Islam, Christianity, Sikhism, Jainism, Buddhism, Judaism, and Zoroastrianism also reside in India. While the basic tenets of all religions speak to the presence of a higher power and emphasize the importance of morals and ethics, there may be some specific religious beliefs that may impact parenting. For instance, based on my readings and understanding, Hindu families may emphasize the importance of joint family structures and respect for elders; the concept of charity is highly emphasized in Islam; Christianity may emphasize moral values and empathy; Sikhism may focus on instilling the values of 'seva' (selfless service); Jainism and Buddhism promote compassion, and avoidance of harm to living beings due to the emphasis on non-violence; Zoroastrianism emphasizes the importance of doing good for the community, instilling a sense of individual responsibility and accountability for one's actions as well as preserving nature. Thus, factors such as religion may certainly impact the way in which they parent/raise their child. Indeed, a study conducted by the Pew Research Center (2021) found that majority of the parents who had a child under the age of 18 said that religion played a role in their child's upbringing. However, research on how specific religious beliefs may impact parenting behaviors in India is non-existent, to the best of my knowledge, and thus, we are limited in our understanding of the relations between specific religious beliefs and parenting behaviors.

A review article on parenting styles in India suggested that Indian parents, compared to parents in USA, Canada, Australia and European countries, were more likely to be highly demanding, enforcing greater control, less accepting, and using more harsh punishment (Sahithya et al., 2019). However, the authors noted that the studies reviewed in the article were more than a decade old, and may not apply in current times. Indeed, parents in urban and

educated families in current India endorse less authoritarian parenting practices and are more child-centered than those parents from rural and less educated families (Isaac et al., 2013). Empirical research has indicated similar findings. For instance, a study conducted on 8th grade students found that majority of the youth (54.5 percent) viewed their parents as authoritative (Bakhla et al., 2013). Similarly, in another study, it was found that majority of Indian mothers (81.7 percent) considered themselves to be authoritative in their parenting (Radhika & Joseph, 2013).

It is important to highlight that *parenting styles*, *parenting practices* and *parenting behaviors* are related, yet different constructs. *Parenting styles* refer to the overall approach that parents adopt in their interactions with their children which is characterized by varying levels warmth, responsiveness and demandingness (Baumrind, 1991). On the hand, *parenting practices* refer to specific behaviors that parents use to socialize their children (Darling & Steinberg, 1993). For example, communication methods and discipline techniques may fall under parenting practices. *Parenting behaviors* are considered as considered to be parents' specific actions and reactions. Examples includes expressions of affection or support, and enforcement of rules. Over the years, the field of Psychology has evidenced a shift in terms of moving towards examining the effects of specific parenting behaviors and parenting practices vs. examining the effects of broader parenting styles on child outcomes, with more research being published on parenting behaviors over the last few decades compared to those in the 1970s. This may be because of the fact that the nature of parent-child relationship is complex, and the *parenting styles* framework may be rather simplistic to help obtain a nuanced understanding of the relation between parenting and child outcomes. No research, to the best of my knowledge, has examined the effects of *parenting behaviors* such as nurturance and restrictiveness specifically in India.

However, there have been many research studies published on the effects of *parenting styles* in India, which incorporate elements of these *parenting behaviors*. Sahithya and colleagues (2019) published a review article on the effects of parenting styles on child outcomes; findings indicated that authoritative parenting (which includes elements of parental nurturance) had the most optimal outcomes. Similar to what has been found in studies conducted on Western samples, children of parents in India with authoritative parenting styles had lower test anxiety, lower social anxiety and lower delinquency compared to children of parents who were authoritarian or permissive. In addition, in the review article, Sahithya et al. (2019) found that authoritative parenting also predicted better academic achievement, fewer interpersonal problems, better coping, and higher emotional intelligence in their children. However, some findings on the effects of parental control on child outcomes are contrary to those found in Western samples, and have also been decidedly mixed. For example, low parental control was associated with aggression, conduct disorder, and oppositional defiant disorder in one study (Sharma & Sandhu, 2006), while another study found that high control by mothers was related to more stress, anxiety and depression in female adolescents (Jahan & Suri, 2016). As highlighted previously, it should be noted though that parents' education level and social class may impact their parenting, which in turn, may impact child outcomes. Most work cited here has included middle and upper middle-class families, and so these findings may not apply to other sections of the society in India.

In sum, while Indian parents still place a strong emphasis on education and traditional cultural values such as obedience and interdependence, recent research indicates a shift in trends, with more parents from urban and educated families adopting more authoritative parenting styles, which seem to predict positive child outcomes.

Effects of COVID-19 on Parent Mental Health

It is well documented in the literature that parents experience daily stress and demands related to their role as parents (Deater-Deckard & Panneton, 2017; Ostberg & Hagekull, 2000); during typical circumstances as well, parents experience everyday stressors (Crnic et al., 2002). Thus, it is understandable that experiencing major stressful life events (such as the pandemic) may put parents at increased risk of experiencing mental health issues (Malia, 2006). Indeed, research indicates that COVID-19 impacted parents' mental health negatively. Parents experienced high levels of stress, burnout, depressive symptoms and anxiety symptoms (e.g., Adams et al., 2021; Chen et al., 2022; Vescovi et al., 2021). For example, in a nation-wide study, it was indicated that American parents reported experiencing significantly higher levels of stress than adults without children (American Psychological Association, 2020). The same study found that the average stress levels reported by parents on a scale of 1 (little or no stress) to 10 (a great deal of stress) was 6.7, compared to 5.5 for adults without children. In addition, almost half of the parents (46 percent) reported that their stress level was high (between 8 and 10 on a 10-point scale; 1=little or no stress; 10=a great deal of stress). On the other hand, only 28 percent of adults without children reported the same. This study was conducted during the early stages of the pandemic (April-May, 2020). Similarly, a study conducted on 2868 Norwegian parents during March-April 2020, found that almost 25 percent of the parents reported clinically significant levels of depression and anxiety symptoms (Johnson et al., 2022). Some longitudinal research has also shed light on the longer-term effects of the pandemic on parents' mental health. For instance, in a study by Adams and colleagues (2021), it was found that parents' stress levels increased significantly when the pandemic hit (as assessed in May 2020), and did not return to pre-pandemic levels even after the quarantine was lifted (assessed in September 2020).

Several factors may explain why parents may be more vulnerable to experiencing mental health issues when faced with a stressful event such as the pandemic. Parents may face unprecedented parenting demands as they may struggle to juggle several responsibilities related to their work, household chores and attend to the needs of their children and other people at home (e.g., older parents/in-laws). Indeed, some predictors of stress for parents (with children ranging in age from 0-18) included social distancing, household chaos (poor organization of home spaces and lack of routines), changes in routines, closure of schools/child-care centers, online schooling demands and worry about COVID-19 (Adams et al., 2021; Calvano et al., 2021; Westrupp et al., 2021). Parents of younger children, may likely face additional pressures as they may need to pay closer attention to the needs of their young children (e.g., feeding, bathing, keeping them occupied, checking school work) as compared to parents of older children who may be relatively more independent. In addition, parents of younger children may experience additional parenting demands in relation to helping their children understand and cope with the events/changes brought about by the pandemic. Thus, it is important to examine the effects of COVID-19 among parents of young children; yet there are very few studies focused specifically on understanding mental health of parents of pre-school and early elementary school aged-children, a gap in the literature which the current study aimed to fill. In the current study, I investigated the effects of COVID-19-related stress on parent mental health in India. In addition, there is very little work on moderators of the relation between COVID-19 stress and parent mental health; the current study examined social support as a possible moderator of parent COVID-19-related stress and parent mental health difficulties.

Social support as a Moderator of Parent COVID-19-Related Stress and Parent Mental Health

Social support may be explained as the individual's subjective evaluation of whether they are able to receive help and support from people in their lives such as their spouse, family, friends, work colleagues, etc. (Willis, 1991). The stress-buffering model suggests that social support can serve as a moderator by buffering or mitigating the impact of stress on physical and mental health (Cohen & Willis, 1985). Several studies have shown that social support buffered the effects of different stressors such as stressful work environments, child abuse or neglect, and sexual abuse on mental health symptoms among adult populations (Evans et al. 2013; Murthi and Espelage 2005; Woodhead et al. 2016).

Social support may offer several benefits to parents. It may offer a sense of social connection and interaction, something that was extremely important during the pandemic during which one may likely experience feelings of isolation and loneliness due to social distancing and quarantine. Relatedly, having someone to talk to may help parents cope better with their stress as they may feel heard and validated. In addition, support in the form of having a helping hand with tasks related to childcare, household chores and related errands may reduce the burden and stress related to parenting and family responsibilities that parents may be experiencing. Indeed, past research has shown that social support can buffer the effects of stressful life events on parents' mental health (Koeske & Koeske, 1990; Park & Lee, 2022). Within the COVID-19 context, researchers have shown that social support was inversely associated with depression and anxiety among adults (Zhan et al., 2022), and that it emerged as a protective factor with relation to COVID-19 stress and mental health (Ebrahimi et al., 2022; Schierberl Scherr et al., 2021); however, these findings come from cross-sectional studies conducted on health care workers. Researchers, to the best of my knowledge, have yet to examine the role of social support among parents of young children within the COVID-19 context.

Qualitative Work on Parent and Child Mental Health During COVID-19

While quantitative survey findings certainly highlight the negative effects of COVID-19, qualitative work on the topic is important as it allows for a deeper understanding of the issues and challenges experienced by parents and children during this period, which may have likely impacted their mental health. Compared to the volume of quantitative work on the topic, qualitative work is sparse. However, the qualitative studies bring to light several factors that may likely have affected parent and child mental health. For instance, Dawes and colleagues (2021) conducted semi-structured interviews with 29 parents in the United Kingdom, and identified five main themes impacting their mental health: (1) Navigating multiple responsibilities and changes at home (convergence of childcare and work responsibilities); (2) disruption to home life; (3) changes to usual support networks (e.g., closures of schools/childcare centers, adjusting to work and school online); (4) changes in relationships (e.g., challenges in maintaining positive relationships, lack of physical contact); and (5) coping (e.g., avoiding negative interactions).

Other qualitative work on the topic (e.g., O'Sullivan et al., 2021; Shum et al., 2023; Toros & Falch-Eriksen, 2022; Vaterlaus et al., 2021) reported similar findings to those of Dawes et al (2021). Other themes identified were concerns about the impact of the pandemic on their children, health concerns for others, mental exhaustion, and poor mental health (e.g., worries, uncertainties, stress, depression). Some positives were also identified such as gratitude and strengthened family relationships. It is important to note though that most qualitative work on the topic also comes from the early stages of the pandemic. It is critical to learn how the pandemic impacted parents, parenting, parent mental health and child mental health at different stages of the pandemic, including after schools and workplaces resumed being back in-person.

Also, within the Indian context, qualitative studies on the impact of COVID-19 on mental health have focused on frontline workers and medical professionals, but, none, to the best of my knowledge, on parents of young children. The current study attempted to fill in these gaps in the literature.

COVID-19 Within the Indian Context

In India, from January 3rd, 2020 to November 22nd, 2023, a total of 45,001,575 confirmed cases, and 533,295 deaths were reported (World Health Organization, 2023). In April-May 2021, India experienced a massive second wave of COVID-19 cases, driven by the delta variant, leading to an unprecedented surge of new cases and deaths. The sudden uptick in cases and deaths, hospitals being at capacity and a breakdown of the health-care system, combined with lockdown measures presumably led to high levels of stress, unemployment, fear, and isolation across the country. Additionally, the Indian context is unique, given the high population density and smaller homes, which means that COVID-19 isolation measures needed to be even stricter than in countries like the U.S., leading to comparatively more external stressors and fewer recreational options for families. Furthermore, a majority of the Indian homes are not equipped with dishwashers, washing machines or vacuum cleaners, and most of the housework is done manually (Pandey, 2020). Typically, families belonging to middle and upper class hire domestic help for household work. Due to strict lockdowns enforced at least during the early months of the pandemic, many families had to take care of housework themselves (Deshpande, 2020, Pandey, 2020), which have led to additional stress. Lastly, given the slow rate of vaccination combined with the inability to impose strict restrictions and effectively maintain social distancing further added to the complexity.

There is a dearth of research on the impact of COVID-19 on parent and child mental health and related outcomes in India. However, a review of the existing literature revealed findings similar to those highlighted above. COVID-19 had detrimental effects of child mental health. One study found that 73.15 percent and 51.25 percent children showed signs of irritability and anger respectively during the pandemic (Sama et al., 2021). Another study found that children and adolescents (ages 9-19) reported high levels of worry, helplessness and fear (Saurabh & Ranjan, 2020).

Similarly, parent mental health in India was also negatively impacted during the pandemic. According to a study by Sama and colleagues (2021) among parents in Punjab, 33 percent of parents reported that their stress levels had increased since the COVID-19 lockdown. Similar findings were reported by a study conducted among parents in Tamil Nadu; based on parents' responses on the General Health Questionnaire-12 (GHQ-12), 47.1 percent were found to have poor mental health (R, 2021). This study was conducted during June to August of 2020. One study demonstrated how COVID-19 impacted parenting behaviors (Br et al, 2020). In this investigation of 227 parents who had children below the age of 15 in April 2020, the majority of parents reported experiencing moderate to high levels of stress since the COVID-19 lockdown; 37 percent reported feeling more stressed as a parent. In addition, parents of children with developmental disorders, and parents who had interpersonal difficulties with their spouse and children reported experiencing significantly higher levels of perceived and parenting stress. These latter constructs were related to negative parenting behaviors such as yelling, spanking or slapping the child and difficulty with parenting. While these studies highlight the negative impacts of the pandemic on children and parents in India, research on the topic is still very sparse, and generally derives from cross-sectional studies. In addition, we are limited in our

understanding of risk and protective factors of parent and child mental health within the COVID-19 context in India.

Current Study

Collectively, research suggests that the COVID-19 pandemic has led to significant increases in parent and child mental health difficulties. However, there still remain significant gaps in the literature. First, there is still a dearth of research on parenting behaviors, parent mental health and child mental health within the COVID-19 context in India. As highlighted previously, given the unique challenges experienced by that population, it is critical to examine the nature of relations between these variables among parents in India. Doing so would help identify risk and protective factors that may moderate the effects of COVID-related stressors on parent and child mental health, which would help inform intervention efforts. This is particularly important to do in the Indian context given that mental health issues are highly prevalent (Sagar et al., 2020). During the pandemic, suicide was the leading cause of death for over 300 non-COVID-19 deaths in the first half of 2020 (Roy et al., 2021). Sadly, only 10-12 percent of individuals with mental health issues seek help due to the stigma attached to mental health issues (Padukone et al., 2018).

Second, a majority of the published research on the topic was conducted during the early phases of the pandemic (i.e., 2020), and most research, especially the studies conducted in India were cross-sectional in nature. It is important to understand how the nature of relations between these variables have evolved with time, as well as understand factors that may moderate these relations. Another related limitation is that there is a paucity of work, especially among families in India, focused specifically on *young children* and their parents. As highlighted previously, it

is important to examine the effects of the pandemic on child and parent mental health among this vulnerable population.

Third, the majority of the research on the topic derives from quantitative research. There is very limited qualitative work on the topic. Qualitative research approaches such as individual interviews have their own unique advantages – for example, the open-ended nature of questions may give participants the opportunity to explain and elaborate on their thinking and go beyond the fixed response-set options imposed by questionnaires. Similarly, interviewers may have the ability to ask for clarification on responses to gain a deeper understanding of the nature of the participants' responses. While there were a few qualitative studies published on how the pandemic had impacted individuals in India, a majority of these investigations were conducted on front-line workers. No published qualitative work exists in which researchers have examined experiences of parents with young children, and how COVID-19 impacted their own and their child's mental health in India. A deeper understanding of parenting behaviors, parent and child mental health, and family processes is warranted in order to effectively address parents' and families' needs, and create culturally sensitive and appropriate intervention programs that are aimed at promoting the wellbeing of parents and children during stressful times like these.

The current mixed-methods study aimed to address these gaps in the literature by conducting a study of parents of young children between the ages of 4 to 8 in India. Adopting a mixed-methods approach offers many benefits. It combines the strengths of both quantitative and qualitative approaches, and "compensates for inherent method weaknesses, on inherent method strengths, and offsets inevitable method biases" (Greene, 2007, p. xiii). In addition, being able to use multiple sources of data allows for triangulation, which helps validate findings and increase their credibility (Cresswell, 2014; Johnson & Onwuegbuzie, 2004).

Research Questions and Hypotheses

The following research questions (RQs) were addressed through the collection of *quantitative survey* data:

RQ 1 (a): How was child COVID-19-related stress (e.g., changes in schedules, cancellation of important events, etc. due to COVID-19) related to child mental health difficulties concurrently and over time?

RQ 1 (b) Do parental behaviors such as nurturance and restrictiveness moderate the relations between child COVID-19-related stress and child mental health difficulties concurrently and over time?

Hypothesis 1 (a): Child COVID-19-related stress will be positively related to child mental health difficulties concurrently; child COVID-19 related stress will positively predict child mental health difficulties longitudinally.

Hypothesis 1 (b): Parental nurturance will serve as a buffer in the relation of child COVID-19-related stress and child mental health difficulties concurrently and longitudinally; nurturance will lessen the effects of the COVID-19-related stress on child mental health difficulties such that children whose parents (mothers and fathers) show greater levels of nurturance will have lesser mental health difficulties when they experience stress due to changes brought about by COVID-19, compared to children whose parents show lower levels of nurturance. On the other hand, parental restrictiveness will exacerbate the relations between COVID-19-related stress and child mental health difficulties, such that children whose parents show greater levels of restrictiveness will have more mental health difficulties when they experience stress due to changes brought about by COVID-19, compared to children whose parents show lower levels of restrictiveness.

RQ 2 (a): How was parent COVID-19-related stress (e.g., changes in schedules, worrying about health due to COVID-19) related to parent mental health difficulties (anxiety, depression and stress symptoms) concurrently and over time?

RQ 2 (b) Does perceived social support moderate the relation between parent COVID-19-related stress and parental mental health difficulties concurrently and over time?

Hypothesis 2 (a): Parent COVID-19-related stress will be positively related to parent mental health difficulties concurrently; parent COVID-19 related stress will positively predict parent mental health difficulties longitudinally.

Hypothesis 2 (b): Perceived social support will buffer the above-mentioned relations concurrently and longitudinally. That is, perceived social support will lessen the effects of parent COVID-19-related stress on parent mental health difficulties such that parents who perceive greater levels of social support will have fewer mental health difficulties when they experience stress due to COVID-19, compared to parents who perceive lower levels of social support.

The following research questions (RQs) were addressed through the *qualitative interview* data.

RQ 1: What were some specific challenges that parents experienced over the different stages of the pandemic?

RQ 2: How did the pandemic impact parents' mental health?

RQ 3: How did the pandemic impact children's academic, social and physical development, and mental and behavioral health?

RQ 4: What helped parents cope with the challenges experienced during the pandemic?

Method

Positionality

As the principal investigator of this research project focused on understanding experiences of families in India during the COVID-19 pandemic, I find it imperative to articulate my positionality in relation to this study. I am an Asian Indian American, first-generation immigrant woman, a mother of two sons, currently residing in the United States. I was born and raised in Ahmedabad, Gujarat, India, and I lived there for the first 25 years of my life. Thus, my identities of being a woman from India who understands cultural norms as well as gender roles and expectations, speaks the native language, as well as being a mother of two young children offered several advantages. It helped me relate to my participants' experiences as well as helped them connect to me better. It also helped me interpret the findings keeping in mind the broader sociocultural context. However, I also acknowledge that my own experiences may have led to assumptions or biases. I was mindful of the need for me to remain vigilant about this; I attempted to not let my own past experiences affect the way in which I interpreted the data.

Procedures

The current study was conducted as part of a larger longitudinal study of how COVID-19 had been impacting children and families around the world, and was approved by the University of Maryland, College Park's, Institutional Review Board. With the help of two study collaborators in India, and through my own personal connections, I reached out to principals of ten schools in India, in the Western and North-Western part of India (6 schools in Ahmedabad, 1 in Baroda, and 1 in Surat, all in the state of Gujarat, and 2 in Jaipur, in the state of Rajasthan), who agreed to distribute the study information to parents of the children who were between the

ages of 3.5 and 8. The flyer for the study and information about the study were also distributed among networks in India and posted on social media (e.g., Whatsapp and Facebook). Interested participants could click on the survey link on the flyer. On doing so, participants were taken to a secure online platform where they were first presented with the consent form, followed by the screener questions. If they met eligibility criteria, they could proceed to the actual survey questions. Parents who were living with their child for at least 50 percent (or more) of the time, and had a child between the ages of 3.5 to 8 years, who was not suspected of any intellectual or cognitive difficulties or selective mutism, and who had been in daycare/pre-school before the pandemic started were eligible to participate. It took participants approximately 45-60 minutes to complete the survey.

Survey data were collected at three time points: October 2020 to February 2021 (Time 1), which captured the relatively earlier impacts of the pandemic; May 2021 to July 2021 (Time 2), which captured the effects of the deadly Delta variant wave in India; and July 2022 to October 2022 (Time 3), which captured the longer-term effects of the pandemic. All participants who completed the survey at Time 1 were entered in a raffle to win Rs. 1000 (~ $12 based on the then rupee to dollar conversion rate) via an Amazon gift card or via the PayTM app; four participants were awarded the amount. All participants were awarded Rs. 500 (~$7 based on the then rupee to dollar conversion rate) for completing the survey at Time 2, and Rs.700 (~$9 based on the conversion rate) for completing the survey at Time 3.

Quantitative Survey Participants

A total of 140 parents completed the survey at Time 1. The majority of the participants were mothers (79.3 percent), married (97.9 percent), belonging to the Hindu religion (76.6 percent), held a master's degree or higher (72 percent), and resided in a large city (85.6 percent).

They ranged in age from 26 to 49 years (M_{age} = 35.74; SD_{age} = 4.05). Most parents (23.4%) reported that they lived with four other people in their home; 85.8% reported living with their spouse; 18.4 percent and 35.5 percent reported that their parent(s) and in-laws respectively lived in the same house; 77.3 percent reported that they had an additional child that lived in the same house. Children ranged in age from 4-8 years (M_{age} = 5.75; SD_{age} = 1.21); 51.8 percent were female. Of these 140 parents who completed the survey at Time 1, 85 parents completed the survey at Time 2, and 70 at Time 3.

Quantitative Measures

Parents completed the following measures at each time point.

COVID-19-Related Stress

The Coronavirus Health Impact Survey Parent/Caregiver Short Form, and Adult Self-report version (CRISIS; Merikangas, et al., 2020) were used to examine their children's and parents' health and wellbeing during the period of the coronavirus pandemic. The CRISIS includes questions on demographic and contextual information (10 items), COVID-19 health/exposure status (4 items; e.g., "Have you been suspected of having Coronavirus/COVID-19 infection"), life changes due to COVID-19 crisis (16 items; e.g., "How stressful have the restrictions on leaving home been for you?"), daily behaviors (sleep, activity; 3 items; e.g., "How many hours per night did you sleep on average?"), emotions/worries (6 items; e.g., "How worried were you generally?"), and media use (3 items, e.g., "How much time per day did you spend watching TV?"). At Times 1 and 2, parents completed the measure reflecting over the past month; at Time 3, they were instructed to reflect over the past year. For the purposes of the current study, I created two separate measures of parent and child COVID-19-related stress by

using items corresponding to COVID-19 health/exposure status and life changes due to the COVID-19 crisis. However, since there was very little variability on the items corresponding to COVID-19 health/exposure status, I decided to not use those items in my measure. I conducted an Exploratory Factor Analysis with the items corresponding to the life changes due to COVID-19 crisis and retained the items with acceptable factor loadings.

The *Child COVID-19-related stress* measure consisted of a total of 9 questions. Sample items included: "During the past month/year, how stressful have changes in social contacts been for your child?" and "During the past month/year, how much has cancellation of important events (such as vacations, class activities/parties, birthday parties, etc.) in your child's life been difficult for him/her?" Parents rated each question on a 5-point scale (0=Never, 1 = Slightly, 2 = Moderately, 3 = Very, 4 = Extremely).

The *Parent COVID-19- related stress* measure consisted of a total of 12 questions. Sample items include, "During the past month/year, to what degree are you concerned about the stability of your living situation?" and "During the past month, how stressful have changes in family contacts been for you?" Parents rated each question on a 5-point scale (0=Never, 1 = Slightly, 2 = Moderately, 3 = Very, 4 = Extremely).

Since the measure has not been validated for use among Indian samples, I performed an exploratory factor analysis for the child and parent measures. The factorability of the child COVID-19-related stress measure's data was tested using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's Test of Sphericity in SPSS. The KMO measure of sampling adequacy value was .716, suggesting that factorability of the dataset was supported. Bartlett's test of sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant ($\chi 2$ (45) = 362.048, $p < .001$), indicating that it was

appropriate to use the factor analytic model on this set of data. Next, a principal axis factor analysis (number of factors unspecified) was computed on all ten items corresponding to the subscale, life changes due to COVID-19 crisis. The first three eigenvalues and variance accounted for were: 3.39 (33.94), 1.82 (18.16), and 1.01 (10.06). I used the scree plot to determine the likely number of factors. The scree plot indicated a 1-factor solution. Thus, a one-factor solution was first extracted using the maximum likelihood extraction and Promax rotation. All items except one loaded very well onto the one factor, namely, *Stress* impact of COVID-19, with factor loading values ranging from .86 to .35. The item with factor loading of 3.35 (During the past month, to what degree was your child concerned about the stability of your living situation) was hence dropped, and the whole series of steps was repeated. The KMO measure of sampling adequacy value was .721, and the Bartlett's test of sphericity was significant ($\chi 2$ (36) = 339.215, $p < .001$). Next, a principal axis factor analysis (number of factors unspecified) was computed on all nine items. The first three eigenvalues and variance accounted for were: 3.20 (35.53), 1.77 (19.71), and 1.01 (11.13). The scree plot indicated a 1-factor solution, and a one-factor solution was first extracted using the maximum likelihood extraction and Promax rotation. All items loaded very well onto the one factor with factor loading values ranging from .90 to .46. Thus, the nine items were retained and used for the rest of the analysis.

I used a similar process to examine the factorability and factor structure of the *Parent COVID-19-related stress measure*. The KMO measure of sampling adequacy value was .796, suggesting that factorability of the dataset was supported. Bartlett's test of sphericity was significant ($\chi 2$ (66) = 481.695, $p < .001$), indicating that it was appropriate to use the factor analytic model on this set of data. Next, I computed a principal axis factor analysis (number of factors unspecified) on all 12 items. The first three eigenvalues and variance accounted for were:

4.39 (36.59), 1.67 (13.93), and 1.32 (10.98). The scree plot indicated a 1-factor solution. Thus, a one-factor solution was first extracted using the maximum likelihood extraction and Promax rotation. All items loaded very well onto the one factor, with factor loading values ranging from .82 to .53. Thus, I proceeded to retain all the 12 items.

The measure has demonstrated good internal and test retest reliability, as well as high construct validity (Nikolaidis et al., 2020). In the current study, it showed good internal consistency. The Cronbach alpha for the child COVID-19-related stress measure was .76, .76 and .85 at Times 1, 2 and 3 respectively. For the parent COVID-19-related stress measure, it was .85, .81 and .80 at Times 1, 2 and 3 respectively. See Appendix A for the parent and child COVID-19-related stress measures.

Child Mental Health Difficulties

In order to assess child mental health difficulties, the *Strengths and Difficulties Questionnaire* (SDQ; Goodman, 1997), a widely-used and well validated parental report of children's mental health was used. The measure consisted of 25 items comprising five subscales: (1) emotional symptoms, (2) conduct problems, (3) peer problems, (4) hyperactivity/inattention and (5) prosocial behavior. In the current study, 15 items corresponding to emotional symptoms (e.g., "Often unhappy, depressed or tearful"), conduct problems (e.g., "Often lies or cheats"), and prosocial behavior (e.g., "Considerate of other people's feelings) were included. Parents were asked to reflect over the past month and rate each item on a 3-point Likert scale (0=Not true, 1= Somewhat true, 2 = Certainly true). Mean scores for each of the subscales were computed. Higher scores on each subscale indicated greater levels of emotional difficulties, conduct problems, and prosocial behavior. Given that the scores on emotional problems and conduct problems subscales showed a significant, high, positive correlation with each other at each time

point in the current study, for purposes of data analysis, I used the items corresponding to the emotional symptoms and conduct problems subscales to create a composite score of child mental health difficulties. The SDQ has high reliability and external validity predicting clinical diagnosis (Hawes & Dadds, 2004). It has also been used extensively in research in India and has been validated within Indian samples (Bele et al., 2013; Bhat & Roopesh, 2022). In the current study, it demonstrated good internal consistency reliability; Emotional symptoms subscale at Times 1, 2, and 3 respectively: $\alpha = .70$, $\alpha = .62$, $\alpha = .77$; Conduct problems subscale at Times 1, 2, and 3 respectively: $\alpha = .65$, $\alpha = .67$, $\alpha = .72$.

Parenting Behaviors

The Child-Rearing Practices Report Questionnaire (CRPR-Q; Rickel & Biasatti, 1982), an adaption of the original 91-item Block (1965) Child Rearing Practices Q-Sort, was used to assess parents' child-rearing attitudes, values, and behaviors. The measure consists of 36 items, and parents were asked to indicate the extent to which they agreed/disagreed with the statements on a 6-point Likert scale (1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = slightly agree, 5 = moderately agree, 6 = strongly agree). The CRPR-Q as two subscales: Nurturance (sample item: "I respect my child's opinion and encourage him/her to express it") and Restrictiveness (sample item: "I control my child by warning him about the bad things that can happen to him"). At Times 1 and 2, parents were asked to complete the measure reflecting over the past month; while at Time 3, they were asked to complete the measure reflecting over the past year. The measure has been found to have good internal consistency reliability of alphas greater than .80 (Rickel & Biasatti, 1982). The construct validity of the CRPR-Q has been demonstrated via significant associations of the two summary scores with parents' observed behavior with their school-aged children, and significant differences in these scores between

parents of sociometrically popular and rejected children (Deković et al., 1991). Since I could not find published studies using the CRPR-Q among Indian samples, I conducted an exploratory factor analysis and found that the items loaded as expected onto the two factors, confirming that it was appropriate to use with this sample. In the current study, the measure also showed very good reliability; the Cronbach alpha for the nurturance scale was .93, .91 and .92 at Times 1, 2, and 3 respectively, and for the restrictiveness scale was .85, .78 and .84 at Times 1, 2 and 3 respectively.

Parent Mental Health Difficulties

The Depression, Anxiety, and Stress Scale – 21 Items (DASS-21; Lovibond & Lovibond, 1995) was used to assess *parent mental health difficulties*. The tool consists of 21 items and has three subscales that measure symptoms of depression, anxiety and stress, that contain 7 items each. The *depression* scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia and inertia (sample item: "I couldn't experience any positive feeling at all."). The *anxiety* scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect (sample item: "I was aware of dryness in my mouth."). The *stress* scale assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient (sample item: "I found it hard to wind down."). At each time point, parents were asked to reflect over the past month and indicate the extent to which each statement applied to them on a 4-point Likert scale (0 = Did not apply to me at all, 1 = Applied to me to some degree, 2 = Applied to me to a considerable degree or a good part of the time, 3 = Applied to me very much or most of the time). For the purposes for the current study, I summed up all the items on the measure to obtain a total score for parents' mental health difficulties. The DASS-21 has demonstrated strong

psychometric qualities for adults (Daza et al., 2002; de Beurs et al., 2001). It has also been validated for use among Indian samples (Sharma et al., 2020). In the current study, it showed excellent reliability with Cronbach alphas of .96, .93 and .97 at Times 1, 2 and 3 respectively.

Social Support

Perceived social support was assessed via the *Personal Resources Questionnaire* (PRQ; Brandt & Weinert, 1981), a 25-item questionnaire which required parents to rate their agreement with each statement, describing supportive or self-enhancing social contacts, on a 7-point scale (1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree nor disagree/Neutral; 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree). Sample items include, "There is someone I feel close to who makes me feel secure" and "People let me know that I do well at my work (job, home)." At Times 1 and 2, parents were asked to complete the questionnaire reflecting over the past month; at Time 3, they were asked to reflect over the past year while completing it. Mean scores were calculated, with higher scores indicating a higher level of perceived social support. The PRQ has been found to have high internal consistency and test-retest reliability (Spieker & Booth, 1988). I conducted an exploratory factor analysis because the PRQ has not been used among Indian samples. The items loaded as expected. The measure also showed very good reliability; the Cronbach alpha was .93, .92, and .84 at Times 1, 2 and 3 respectively.

Qualitative Method: Individual Interviews Participants and Procedures

Qualitative data, in the form of in-depth qualitative interviews, were collected from a subset of the sample (n = 20). Majority of the participants were mothers (85 percent); participants ranged in age from 29 to 49 years (M_{age} = 35.50, SD_{age} = 5.13). With regard to

marital status, majority of the participants were married (90 percent); 10 percent were separated. With regard to education, 25 percent had a bachelor's degree, 60 percent had a master's degree, and 15 percent had a doctoral degree. All participants resided in urban areas.

Data collection took place between July and December 2022. In terms of participant selection, all participants were first grouped into two categories – mothers and fathers. Mothers were further subcategorized into those who were employed for wages and those who were homemakers. Participants were then randomly selected from these groups. If participants refused to participate, participant(s) not already chosen were randomly selected from the group and were offered the opportunity to participate in the interview. This procedure was used in order to capture the specific challenges experienced by mothers (homemakers as well as those employed for wages) and fathers, and how they may have impacted them and their families differently.

Parents provided consent via a secure online form. Interviews were conducted via Zoom, which lasted for approximately an hour. The interviews were conducted in English. Before beginning the interview, the researcher explained the purpose of the interview (i.e., gaining a better understanding of their challenges, so as to be able to develop culturally sensitive and appropriate interventions for this population in the future). The semi-structured interview protocol was designed to elicit open responses from the participants. Sample questions include, "Looking back to the time when the pandemic started in March 2020 to now, what have been some challenges that you have experienced", "How would you describe the impact of the pandemic on your mental health?" Please see Appendix B for a full list of questions. Parents were awarded an Amazon gift card worth Rs. 700 (~$9) for participating in the interview. Interviews were recorded, and were then transcribed verbatim by research assistants. All

transcripts were then checked by the author to make sure that they were transcribed correctly; appropriate corrections were made.

Data Analysis: Quantitative Data

Analyses were conducted in SPSS 26 and in M*Plus* version 6.12. SPSS was used to calculate descriptive statistics, correlations and internal consistency reliabilities of the measures. Path analysis in M*Plus* was used to answer research questions 1 and 2. Prior to model testing, descriptive statistics for, and correlations among, study variables were conducted to check for normality. I also checked to determine patterns of missing data, and based on that, used an appropriate estimator (e.g., full information maximum-likelihood estimator as data were missing at random). I used the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR) fit indices to determine model fit; RMSEA values ≤ 0.05, CFI values ≥ 0.95, and SRMR values < 0.08 indicate excellent fit (Hu & Bentler, 1999; Tabachnick & Fidell, 2013).

Research question 1 (a) asked how child COVID-19-related stress (e.g., changes in schedules, changes in social contacts for children) was related to child mental health difficulties concurrently and over time. *Research question 1 (b)* asked if parental behaviors such as nurturance and restrictiveness moderated the relations between child COVID-19-related stress and child mental health difficulties concurrently and over time. Because of the small sample size, and in order to maximize power, I ran one model to test the longitudinal relations between child COVID-19-related stress, parental nurturance/restrictiveness, and child mental health, and three models to test the within-time relations between those variables.

More specifically, for the longitudinal model with *parental nurturance as the moderator*, child mental health difficulties (Time 3) was regressed on child COVID-19-related stress (Time

1, Time 2), parental nurturance (Time 1, Time 2), the interaction terms of child COVID-19-related stress and parental nurturance (Time 1 and Time 2), and child mental health difficulties (Time 1 and Time 2). Similarly, child mental health difficulties (Time 2) was regressed on child COVID-19-related stress (Time 1), parental nurturance (Time 1), interaction term of child COVID-19-related stress and parental nurturance (Time 1), and child mental health difficulties (Time 1). Other stability paths were also added; child COVID-19-related stress (Time 2) was regressed on child COVID-19-related stress (Time 1), and parental nurturance (Time 2) was regressed on parental nurturance (Time 1). To test the concurrent relations between child COVID-19-related stress, parental nurturance and child mental health difficulties, I ran three within-time models. In the first model, child mental health difficulties (Time 1) was regressed on child COVID-19-related stress (Time 1), parental nurturance (Time 1) and the interaction term of child COVID-19-related stress and parental nurturance (Time 1). The other two within-time models were identical and they tested the nature of the relations between these variables at Time 2 and Time 3.

The longitudinal model with *parent restrictiveness as the moderator* was identical except that instead of parental nurturance, parental restrictiveness was used. Child mental health difficulties (Time 3) was regressed on child COVID-19-related stress (Time 1, Time 2), parental restrictiveness (Time 1, Time 2), the interaction terms of child COVID-19-related stress and parental restrictiveness (Time 1 and Time 2), and child mental health difficulties (Time 1 and Time 2). Similarly, child mental health difficulties (Time 2) was regressed on child COVID-19-related stress (Time 1), parental restrictiveness (Time 1), interaction term of child COVID-19-related stress and parental restrictiveness (Time 1), and child mental health difficulties (Time 1). Other stability paths were added; child COVID-19-related stress (Time 2) was regressed on child

COVID-19-related stress (Time 1), and parental restrictiveness (Time 2) was regressed on parental restrictiveness (Time 1). To test the concurrent relations between child COVID-19-related stress, parental restrictiveness and child mental health difficulties, I ran three within-time models. In the first model, child mental health difficulties (Time 1) was regressed on child COVID-19-related stress (Time 1), parental restrictiveness (Time 1) and the interaction term of child COVID-19-related stress and parental restrictiveness (Time 1). The other two within-time models were identical and they tested the nature of the relations between these variables at Time 2 and Time 3.

Research question 2 (a) asked how parent COVID-19 related stress (e.g., changes in schedules, changes in social contacts for parents) was related to parent mental health difficulties concurrently and over time. *Research question 2 (b)* asked if social support moderated the relation between parent COVID-19-related stress and parental mental health difficulties concurrently and over time. As with research question 1, I ran one longitudinal model: parent mental health difficulties (Time 3) was regressed on parent COVID-19-related stress (Time 1, Time 2), perceived social support (Time 1, Time 2), the interaction terms of parent COVID-19-related stress and perceived social support (Time 1 and Time 2), and parent mental health difficulties (Time 1 and Time 2). Similarly, parent mental health difficulties (Time 2) was regressed on parent COVID-19-related stress (Time 1), perceived social support (Time 1), the interaction term of parent COVID-19-related stress and perceived social support (Time 1), and parent mental health difficulties (Time 1). Other stability paths were also added; parent COVID-19-related stress (Time 2) was regressed on parent COVID-19-related stress (Time 1), and perceived social support (Time 2) was regressed on perceived social support (Time 1). I also ran three within-time models to test the nature of the relations between parent COVID-19-related

stress, parent mental health difficulties and perceived social support. In the first model, parent mental health difficulties (Time 1) was regressed on parent COVID-19-related stress (Time 1), perceived social support (Time 1) and the interaction term of parent COVID-19-related stress and perceived social support (Time 1). The other two within-time models were identical and they tested the nature of the relations between these variables at Time 2 and Time 3.

A post-hoc power analysis was conducted in order to assess the adequacy of the sample size and the statistical power. In structural equation modeling (SEM), which includes path analysis, a common rule of thumb is to have at least 10 to 20 observations per estimated parameter (Kline, 1998; Marsh et al., 1988). It should be noted that based on this approach, the large longitudinal models were underpowered.

Data Analytic Plan: Qualitative Data

The interview data with 20 parents was analyzed using *thematic analysis* (Braun & Clarke, 2006). All transcripts were coded using qualitative data analysis software, NVivo. Thematic analysis involves the following steps: (1) familiarizing oneself with the data, (2) generating initial codes (i.e., basic elements of the data), (3) searching for themes, (4) reviewing themes, (5) defining themes, and (6) producing a report that captures the richness of the data set. It is important to note that these six steps are not linear, and the researchers often move forward and back many times throughout the analytic process (Maguire & Delahunt, 2017).

My data analysis team included myself, one post-doctoral fellow and one graduate student. All coding team members had experience with qualitative research in the past. We followed the steps outlined above to go about the data analysis process. More specifically, first the post-doctoral fellow provided some training to the two graduate students on the qualitative

coding process. Then, the team members read and re-read three transcripts to become familiar with the interview data. Early impressions of the data were formed by each coder, and notes were taken down individually by each coder. With these impressions, we started developing the codebook.

With this shared initial coding framework, the other graduate student and myself proceeded with the next steps. We coded a total of four randomly selected interviews (20 percent of the interviews) for reliability, using a negotiated agreement approach (Campbell et al., 2013). We added memos to record our observations, thoughts, or questions. Based on our weekly meetings, we made revisions to our codebook. Intercoder reliability was calculated, and the final interrater reliability was 71 percent, which is considered to indicate substantial agreement (Landis & Koch, 1977). Thus, we proceeded to code the rest of the transcripts independently. We continued to meet weekly to review notes and compared coding results. Discrepancies were resolved via discussion. Once all the transcripts were coded, I generated broader themes. Lastly, to ensure data trustworthiness (Lincoln & Guba, 1985), I reached out to two participants (10 percent of my sample) who had participated in the qualitative interviews; I shared a summary of the findings and sought their inputs and feedback, and incorporated those in the final findings.

Results

Quantitative Data

Preliminary Analysis

I first examined the individual item responses of the participants on the COVID-19-related stress child and parent measures. As noted in the Method section, there was very little variability on the items corresponding to health/exposure status. Thus, very few participants

endorsed experiencing events such as being exposed to someone with COVID-19, and someone in the family being diagnosed with COVID-19. Therefore, a decision was made not to use the items corresponding to health/exposure status as it would not have resulted in meaningful findings. Items that corresponded to life changes due to COVID-19 crisis showed good variability. Thus, an exploratory factor analysis was conducted for those items on the parent measure and the child measure separately (the findings are described in the Method section).

Next, the means and standard deviations of all measures were examined, and correlations were computed between key study variables (Tables 1 and 2). Of note, child COVID-19-related stress at Time 1 was positively related to child mental health difficulties at each of the three time points. Child COVID-19-related stress at Time 2, however, was related to child mental health difficulties at only Time 2 and not Time 3. As expected, parental nurturance at Time 1 was negatively related to child mental health difficulties at Time 2, while parental nurturance at Time 2 was negatively related to child mental health difficulties at all three time points. On the other hand, parental restrictiveness at Time 1 was positively related to child mental health difficulties at Time 1 and Time 3. Parent COVID-19-related stress at Time 1 and Time 3 were positively related to parental mental health difficulties at each time point. Also, as anticipated, parents' perceptions that they were recipients of social support were consistently and negatively related to parent mental health difficulties at each of the three time points.

Next, I ran a series of independent samples *t*-tests to examine sex differences with relation to child COVID-19-related stress, child mental health difficulties, parental nurturance and parental restrictiveness. No significant findings emerged.

Similarly, I ran a series of independent samples *t*-tests to examine sex differences with relation to parent COVID-19-related stress, parent mental health difficulties, and perceived

social support, and there were no significant sex differences on any of the variables. I also ran a series of independent samples *t*-tests and chi-square tests to examine if there were any differences on key demographic variables (e.g., child age, parent age, parent sex, parent education, parent marital status, parent religion) between participants who had completed the measures at any of the two time points versus just one time point. There were no significant differences as revealed by the *t*-tests and the chi-square tests. Thus, I did not control for any demographic variables in my main analyses.

Next, I ran a series of paired sample's *t*-tests to examine if there were differences in child and parent mental health difficulties between the three time points. There were significant differences between Time 1 and Time 3, $t(50) = -2.107$, CI [-1.608, -.039], $p < .05$, and Time 2 and Time 3, $t(56) = -2.419$, CI [-1.961, -.184], $p < .05$ on child mental health difficulties. Parents reported more mental health difficulties for their child at Time 3 ($M = 3.90$; $SD = 3.79$) than at Time 1 ($M = 3.08$; $SD = 2.73$) and at Time 2 ($M = 2.77$; $SD = 2.53$). With regard to parent mental health difficulties, there was a significant difference between Time 2 and Time 3, $t(53) = -2.054$, CI [-6.09, -.072], $p < .05$, with parents experiencing greater mental health difficulties at Time 3 ($M = 12.38$; $SD = 13.20$) compared to that at Time 2 ($M = 9.30$; $SD = 10.41$).

Lastly, I conducted frequency analyses to calculate the percentage of child and parent participants who showed elevated mental health difficulties/symptoms. With regard to *children*, 7.2, 4.8, and 10.8 percent experienced clinically significant levels of *emotional difficulties* at Times 1, 2, and 3 respectively; while 12, 4.9, and 8.5 percent showed clinically significant levels of *conduct problems* at the three time points respectively. With regard to *parents*, 8.8, 6.4, and 15.7 percent showed elevated *depressive symptoms*, 7.7, 2.6, and 12.6 percent showed elevated

anxiety symptoms, and 4, 2.6 and 9.4 percent showed elevated *stress symptoms* at Times 1, 2 and 3 respectively.

Table 1

Summary of Intercorrelations, Means and Standard Deviations on key Study Variables: Child (RQ1)

	1	2	3	4	5	6	7	8	9	10	11	12
1. COVIDT1												
2. COVIDT2	.54**											
3. COVIDT3	.34**	.24										
4. NurtT1	-.14	-.26*	-.20									
5. NurtT2	-.33**	-.08	-.24	.39**								
6. NurtT3	.06	.08	-.30*	.32*	.07							
7. RestT1	.11	.22	.18	.24*	-.31*	-.21						
8. RestT2	.07	.16	.18	-.29*	-.12	-.07	.67**					
9. RestT3	.21	.13	.07	-.03	-.13	.25*	.77*	.63**				
10. SDQT1	.37**	.27*	.22	-.17	-.59**	-.06	.25*	.08	.07			
11. SDQT2	.35**	.37**	.38**	-.34**	-.39**	-.01	.23	.15	-.10	.67**		
12. SDQT3	.27*	.09	.42**	.03	-.62**	-.13	.33*	.09	.28*	.68*	.47**	
Mean	10.87	11.57	8.63	5.60	5.51	5.40	3.88	3.80	3.54	3.37	2.84	3.91
SD	5.66	6.78	5.86	.54	.53	.66	.84	.68	.72	2.96	2.70	3.60

Note. COVID = child COVID-19-related stress; Nurt = Parental Nurturance; Rest = Restrictiveness; SDQ = Child mental health difficulties; T1 = Time 1; T2 = Time 2; T3 = Time 3.
*$p < .05$, **$p < .01$.

Table 2

Summary of Intercorrelations, Means and Standard Deviations on key Study Variables: Parent (RQ2)

	1	2	3	4	5	6	7	8	9
1. COVIDT1									
2. COVIDT2	.58**								
3. COVIDT3	.37**	.47**							
4. SST1	-.26**	-.29*	-.28						
5. SST2	-.26*	-.35**	-.27	.67**					
6. SST3	-.20	-.17	-.22	.58**	.70**				
7. DASST1	.34**	.22	.42**	-.29**	-.44**	-.45**			
8. DASST2	.27*	.38**	.32*	-.50**	-.48**	-.52**	.66**		
9. DASST3	.30*	.16	.49**	-.23	-.41**	-.46**	.60**	.59**	
Mean	17.15	17.37	13.68	5.43	5.65	5.61	8.92	9.03	13.14
SD	8.20	8.03	7.13	1.06	.87	.71	11.16	9.17	14.09

Note. COVID = Parent COVID-19-related stress; SS = Social Support; DASS = Parent mental health difficulties (depression, anxiety and stress symptoms); T1 = Time 1; T2 = Time 2; T3 = Time 3.
*$p < .05$, **$p < .01$.

Path Analyses (RQ 1)

As noted previously, in order to maximize power, I ran one model to test the longitudinal relations between child COVID-19-related stress, parental nurturance/restrictiveness, and child mental health difficulties, and three models to test the within-time relations between those variables.

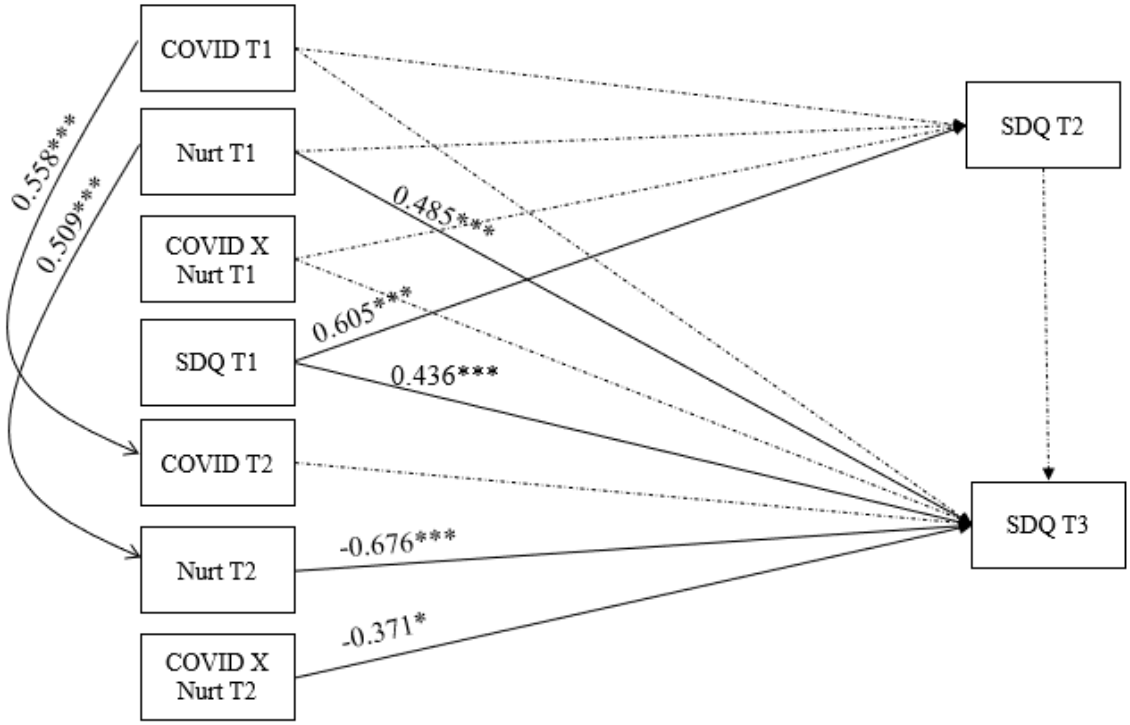
Path Analysis Longitudinal Model Testing Parental Nurturance as the Moderator

For the original model, the fit of the data to the model was not adequate; thus, post-hoc model fitting was performed. Based on the suggestions on improving model fit provided by the MPlus output, the correlation of child mental health difficulties at Time 1 with nurturance at Time 2 was added. This resulted in the fit of the data to the model approaching adequate levels: $\chi^2(26) = 210.89$, $p = 0.055$, *CFI* = 0.97, *RMSEA* = 0.08, *SRMR* = 0.06 (see Figure 1 for standardized path coefficients). Child COVID-19-related stress (at Time 1 or Time 2) was not a significant predictor of child mental health difficulties (Time 2 or Time 3). Parental nurturance

(Time 2) significantly and negatively predicted child mental health difficulties at Time 3, b = -.68, SE = .17, p = .001. Surprisingly, parental nurturance (Time 1) significantly and *positively* predicted child mental health difficulties at Time 3, b = .49, SE = .15, p = .002. A significant interaction between child COVID-19-related stress (Time 2) and parental nurturance (Time 2) when predicting child mental health difficulties (Time 3) was also evinced. A priori expectations were formulated regarding the relations between child COVID-19-related stress (Time 2) and child mental health difficulties (Time 3), contingent upon varying levels of parental nurturance (Time 2). The hypothesized patterns were guided by the premise that effects of child COVID-19-related stress on child mental health difficulties would depend on the levels of parental nurturance. I expected that at *lower* levels of parental nurturance (at Time 2), the positive association between child COVID-19-related stress (at Time 2) and child mental health difficulties (at Time 3) would be accentuated. On the other hand, at *higher* levels of parental nurturance, I anticipated a strong negative association between child COVID-19-related stress and child mental health difficulties. Follow-up simple slope analyses showed, that as somewhat expected, child COVID-19-related stress at Time 2 positively predicted child mental health difficulties at Time 3 at *low* levels of parental nurturance at Time 2 (b = .53, p = .03), while child COVID-19-related stress at Time 2 negatively predicted child mental health difficulties at Time 3 at *high* levels of parental nurturance at Time 2 (b = -.40, p = .046).

Figure 1

Longitudinal Path Model with Parental Nurturance



Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Child COVID-19-related stress; Nurt=Nurturance; SDQ=Child mental health difficulties

*p < .05, ***p<0.001

Path Analysis Within-Time Models Testing Parental Nurturance as the Moderator

The relationship among these variables at the same time point were subsequently examined. The model at Time 1 fit the data well: $\chi^2(3) = 8.84$, $p = 0.03$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 2a for standardized path coefficients). Child COVID-19-related stress was positively associated with child mental health difficulties, $b = .36$, $SE = .12$, $p = .002$.

The model at Time 2 fit the data well: $\chi^2(3) = 23.22$, $p = 0.00$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 2b for standardized path coefficients). Child COVID-19-related stress was positively related to child mental health difficulties, $b = .346$, $SE = .103$, $p = .001$. Parental nurturance was negatively related to child mental health difficulties, $b = -.282$, $SE = .136$, $p = .038$.

The model at Time 3 fit the data well: $\chi^2(3) = 7.68$, $p = 0.05$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 2c for standardized path coefficients). Child COVID-19-related stress was positively associated with child mental health difficulties, $b = .418$, $SE = .198$, $p = .035$.

The interaction of child COVID-19-related stress and parental nurturance was not found to be significant in any of the three models. These findings vary from the longitudinal model testing parental nurturance as a moderator (see Figure 1, above), where the interaction of child COVID-19-related stress and parental nurturance at Time 2 significantly predicted child mental health difficulties at Time 3. A possible explanation is presented in the discussion section.

Figure 2a

Within – Time Path Model with Parental Nurturance at Time 1

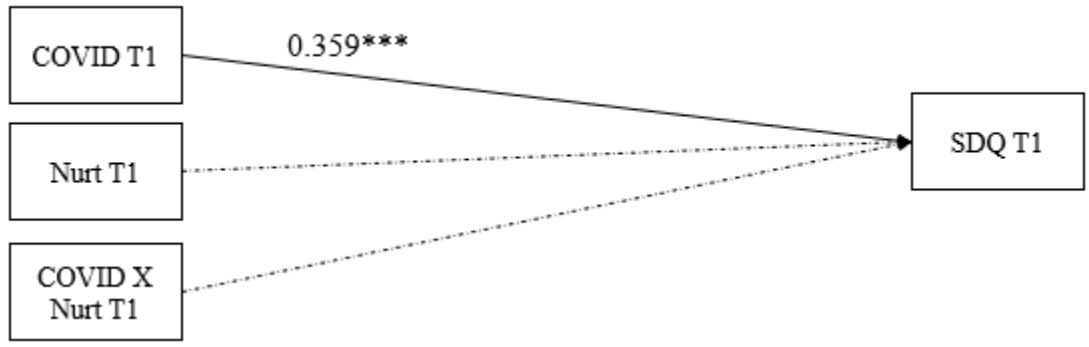


Figure 2b

Within – Time Path Model with Parental Nurturance at Time 2

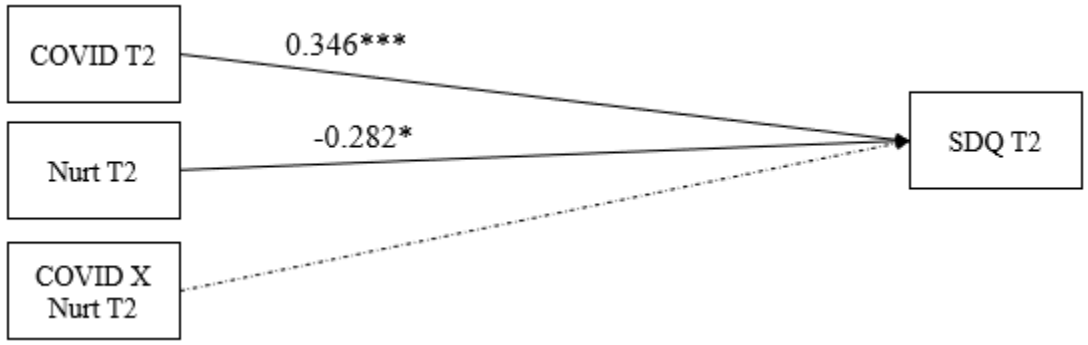
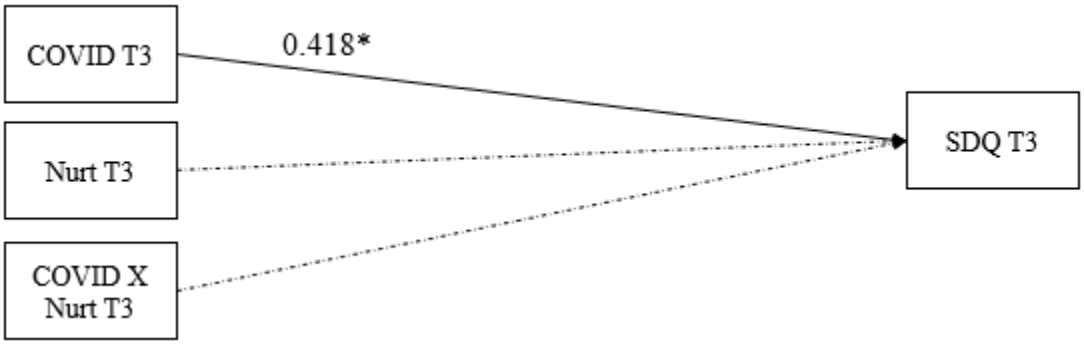


Figure 2c

Within – Time Path Model with Parental Nurturance at Time 3



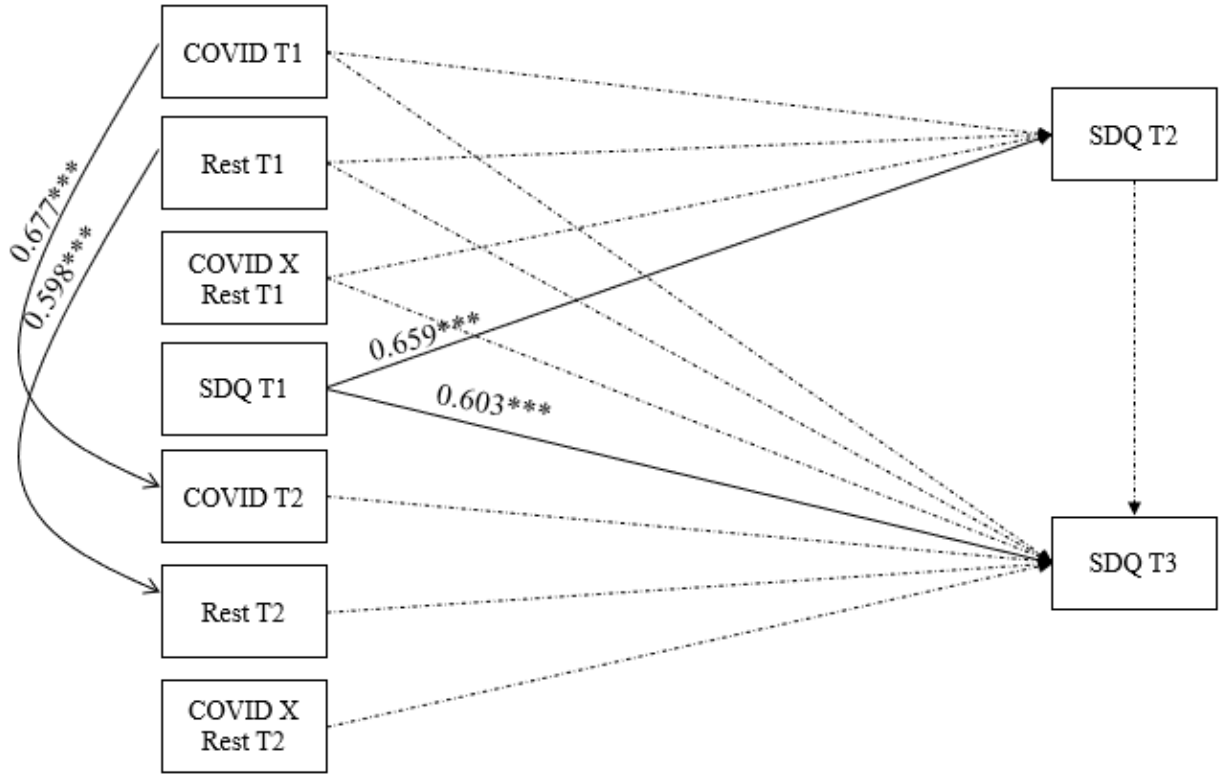
Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Child COVID-19-related stress; Nurt=Nurturance; SDQ=Child mental health difficulties. *p < .05, ***p<0.001

Path Analysis Longitudinal Model Testing Parental Restrictiveness as the Moderator

The model fit the data adequately: $\chi^2(26) = 163.50$, $p = 0.00$, *CFI* = 0.97, *RMSEA* = 0.07, *SRMR* = 0.05 (see Figure 3 for standardized path coefficients). Child COVID-19-related stress (at Time 1 or Time 2) was not a significant predictor of child mental health difficulties (Time 2 or Time 3), nor was parental restrictiveness (at Time 1 or Time 2). No significant interactions emerged.

Figure 3

Longitudinal Path Model with Parental Restrictiveness



Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Child COVID-19-related stress; Rest=Restrictiveness; SDQ=Child mental health difficulties

***$p<0.001$

Path Analysis Within-time Models Testing Parental Restrictiveness as the Moderator

The model at Time 1 fit the data well: $\chi^2(3) = 26.13$, $p = 0.00$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 4a for standardized path coefficients). Child COVID-19-related stress was positively related to child mental health difficulties, $b = .334$, $SE = .085$, $p = .000$. Parental restrictiveness was also positively related to child mental health difficulties, $b = .246$, $SE = .086$, $p = .004$. Finally, the interaction of child COVID-19-related stress and parental restrictiveness was significantly related to child mental health difficulties $b = .199$, $SE = .076$, $p = .009$. A priori expectations were formulated regarding the relations between child COVID-19-related stress (Time 1) and child mental health difficulties (Time 1), depending upon varying levels of parental restrictiveness (Time 1). The hypothesized patterns were guided by the premise that effects of child COVID-19-related stress on child mental health difficulties would depend on the levels of parental restrictiveness. I expected that at *higher* levels of parental restrictiveness, the positive association between child COVID-19-related stress and child mental health difficulties would be accentuated. On the other hand, at *lower* levels of parental restrictiveness, I anticipated a strong negative association between child COVID-19-related stress and child mental health difficulties. The expected slope patterns were not seen in the follow-up simple slope analyses. It was found that while the slopes were significant for both groups (those high and low in parental restrictiveness), child COVID-19-related stress was related to child mental health difficulties more strongly for the group that was *high* in parental restrictiveness ($b = .475$, $p = 0.000$) compared to the group that was *low* in parental restrictiveness ($b = .192$, $p = 0.032$).

The model at Time 2 fit the data well: $\chi^2(3) = 9.270$, $p = 0.025$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 4b for standardized path coefficients). Child COVID-19-related

stress was positively associated with child mental health difficulties, b = .336, SE = .119, p = .005.

The model at Time 3 fit the data well: $\chi^2(3) = 7.68$, $p = 0.05$, $CFI = 1.00$, $RMSEA = 0.00$, $SRMR = 0.00$ (see Figure 4c for standardized path coefficients). Child COVID-19-related stress was positively related to child mental health difficulties, b = .45, SE = .134, p = .001.

Figure 4a

Within – Time Path Model with Parental Restrictiveness at Time 1

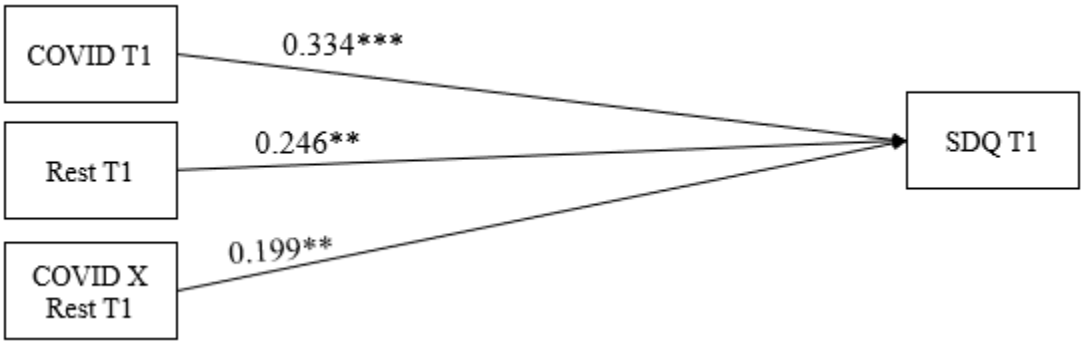


Figure 4b

Within – Time Path Model with Parental Restrictiveness at Time 2

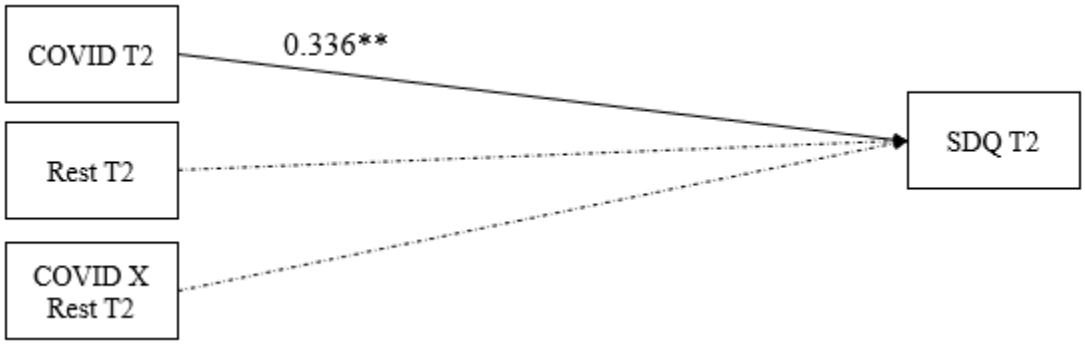
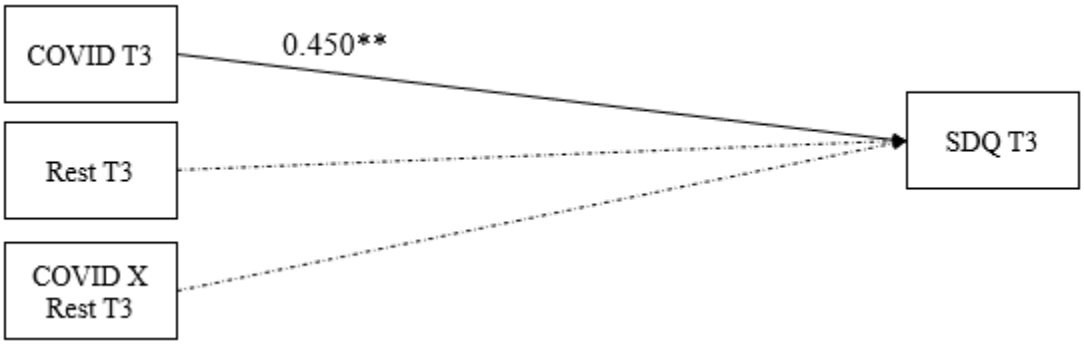


Figure 4c

Within – Time Path Model with Parental Restrictiveness at Time 3



Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Child COVID-19-related stress; Rest=Restrictiveness; SDQ=Child mental health difficulties. ***p<0.001, **p<0.01

Path Analyses (RQ 2)

Like RQ 1, in order to examine the effects of parent COVID-19-related stress on parent mental health difficulties, and if social support moderated the relation between the two, I ran one model testing the longitudinal relations between parent COVID-19-related stress, perceived social support, and parent mental health difficulties, and three models to test the within-time relations between those variables.

Path Analysis Longitudinal Model Testing Perceived Social Support as the Moderator

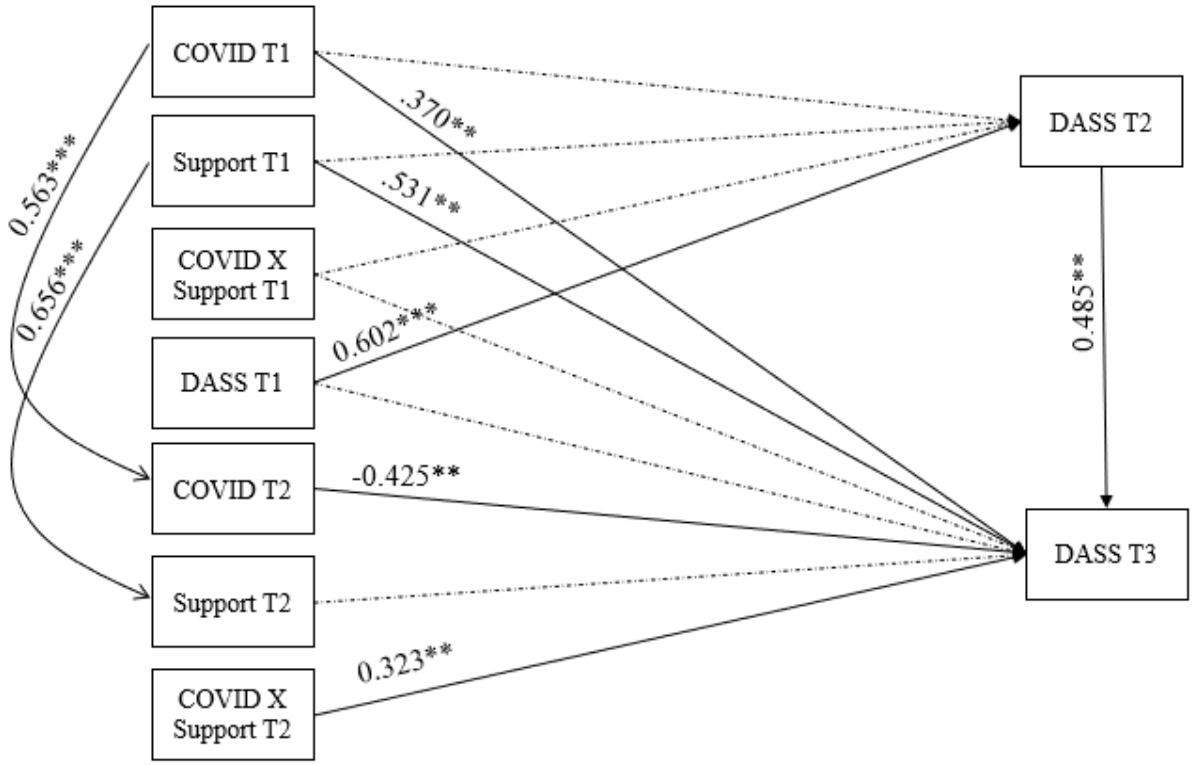
The model fit the data well: $\chi^2(26) = 139.656$, $p = 0.00$, *CFI* = 0.997, *RMSEA* = 0.016, *SRMR* = 0.044 (see Figure 5 for standardized path coefficients). Parent COVID-19-related stress at Time 1 positively significantly predicted parent mental difficulties at Time 3 ($b = .370$, $p = 0.011$). Surprisingly, parent COVID-19-related stress at Time 2 negatively significantly predicted mental health difficulties at Time 3 ($b = -.425$, $p = 0.001$) when parent COVID-stress at Time 1 and Time 2 were included in the model. Also unexpectedly, perceived social support at Time 1 was a significant positive predictor of parent mental health difficulties at Time 3 ($b = .531$, $p = 0.009$).

A significant interaction between parent COVID-19-related stress (Time 2) and perceived social support (Time 2) when predicting parent mental health difficulties (Time 3) was also evinced ($b = 0.323$, $p = 0.004$). A priori expectations were formulated regarding the relations between parent COVID-19-related stress (Time 2) and parent mental health difficulties (Time 3), depending upon varying levels of perceived social support (Time 2). The hypothesized patterns were guided by the premise that effects of parent COVID-19-related stress on parent mental health difficulties would depend on the levels of perceived social support. I expected that at

lower levels of social support, the positive association between parent COVID-19-related stress and parent mental health difficulties would be accentuated. On the other hand, at *higher* levels of social support, I anticipated a strong negative association between parent COVID-19-related stress and parent mental health difficulties. Contrary to expectations, follow-up simple slope analyses showed that parent COVID-19-related stress at Time 2 negatively predicted parent mental health difficulties at Time 3 at *low* levels of perceived social support at Time 2 (b = -.64, p = .000), but not at *high* levels of perceived social support at Time 2 (b = -.186, p = .082). In other words, for the group of parents who perceived lower levels of social support, parent COVID-19-related stress was associated with lesser mental health difficulties. These unexpected main effect findings (parent COVID-19-related stress at Time 2 negatively predicting parent mental health difficulties at Time 3, and perceived support at Time 1 positively predicting parent mental health difficulties at Time 3) as well as the moderation effect findings may be explained by the suppressor effect. A suppressor effect in path analysis may occur when the inclusion of certain variables may increase the magnitude of regression coefficients associated with other independent variables or set of variables (Conger, 1974). In their article, Pandey and Elliot (2010) explain that a suppressor variable may improve the overall predictive power of the model. It correlates with other independent variables, and it may account for or suppress some outcome-irrelevant variation or errors in one or more other predictors.

Figure 5

Longitudinal Path Model with Social Support



Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Parent COVID-19-related stress; DASS=Parent mental health difficulties

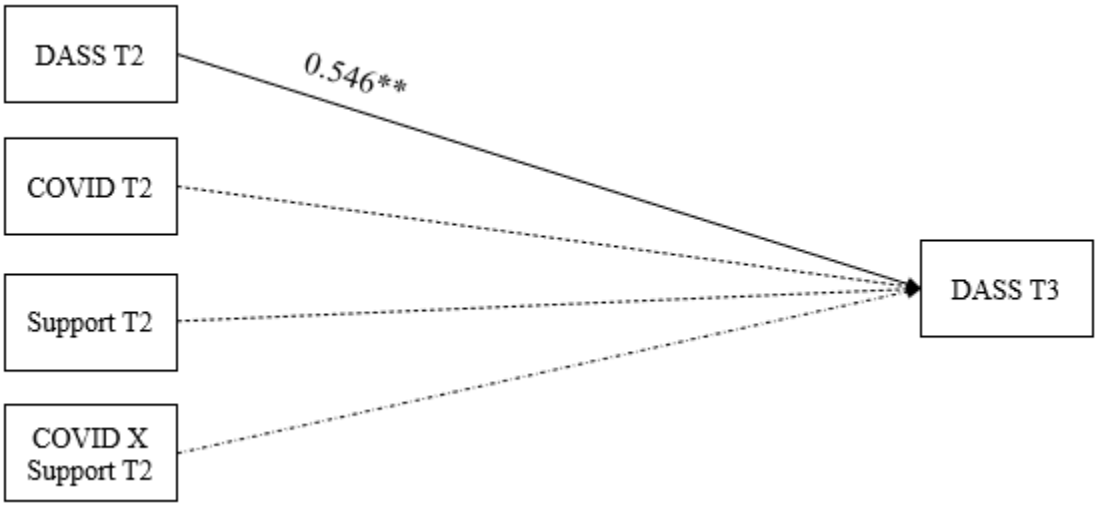
***p<0.001, **p<0.01

In order to verify that the findings may be explained by the suppressor effect, additional analysis were computed: three separate longitudinal models were computed testing the of effects of parent COVID-19-related stress, perceived social support, and their interaction on parent mental health difficulties from Time 1 to Time 2, Time 1 to Time 3, and Time 2 to Time 3. In each model, I controlled for prior levels of parent mental health difficulties. In the model testing the longitudinal relations between these variables from Time 1 to Time 3, perceived social support did not significantly predict parent mental health difficulties (b = .117, SE = .145, p =

.418). Also, in the longitudinal model testing the relations between these variables from Time 2 to Time 3, parent-COVID-19-related stress at Time 2 was not a significant predictor of parent mental health difficulties at Time 3 (b = -.172, SE = .110, p = .118). Lastly, in the same model (Time 2 to Time 3), the interaction of parent COVID-19-related stress and perceived social support was not significant at the .05 level (b = .246, SE = .137, p = .073).

Figure 6

Smaller Longitudinal Path Model with Social Support (Time 2 to Time 3)



Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Parent COVID-19-related stress; DASS=Parent mental health difficulties; **p<0.01

Please see Figure 6 that depicts the longitudinal relations between the variables from Time 2 to Time 3. Given that there were no significant main effects or interaction effects in this model, it is indeed very likely that the unexpected findings seen in the larger longitudinal model may have been a result of the suppressor effect. I believe that the presence of the Time 1 variables may be causing the suppressor effect since the findings are no longer seen when those variables are removed from the model.

Path Analysis Within-time Models testing Perceived Social Support as the Moderator

The model at Time 1 fit the data well: $\chi^2(3) = 15.420$, $p = 0.00$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 7a for standardized path coefficients). Parent COVID-19-related stress was positively associated with parent mental health difficulties, $b = .288$, $SE = .100$, $p = .004$. Perceived social support was negatively related to parent mental health difficulties, $b = -.264$, $SE = .115$, $p = .021$. Finally, the interaction of parent COVID-19-related stress and perceived social support was significantly related to parent mental health difficulties $b = -.246$, $SE = .111$, $p = .027$. A priori expectations were formulated regarding the relations between parent COVID-19-related stress and parent mental health difficulties, depending upon varying levels of perceived social support. I anticipated that at *lower* levels of social support, the positive association between parent COVID-19-related stress and parent mental health difficulties would be heightened. On the other hand, at *higher* levels of social support, I anticipated a strong negative association between parent COVID-19-related stress and parent mental health difficulties. Follow-up simple slope analyses showed that parent COVID-19-related stress was significantly related to parent mental health difficulties only for the group that perceived *low* social support ($b = .441$, $p = 0.002$), and not that group that perceived *high* social support ($b = .136$, $p = 0.175$).

The model at time 2 fit the data well: $\chi^2(3) = 19.372$, $p = 0.002$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 7b for standardized path coefficients). Parent COVID-19-related stress was positively related to parent mental health difficulties, $b = .246$, $SE = .098$, $p = .013$. Perceived social support was negatively related to parent mental health difficulties, $b = -.392$, $SE = .084$, $p = .000$.

The model at time 3 fit the data well: $\chi^2(3) = 24.240$, $p = 0.000$, *CFI* = 1.00, *RMSEA* = 0.00, *SRMR* = 0.00 (see Figure 7c for standardized path coefficients). Parent COVID-19-related stress was positively related to parent mental health difficulties, $b = .409$, $SE = .130$, $p = .002$. Perceived social support was negatively related to parent mental health difficulties, $b = -.331$, $SE = .093$, $p = .000$.

Figure 7a

Within – Time Path Model with Social Support at Time 1

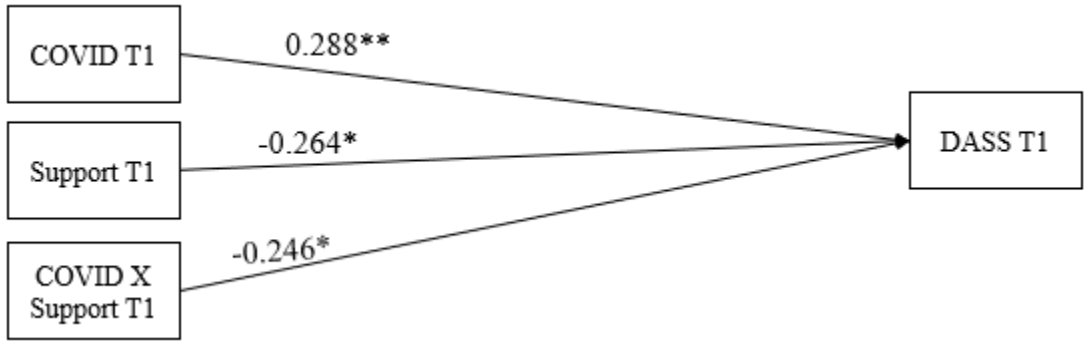


Figure 7b

Within – Time Path Model with Social Support at Time 2

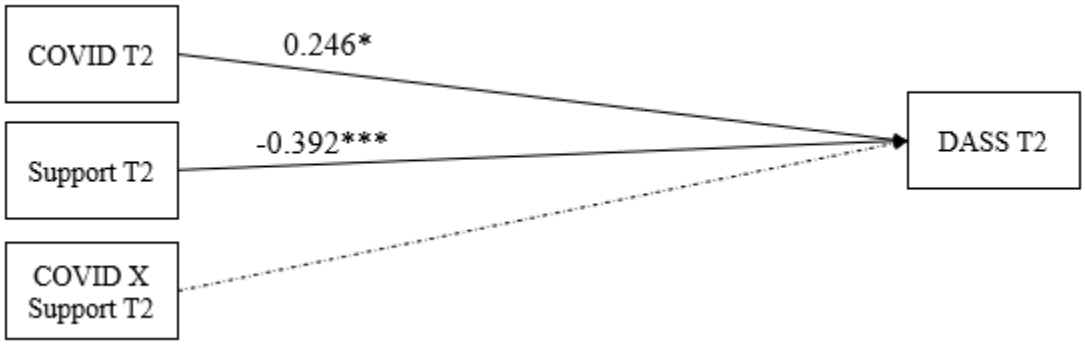
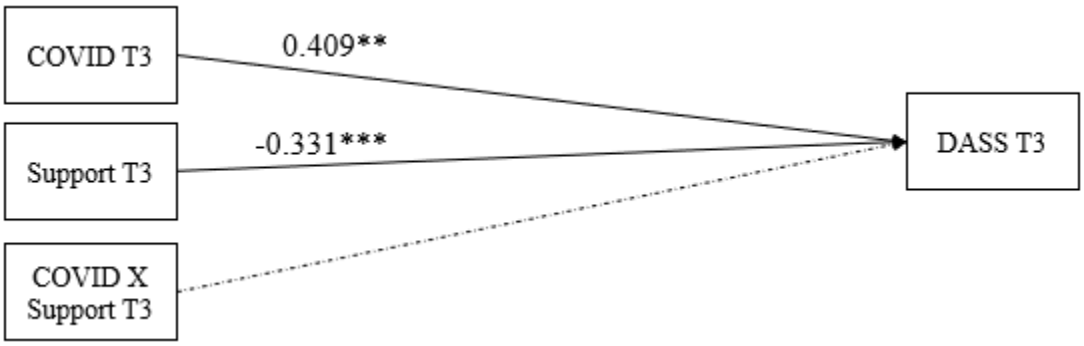


Figure 7c

Within – Time Path Model with Social Support at Time 3



Note. Path coefficients represent the standardized results. Non-significant paths remain in the model and are displayed as dashed lines. Within-time covariances are not displayed for ease of communication, but were tested in the model. COVID=Parent COVID-19-related stress; DASS=Parent mental health difficulties. ***p<0.001, **p<0.01, p<0.05

Qualitative Themes

Some important themes emerged from the individual interviews. They are elaborated upon below.

Parents Experienced Several Challenges due to the Pandemic

Parents shared that they had faced several challenges since the onset of the pandemic (please see Appendix C for the codebook which lists all challenges). The most commonly experienced challenges were those related to parenting, relationship-related challenges, being overwhelmed by responsibilities, challenges related to COVID-19 related precautions (e.g., inability to socialize), and challenges related to changes in routine.

Parenting-related Challenges. Parents described several parenting-related challenges posed by the pandemic that could be further categorized into the following:

Challenges Related to Keeping Child Occupied. All participants shared that it was difficult for them to keep their child(ren) meaningfully engaged during the pandemic, and how they needed to spend more time with their children during the pandemic. Several parents mentioned that their child demanded their "constant engagement" since they could not play with other children or participate in their usual activities (e.g., schooling, extra curriculars). Parents mentioned that they had to come up with creative ways to keep their child occupied (e.g., playing different games, engaging them in art projects). Within this context, many parents also shared that their child demanded new toys/games, and often the parents had to buy the toys/games to keep them engaged, but that their child would get bored of the toys after a few days and demand something new. Relatedly, several parents shared concerns about their child's increased screentime, and that they had to spend more time with them to avoid their child's excessive screentime. For example,

one parent said, "[…] he was feeling very alone, and he was always constantly demanding to see television or the mobile phone. […] We played with him, we played uno, chess, other games too, with him, as much as we could."

The findings also suggested that keeping children engaged was particularly more challenging for mothers who had professional work requirements. For example, one mother shared that it was "very difficult" to keep her daughter engaged because she needed to work. She went on to share that her daughter used to take her mobile phone without her permission and "watch videos for one hour" because she knew that she (mother) was working/in meetings and that she couldn't "chase her".

Challenges Related to Child's Academics. All parents mentioned that they had faced some kind of challenge when it came to their child's academics due to the pandemic, such as assisting their child with navigating virtual learning, assisting them with homework completion, buying a phone/device so that they could access learning. The most common one though was related to making sure that their child was focusing during the online classes and actually doing the work they were supposed to be doing. For example, many parents shared that their children did not pay attention to what the teacher taught during online classes, and that they had to listen to what the teacher was teaching, and teach everything to their child later as shared by this mother, "[…] I used to attend lectures and then teach him."

Parents also shared other related challenges, and the age of the child seemed to play a role here. For instance, for the younger children, transitioning from in-person learning to online learning was very challenging, and the virtual learning environment was very hard for children to navigate in terms of getting their work done, turning in assignments as well as using the online tools to effectively communicate and interact with teachers and peers (e.g., raising virtual hand,

typing in the chat). Thus, parents had to be present to help children navigate these difficulties.

Relatedly, another parent described how online learning was not only a challenge, but also how it impacted her behavior, and in turn, her daughter and her relationship with her daughter. This mother's account sheds light on how parents had to take on the role of teachers during the pandemic, which negatively impacted the parent-child relationship:

> […] I think that for subjects like Hindi, which were regional languages, I think there was a lot of prompting from us. Or, you know, me telling her that you know, open this page or do this quickly. So, I think now, being independent, that could be a problem. […] I mean during the classes when she would not get something, I think I would get more frustrated. And I think that it may not have been as pleasant for her, that interaction-- I mean, because when they are in school you don't know, so ignorance is bliss. But [at home] like, it's like, 'come on, like, you know, like oh, come on, like, teacher said page number 45, like open it, like what are you doing?' So, I think that happened. So, this second-hand parenting was-- I don't think it was a good idea, and most of us are guilty of it, at least in India, or in our school, that we were just getting very impatient in that aspect, in, in a few subjects where attention was, let's say, required. And our school is very particular. Because the school has [rules] like, you have to leave like one line, like 2 finger spaces and need to use multicolored pens. So, in all of that, I think that it was particularly difficult, that I needed for it to get done first, or, you know, like really fast, that I think we have had a little unpleasant experience for my daughter.

This mother's account also highlights how the specific educational demands exerted by certain schools during the pandemic may have been unreasonable, which may have possibly led to anxiety in parents, which in turn may have impacted their behaviors, and in turn, their

relationship with their child. This has important implications for educators engaging in virtual learning with young children in India in the future. It is important for them to adjust the work requirements from students based on their age-level so that parents are not expected to sit next to their children and assist them with their work.

Explaining Changes to Child. Another common challenge that parents experienced was that related to explaining changes brought about by the pandemic (e.g., being unable to socialize, being unable to go out to restaurants and do other typical activities, explaining why it is important to stay away from family members infected with COVID-19) and subsequently dealing with their child's responses/reactions to that. For example, one mother shared that her son insisted on wanting to go to their neighborhood playground, but she prevented him from doing so because of the fear of the playground equipment "being infected". She said that her son argued and asked more questions about how the slides/swings/benches would be infected if nobody visited the playground. She stated that it was very difficult for her to explain such changes and deal with her son's reactions. Similarly, another mother mentioned that her children repeatedly asked to eat at their favorite restaurants; she found it hard to deal with their disappointment when they were unable to do so.

Many parents also shared that when schools started resuming being back in person, it brought about a lot of changes, and they often faced difficulties explaining those changes to their child during that transition period. These changes were related to both social and academic domains. For example, one mother shared how her son got frustrated by other students' behavior in class (talking loudly, not sharing toys/books) when they resumed in-person learning: "[…] Every day, there is a new complaint and every day I have to make him understand this, this is how this is going to be for coming years now."

Relationship-related challenges. All parents mentioned that their relationships were impacted due to the pandemic in some way.

Most participants shared that they had increased conflicts/difficulties in relationship with their *spouse* for varied reasons (e.g., being overwhelmed with responsibility, being cooped up in the house, etc.). This participant shared how financial pressures added to stress in her marriage. When asked if the pandemic had led to more conflicts in her marriage, she said:

> Yes, five billion percent, yes, yes. And that's also because, the frustration of not being employed for him, the frustration of not having any outlet for {son}, and the frustration of not feeling satiated or happy, or content with whatever I was doing [….] So, you're cooking two meals a day, every day without any break, and then you're dealing with all the stress of, you know, having one interview not cleared, not getting a second call, positions are frozen. So, we had, you know, committed to buying a house, and we were in a financial soup because we were short of funds. So, it was a lot of, yes conflict, a lot of conflict for a good---so the first six-eight months it didn't hit us that much, but from the start of 2021 to the start of 2022, that one year was very bad, very, very bad in terms of married life, peace in the house, everything. [---] he was losing patience, and I was losing patience, more, a lot more often than we normally would.

Similarly, many parents described how their relationship with members of the *family*, like their in-laws and children were impacted due to the inability to go out of the house, and being overwhelmed by responsibilities during the pandemic. Some participants also shared how their relationships with their *friends* were impacted due to the pandemic. For instance, some parents mentioned that they chose not to socialize in-person during the pandemic due to the fear of contracting COVID-19, and so they were excluded from the group even after they were

comfortable meeting in-person. Along similar lines, one mother shared how she was hesitant to take the second COVID-19 booster shot as she got a very bad reaction to the first one, and how she was left out of her friend group due to that. Lastly, one participant talked about conflicts in relationship with *neighbors*. She mentioned that the family who lived below their apartment made things "very stressful and difficult" for them as they (neighbors) picked fights with them over things like the noise coming from their apartment. The mother went on to share that since her children were home all the time and did not have an outlet for physical energy, like playing at the playground, it was difficult for her to keep them quiet and contained all day, which caused friction with the neighbors, and was challenging for her to deal with.

Being Overwhelmed by Responsibilities. Almost all parents (19 out of 20) mentioned that they felt overwhelmed because of juggling several tasks and responsibilities during the pandemic. For example, one mother said:

> I did not even get five minutes for myself, I still don't get any time for myself. I was a teacher with pre-primary school. I just resigned on 20th March 2020. Even if the young one was sleeping, I had to work with the older one. I had to play with him, there was nobody to play with [him]. I had to keep him engaged, drawing, making drawing, then some small small activities, you know, stone coloring, making things with clay. I was with one kid or the another, or making food or cleaning the house.

Since people in India belonging to middle- and upper-class families typically rely on house-help, not being able to receive that help during the pandemic certainly added to their burden and many parents talked about that. Along similar lines, some parents mentioned that they did not have equipment like dishwashers and vacuum cleaners, and thus, their "physical labor had increased" as they not only had to take care of household chores and responsibilities

but also take care of their children as well as fulfill their work obligations. Within this context, several parents also talked about how being overwhelmed with responsibility impacted their physical health, mental health and their relationships, as shared by this mother:

> […] As a mother, you know, doing everything and anything, and you're not getting time for yourself. So, there were mood swings. You were frustrated. […] and it was affecting your health also, and your relationship with other people to a great extent.

A mother, working as an instructional content developer, summed it up very well when asked to talk about work-life balance, "There was no life, only work and a child. That's pretty much how it is right now also."

The qualitative reports of mothers indicated that those employed for wages compared to those who were homemakers felt probably more overwhelmed. This may be because they needed to fulfil their work obligations in addition to taking care of their household responsibilities as well as taking care of their child(ren). It should be noted though that the professionally employed mothers with more flexible hours and less demanding work requirements felt less overwhelmed compared to those with more demanding work requirements. For example, when asked about if it was difficult for her to manage taking care of her son, household responsibilities and her job, this mother said, "No, because at that time, I was lucky. At that time, I did not have too much work at the office also. It was not too much, only 3-4 hours I used to work, and that could be managed at home."

Challenges Related to COVID-19 Precautions. All parents described or alluded to the fact that COVID-19-related precautions were hard or challenging in some way. These challenges included not being able to go out in general, not being able to socialize, not being able to meet family, friends, or co-workers in person, being in quarantine or isolating if they contracted

COVID-19, and sanitizing and cleaning things that they bought inside the house before using them. And several parents also talked about how these challenges impacted their mental health in some way, as shared by this parent, "[….] we couldn't go for any holidays also, so like we were really frustrated." Almost all parents mentioned or alluded to the fact that their decision to not socialize was driven by the fear of them/their family contracting COVID-19. For people who described themselves as social, the inability to socialize seemed to be particularly hard.

Many participants talked about how just basic precautions to keep themselves safe in general were challenging. For example, one mother shared:

> If I used to go [out], then, I used to completely take a bath, changing clothes, it used to be a whole one hour, two hour [process]. Just like a doctor, I'm wearing a PPE kit and coming in, and then again, you know, taking a bath, washing my clothes with hot water, washing myself with hot water right in the middle of summers. I had to feed him, so I used to clean myself with hot water or whatever.

For participants who had contracted COVID-19 themselves, isolating from others was challenging due to the physical constraints of small apartments, but it was also challenging emotionally. For instance, one mother shared that since she was the one who was the primary care-giver for her children (e.g., preparing their meals, feeding them, bathing them, taking care of academics, etc.), staying away from them was "the difficult part" when she tested positive for COVID-19.

Similarly, when immediate family members had contracted COVID-19, taking steps to keep others safe were also challenging. For instance, some parents mentioned they spent significant amounts of time and efforts in sanitizing the furniture as well as "floors, mats, doors" when a family member had COVID-19 which seemed to be physically and emotionally draining.

Challenges Related to Changes in Routines. All parents alluded to how changes in routines brought about by the pandemic were challenging, often stressful. For example, one mother talked about how her husband's job requirements during COVID-19 impacted her and her family. She mentioned that her husband had lost his job at the start of the pandemic, and so they were forced to accept his current job, which required him to work at night. She stated how her and her son's sleep and food cycles were disrupted due to this, "[…] we are up all night, sleep in the day, don't eat on time. […] So, it's a mess."

Several parents also mentioned that it was challenging for them to adjust to changes in routines when school and offices started resuming being in person. It is important to note this is different from explaining changes to child (parenting-related challenge) described previously. The latter is related to the child experiencing difficulties when transitioning to in-person and the parent having to help them through those, while the former is more related to adjustment on the parents' part. For example, one mother said:

> Suddenly it just, you know, like we had become so accustomed that, I just start the computer and school is on. Pressing of uniform, getting your books ready, getting your snacks and lunch packed early in the morning, coming back from school and then, you know, doing your homework and assignments. […] So, it was all a big difference -- changes, bit difficult in the beginning, we both are tired, like it's little difficult.

While several parents mentioned that adjusting to the physical demands of being back in person were challenging, some parents also described how this transition was challenging on an emotional/mental level. For example, one mother described that being away from her child was hard for her. She said, "I was having this separation anxiety that now she is going to go away, and things like that. I don't like change. I just like things the same."

Challenges Impacted Parent Mental Health

The challenges and changes imposed by the pandemic impacted parents' mental health in various ways, such as, resulting in feelings of anxiety and fear, stress, depression, and irritability/anger.

Parent Anxiety and Worries. All parents shared fears and anxieties about keeping themselves and their families safe from contracting COVID-19. For many parents, dealing with this anxiety was very challenging and they shared how it impacted their behaviors. For example, some mothers shared that even if their child just sneezed, they were worried that they (child) had COVID-19. One mother also said that she checked her son's temperature every few hours even when he was healthy. Many parents also shared that hearing about COVID-19 cases in the news or within their networks exacerbated their anxiety. Similarly, many parents also talked about how the transition to in-person schooling caused anxiety to them as they worried about their children/family members getting COVID-19, as shared by this mother:

> I had visited school twice, and I saw her with a mask like a chin warmer. And that would really make me anxious that what is she doing in school, and she's gonna get COVID and all of that. But thankfully, we didn't, but, but I, I would say that I felt very anxious.

All parents also expressed anxiety/concerns about their child's academic, physical and/or social-emotional development. They mentioned that their children had been deprived of typical childhood experiences (e.g., not being able to attend school in person, not being able to interact with other children and form meaningful relationships), and they worried that that lack of exposure would leave lasting impacts on their children. For instance, one mother said that her daughter was attending online schooling, but she knew that "no learning per se" was actually taking place which "added quite a bit of anxiety" for her.

Stress. Several parents alluded to experiencing increased levels of stress during the pandemic due to the several challenges they experienced during the pandemic. This mother's response spoke to the several factors accounting for her stress and her overall poor emotional wellbeing:

> The emotions, keeping emotions under control and managing your mental state. Because, you know, the money will come one day, the job will come one day, the school will come one day. But until that one day, you have already been through so much. And then it's all accumulating. It's not like you have one stress at a time, like dealing with the money part, and the job part, lack of school part, and not feeling financially confident about yourself, not looking good, not dying your hair, putting on weight, working 24/7, washing dishes, cleaning up this, cleaning up that, sanitizing this --so it is very hard in terms of--you know you are emotionally drained like a lot. So that was the hardest part. For me it was the upsetting of, like the emotional, being all over the place emotionally, that was the toughest part. For obvious reasons, it was all accumulating and there was no vent anywhere.

Some parents also talked about how societal pressures/expectations added to their stress of being a good parent during this period. For instance, one mother shared that she felt constantly pressured to do her "best" due to the "competition", and that she feared being "left out in terms of providing right exposure" to her child. This has important implications for mental health providers. Given that the pressure to be the "best" parent may be a significant source of stress for many parents, mental health professionals may attempt to build discussions around ways in which they (parents) could still provide exposure to their children in meaningful ways and activities within their limited time and resources. While this mother did not specifically talk

about social media, it is likely that in today's digital age, it may be a big influencing factor. Thus, mental health professionals may also build in discussions around healthy social media use in their work, as well as post content promoting realistic parental expectations/prioritizing self-care.

Depression Symptoms. Approximately one-fourth of the parents also talked about experiencing depressive symptoms during the pandemic. Many other parents talked about no longer wanting to do pleasurable things (e.g., going out with friends), while some alluded to the monotonous routine impacting their mood. A parent also shared that she experienced feelings of worthlessness, loneliness, sleep difficulties and suicidal ideation. While the precipitating factor may have likely been her relationship problems with her in-laws, the pandemic may have exacerbated it:

> I went through depression also during that time. […] I didn't have the other things to do like getting dressed, going to work, coming back, commute, all that was done, so that was not there. […] I felt unworthy, I felt very lonely, and I also felt like, I also had suicidal thoughts. Basically, I felt, if I'm not around, it's okay. Much of it was triggered just before the lockdown, we had, you know, a really bad separation from my in-laws. […] And everything that they would do, or any of my relatives would do, I just connected to that and lose sleep over that, overthink it.

Irritability/Anger. Several parents talked about experiencing feelings of anger, irritability and/or frustration, and how different challenges (e.g., inability to socialize or go out, being overwhelmed with different responsibilities, relationship issues, etc.) experienced resulted in those feelings. For example, one mother shared:

> Sometimes it used to be exhausting, irritating. It's like if you just leave one kid, there is another one who wants to be with you---it was really irritating at some times. If you are

> working, if you are going out somewhere, your own mind gets distracted. In a house, not even house, in a room, you know, with two kids, you are always attending to their needs. […] you can't sit or have coffee peacefully. Then there was a situation, when there were no servants, so the owner has to go. He (referring to husband) had to go out for supplies and distribution, there you know, it was really exhausting, very frustrating for me.

Overall Poor Mental Health. Lastly, over the course of the interview, all parents alluded to the fact that that their mental health in general (without specifically talking about feelings of depression, anxiety or irritability), was negatively impacted by the pandemic. Many parents also talked about how their sleep, appetite and/or physical health were also impacted due to their mental health difficulties. For example, one mother shared how she did not eat well and take her thyroid medications when she was anxious or angry, which in turn affected her physical health.

Mitigating Factors: Parents' Coping

Parents coped in various ways with the challenges associated with the pandemic, which seemed to mitigate their impact on parents' mental health difficulties. Some of the most common factors that helped parents cope were social support, taking preventative measures to avoid contracting COVID-19, optimism, and engaging in physical activities. Coping by showing gratitude, religious/spirituality-based coping, and seeking social connections were some other common ways of coping shared by parents. Please see Appendix C for a complete list.

Social Support. All parents mentioned that some kind of support from individuals in their lives helped them cope with the challenges associated with the pandemic. A majority of the participants talked about how support from their spouse was critical during this period. For example, one parent shared how her husband been her primary source of support in every way

when she experienced severe anxiety during the pandemic: “Whenever I was not feeling well or [was feeling] down, my husband supported me a lot.”

Some participants talked about how *instrumental* support from family members especially during times when they or their spouse got COVID-19 helped them. Some parents shared that their parents/in-laws took over the household responsibilities, other parents mentioned that their siblings took care of their children by keeping them in their homes when they/their spouse contracted COVID-19. Others shared that family helped by getting food, etc., as shared by this mother whose husband had contracted COVID-19 during the early phases of the pandemic, “It was very difficult for me to manage everything at home; no house-help, my sister was coming outside and she keeps everything outside-- the medicines, the fruits, vegetables-- everything was coming from outside.”

Other parents talked about how the *emotional* support from family/friends helped them. For instance, one parent mentioned that she regularly talked to her mother and her sister and they gave her the “motivation” to get over challenges. A few parents also talked about support from work colleagues to be helpful. For instance, parents shared that their supervisors and co-workers were supportive of them when they needed to attend to their children and provided them with flexibility in terms of getting their work done, which was found to be helpful.

It is also worth mentioning that the lack of support, especially when it was expected from those individuals, seemed to negatively impact parent mental health. This mother talked about how the lack of emotional and instrumental support from her husband was very hard for her:

> I always question him that you know, you never support me or you are never there for me – things like that. […] I remember when we both had the COVID, we had kept him in the room above, so there were steps to go up. And even I had the same symptoms, my doctor

just gave me medicine, he assumed that I had COVID. But when he was sick, I was, you know, taking food, like three times a day, um taking juices and uh things from down, I would make it in the kitchen and take it up, and you know, really trying that he is healthy. And he must have gone into some kind of a depression more because he was not speaking, he was not even relating, which I resented later, because you know he never checked in [with me]. I kept asking how are you doing, how are you feeling, checking in. But he never checked in with me when I had the COVID, and I had similar symptoms that ah, everything. It was just like as if I didn't have coronavirus, so I still resent him for that. So, things like that. So, there was no emotional support for me. I feel even the parenting it was like, 'Oh, it's just your job. So, you do what you do and what you feel is right.' So very, very, I felt very lonely and isolated, and just doing, trying to manage everything on my own. Even my child's emotional development was up to me. So that was hard.

COVID-19 Relevant Preventative Measures. All parents mentioned that they coped with the fear of contracting COVID-19 by taking some COVID-19 relevant prevention measures such as not socializing, not eating at restaurants, masking, sanitizing, ordering groceries/food to be delivered versus going out, and isolating if they developing COVID-19 symptoms. Some parents, like this mother described some preventative measures they took when a family member contracted COVID-19: "For our safety, we kept him (referring to husband) inside. And we have only 2 BHK (bedroom-hall-kitchen) home. So, it was very difficult. I was wearing 2-3 masks, hand gloves, everything."

Optimism. Several parents mentioned that they coped with the challenges associated with the pandemic by keeping an optimistic/positive attitude. For many parents, their spirituality/faith helped them keep an optimistic attitude, as shared by this mother:

> We are attending the online sessions of the Guruji's, chanting the mantra and getting the positive vibes and uh, doing the same thing for my daughter also, uh, so engaging ourselves and being ourselves and believing God, everything will be fine and that kind of positivity, spirituality uh, makes it possible to getting out of all these situations.

Engaging in Physical Activities. Many parents said that staying physically active in the form of exercising, walking, hiking, working out, dancing, playing a sport, and other related activities helped mitigate the negative impacts of the pandemic on their mental health. For example, this father talked about how running helped him get over the monotony of his schedule during the pandemic:

> […] Then I will finish my work. And then again, I go to sleep and again the same routine, same routine is continuously happening. So, I want[ed] something [different]… So, I make [up] my mind that from January I will start the running. So, [from] January I started running little bit. So, this helped me lot, so almost now 8 months. I'm very feeling very healthy and fresh. [….] Running helped me a lot.

The Pandemic Impacted Child Development and Well-being

Child Mental and Behavioral Health were Impacted. Several parents mentioned that their child's mental well-being and behavioral health were negatively affected by the changes brought about by the pandemic in some way. Primary issues brought up were child anxiety,

anger/irritability and boredom; a few parents also shared symptoms of child depression and other behavioral health issues (e.g., hyperactivity).

Child Anxiety. Many parents talked about how their children showed signs and symptoms of increased anxiety and fear around contracting COVID-19. Some examples of signs and symptoms of anxiety about COVID-19 shared by parents were children asking a lot of questions about/related to COVID-19, expressing worries about contracting COVID-19 ("Is it okay if I breathe the air? Is it okay if I touch this, is it okay if I touch that?'), and expressing fears about themselves/family members dying due to COVID-19 ("Are we going to die?").

Child Anger/Irritability. The most common child behavioral issue shared by parents was increased child anger/irritability, and that irritability often stemmed from boredom/being unable to go out or do preferred activities. For instance, one mother shared:

> He was irritated, there was lot of irritation, because you know, if you tell him 'Don't sit there, don't watch too much TV,' his reply would be, 'What other thing I can do, what can I do? I am bored'. Like, if you stop him from watching TV, then he used to take the mobile and sit, it's the same. For anything, his reply would be 'then what should I do, you're not allowing me to go to the park, you're not allowing me to go for cycling, what should I do?" So, lot of boredom, lot of irritation--- if you stopped them for doing something, he used to get irritated.

Child Depression. A few parents described or alluded to their child having depressive symptoms such as feeling sad, down, and lonely, mainly due to the inability of being able to engage in typical activities. Within this context, one parent shared that she lost her mother in the

early stages of the pandemic due to COVID-19, and that loss of a grandparent was very difficult for her daughter, causing her daughter to feel extreme sadness for several months.

Parenting Behaviors Impacted Child Mental Health. Parenting behaviors certainly seemed to have an impact on child mental health as shared by several parents. Many parents shared that their own anxiety related to COVID-19 and their subsequent behaviors impacted their child's anxiety. Another parent shared how her irritability and anger resulted in her son experiencing those feelings as well:

> I've used the words that I wouldn't use. I get angry as frequently as I wouldn't normally get. I react impulsively. […] it's learned behavior. He does that, too. […] So like if he is doing some drawing, and he can't draw well, or whatever, [he would say], 'no I can't do it. I don't want to do, and no, shut the class, shut the class!' He does that, you know, because he saw us getting frustrated at our failures. So, it's pretty much learned behavior.

Child Academic Development was Impacted. Several parents mentioned that their child's overall academic development was impacted because of the pandemic. Many parents shared that their child lagged behind in all academic skills in general, and that they lacked in their understanding of basic concepts, such as basic additional skills or knowing basic grammar rules. About a quarter of the parents talked about how their child's writing skills in particular were negatively affected. For example, one parent shared that due to online learning, her son got very used to clicking buttons versus doing actual writing, and so his handwriting had gotten "very, very poor".

Child Social Development was Impacted. Approximately 75 percent of the parents mentioned that their children's social development was impacted. Some talked about how their

child had difficulties forming friendships and resolving conflicts, while others talked about their child lacking basic interpersonal and social skills. For example, one parent shared that her daughter had not engaged with people during the pandemic and so she lacked the basic "manners" such as greeting people appropriately or engaging in conversation. She also added that her daughter had "no social filter" and that she would share things that were very private or embarrassing with complete strangers. A few parents also mentioned that their child was already shy or introverted, and that the pandemic seemed to worsen their social skills. Along similar lines, one mother shared that both her children were introverted, and so she made deliberate attempts to promote their interpersonal skills by arranging playdates for her them.

Child Physical Development was Impacted. A few parents also talked about how their child's overall physical development and physical health were negatively impacted due to the pandemic. For example, one parent shared:

> The physical health has also suffered because, because initially, I personally think that it is because of me. Initially, I haven't allowed them to go out, because of which, till date, when I'm pushing them to go out to play, to spend some time outdoors, they're not really doing that, because their friend circle have also changed earlier. When my daughter was going out regularly, she was going for an hour of just roaming with her friends, cycling in the area.

While this parent's account talked about her children's physical health being impacted, it also highlighted how the loss of social connections during the pandemic may have affected her daughter's physical development. This demonstrates how these different domains of development are connected and tied together, and how the pandemic may have strongly impacted one domain, which in turn may have impacted other domains.

Echoing similar concerns, one father shared how his son tended to avoid engaging in physical activities during/after the pandemic, which wasn't the case previously, and that now he preferred to watch YouTube for several hours. The father believed that this negatively impacted his physical growth.

Within the area of physical development, many parents talked about how their children's vision/eyesight was impacted due to the pandemic. For example, one mother shared:

> My son, he had nothing to do, so maybe he was more time glued to the TV and you know, we also allowed him and, you know, eventually started reading books and all. So, he became an avid reader. All the time he would just want to sit and read a book, not play, you know, or, you know, things like that. Either see the TV or read a book. So, we kept on giving in because there was nothing much to do. Ultimately, that led to a very high myopia for him, it significantly impacted his eye. It came as a very big shock to us because he suddenly got a high number. […] And one of the reasons was staying indoors and doing more *near work*. Now, I have to curb him when other kids are playing video games, he cannot play, you know, so that is little depressing for both of us and also the uncertainty of where his eyesight will, you know. […] Sometimes, he also tells me, 'Oh mama, now my eyes are like this, I won't be able to do any computer coding'. So, I have to stop him from activities which he likes, which makes me and him both sad.

This mother's account is another example of how the pandemic's impact may have been stronger on one domain (physical, in terms of eyes being impacted), but, in turn, also impacted other domains: social (not being able to play video games with friends), emotional (feeling sad), academic (possibly not being able to pursue coding).

Difficulties in Transitioning to In-Person Settings. While several parents talked about the pandemic's impact on the different domains of their child(ren)'s development, several also alluded to how the transition to in-person schooling was challenging with regard to these different domains. For example, many parents shared that their children had trouble adjusting to the academic work-load when they resumed in-person learning because they were not used to sitting in their seats or paying attention for extended periods of time.

A few parents also talked about how the transition to in-person schooling was hard emotionally for their children. For instance, one mother shared that her son refused to go back to school and that he experienced a lot of fear, and also exhibited somatic symptoms (e.g., vomiting) when they resumed in-person learning.

Some parents also talked about how the adjustment for their children was hard socially, as shared by this parent:

> His acceptance of his classmates is quite hard, because at my place we live quite systematically. Things should be [kept] at certain places, you should keep your surroundings clean, and multiple times, wash hands and all, so in the new school the crowd is from different levels. For him, it is difficult to accept that each class has their own living style or system. […] he expects his classmates to be organized, which is not possible, they are kids.

Lastly, one parent also alluded to the repercussions of being isolated due to the pandemic on her child's physical health: "[…] now he's been falling ill after every one month. […] they are going to regular school after full two years, so they're catching lot of infections from the other kids around them. I feel they were more rough and tough before this lockdown phase."

Discussion

There is extensive research demonstrating the negative impacts of COVID-19 on parent mental health and child development. However, there is still a paucity of research on this topic among families in India. Moreover, we are limited in our understanding of the various potential risk and protective factors with relation to parent and child mental health in the context of experiencing stress due to COVID-19 in India. It is important to gain a deeper understanding of risk and protective factors of parent and child mental health within the COVID-19 context in India as it would help inform the development of culturally sensitive interventions for this population. This mixed-methods longitudinal study aimed to address these limitations and made several contributions, especially highlighting the role of parenting behaviors and social support with relation to child and parent mental health respectively, as well as highlighting factors unique to the Indian context that contributed to parent and child mental health difficulties.

Four main findings emerged. First, parents reported increased child mental health difficulties over time during COVID-19 (between 2020 and 2022). The paired-samples *t*-test examining changes in child mental health difficulties between Time1 and Time 3 showed that parents reported significantly more child mental health difficulties at Time 3 than at Time 1. In the concurrent models, the stress experienced by children due to COVID-19 was significantly related to child mental health. Second, parental nurturance at Time 2 was negatively related to child mental health difficulties at Time 2; parental nurturance at Time 2 also significantly and negatively predicted child mental health difficulties at Time 3. Parental restrictiveness at Time 1 was positively associated with child mental health difficulties at the same time point. The parenting behaviors also moderated the effects of child COVID-19-related stress on child mental health. More specifically, parental nurturance buffered the effects of child COVID-19-related

stress at Time 2 on child mental health difficulties at Time 3. Parental restrictiveness moderated the relation between child COVID-19 at Time 1 and child mental health difficulties at Time 1; child COVID-19-related stress was positively related to child mental health difficulties more strongly for the group that was high in parental restrictiveness than the group that was low in parental restrictiveness. Third, parent COVID-19-related stress was positively related to parent mental health difficulties at each of the three time points; parent COVID-19-related stress at Time 1 also positively predicted parent mental health difficulties at Time 3. Qualitative interviews also showed that parents experienced several challenges over the course of the pandemic that contributed to their poor mental well-being. And fourth, perceived social support moderated the relation between parent COVID-19-related stress and parent mental health difficulties. Social support served as a buffer in the relation of parent COVID-19 stress and parent mental health difficulties during Time 1. However, social support at Time 2 exacerbated the effects of COVID-19-related stress experienced by parents (at Time 2) on parent mental health difficulties at Time 3, which may likely be due to the suppressor effect as explained in the Results sections. These findings and their implications are discussed in the following sections.

Child COVID-19-Related Stress and Child Mental Health Difficulties

As anticipated, COVID-19-related stress experienced by children was positively associated with child mental health difficulties at each time point (in the three within-time models). This is in line with previous studies (e.g., Racine et al., 2021; Samji et al., 2021; Panchal et al., 2021) that have found increased levels of child mental health difficulties (e.g., anxiety, fear, depression) during the pandemic. Child COVID-19-related stress was not a significant predictor of child mental health difficulties in my longitudinal model. Thus, causality and directionality of the findings (i.e., COVID-19 stress predicting child mental difficulties)

cannot be established. This may be because my longitudinal model was underpowered due to my small sample size.

However, the qualitative interviews indeed suggested that children's mental and behavioral health was impacted during the pandemic. Parents' qualitative accounts indicated that children experienced increased anger/irritability, anxiety, fear, boredom, and depressive symptoms during the pandemic. The qualitative interviews with the parents also threw light on the possible specific factors that may have resulted in specific child mental/behavioral issues. For instance, parents' accounts suggested that the inability to socialize/go out and engage in typical activities certainly contributed to children's feelings of boredom and frustration, while hearing about COVID-19 cases through media or other sources contributed to children's feelings of anxiety and fear. Similarly, the qualitative interviews also highlighted that the transition to in-person learning was difficult for some children, affecting their mental and behavioral health.

Parenting Behaviors as Moderators of Child COVID-19-Related Stress and Child Mental Health Difficulties

I had hypothesized that parental nurturance would buffer the effects of COVID-19-related stress on child mental health difficulties, while parental restrictiveness would exacerbate those relations. I found some support for this hypothesis. The interaction of child COVID-19-related stress and parental nurturance was not significant in any of the three within-time models. However, parental nurturance at Time 2 moderated the relation between child COVID-19-related stress at Time 2 and child mental health difficulties at Time 3, such that child COVID-19-related stress at Time 2 positively predicted child mental health difficulties at Time 3 only for the group of children who experienced *low* levels of parental nurturance at Time 2. On the other hand, child COVID-19-related stress at Time 2 negatively predicted child mental health difficulties at

Time 3 for the group that experienced *high* levels of parental nurturance at Time 2. In addition, parental nurturance at Time 2 negatively predicted child mental health difficulties at Time 3. Taken together, these findings indicate that parental nurturance could indeed serve as a protective factor, which is in line with prior research that have highlighted the beneficial effects of parental nurturance of child mental health (Arım et al., 2011; DeHart et al., 2006). It was a little surprising though that parental nurturance did not moderate the relation between child COVID-19 related stress and child mental health difficulties in the three within-time models. These findings indicate that the longitudinal model, compared to the within-time models may have done a better job at measuring changes in children's mental health difficulties over time, probably because I controlled for prior levels of child mental health difficulties in my longitudinal model.

On the other hand, parental restrictiveness at Time 1 was positively related to child mental health difficulties at the same time point. Also, child COVID-19 stress at Time 1 was positively associated with child mental health difficulties at Time 1 for both groups of children (i.e., those whose parents were high and low on restrictiveness at time 1); however, for the group of children whose parents were *high* in restrictiveness, COVID-19-related stress had a stronger negative impact on their mental health. Consistent with prior work that has shown links between parental restrictiveness and child internalizing problems (Doyle & Markiewicz, 2005), my findings indicate that parental restrictiveness may *possibly* have detrimental impacts on child mental health and may exacerbate the effects of child COVID-19-related stress on child mental health difficulties, adding significantly to the knowledge in the field. Once again, these findings should be interpreted with caution since they were seen only in the within-time models and not the longitudinal model (likely due to being underpowered), limiting our ability to make causal

connections. It was also a little surprising that the interaction of child COVID-19-related stress and parental restrictiveness in predicting child mental health difficulties was significant only at Time 1, and not the other two time points. This may be because parents and children may have still been adjusting to the changes brought about the pandemic at Time 1 as compared to the other time points, and so parental restrictiveness may likely have had a greater moderating impact during the earlier stages of the pandemic.

Within the discussion of the findings pertaining to parental restrictiveness, it is also important to consider the role of restrictiveness (i.e., imposing control) keeping in mind, the COVID-19 context. Due to the demands imposed by the pandemic and government regulations (e.g., the inability to go out/socialize), and it being perceived as a crisis/extremely stressful situation, parents may have been more restrictive (e.g., exerting more controls) than they typically would have been. Indeed, during my qualitative interviews a good number of mothers shared that their parenting was impacted because of the pandemic. For example, one mother shared:

> Earlier I used to be chilled out parent, like if you are going out, it's fine. During that pandemic phase I used to make sure that he was washing his hands, you know there is double mask. I was paranoid about things, you know, 'don't touch that, don't touch this'. […] Even if it is a normal cough and cold, you know, I got him tested thrice for COVID. […]. You know, an extra hygiene conscious, a bit more over protective parent you suddenly become.

Also, parents' levels of restrictiveness decreased over time, and parental restrictiveness reported at Time 1 was significantly greater than at Time 3 (as found by paired samples *t*-tests). The restrictions imposed by the pandemic were certainly different at Time 1 and Time 3, which

may explain these findings.

That being said, these findings related to parenting behaviors are also particularly important as they highlight the role of parental nurturance and parental restrictiveness on child mental health in the Indian context. While there has been research on the outcomes of *parenting styles* in India, there has been no prior work on the effects of parental nurturance and restrictiveness specifically, on child mental health in the Indian context. Moreover, research on the effects of other related constructs such as parental control on child mental and behavioral health in India has yielded mixed findings (Jahan & Suri, 2016; Sharma & Sandhu, 2006). Thus, the findings of the current study make an important contribution to the literature and has several implications for child mental health as discussed later.

The current findings (i.e., parental nurturance being protective, while restrictiveness being a risk factor for child mental health, as well as serving as possible moderators in the relation of stress and child mental health) were similar to what one may expect to find in countries such as the United States. This may be because my sample consisted primarily of middle and upper middle-class, highly educated mothers residing in big cities. Though India may be one of the countries that falls more towards the tightness side on the tightness-looseness scale in general (Uz, 2014), its balance on the tightness-looseness scale has been changing (going more toward the looseness side) over the last few years (Inglehart et al., 2014) likely due to factors such as globalization. Also, the placement on the tightness-looseness scale may vary for different sections of the population. For instance, it is likely that parents residing in larger cities and those belonging to middle and upper-middle class backgrounds may have greater exposure to Western influences and diverse perspectives, which in turn, may influence their parenting beliefs. In other words, they may be exposed to the possible effects of different parenting

behaviors via social media, and may realize the benefits of positive parenting behaviors such as parental nurturance, and likewise the possible negative effects of behaviors such as parental restrictiveness on child mental health. If the same study were to be conducted in India with low-income families or those belonging to rural areas, the findings may be different. Similarly, as noted in the Introduction section, religious beliefs may impact parenting behaviors. The majority of the participants in the current study followed Hinduism. Thus, future research on the topic with more representative samples in terms of class, religion, education and geographical location may be beneficial.

My qualitative interview findings lend credence to my quantitative findings. Several parents explained how their own parenting behaviors impacted their child(ren)'s mental health. A closer examination of the qualitative responses suggested that the anxiety of keeping themselves and their family safe likely resulted in parents being overcautious and overprotective, which in turn may have likely led to their child(ren) feeling anxious. For instance, one mother shared how she placed very strict rules in order to keep her child safe during COVID-19, e.g., having her child constantly sanitize his hands, not allowing him to touch anything when they were outside, and yelling at him if he touched random things/objects (e.g., stairwell banister). She also shared that she got worried if her son sneezed, and randomly checked his temperature several times a day even if he was healthy. She further reflected that such restrictive parenting, which was intended to keep her child safe, actually had negative impacts on his mental health. She shared that her behavior possibly made her son fear that he and his family members would get COVID-19 or die from COVID-19. In fact, when there was a death in the family, not due to COVID-19, he still believed that it was because of COVID-19. On the other hand, some parents mentioned that they limited their child(ren)'s exposure to news about COVID-19, which they

thought was helpful in preserving their mental health. For instance, one mother mentioned that she had shared some very basic facts about COVID-19 with her child and the necessary precautions that they had to take because of it (e.g., washing hands, avoiding public places, etc.). She added that she and her husband did not talk about the pandemic at home or watch any news related to the pandemic in the presence of their children. She also shared that while it was worrisome to hear about the COVID-19-related deaths, she made a conscious attempt to be positive and not show that worry to her child. Thus, collectively, these stories highlight how parenting behaviors may have possibly impacted child mental health, and also possibly served as a moderator in the relation between child COVID-19-related stress and child mental health.

Parent COVID-19-Related Stress and Parent Mental Health Difficulties

I had hypothesized that the stress experienced by parents due to COVID-19 would be related to parent mental health difficulties at each time point, and would predict parent mental health difficulties over time. I found some support for this hypothesis. COVID-19-related stress experienced by parents at each wave was positively related to parent mental health difficulties at each wave. In addition, parent COVID-19-related stress at Time 1 positively predicted parent mental health difficulties at time 3, almost two years later. These findings indicate that the pandemic certainly had a negative impact on parents' mental wellbeing. These findings are in line with prior studies conducted in India and in other parts of the world that showed that parents experienced increased levels of stress, anxiety and depressive symptoms during the pandemic (e.g., Adams et al., 2021; Chen et al., 2022; Dhiman et al., 2020; Johnson et al., 2022; Sama et al., 2020). However, majority of the prior work in the area has simply reported clinically significant levels of parents' depressive and anxiety levels and has been cross-sectional in nature, limiting our ability to establish causal links between COVID-19-related stress and parent mental

health.

My study bridged this gap; I used items from the CRISIS (Merikangas et al., 2020) survey to create a measure that could capture how changes and stressors brought about by the pandemic impacted parent (and child) mental health. Thus, my study is one of the first to demonstrate causal links between the changes brought about by the pandemic and parent mental health. Moreover, the qualitative findings of my study helped gain a deeper understanding of the challenges experienced by parents during this period that affected their mental health. In addition, parents' qualitative accounts also highlighted how specific challenges may have differently impacted specific mental health issues. For instance, fear of contracting COVID-19 and wanting to keep themselves and their families safe, as well as concerns about their child(ren)'s development seemed to affect parents' anxiety, while being overburdened by responsibility and having to juggle multiple tasks as well as financial issues likely contributed to feelings of stress as well as anger/frustration/irritability. On the other hand, the inability to socialize and lack of support from those individuals that parents expected that support seemed contribute to feelings of depression.

Social Support as a Moderator of Parent COVID-19-related stress and Parent Mental Health Difficulties

I had predicted that social support would lessen the effects of COVID-19 stress on parent mental health such that parents who perceived greater levels of support would have lesser mental health difficulties when they experienced stress due to COVID-19, compared to parents who perceived lower levels of support. As expected, the stress experienced by parents due to COVID-19 at Time 1 was significantly associated with parent mental health difficulties at Time 1, but only for the group that reported receiving *low* social support. In other words, social support

served as a protective factor in the relation of COVID-19-stress and parent mental health difficulties at Time 1. My qualitative findings also demonstrated that support from spouse, family members, and co-workers indeed helped parents cope with the challenges associated with the pandemic. Moreover, parents' accounts also demonstrated that lack of support from those that it was expected from seemed to negatively impact parent mental health. Surprising, social support did not buffer the effects of parent COVID-19-related stress on parent mental health difficulties at the other two time points, probably because parents may have adapted to COVID-19-related stressors over time, and support from family/friends/work colleagues may have been most crucial during the earlier stages of the pandemic.

The longitudinal model examining the relations between parent COVID-19-related stress, parent mental health difficulties and perceived social support also revealed that social support moderated the relation between parent COVID-19-related stress and parent mental health difficulties, however these findings were contrary to what I had expected and to the other finding from the cross-sectional analysis. I found that parent COVID-19-related stress at Time 2 negatively predicted parent mental health difficulties at Time 3, but for the group that perceived *low* levels of social support at Time 2. In other words, this finding indicated that low levels of perceived social support seemed to be beneficial with relation to mental health when parents experienced COVID-19-related stress. As described in the Results section, this finding may possibly be due to the suppressor effect. Future studies with larger sample sizes examining the relations between stress, social support and mental health difficulties among Indian samples are needed to elucidate the nature of the relation between these variables.

Study Implications Unique to the Indian Cultural Context

The findings of the study have several important implications. Child COVID-19-related

stress was positively related to child mental health difficulties, and parent COVID-19-related stress was positively related to parent mental health difficulties. Children's mental health deteriorated over time during COVID-19. Moreover, the changes and challenges experienced due to the pandemic seemed to have impacted parent and child mental health almost two and a half to three years into the pandemic as suggested by the quantitative findings as well as qualitative findings, and it is likely that some parents and children may still be experiencing those impacts. However, past research suggests that very few people with mental health difficulties in India actually seek mental health services. While this may be partially explained by stigma associated with mental health issues, it may also largely be explained by a lack of awareness of mental health problems. My qualitative data findings actually highlighted both these factors as possible barriers in help-seeking. For instance, one mother shared that she experienced several somatic symptoms and wasn't even aware that those were a manifestation of her severe anxiety, and thus could not get the right treatment, until finally one doctor was able to diagnose it correctly:

> Approximately five doctors, I have changed. I was not getting out of that anxiety, as they were only treating my symptoms. Okay, today I was facing a throat infection, let us give Erythromycin, okay, today the back pain is there, only painkillers were given only. Fever is there, okay take Dolo 650…. After so many times, I got that thing that okay, I was anxious, I was also not knowing that thing that okay, it was anxiety or my mental health is not in a good state.

This mother also went on to share that people in India do not like to talk about mental health issues despite the strong need for mental health services. She said, "Here, no one likes to talk about mental health. [--] But it happens with everyone in India. Actually, every lady [in

India] is in depression."

This suggests that the first and foremost task for mental health professionals in India is to create awareness about mental health issues as well as normalize talking about mental health issues/reduce stigma associated with it. One way of doing so may be by providing information via trainings, workshops or through pamphlets/brochures. Research with Asian Americans suggest that they may be more open to attending trainings/workshops rather than receiving therapeutic services as the former may be perceived as less stigmatizing (Wang et al., 2020) and non-threatening (Havewala et al., 2023). Indeed, when asked about future helpful supports during the qualitative interviews with parents, many participants mentioned that they would like to have resources such as workshops, brochures, tip-sheets on topics related to mental health awareness, promoting mental health, and coping with challenges (e.g., conflict management, dealing with child difficult behaviors, etc.).

The qualitative findings also suggested that while some challenges experienced by parents in India were similar to those experienced by parents in other parts of the world, there were certain unique factors within the Indian context that likely contributed to those challenges. Keeping these unique factors in mind in therapeutic settings would be important for mental health professionals. For instance, it is typical for middle class and upper-class families to have domestic help for household chores in India. During the first few months of the pandemic, most middle and upper-middle class families were without any domestic help. Also, most houses in India are not equipped with dishwashers and washing machines, nor do the owners typically have vacuum cleaners. Thus, parents in India, like parents in other countries of the world experienced feeling overwhelmed, but one factor contributing to feeling overwhelmed which was probably unique to the Indian context was the lack of house-help during that period. Also, as

found by studies conducted in other parts of the world, parents in my study experienced anxiety with regard to keeping themselves and their family safe. However, small apartments and high population density, factors unique to the Indian context played a role in influencing parents' anxiety. The parents mentioned that when they or a family member contracted COVID-19, it was very challenging, partly because of health-related concerns, but partly also because they lived with extended family members in a two-bedroom apartment, thus making it hard for the person with COVID-19 to isolate.

Another factor unique to the Indian context is the family system. Intergenerational family households are still prevalent in India (Hasnain & Srivastava, 2018). Indeed, as mentioned previously, a sizable proportion of my sample reported living with their in-laws/parents. Family roles are well-defined in multigenerational Indian households (Hasnain & Srivastava, 2018). A typical multigenerational household in India consists of the husband, wife, their children, and the husband's parents. In many families, the husband's brothers (and their spouses and children) may also reside in the same home. The oldest male (generally the husband's father) is typically considered to be head of the family, who holds the greatest position of authority and is often the one who makes important decisions in the family such as those related to family expenses and distribution of goods within the household, while the oldest female (generally the husband's mother) is in charge of making decisions related to division of labor within the household. The husband is considered to be breadwinner, while the wife is entrusted with childrearing and other household responsibilities (e.g., cooking), in addition to fulfilling her professional work obligations if she is employed for wages outside the home. During the qualitative interviews, many mothers reported that being confined in the house with their large family for extended periods of time was a source of stress. As discussed in the Results section, many parents talked

about how their relationships with their family members were negatively impacted during the pandemic. These findings also have important implications for mental health professionals. While working with clients in therapy sessions, it would be beneficial for the therapist to take into consideration factors such as the individual's role in the family, typical expectations that come with that role, and their relationship with other family members. Relatedly, the therapist may also want to consider doing family therapy and there is research that highlights its importance, specifically in the Indian context. For instance, prior work indicates that doing individual therapy in India sometimes leads to positive outcomes (Sharma & Chadda, 1996), but there is often a regression to earlier patterns of behavior and functioning seen in the client, because the individual therapy may have resulted in a change in the client, but the family's thinking and functioning may still be the same (Davar, 1999). Thus, my findings as well as past research suggest that in order to address the individual's issues effectively, it is often critical to look at them with a family-systems lens and utilize a family-therapy approach.

Another factor unique to the Indian context worth highlighting in terms of clinical implications is the way in which parents coped with the pandemic. Many participants in my study mentioned that being grateful for the good things in their lives (e.g., good health, having supportive family members, having a job) was one of the ways that helped them cope with the challenges associated with the pandemic. There is research suggesting the importance of gratitude as a therapeutic intervention (e.g., Emmons & Stern, 2013; Flinchbaugh et al., 2012), and this may be particularly effective in the Indian context. Mental health professionals may find it beneficial to incorporate discussions and activities related to building gratitude (e.g., gratitude journaling) in their sessions.

Relatedly, religious coping and spirituality-based coping also emerged as a qualitative

theme in this study. This is not surprising given that studies published from different parts of the world (e.g., Brazil, South Africa, Tunisia, Palestine, USA, etc.) found that positive religious practices (e.g., praying, meditating) and belief in God reduced stress and anxiety during the COVID-19 pandemic (Imran et al., 2022). Since this was not a central question of this study, and due to my sample size being primarily Hindu, I was unable to investigate how different religious beliefs may have impacted the way in which parents coped with the pandemic, and in turn, how that impacted their mental wellbeing. However, based on the participants' responses during the interview, it was evident that they (participants), irrespective of the religion they followed, found solace and comfort in religion/God. For instance, one mother following the Hindu religion mentioned that chanting the religious mantras brought positivity in their lives and gave her the strength to cope with those difficult times. Likewise, a mother following Islam, said that "listening to the translation of the Quran" and her belief in God helped her navigate the difficulties associated with the pandemic. Thus, mental health professionals may consider the role of religious/spirituality-based coping and other forms of coping within the larger Indian cultural context and family systems, and how they may be related to client outcomes.

My qualitative findings also highlighted the differential impact of the pandemic on women. While there were no significant differences between men and women on the DASS-21, the qualitative accounts of parents suggested that mothers, compared to fathers seemed to feel more overburdened by the demands placed on them due to their traditional gender roles. For example, mothers in the sample talked about how they were tasked with taking care of their child(ren)'s academics, keeping their child(ren) engaged, doing household chores, taking care of their own job requirements as well as attending to the needs of other family members. One father also stated that his wife quit her job so that she could attend to her son's academic needs and the

household chores. Within the group of women, those with demanding professional work requirements seemed to be particularly at risk for experiencing mental health issues as they also felt pressured to fulfil those obligations as compared to women who were not employed for wages. Further, working single mothers may face additional challenges. For instance, one such mother's account highlighted how the pandemic and possibly her being a single mother had taken a toll on her, demonstrating the longer-term impacts of the pandemic:

> […] that I would say is the current challenge, extreme fatigue setting in. […] I think the fatigue has set in, basically for me. […] And like I said, I don't know whether it's because of my personal situation, I'm getting tired, I'm getting stressed with all of that, or it's the post-COVID thing, or if it's everything together, I don't know that, but I know now that I am extremely extremely extremely tired.

These findings also have important implications. A good support system at home as well as having understanding co-workers and flexibility at work may be critical for working women. Indeed, some mothers in my study shared that their husbands broke traditional gender roles by helping with domestic chores in the house, which helped them cope, as the responsibilities seemed to get divided. Thus, these kinds of shifts may actually be beneficial as more women in India, compared to a couple of decades ago, work outside their homes. For single working mothers, having even stronger supports in place may be essential. Within therapeutic settings, mental health professionals may attempt to tailor the sessions while being mindful of the unique stressors that this subset of the population may experience.

The findings also call for larger systemic-level changes to support women's mental being. The pandemic disproportionately impacted women, exacerbating existing gender inequities. Indeed, several research studies conducted in different parts of the world have

highlighted that COVID-19 had a disparate impact on women's mental health (Almeida et al., 2020; Wade et al., 2021); the same was found for samples in India (e.g., Napier-Raman et al., 2021; Sharma & Vaish, 2020). This highlights the need for policy-level changes that better support women in India. For example, policies that afford women greater work flexibility (e.g., work from home, flexible work hours) may be warranted. In addition, the creation of programs that raise awareness about women's mental health issues and factors contributing to those issues would be even more important and relevant in the Indian context. As discussed previously, gender roles are well-defined in the India, especially within certain sections of the society, which may contribute to unreasonable amounts of load being placed on women, which in turn, may affect their wellbeing. Thus, there is a need for the creation and implementation of programs that bring to light such issues. The programs may also aim to bring about a change in strongly-held stereotypical beliefs due to gender role expectations (e.g., taking care of the child is only the woman's job) as well as encourage sharing of responsibilities within the family. Relatedly, programs and policies that empower women to speak up against discrimination/violence/abuse (e.g., by teaching them ways to physically defend themselves, steps to take to report abuse, and by providing them with community resources/supports they can access), as well as programs and policies that encourage women to exercise their rights (e.g., the right to work outside the home if she desires to) would also be beneficial.

While working women may be a vulnerable population during stressful events like the pandemic, it is also important to pay attention to Indian men's mental health. In the qualitative section of my study, only three fathers participated and thus, it may be unfair to generalize, but some themes that came up are worth mentioning. First, likely due to the traditionally defined roles, the fathers in my study seemed to bear greater financial responsibility and thus expressed

concerns related to financial stability. Second, fathers also seem to carry the burden for staying positive and not showing vulnerability for the sake of their family and to keep their spirits up. And third, fathers may be more likely to downplay or minimize their mental health issues, likely due to stereotypical gender expectations.

My study also highlighted the role of parenting behaviors such as nurturance and restrictiveness with relation to child mental health. While conducting trainings, workshops or while working with parents in other capacities, mental health professionals could highlight the importance of parenting behaviors and how they (parenting behaviors) could impact child mental health. My qualitative findings also suggested that parenting behaviors were impacted by the various stressors and challenges experienced by the parents during the pandemic, which likely impacted the way in which they interacted with their child(ren) and, in turn, their child(ren)'s mental health. Thus, while creating content for the workshops/trainings, keeping in mind factors that contributed to those stressors and challenges would be helpful. For instance, parents who participated in the qualitative interviews believed that their child's academic development was adversely impacted due to the pandemic, and that was a significant source of stress for almost all parents (who participated in the qualitative interviews). Indeed, mothers quit their jobs so that they could make sure that their child's academics did not suffer. This may be because of the high emphasis placed on education in the Indian culture. During workshops/trainings, parents could be taught effective ways of managing parenting stress, finding good work-life balance as well as ways in which they can support their children during stressful times such as these, all while centering the content of those sessions keeping the cultural values in mind. Workshop/training facilitators and mental health professionals are more likely to receive buy-in from the parents if the parents feel understood, and they are most likely to feel understood if their values (e.g.,

importance of education) are taken into consideration.

These findings (parenting behaviors being impacted by various stressors and challenges experienced by the parents during the pandemic) also speak to the larger need of having more macro-level supports for parents during such times. Some examples of those supports may include providing financial assistance to families who have lost their jobs, providing groceries/meals at subsidized rates, providing medical services at free or reduced rates, providing free or affordable mental health services and providing affordable child care services.

Lastly, while this study was targeted at understanding the effects of COVID-19 on parent and child mental health in India, the qualitative accounts of parents also highlighted some issues which may have some important educational implications. As noted in the Results section, parents had to take on the role of educators as they found themselves having to teach the lessons to their children, complete their children's assignments and exams (and turn them in), as well as help them navigate the online platforms. In the event that instruction needs to delivered virtually in the future, educators in India may want to take into consideration the developmental level as well as specific needs of students. For example, younger children may need more explicit directions on turning in assignments or navigating virtual learning platforms. Relatedly, children with special needs may need additional supports. Likewise, the work demands should be commensurate to the developmental level of the students. Educators may also want to keep in mind factors such as the families' socioeconomic status (SES). Since instruction was delivered virtually during the pandemic, families needed a device for their child to be able to access the curriculum. One mother, in the interview, mentioned that they had to buy a phone for her son as they did not have an additional device, and they were able to do so because of they were financially comfortable. As my sample consisted of middle and upper middle-class families, this

was not a concern as they already had a spare device or could afford to buy one. However, for low-income families, who may already be struggling to meet their basic needs, buying a device for their child's educational needs may not be feasible. This, again, reflects the need for systemic level changes, such as allocation of funds for programs that support the financial and educational needs of low-income families.

Limitations and Future Directions

The findings of my study should be considered within the light of some limitations. First, my sample size was relatively small, with high rates of attrition at Time 2 and Time 3. Thus, I did not have enough power to run some more complex models (e.g., run multigroup models to examine sex differences for my research questions). Indeed, participant attrition has been a common problem that researchers face (Poongothai et al., 2022), and one strategy for participant retention may be increasing participant motivation by possibly offering stronger incentives (Poongothai et al., 2022). While all participants in my study were compensated in monetary terms at Time 2 and Time 3, it is likely that the incentive may not have been strong enough as most of them belonged to middle and upper middle-class families. Thus, it may be helpful for future researchers in India to keep that in mind by attempting to procure more funds for participant payments, and also by attempting to recruit a much larger sample at baseline, anticipating that there will likely be drop-outs at later time-points.

A second related limitation was that majority of the participants in my study were highly educated with at least a master's degree, and belonged to the middle and upper middle class, residing in a large city. Also, my sample consisted primarily of mothers, and those belonging to the Hindu religion. All these variables, namely, class, education, gender, religion, and area of residence can affect the parenting behaviors, and in turn, child and parent outcomes. Thus, my

findings cannot be generalized to other sections of the population such as those belonging to lower SES (e.g., domestic workers) and those residing in rural areas. Indeed, a study by Napier-Raman et al (2021) that explored the social, psychological and health impacts of the Indian government's pandemic measures on children and youth people belonging to marginalized urban slum communities in New Delhi revealed that financial strain was the biggest problem experienced. The study also found that compared to boys and young men, girls and young women reported higher levels of anxiety and distress, and very concerningly, higher levels family violence (46.7 percent girls vs. 6.7 percent of boys reported experiencing violence from family members). In the possibility of stressful events such as the pandemic occurring again in the future, it may be helpful to recruit a more diverse sample in terms of SES, education level, gender and area of residence to learn about how the stressful event may impact them differently.

Third, I used parent reports of child mental health difficulties, given that the children in my study were too young to report reliably on their symptoms and other constructs; however, this may have given rise to the possibility of biased reporting. For instance, past work has indicated that parents with mental health issues may have biased views (Ohrt et al., 1999; Richters, 1992), which may negatively influence their ratings of their child's behavior (Gartstein et al., 2009; Kroes et al., 2003). While it was beyond the scope of the current study to obtain data from other sources, future research may attempt to do so in order to avoid biased reports and to obtain a holistic picture of the child's functioning.

Conclusion

Notwithstanding my limitations, my study made several important contributions. This is the first thorough longitudinal mixed methods study on the topic of parent and child mental health during the COVID-19 pandemic within the Indian context. The longitudinal design of the

study allowed me to understand how the nature of the relation between my study variables changed with time. The mixed-methods approach allowed for a deeper and nuanced understanding of the findings by highlighting specific factors contributing to parents' experiences during COVID-19. My study demonstrated that changes brought about by the COVID-19 pandemic were significantly related to child mental health difficulties; the pandemic also had a detrimental impact on parents' mental health. In addition, my study also showed the importance of parenting behaviors with relation to child mental health, and that parenting behaviors may also moderate the effects of stressful life events such as the pandemic on child mental health difficulties. The quantitative and qualitative findings indicated that supportive relationships, in general, seemed to help parents cope with the challenges associated with the pandemic, and also served as a buffer in the relation of stress experienced due to COVID-19 and parent mental health difficulties. However, future research with larger sample sizes is required to understand the nature of relations between stress, social support, and parent mental health difficulties in India. Finally, the qualitative findings suggested that mothers employed for wages with demanding work requirements and single working mothers may be particularly at risk for mental health difficulties during stressful times such as these.

Appendix A: COVID-19-stress measures for parent and child

Parent COVID-19 related stress measure:

1. During the past month, how worried have you been about being infected?
    a. Response Options:
        i. 0 = Not at all
        ii. 1 = Slightly
        iii. 2 = Moderately
        iv. 3 = Very
        v. 4 = Extremely
        vi. *Prefer not to answer* (excluded from analysis)
2. During the past month, how worried have you been about friends and family being infected?
    a. Response Options:
        vii. 0 = Not at all
        viii. 1 = Slightly
        ix. 2 = Moderately
        x. 3 = Very
        xi. 4 = Extremely
        xii. *Prefer not to answer* (excluded from analysis)

3. During the past month, how worried have you been about Your PHYSICAL health being influenced by Coronavirus/COVID-19?
    a. Response Options:
        xiii. 0 = Not at all
        xiv. 1 = Slightly
        xv. 2 = Moderately
        xvi. 3 = Very
        xvii. 4 = Extremely
        xviii. *Prefer not to answer* (excluded from analysis)

4. During the past month, how worried have you been about Your MENTAL/EMOTIONAL health being influenced by COVID-19?
    a. Response Options:
        xix. 0 = Not at all
        xx. 1 = Slightly
        xxi. 2 = Moderately
        xxii. 3 = Very
        xxiii. 4 = Extremely
        xxiv. *Prefer not to answer* (excluded from analysis)

5. During the past month, how much have you been reading or talking about Coronavirus/COVID-19?
    a. 0 = Never
    b. 1 = Rarely
    c. 2 = Occasionally
    d. 3 = Often
    e. 4 = Most of the time
    f. *Prefer not to answer* (excluded from analysis)

6. During the past month, has the quality of the relationships between you and members of your family changed?
    a. 0 = A lot worse
    b. 1 = A little worse
    c. 2 = About the same
    d. 3 = A little better
    e. 4 = A lot better
    f. *Prefer not to answer* (excluded from analysis)

7. During the past month, how stressful have these changes in family contacts been for you?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

8. During the past month, has the quality of your relationships with your friends changed?
    a. 0 = A lot worse
    b. 1 = A little worse
    c. 2 = About the same
    d. 3 = A little better
    e. 4 = A lot better
    f. *Prefer not to answer* (excluded from analysis)

9. During the past month, how stressful have these changes in social contacts been for you?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

10. Events: During the past month, how much has cancellation of important events (such as holiday gatherings, parties, vacations, etc.) in your life been difficult for you?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

11. Financial_Prblms: During the past month, to what degree have changes related to the Coronavirus/COVID-19 crisis in your area created financial problems for you and your family?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

12. Stability: During the past month, to what degree are you concerned about the stability of your living situation?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

Child COVID-19 related stress measure:

1. During the past month, how worried has your child been about being infected?
    a. Response Options:
        0 = Not at all
        1 = Slightly
        2 = Moderately
        3 = Very
        4 = Extremely
        Prefer not to answer (excluded from analysis)

2. During the past month, how worried has your child been about friends or family being infected?
    a. Response Options:
        0 = Not at all
        1 = Slightly
        2 = Moderately
        3 = Very
        4 = Extremely
        Prefer not to answer (excluded from analysis)

3. During the past month, how worried has your child been about his/her PHYSICAL health being influenced by Coronavirus/COVID-19?
    a. Response Options:
        0 = Not at all
        1 = Slightly
        2 = Moderately
        3 = Very
        4 = Extremely
        Prefer not to answer (excluded from analysis)

4. During the past month, how much is your child asking questions or talking about Coronavirus/COVID-19?
    a. 0 = Never
    b. 1 = Rarely
    c. 2 = Occasionally
    d. 3 = Often
    e. 4 = Most of the time
    f. *Prefer not to answer* (excluded from analysis)

5. During the past month, how stressful have the restrictions on leaving home been for your child?
    a. 0 = Not at all

b. 1 = Slightly
c. 2 = Moderately
d. 3 = Very
e. 4 = Extremely
f. *Prefer not to answer* (excluded from analysis)

6. During the past month, has the quality of the relationships between your child and members of his/her family changed?
    a. 0 = A lot worse
    b. 1 = A little worse
    c. 2 = About the same
    d. 3 = A little better
    e. 4 = A lot better
    f. *Prefer not to answer* (excluded from analysis)

7. During the past month, how stressful have changes in family contacts been for your child?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

8. During the past month, how stressful have changes in social contacts been for your child?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

9. During the past month, how much has cancellation of important events (such as vacations, class activities/parties, birthday parties, etc.) in your child's life been difficult for him/her?
    a. 0 = Not at all
    b. 1 = Slightly
    c. 2 = Moderately
    d. 3 = Very
    e. 4 = Extremely
    f. *Prefer not to answer* (excluded from analysis)

Appendix B: Qualitative Interview Questions

- Looking back to the time when the pandemic started in March 2020 to now, what have been some challenges that you have experienced?

  [Allow them to answer on their own. Once they respond probe for certain specific challenges by asking the following questions – if they have already alluded to this, say something like, "*You already mentioned XYZ, but can you please elaborate a bit on more XYZ*"]

  Thank you for sharing that. Now, I am going to ask you about some specific challenges that parents of young children may have experienced during this pandemic.

  - What kind of challenges did the pandemic pose with relation to your child's academics?
  - What about your child's social development (e.g., interacting with friends, etc.)?
  - Were there any challenges with relation to your living situation? (If they have trouble coming up with a response, probe by saying something like, "Some people may be living with joint families or extended relatives, and being cooped up in the house with family members can be stressful or challenging. Did you experience anything like that?)
  - What kind of challenges did you experience with managing the work-life balance?
  - What kind of challenges did you experience with your relationships?
  - When offices and schools started resuming being back to in-person, what was that transition like? Did you experience any specific challenges with that?

- Which of the challenges were harder to navigate than the others? How come?

- Were there periods of time that were especially challenging, and if so, what happened during those periods?

- How have you coped with these challenges?

- What has helped you work through the challenges associated with the pandemic? [If they have trouble coming up with a response on your own say something like, "*Sometimes, talking to a friend or a loved one may be helpful, or some people may find doing an activity like yoga or going for a walk helpful. Was there something like that which you found helpful?"]*

- How would you describe the impact of the pandemic on your mental health? [Sometimes parents may not respond to this – probe by asking, "*Did you notice any changes in how you were feeling, your thoughts, your behavior, your mood, your energy level, appetite, or sleeping patterns?*"]

- Would you say the pandemic impacted your parenting and the way in which you interacted with your child(ren), and if so, how?

- How would you describe the impact of the pandemic on your child, generally?

- How would you describe the impact of the pandemic on your child's behavior and mental health? [Again, probe in similar way as you did for parents if they don't respond].

- Were there any positives that came out of the pandemic for you, your child and your family? If so, what?

- What were some lessons that you learnt from the pandemic?

- Has the pandemic altered/impacted your view towards life? And if so, how?

- What supports would be most helpful for you and your family in the event of a highly stressful event like this happening again in the future, or in the event of more shutdowns and isolations occurring again in the future?

Appendix C

RQ 1: CHALLENGES: What challenges did parents experience over the course of the pandemic?		
1.1	Financial difficulties	Includes anything the parent shares that reflects that the pandemic directly impacted the participant or spouse in terms of finances. Examples include pay cuts, inability to spend freely (even if as a precautionary move), employment difficulties, such as self or spouse losing job, inability to find job.
1.2	Relationship difficulties	Includes any sorts of problems in relationship with spouse, children, family, friends, extended family or others that the parent shares. These may include conflicts, arguments, differences in opinions, or their relationships with the person(s) being negatively affected.
1.3	Overwhelmed with responsibilities	Includes parent feeling very overwhelmed due to excessive demands of juggling several responsibilities such as own job, household chores, taking care of kids, etc., resulting in no time for self.
1.4	Parenting related challenges	Includes challenges experienced by parents because of the pandemic that may be related to parenting.
1.4.1	Keeping child occupied	Includes anything that the parent mentions with regard to keeping child occupied or engaged, suggesting that it was challenging (e.g., child wanting parent's constant attention/demanding their time; parent running out of different activities to occupy child).
1.4.2	Challenges related to child's academics	Includes anything that parent says that is related to child's academics, like makings sure that the kid is actually doing the work, attending online classes, turning in work, completing exams, etc.
1.4.3	Explaining changes to child	Includes anything that the parent mentions with regard to challenges in explaining changes to child brought about by the pandemic. Examples include explaining the reasons behind their inability to go out (for instance when the child wanting to go out to restaurants), inability to socialize (when the child insisted on playing with friends), staying away from self or other family members when they contracted COVID-19. This category also includes challenges that parents faced in explaining changes to their child when they resumed in-person learning.
1.4.4	Increased screen time	Includes anything that the parent mentions with regard to their child's increased screen time, and challenges/difficulties in controlling their child's screen time.
1.5	Challenges related to COVID-19 precaution	Includes anything that the parent describes or alludes to with regard to COVID-19-related precautions being hard or challenging due to those activities being laborious/time-intensive. Examples include sanitizing furniture/belongings, sanitizing grocery packets, soaking and washing vegetables with soapy water, wearing protective equipment when going out, showering every time they had to step outside the home. This category also includes difficulties in isolating/being in quarantine when self or family members contracted COVID-19. Lastly, this category also included challenges in effectively maintaining social distancing,

		and challenges associated with social isolation (e.g., parent mentioning that they missed seeing family/friends in person or being at work in person).
1.6	Changes in routine	Includes challenges experienced by parents due to lack of routine, inability to enforce routine, and balancing schedule with in-person requirements.
1.6.1	Challenges reverting back to in person	Includes challenges experienced by *parents* when they/their child resumed in-person work/schooling. Examples include needing to wake up earlier, disruptions in routine while going back to in-person (having to go back to online learning because of children in the class testing positive or COVID-19), or in general, just having a hard time going back to or adjusting to being in person.
1.6.2	Employment requirements	Includes challenges experienced by parents with regard to adjusting to changes in in-person vs. online schedule, balancing work schedule with home.
1.7	Hearing about COVID-19 cases	Includes parent expressing feeling stressed or negatively impacted by hearing about COVID-19 cases via media, news, or word of mouth (e.g., neighborhood cases spiking), which may also include rumors/misinformation spread by media or other sources.
1.8	Self or family contracting COVID-19	Includes parent mentioning that they or another family member contracted COVID-19 and that was a challenge in itself.
1.9	Death of a loved one	Includes parent mentioning that they lost a family member during COVID-19 (may be due to COVID or another reason) and that was hard to deal with.
1.10	Lack of poor medical services	Includes parent mentioning that they were not able to get good medical help for COVID-19, such as doctors being unavailable, doctors not knowing much about COVID-19 themselves, lack of proper guidance from doctors regarding COVID-19 treatment or COVID-19 precautions, no hospital beds being available, etc. It also includes not being able to access/receive medical services for other medical needs (e.g., heart issues, arthritis, etc.) that are non-COVID related.
1.11	Miscellaneous	Includes any other challenges that don't fall under the above. Examples include moving to a new place during COVID-19, not having basic amenities, like groceries, internet, and work progress being hampered due to COVID-19.
2.0 COPING: What helped parents personally cope with any pandemic stress and difficulties?		
General coping strategies		Includes coping approaches parents engaged in during COVID-19 pandemic
2.1	Social support	Includes parent receiving support from people in their circle (e.g., family members, friends, neighbors, coworkers) in various forms (e.g., emotional support, instrumental support, institutional flexibility).
2.2	Spirituality coping	Includes parent mentioning that they engaged in spiritual practices (e.g., activities, attitudes), including prayers, religious philosophy, meditation, yoga.
2.3	COVID-19 relevant preventive measures	Includes any preventive action or steps the parent took to cope with the fear of getting COVID-19. Examples include not socializing, not eating out, not letting kids eat cold things like ice-

		creams to avoid catching cold and the possibility of it leading to COVID-19, sanitizing, using online delivery for groceries/food, as well as taking herbal health supplements and stocking up on typical over-the-counter medicines for cold/coughs/fever.
2.4	Gratitude	Includes the parent saying that they are grateful for things in their life such as for good health, financial security, the people in their lives etc., or that they coped by counting their blessings/appreciation for things.
2.5	Optimism	Includes the parent saying that they coped by staying positive/ having the belief that everything would turn out fine. This category also includes positive self-talk (e.g., "You will be fine. You have to be strong").
2.6	Acceptance	Includes anything that suggests acceptance of changes/stressors brought about by the pandemic on the parent's part (e.g., "I have no other option but to accept it, go through this."). This code also includes anything that the parent said that suggested acceptance of themselves for what they were and what they could do (e.g., "I realized that it is okay for me to not be perfect and I am fine with that").
2.7	Educational resources	Includes the parent seeking educational courses, videos, or relevant contents to deal with their challenges.
2.8	Physical activities	Includes anything that the parent mentions which relates to coping by staying physically active. Examples include working out, exercising, walking, hiking, aerobics, dancing. etc.
2.9	Extended social connection	Includes any activities that the parent engaged in that fosters a sense of connection with *extended* family, friends (outside their nuclear family). Examples include meeting outdoors, playing online games, staying connected via online platforms.
2.10	Family relationship building	Includes any activities that the parent engaged in with their *immediate* family members that helped mitigate the impact of the challenges associated with the pandemic. Examples include watching movies together, hiking, playing board games together, or just spending more quality time together (e.g., having meals together).
2.11	Limiting media exposure	Includes parents mentioning that they consciously did not watch TV, news/read disturbing COVID-19-related news to avoid feeling stressed.
2.12	Making health a priority	Includes parent mentioning that they started engaging in an activity (may still be engaging in it) that indicates that they made their health is priority. Example include starting to eat health, work out regularly, hiring a personal training. The difference between this code and 2.4 (Gratitude) is that 2.4 is more at the thought level; this one is more at the behavior level.
2.13	Keeping child occupied	Includes parent mentioning that child behavior was a source of stress and names strategies to keep children occupied as a way to alleviate stress.
2.14	Miscellaneous	Includes any other coping strategies that the parent mentioned were helpful in dealing deal with the stress/challenges associated with the pandemic that were not captured above. Examples include therapy, and engaging themselves in meaningful/relaxing

		activities such as listening to music, cooking new dishes, and participating in virtual contests.
2.15	Parent mentioned strategy being unhelpful	Includes parent explicitly mentioning that their approach was unhelpful or being unsure if the strategy/strategies were effective.
2.15.1	Taking out emotions on another	Includes parent saying that they dealt by getting mad at each other or taking out their anger/frustration on each other or other members of the family.
3.0 IMPACT OF PANDEMIC		
3.1 Impact on Parents		
3.1.1 Impact on Parent Mental Health		
3.1.1.1	Anxiety	Includes any kind of anxiety, fear, worry, concern that the parent mentions about themselves that doesn't fall into the following two specific anxiety categories, like free-floating anxiety, fear of uncertainty, or not knowing what may happen next.
3.1.1.1.1	Anxiety about child's social, emotional, physical development	Includes the parent showing concerns/fears/anxiety about their child having atypical opportunities for academic/social/physical development. Examples include the child's inability to socialize, having less social interactions or social play, worries about child's eyes getting affected.
3.1.1.1.2	Anxiety about keeping self, child and family safe from COVID-19	Includes the parent mentioning that they were afraid/ anxious/ worried/ concerned about themselves or child or family contracting COVID-19. This also includes worries about their own health or family's health if they contracted COVID19 (e.g., parent feeling anxious or worried about their blood count/oxygen level due to COVID-19).
3.1.1.2	Stress	Includes the parent mentioning/alluding to them experiencing high levels of stress, feeling overwhelmed with chronic/cumulative stressors due to the changes/challenges brought about by the pandemic.
3.1.1.3	Depression	Includes the parent mentioning/alluding to them experiencing any symptoms of depression such as sadness, lack of interest, not feeling like doing anything, withdrawal from daily activities, suicidal thoughts, boredom, monotony, due to the changes/challenges brought about by the pandemic.
3.1.1.4	Irritation or anger or frustration	Includes the parent mentioning that they felt irritable, angry, frustrated, or lost patience due to the changes/challenges brought about by the pandemic.
3.1.1.5	Overall poor mental health	Includes anything that the parent mentions which may not fall cleanly in the above categories, that alludes to the fact that their mental health/emotional wellbeing was negatively impacted (e.g., "The pandemic has taken a toll on my mental health").
3.1.2 Impact on Parent Physical Health		
3.1.2.1	Sleep issues	Includes sleep difficulties mentioned by the parent, such as sleeping much less or more, or had difficulty falling asleep or staying asleep. Sleep disturbances due to depression or anxiety were coded under those categories described above (3.1.1).
3.1.2.2	Appetite issues	Includes appetite issues mentioned by parent, such as eating more or less than usual, eating junk/unhealthy foods. Appetite issues due to a mental health related concern were coded under those categories described above (3.1.1).

3.1.2.3	Exhaustion	Includes parent mentioning feeling tired, exhausted, fatigued, having less stamina or anything similar. Exhaustion due to a mental health related concern were coded under those categories described above (3.1.1).
3.1.2.4	Improved physical health	Includes parent mentioning that their physical health actually improved during COVID-19 likely due to them engaging in certain activities/making health a priority.
3.1.3 Impact on Parenting Behaviors		
3.1.3.1	Compensatory behaviors	Includes anything parent does to reduce impact of something that is potentially harmful for child. Examples include arranging zoom/outdoor playdates for their child to build in some kind of social interaction, buying child books, games, enrolling them in online classes, etc. to compensate for lack of pre-pandemic activities.
3.1.3.2	More time with child and family	Includes parent saying that they got to spend more time with child/family, got to know/understand child/family better due to the pandemic.
3.1.3.3	More irritable with child	Includes parent mentioning that that they lost patience with child/were more irritable or frustrated with child due to challenges/stressors associated with the pandemic.
3.1.3.4	Impact on verbal behaviors	Includes parent mentioning that they yelled, screamed, said bad things, or gave verbal threats (e.g., “If you don’t finish your homework, you will be punished”) to child due to stressors/challenges associated with the pandemic.
3.1.3.5	Impact on physical behaviors	Includes parent mentioning that they spanked, hit, or physically hurt the child due to stressors/challenges associated with the pandemic.
3.2 Impact on Children		
3.2a	Condition exacerbated during pandemic	Includes any pre-existing condition/temperament (e.g., shyness, anxiety, irritability) getting exacerbated by the pandemic (e.g., parent says that he was already introverted, and due to the pandemic, he does not want to socialize at all; or parent says that he was always difficulty to deal with, and now he has become even more defiant).
3.2.1	Risk factors for child outcomes	Includes anything parent mentions that suggests that child outcomes/behaviors were made worse due to it.
3.2.1.1	Parental behaviors	Includes the way in which parents interact with child (e.g., harsh parenting, losing patience), engaging in certain behaviors (e.g., asking child to not touch anything when outside), child witnessing parents' fight, parents' mental health (e.g., parent worrying making child worry).
3.2.1.2	TV or video game exposure	Includes parent mentioning that watching TV, watching news or YouTube shows or playing video games or exposure to social media has negatively impacted child in any way (e.g., made child more anxious).
3.2.1.3	Miscellaneous	Includes anything that that parent mentions that may possibly be a risk factor for child mental health that does not fall cleanly under the above mentioned categories. Examples includes lack of social interaction, loss of a loved one.
3.2.2 Impact on Child Mental or Behavioral Health		

3.2.2.1	Child anxiety	Includes anything the parent shares which is indicative of child experiencing anxiety. Examples include child asking questions too many questions about COVID-19, being worried about self or others getting COVID or getting sick, asking questions related to death.
3.2.2.2	Child anger or irritability	Includes anything that the parent shares which is indicative of child anger/irritability. Examples include child throwing tantrums, refusing to comply, defiance, increase in aggressive behavior during the pandemic.
3.2.2.3	Child depression	Includes anything that the parent shares which is indicative of child depression. Examples include child feeling sad (or not feeling as happy), not wanting to do anything, having lower self esteem than usual, feeling less secured, feeling lonely.
3.2.2.4	Child boredom	Includes parent sharing that their child felt bored most of the time, did not want to do the same things, found routine monotonous
3.2.2.5	Child content with own company	Includes parent mentioning that child was happy playing by self/keeping themselves occupied, not needing external stimulation
3.2.2.6	Miscellaneous child mental or behavioral health	Includes anything else that parent mentions which may not fall in the above categories. Example include hyperactivity, inattention issues.
3.2.3 Impact on Child Academic Development		
3.2.3.1	Improvement in academic skills	Includes parent mentioning improvement to any area of academic development, including literacy and reasoning skills.
3.2.3.2	Writing skills negatively affected	Includes parent mentioning that child's writing skills/abilities have suffered
3.2.3.3	Behind on overall academic skills	Includes parent sharing/alluding to their child's overall academic development has suffered. Example include, there being a gap in child's academic abilities, not having a sound foundation, lacking concepts, falling behind.
3.2.3.4	Difficulty transitioning to in person school workload	Includes parent sharing difficulties with the transition to in-person learning, particularly around being able to cope with expectations/workload.
3.2.4 Impact on Child Social Development		
3.2.4.1	No social impact	Includes parent clearly saying that the child was not impacted socially in any way due to the pandemic.
3.2.4.2	Improvement in social skills	Includes parent mentioning improvement to any area of social development, including independence/autonomy such as learning to wash dishes, clean house, etc.
3.2.4.3	Poor social skills	Includes parent mentioning/alluding to child's social development/skills being negatively impacted due to the pandemic. Examples include child not being able to make friends or resolve conflict, not form meaningful relationships and emotional connections, not interact appropriately with others (e.g., greeting people).
3.2.5 Impact on Child Physical Health		
3.2.5.1	Eyes affected	Includes anything that parent mentions that is related to issues to child's eyes. Examples include eye strain, eye irritation, getting glasses.

3.2.5.2	Overall physical development negatively impacted	Includes anything that parent shares or alludes to with regard to child's physical health/physical development being negatively impacted due to the pandemic. Examples include, poor motor coordination, lack of physical stamina due to lack of physical activities during the pandemic.
4.0 PROTECTIVE FACTORS		
4.1 Protective factors for Child Mental and Behavioral Health		
4.1.1	Interaction with peers	Includes parenting mentioning or alluding to the fact that interaction with peers (in-person or virtual) was helpful with regard to preserving child mental/behavioral health/ seemed to lessen negative impact of pandemic on child mental/behavioral health difficulties.
4.1.2	Family fun activities and more time with family	Includes parent sharing that engaging child in fun activities (hiking, playing games, watching movies)/spending more time as a family together was helpful with regard to preserving child mental/behavioral health/ seemed to lessen negative impact of pandemic on child mental/behavioral health difficulties.
4.1.3	Limiting media exposure	Includes parent mentioning that they limited child's COVID-19 related exposure from newspapers, social media, and other sources and that was helpful with regard to preserving child mental/behavioral health/lessen negative impact of pandemic on child mental/behavioral health difficulties.
4.1.4	Select media exposure	Includes parent mentioning that their child watching cartoons, certain shows on YouTube, Netflix etc. were helpful as it kept them engaged and helped reduce boredom.
4.1.5	Miscellaneous child protective factors	Includes anything else which served as a possible protective factor for child mental and behavioral health which did was not captured in the categories above. Examples include the ability to start socializing/going to school, and child temperament.
4.2 Other Possible Protective Factors: Parent generated future resources or factors that could have helped or alleviated the negative impact of the pandemic		
4.2.1	Financial security	Includes parent sharing that they wished for a greater financial stability in current job, as well as better financial supports from the government.
4.2.2	Affordable services	Includes parent sharing that they wished for free/reasonably priced services related to various things. Examples include, medical services, transportation service, food services, online classes for children (e.g., art, dance, yoga, academics related), marital workshops, mental wellbeing webinars.
4.2.3	Education or awareness of mental health issues	Includes parent sharing that learning about mental health issues would be helpful. Also, includes parent saying that they wished for resources in the form of videos, brochures, pamphlets, etc. on mental health related issues (e.g., signs and symptoms of common health issues, dealing with child anxiety/irritability, dealing with dealing with domestic violence, etc.) as well as having a list of trained psychologists/psychiatrists and other mental health professionals in their city.

4.2.4	Awareness about COVID-19	Includes parent sharing that they wished for more awareness and true information about COVID (e.g., how it can spread, how it could be prevented, how it could be treated, etc.).
4.2.5	Miscellaneous	Includes anything else that may not be captured above. Examples include parents wishing for functional electronic devices and good internet service, support groups for those who had lost people in the pandemic.

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