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Parental Challenges During the COVID-19 Pandemic: Psychological Outcomes and Risk and Protective Factors

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Abstract

Purpose of Review This review examines the challenges faced by parents in the context of the COVID-19 pandemic, their emotional reactions, and risk and protective factors in their adjustment. Clinical and policy implications are discussed, and recommendations for future study are offered.

Recent Findings The literature reveals numerous stresses experienced by parents during the pandemic. Many parents facing COVID-19-related challenges suffered traumatic stress, depression, and/or anxiety, though most have adapted well over time. Demographic factors, pre-existing vulnerabilities, employment and household responsibilities, and family structure and cohesion influenced psychological outcomes. The pandemic lockdown created obstacles to accessing medical, mental health, educational, social, recreational, and other supportive programs and services for families, further increasing the burden on parents.

Summary The pandemic has exacerbated existing vulnerabilities and triggered pervasive parental stress. The lockdown affected families differently based on their pre-existing vulnerabilities and available resources. Additional research using more rigorous methodological approaches is warranted to identify and address the needs of parents during public health crises like pandemics.

Keywords COVID-19 pandemic · Disaster mental health · Psychological resilience · Pandemic mental health · Parental mental health · Parental stress

Introduction

Declared a global pandemic in March 2020 [1], COVID-19 has had enduring and wide-reaching impact, with restrictive public health measures affecting the daily lives and functioning of individuals, families, and communities around the world. The psychological effects on children have been well recognized [2–5], especially with the closure of schools [6–9]. Parents, who in general suffer more stress than their non-parent counterparts [10], have experienced increased burdens associated with disruptions in employment and in social, health, and mental health services for themselves and their families. A growing literature has begun to address COVID-19-related stresses on parents. This paper begins with a summary of the challenges parents have faced in the context of the pandemic and then uses exemplary research to examine the psychological outcomes of the pandemic for parents and the risk and protective factors associated with these outcomes. Clinical and policy implications of these findings are discussed, and recommendations are offered to address parental needs. The paper concludes by identifying limitations in the extant research and making recommendations for future study.

Challenges for Parents

Parents in general are more stressed than their non-parenting counterparts [10]; this proved true in the context of COVID-19 as well [11•, 12, 13••]. A well-known proverb proclaims that “it takes a village to raise a child,” but during the pandemic, the village of healthcare providers [14••], teachers [15•], childcare staff [13••, 14••], extended family, social circles, extracurricular and hobby groups, and religious

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communities suddenly became less accessible or inaccessible, often leaving parents alone with the responsibility to meet their child(ren)'s growing needs and their own [16]. For many parents, this meant providing educational support and accountability for completing virtual schoolwork [15•], providing childcare for younger children [17, 18••], and providing emotional support and behavioral guidance [17], all while fulfilling employment-related and household duties [15•, 17, 18••] with little respite [11•, 15•]. Some parents working in what were deemed "essential services" (e.g., healthcare or food services) continued working outside the home, creating a predicament regarding childcare and/or educational support [15•] and risking infection in themselves and their families [19••]. Other parents were unable to continue working or began working fewer hours, resulting in financial strain.

Psychological Outcomes

Psychological reactions to disasters vary among individuals [20]. The most commonly studied and anticipated outcomes after a mass trauma event include posttraumatic stress disorder (PTSD) or symptoms (PTSS), depression, and anxiety. However, not all outcomes of traumatic events are negative, with some people able to buffer against added challenges and stress [20], to find meaning [21], and even to experience growth in the context of stressful events [22]. Elevated stress levels are expected in situations in which uncertainty and lack of control are characteristic; however, this stress does not always translate into lasting mental health challenges, enduring emotional distress, or psychopathology.

Resilience

The disaster mental health literature has broadly found that the majority of exposed individuals demonstrate resilience and adapt well over time, with less than 30% typically developing moderate to severe symptomatology [20]. While a pandemic differs from a weather-related or human-caused disaster, limited research on the psychological outcomes of COVID-19 suggests similar findings for parents—severe traumatic stress [23•], depression [18••, 23•, 24], and anxiety [18••, 23•, 24, 25••] occur in only a minority, with resilience as a more common outcome. In a sample of US parents, of mostly middle- and high-socioeconomic status, most participants facing COVID-19-related challenges adapted well and presented with low symptom levels [25••]. Similarly, a study of 721 Italian parents found that most participants were resilient at the time of survey, with a minority reporting elevated depression or anxiety symptoms or moderate to severe PTSS [23•].

Worry

Parents experienced many concerns in the uncertain, and at times politically charged, pandemic environment. Important decisions were urgently required of caregivers, while risk evaluation involved a whirlwind attempt to understand the virus and transmission dynamics. Research has found that parents worried about themselves, their children, and/or other vulnerable family members contracting the disease [13••, 19••, 26]. They worried about their children's academic success, social relationships, and mental health [13••, 19••, 26, 27]. Parents were concerned about depleted or unstable finances, job loss or changes, and/or not having sufficient food for their household [13••, 26]. As lockdown restrictions relaxed, parents were faced with decisions about whether financial, social, academic, and/or mental health needs would outweigh compliance with continued social distancing recommendations.

Mental Health Problems

Emerging research indicates that parents tend to experience higher stress levels than non-parents [10], elevating their risk of new or worsening mental health problems. In some samples, a majority of parents reported increased stress levels and/or mental health symptoms in the context of the pandemic [12, 28, 29, 30••], with a smaller portion meeting diagnostic criteria for a mental disorder [30••, 31]. For example, in a sample of parents in South Korea, nearly one-half reported stress levels between 8 and 10 on a 10-point scale, with 10 representing "a great deal of stress" [26]. Depression symptoms were reported by 46.5% of parents; 29.0% reported mild symptoms, and 17.5% reported moderate to severe symptoms [26]. Similarly, mild depression was reported in 27.3% of a sample of Chinese parents in March 2020, while moderate to severe depression was reported in 6.1% [31]. Gadermann and colleagues [13••] conducted a cross-sectional survey of Canadian adults with one or more children under the age of 18 years living in the home during the first wave of COVID-19. Their research revealed that nearly one-half of participating parents reported some degree of worsening mental health since the beginning of the pandemic. An international meta-analysis by Racine and colleagues [18••] revealed clinically significant depression symptoms in 26.9% and anxiety symptoms in 41.9% of mothers of children age 0 to 5 years. Relative to non-parents, parents reported increased alcohol use, suicidal thoughts/feelings, and stress or worry about physical and/or emotional domestic violence during the pandemic [13••]. Similarly, self-harm was twice as common among parents than their non-parent counterparts [13••].

The current literature regarding the first wave of COVID-19 suggests that even among parents who reported elevated levels of depression and/or anxiety initially, symptoms often decreased over time. For example, in a two-wave longitudinal study conducted in March to July 2020, Johnson and colleagues [30••] explored the relationship between parental stress and symptoms of depression and anxiety. While most parents experienced significant parental stress and some symptoms of depression and anxiety, only 23% met clinical criteria for depression in the first wave, which decreased to 16.8% at the second wave [30••]. Similarly, for anxiety, 23.3% met clinical criteria in the first wave and 13.8% in the second [30••]. Seeking to better understand risk factors for and trajectories of anxiety, Zhou and colleagues [25••] surveyed 488 US parents in three waves, beginning in March 2020 and ending in July 2020. Notably, this sample consisted primarily of families with middle- to high-socioeconomic status [25••]. Most parents reported low levels of anxiety which tended to decrease over the course of the study [25••]. These findings are consistent with previous research on trajectories of posttraumatic symptomatology related to disasters [20].

Among the most common and most studied mental health conditions following a disaster are PTSD and PTSS [20]; however, infection with or threat of infection with COVID-19 in oneself or a loved one, although potentially life threatening, in most cases does not qualify as a Diagnostic Statistical Manual of Mental Disorders, fifth edition (2013) traumatic event [32–34]. Pandemic-related stressors such as lockdown, unplanned homeschooling, reduced income, and/or changes in employment may contribute to intense stress reactions; however, these reactions cannot accurately be labeled PTSD [32, 35]. In addition, *posttraumatic* indicates that the traumatic event has concluded, which is an inaccurate representation of the time studies were conducted in a review of adult COVID-19 studies assessing PTSD [33]. Nonetheless, PTSD and PTSS have been studied in the context of the pandemic. For example, during a nationwide lockdown associated with the first wave of COVID-19, approximately one in four parents in an Italian sample reported moderate to severe symptoms of posttraumatic stress [23•]. A survey of children and their parents conducted in February 2020 in an area of China that was not severely affected by the pandemic revealed that only 3.53% of parents met diagnostic criteria for PTSD [36•]. Other research on adults has found that living with children was associated with PTSS [37] or with meeting the study's criteria for PTSD [38, 39].

Risk and Protective Factors

While the COVID-19 pandemic has affected humanity globally, individual experiences have differed vastly. In several of the reviewed studies, including populations in Germany [40], USA [12], and Norway [30••], a majority of parents reported an increase in parental stress during COVID-19 [12, 30••, 40]; however, this did not translate into lasting or clinically significant mental health problems for all affected. Consistent with prior mass trauma research [20], limited COVID-19 research suggests that there is not one dominant risk factor, but rather that cumulative risk, or the sum of one's vulnerabilities, may better predict an individual's psychological outcomes [18••, 29, 41, 42••, 43]. This section explores factors that may contribute to risk of negative outcomes related to COVID-19 in parents and to future pandemics as well.

Demographics

Race In the USA, ethnic and racial minorities have experienced disproportionately more exposure to and confirmed cases of COVID-19 and to more related hospitalizations and deaths [44]. Though not all studies agree [18••], limited research suggests that the mental health of people of ethnic-racial minorities also seems to be disproportionately affected by COVID-19 [25••, 29, 42••]. Due to systemic racism, minority populations also may struggle to secure safe housing and gainful employment, contributing to economic instability—all of which are risk factors for adverse outcomes [44]. In addition, the murders of George Floyd, Breonna Taylor, and numerous other unarmed people of color during the pandemic shed light on the realities of systemic racism and police brutality towards minorities, sparking deep fear, anger, and racial unrest across the USA [12]. In the study conducted by Zhou and colleagues [25••], which was previously described above in the section on "Resilience," racism stress was one of the strongest risk factors against parent adjustment during the syndemic (defined by the Centers for Disease Control and Prevention [CDC] as "synergistically interacting epidemics" of COVID-19 and overt racism) [45].

Gender Several US and international studies indicate worse COVID-19-related psychological outcomes for women [13••, 36•, 43, 46, 47] and for mothers in particular [14••, 16, 25••, 43, 47]. In various COVID-19 studies, mothers were more likely than fathers to feel lonely [27], to lose more sleep [48], to reduce hours worked [18••, 47] or to pause or end their employment [18••, 49], to absorb more of the childcare [18••, 47, 49] and housework [49], and to experience anxiety, depression [40, 43, 50], and posttraumatic stress [13••, 36•, 43]. One study of young adults in the USA and Canada found higher levels of depression and anxiety in nonbinary individuals, followed by women, with men reporting the lowest levels [51].

Age of Parent A few COVID-19 studies have explored the relationship between risk of emotional problems and

parental age. One study found that parents under age 35 years were more likely than older parents to experience worsening mental health during the lockdown [13••]. Other COVID-19 studies also found that younger parents were more likely to develop symptoms of depression and anxiety [31, 36•]. In addition, a study of pre-COVID-19 pandemic illnesses, including H1N1 and SARS, also found higher rates of PTSD in younger parents [52]. In contrast, a meta-analysis by Racine and colleagues [18••], as previously discussed under subheading "Mental Health Problems," found that risk of depression or anxiety symptoms increased with maternal age, while acknowledging possible mediating variables such as caring for elderly family members who are among the highest risk for adverse COVID-19 outcomes, managing greater career-related demands and responsibilities associated with higher education levels and more experience, or earning a higher pre-COVID-19 salary that the family heavily relies on.

Age of Child Children present with different needs at different developmental stages. Stress levels are generally higher among parents of younger children (ages 0–5 years) rather than older children [13••, 14••, 15•, 53]. This may be related to the frequent and ongoing needs of children who are unable to care for themselves even for brief spans of time [16, 18••, 49]. One study conducted in the UK revealed that parents of young children were at particularly elevated risk for sleep loss during lockdown [48]. Many school-aged children required additional help and attention to complete virtual schoolwork, which contributed to parental role conflict and the related stress [15•, 16, 49].

Socioeconomic Resources In the USA [54] and globally [55], families with children disproportionately represent those living in poverty, leaving these families even more vulnerable to adverse outcomes due to the sequelae of poverty. During the pandemic, many families experienced decreased income due to change in or loss of employment [12, 14••, 42••], which for some surveyed US parents also resulted in decreased employer-sponsored insurance [14••]. Parents who perceived financial difficulty experienced additional stress and reported losing more sleep [42••, 48, 53]. More families faced food insecurity [18••] and reported more utilization of food banks or pantries during the pandemic [13••, 14••]. This may be in part related to school closures, as many families rely on free or reduced-price meals at school for their children [14••, 56].

Pre-existing Vulnerabilities

The mass trauma literature indicates that the risk factors imposed by a traumatic event essentially "stack" upon pre-existing stressors and risk factors, putting families with pre-existing vulnerabilities at higher risk of negative outcomes than those without [41]. Current research reveals that pre-pandemic mental health concerns, disabilities, or health conditions in parents or children increase challenges for families [13••, 19••, 31, 42••, 53, 57]. Research suggests that parenting a child with special needs is associated with increased risk of loneliness and parental burnout and decreased perception of social support [27, 58]. Kim and colleagues [26] found that surveyed South Korean parents whose children had previously received mental health services reported more concern about behaviors worsening than about contracting COVID-19. A longitudinal study in the Netherlands found that parents who reported higher levels of negative emotions prior to lockdown were more likely to perceive more COVID-19-related stress [11•]. Thus, resilience to COVID-19 may be less attainable for families with pre-existing vulnerabilities.

Stress Appraisal

A mismatch between perceived resources and perceived demands results in stress [16, 30••, 59]. The way parents expected lockdown to impact their family influenced the way they experienced this time. For example, a study of parents from Italy revealed that parents who perceived lockdown as an opportunity to spend more time with family were more likely to report lower parental stress or even report improvement in parent–child relationships [53]. Giannotti and colleagues [16] found that for a sample of Italian parents, perceptions of the feasibility of remote work during lockdown also influenced parenting distress. However, lower levels of pre-existing stress may be a confounding variable. For example, parents who could financially afford to interrupt employment to focus on additional child-related duties may have experienced less role conflict during lockdown.

Employment, Childcare, and Household Responsibilities

Change in employment (e.g., losing employment permanently or temporarily, transitioning to remote work, or working fewer hours) was a risk factor for parental stress, sleep loss, and sleep disruption [53, 60] in COVID-19 research. Zamarro and Prados [47] found that among a representative sample of US adults, mothers with a college education were more likely to reduce work hours than fathers, and mothers with a college education were significantly more likely to be able to perform work duties from home than those without a college education. One Italian study found that 66.5% of mothers had to quit working or start working from home to care for children [60]. The disproportionate exodus of mothers from the workplace may in part be due to women receiving the lower salary in a family and/or due to socialized expectations of women [28]. However, women

also were more likely to exit the workplace and assume the role of primary caregiver when they held higher level job qualifications than men [28, 61].

Women who are mothers and employees tend to feel more guilt and stress and pick up more of the work in the home environment, often referred to as the “second shift” [61]. One COVID-19 study of parents in England explored the work balance in two-parent families and confirmed that mothers absorbed more of the housework and childcare responsibilities in most family work configurations [49], one exception being when the mother worked and the father did not. In this scenario, fathers and mothers spent nearly equal amounts of time on housework and childcare, although mothers accomplished this in addition to paid work [49]. When both parents were working from home, mothers were interrupted over 50% more often than fathers [49]. Similarly, a large representative study of US adults found that mothers provided more childcare than fathers, regardless of mothers' employment status [47].

Separation of work and family responsibilities was nearly impossible for some parents during the pandemic. Simultaneously managing employment responsibilities, childcare, and schooling—often with little-to-no support or respite—creates an environment of constant role conflict and increased parental stress [15•, 18••, 53]. Freisthler and colleagues explored how the stress levels of mostly well-resourced and highly educated parents in a midwestern US city fluctuated across different times of the day and days of the week during the first wave of COVID-19 [15•]. Stress levels were higher on weekdays and during the day when role conflict was likely at its peak, and stress levels declined in the evening after children were sleeping or winding down, as well as on weekends when parents were less likely to be working or tending to their child(ren)'s education [15•].

Family Structure and Cohesion

Each family member's resources, resilience, and weaknesses influence the other members [21]. For example, young children rely on parents to act as external regulators when under stress [16, 62]. Several COVID-19 studies found a correlation between distress demonstrated by children and parental distress [14••, 59, 63]. Cusinato and colleagues, as previously mentioned in the section on “Stress Appraisal,” found that parents of emotionally well-adjusted children reported less parental stress as compared to parents of children with greater emotional distress [53]. In addition, having more children in the home was associated with more parental stress in several reviewed studies [15•, 46, 53], as physical and emotional resources were stretched further.

Several studies [14••, 15•, 57] and an international review [46] found that single parents reported higher levels of stress than two-parent families during the COVID-19 pandemic. A study of 1163 Chinese parents found that marital satisfaction was a protective factor against both depression and anxiety [31]. Similarly, Johnson and colleagues found relationship satisfaction to be associated with lower parental stress [30••]. Pandemics exacerbate many factors that contribute to marital conflict, such as financial stress, parenting issues, illness, and job loss [42••].

Discussion

While most parents in the presently reviewed COVID-19 research demonstrated resilience, others experienced worry, traumatic stress, and deteriorating mental health with the likelihood of negative outcomes being explained in part by demographics, pre-existing vulnerabilities, employment changes, family dynamics, and/or conflicting roles and responsibilities or by the accumulation of multiple risk factors. Based on these findings, this section addresses implications for support and services and recommendations for policy. Finally, limitations and recommendations for future research are discussed.

Family Activities and Practices

Social support is a widely recognized protective factor in the context of adversity [20], but the unique challenges of isolation due to public health measures sets pandemics apart from other mass traumas, making connection more difficult but no less vital [52]. Families who engaged in shared activities and kept in touch with extended family and friends virtually presented with less depression and anxiety among a sample of Chinese parents [31]. A longitudinal study of US parents during and after lockdown found that parents who engaged in similar connecting activities also reported less stress [28]. Adams and colleagues found that one of the most frequently used strategies was maintaining a consistent routine, which was associated with lower levels of perceived stress [28]. The World Health Organization [64] also recommends connecting with friends and family and maintaining a routine, sleep hygiene, and physical activity as well as restricting excessive media exposure. Based on its usefulness in other shared adversities, the “key processes” involved in family resilience described by Walsh [21], such as meaning making, spirituality, and maintaining a positive outlook, may help improve family resilience in the context of COVID-19 as well.

Services

Mental Health The pandemic lockdown contributed to worsening mental health for many, while also creating obstacles for accessing mental health services [65]. Losing access to

mental health providers and school support was detrimental to the mental health of children with pre-existing mental health vulnerabilities, which in turn increased worry and stress for parents [26]. Schools not only provide support and safeguards for children such as meals, relationships, health services, and counseling [13••], they often function as a trusted source of information, guidance [19••], and services for families [7, 56].

In the absence of many traditional services, the use of telehealth was expanded to maintain accessibility for as many as possible and as safely as possible [42••]. However, telehealth services are not a feasible or practical option for some families [42••, 65], such as those without reliable internet access, privacy in the home, uninterrupted time, and sufficient electronic devices to meet the needs of family members with simultaneous virtual work or school responsibilities. Zhang and colleagues explored reasons that a sample of Canadian parents who self-reported a need for mental health services during the pandemic did not seek or did not consistently seek services [65]. The most commonly reported reasons were belief in self-reliance and time constraints, followed by scheduling difficulties and cost of services [65]. Twenty percent of those who did not consistently seek services reported reluctance around telehealth [65].

Self-directed online curricula for coping skills have been proposed as they may be more logistically feasible for parents who have the means to engage in virtual services, but not the privacy and uninterrupted time needed for formal services [66]. Parent support groups offer another format for services aimed at enhancing social support and coping skills and normalizing parental struggles [67].

Disaster-Related Education Programs following a large-scale emergency should focus on normalizing reactions and cultivating connection [21]. Schools are a natural site for disseminating such information to families under normal circumstances [7]; alternate methods of delivery may be necessary in extenuating circumstances such as during pandemic lockdown.

Policy Recommendations

Because pre-existing disadvantages are often exacerbated by a disaster [25••, 26, 28, 42••], policymakers need to address vulnerabilities such as financial insecurity, racial inequity, hunger, and inequitable access to medical and mental healthcare prior to the occurrence of a mass trauma. To reduce the demands placed on families, employers should be supportive and flexible [12, 13••, 19••]. Financial support may be necessary to offset lost income for some families [66]. In addition to continued health insurance, paid parental leave should be made available to families during crisis [13••, 19••]. While these supports may be difficult for small businesses to afford, policymakers at the federal and state levels may need to consider subsidizing these programs.

Limitations

The extant research presents a number of methodological limitations. In most reviewed studies, data were collected during the pandemic without first conducting a pre-pandemic baseline assessment (e.g., [25••, 26]. Some retrospective data were collected; however, these are subject to recall bias [16, 23•, 25••, 28]. Virtual dissemination of measures requires self-reporting, which also may skew the findings/results.

Few studies assessed representative samples. In addition, marginalized populations are likely underrepresented among study respondents as many surveys were conducted with convenience samples recruited through online outlets [25••, 51, 53], which are only accessible when electronic devices, internet access, time, and attention are available. In addition, individuals who identify with a survey topic, such as parenting stress or mental health in the pandemic, may be more interested in participating [18••]. Sexual and gender minorities were also underrepresented, particularly in studies comparing experiences of mothers and fathers, which reported findings for individuals with a binary gender identity (e.g., [43]), and/or only included partners of opposite-genders (e.g., [49]), with few exceptions found (e.g., [51, 65]). Male caregivers also tended to be underrepresented in studies, which may in part be related to the disproportionate expectations of female caregivers to assume responsibility for activities related to caregiving.

The COVID-19 pandemic differs from single event mass traumas as it is ongoing with an unknown end, extensive social and economic repercussions, restricted social interactions due to required public health containment measures, a plethora of misinformation and deficiencies in risk communication, and politicizing of the event. Due to the ongoing nature of the pandemic, it is difficult to assess the full toll on mental health at the time of writing. Long-term effects of COVID-19 are still emerging.

Future Research

The extant research has only begun to address the many potential issues related to parents in the context of the pandemic. Many reviewed studies took place during or pertained to structured lockdown periods. While lockdowns certainly warrant study, an issue for future research would be to better clarify the ways and extent to which specific public health measures, as opposed to the pandemic itself, resulted in or increased adverse outcomes. For many, lifting restrictions means a return to responsibilities and opportunities

outside the home. While this may be beneficial to mental health, it increases risk of exposure to COVID-19, creating a predicament for each family to navigate—does the necessity or benefit of resuming pre-pandemic routines and activities outweigh the risks? At this time, it is unclear how this predicament might have affected parents and their relationships inside and outside the home. A better understanding of long-term stressors and challenges is needed; long-term consequences are still unfolding as the pandemic persists and precautions evolve. Methodologic considerations for future research include the assessment of representative samples, the examination of fathers as well as mothers, the comparison of parents and non-parents, and the use of longitudinal study design.

The relationship between a community's culture and resources and individual stress levels in the context of a pandemic has been largely unexplored. Assessment of accessible resources in a community may expose additional macro level risk factors and reveal opportunities for improving community resilience. Little research has been conducted to date regarding the effectiveness of various interventions during a pandemic or lockdown. Not only interventions, but methods of service delivery for the most vulnerable families must be explored. Obstacles to consistent engagement in services must also be better understood to minimize their impact.

Conclusions

The COVID-19 pandemic exacerbated existing vulnerabilities, contributed to uncertainty and financial instability for many, and triggered pervasive parental stress, anxiety, and depression for some parents. Many parents were required to juggle employment, childcare, homeschooling, and housework with no advance notice and without the regular support of teachers, school programming, mental health professionals, medical providers, friends, family, and colleagues, further increasing the burden on parents. The lockdown affected families differently based on their resources and circumstances prior to and during the pandemic, but the consensus is clear—parents were stressed.

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Declarations

Conflict of Interest The authors declare no competing interests.

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stress in parents and children was associated with negative coping strategies.

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