COVID-19 Stress in Relation to Parent Emotional Intelligence and Child Mental Health among a Canadian Sample

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Abstract

Due to the unprecedented nature of COVID-19, more studies are needed to examine how parents and children are impacted by the pandemic, and more specifically the role of parental Emotional Intelligence (EI) in the link between COVID-19 stressors and child mental health outcomes. This cross-sectional study investigated the relationships between COVID-19 stressors, parental EI, and child anxiety and depression outcomes. Fifty parents (mean age = 41.98 years; 88% mothers) of children between the ages of 8-11 years old (mean age = 9.46 years; 74% boys) completed online questionnaires assessing COVID-19 stress, parental EI, and child anxiety and depression symptoms. Although no significant results were found between parent COVID-19 stress, parent EI, and child depression symptoms, the results suggest that parental COVID-19 stress was related to child anxiety. Exploratory analyses were conducted examining specific domains of COVID-19 stress, parental EI, and child anxiety and depression symptoms. Findings indicate the resilience of child mood and parental EI to COVID-19 stress among this sample, as well as child anxiety being a potential area of risk during the pandemic. Knowledge of these associations gives insight into areas to prioritize for mental health clinicians in assessment and intervention.

Public significance statement: There is a need for more research on parent and child psychological outcomes during COVID-19. This study suggests an association specifically between parental COVID-19 stress and child anxiety, and not with child depressive symptoms. Findings help with better understanding the experiences of families during COVID-19.

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Introduction

As the COVID-19 pandemic began to impact the health of individuals on a global scale (Usher et al., 2020), government regulations were enacted to manage the virus and its effects on physical health, which included quarantines, travel bans, and stay-at-home orders (Amsalem et al., 2021). In Canada, both provincial public health agencies and federal governments implemented a variety of regulations that led to changes in the day-to-day lives of community members (Detsky & Bogoch, 2020). For instance, extended periods of stay-at-home mandates required that individuals spend more time at home in order to curb the health impacts of the virus, mandated closures to non-essential businesses were enacted to protect vulnerable individuals, resulting in employees needing to work remotely and financial difficulties for those for whom remote work was not possible, and in-person schools were closed, leading to rapid transitions for students to engage in virtual learning (Detsky & Bogoch, 2020; Public Health Agency of Canada, 2021; United Nations, 2020). Such unprecedented transitions due to requirements for social distancing may be associated with psychosocial impacts on community members.

Historically, research indicates that other pandemics, such as Severe Acute Respiratory Syndrome (SARS) in 2003 and the Ebola virus in 2014, have had negative impacts on mental health (Bah et al., 2020; Maunder, 2009; Thompson et al., 2017). Sources of COVID-19 stress include travel restrictions, lockdowns, fear/anxiety of being personally infected by COVID-19 or others being infected, working from home, and having difficulty with childcare. Indeed, within the general population, Shevlin et al. (2020) found that stress increased during the pandemic compared to other studies examining stress before the pandemic. As well, Cooke et al. (2020) found that approximately one out of four adults experienced significant stress due to COVID-19. Additional studies confirm higher stress levels during the COVID-19 pandemic compared to before the pandemic (e.g., Lakhan et al., 2020). COVID-19 stress levels have been associated with specific types of psychological distress. For instance, Lakhan et al. (2020) found elevated rates of psychological disorders in their meta-analysis of studies of the pandemic. The rate of depression was found to be 20%, anxiety at 35%, and general stress at 53%. Daley et al. (2021) found that in Canada, COVID-19 stress during quarantine was associated with higher levels of anxiety, depression, post-traumatic stress, self-harm, suicidal ideation, fear, and worry.

COVID-19 Stress on Families

Families may be particularly at risk of COVID-19 stress given the compounding impacts of school closures and the need for remote work on top of other pandemic stressors. Indeed, Gregus et al. (2021) found that parents reported such negative impacts during the pandemic as having a child at home, cancelled celebrations for the family, and increased screen time. As well, Gassman-Pines et al. (2020) found that many families have experienced crisis-related hardships and that daily negative moods reported from parents increased significantly since the start of the pandemic. Another study has also found that parents reported increases in negative feelings and psychosocial

impacts during the pandemic compared to before the pandemic (Achterberg et al., 2021; Chu et al., 2021). Common impacts reported by parents included concerns about COVID-19 impacting their child, concerns for others' health, and finding the practice of balancing parenting and working from home stressful (Chu et al., 2021). The clear disruptions of the pandemic on family life are underscored by a statement issued by the American Psychological Association (2020).

Consistent with the aforementioned studies of the impacts of COVID-19 on parents, studies indicate that children are also detrimentally impacted by the pandemic. Indeed, Lee et al. (2021) found that 34.7% of parents reported a change in their child's behaviour (e.g., being sad, lonely, and depressed) since the start of the pandemic. As well, higher parenting stress was associated with higher child anxiety in this study. Additionally, children have shown increases in depressive symptoms during COVID-19-related lockdowns compared to before lockdowns (Bignardi et al., 2020). Chu et al. (2021) examined child-reports of concerns during COVID-19, and found such themes as wanting to return to school, fears specific to the pandemic, and a desire for social connection. Overall, these studies found reduced child well-being during COVID-19.

Evidence indicates that parental stress is related to negative child outcomes during the pandemic. Outside of COVID-19, Jones et al. (2021) found that higher parental stress was related to higher child internalizing and externalizing symptoms. Looking at studies within the pandemic, Whittle et al. (2020) found that at the beginning of the COVID-19 pandemic, parents with greater stress, anxiety, and depression had children with higher externalizing and internalizing symptoms. Additional results from Spinelli et al. (2020) indicate that parents' and children's emotional well-being was linked to how difficult quarantine due to COVID-19 was for parents. Gassman-Pines et al. (2020) highlights as well that greater pandemic-related hardships experienced were associated with higher decrements in child mental well-being.

Parental Emotional Intelligence as a Potential Resource

Emotional Intelligence (EI) is characterized by being able to perceive, use, manage, and understand self and other's emotions (Schutte et al., 1998). Research prior to COVID-19 shows that higher EI is associated with less stress. For instance, Slaski and Cartwright's (2003) results suggest that experienced stress can be reduced with increased EI. Similarly, Jung et al. (2019) found that higher stress was associated with lower EI. Currently, no studies examine the particular associations between parental COVID-19 stress levels and EI. However, a few studies have examined EI levels during COVID-19 without specifically measuring COVID-19 stress. Indeed, Moroń & Biolik-Moroń (2021) found that during the first week of the COVID-19-related lockdown, EI was positively correlated with positive affect outcomes (e.g., relaxation, happiness) and negatively correlated with negative affect outcomes (e.g., anger, disgust, sadness). This research suggests that higher EI may be associated with reduced COVID-19 stress.

With respect to the associations between EI and child mental health outcomes, Aminabadi et al. (2012) found in their study prior to the pandemic a negative correlation between maternal EI and children's generalized anxiety, although maternal EI was not specifically associated with child social anxiety, obsessive-compulsive disorder, physical injury fears, and separation anxiety (Aminabadi et al., 2012). Another study prior to the pandemic examined perceived EI by both par-

ents and youth (Sánchez-Núñez et al., 2020). Results indicated that increased maternal emotional attention perceived by youth was associated with greater mental health among these youth. Additional literature supports a positive link between parental EI and an authoritative parenting style, which has been shown to be more effective than other parenting styles (Aminabadi et al., 2012). These results are consistent with other literature on parenting and EI (Argyriou et al., 2016; Wischerth et al., 2016; Yadav et al., 2021). Overall, research suggests associations between higher experienced stress and lower parental EI as well as higher parental EI and improved child mental health, suggesting a potential mediating role of EI between parental stress and child mental health. No studies have examined the associations between COVID-19 stress, parental EI, and child outcomes. However, it is likely that increased COVID-19 stress is related to lower parental EI, which in turn is related to worse child mental health.

Current Study

This study examined the associations between COVID-19 stress, parental EI, and child anxiety and depression outcomes during the pandemic. Participants who had higher COVID-19 stress were hypothesized to have lower parental EI. Higher COVID-19 stress was also predicted to be related to higher child anxiety and depression outcomes, and lower parental EI was hypothesized to be associated with higher child anxiety and depression symptoms. This study also explored the associations among specific domains of COVID-19 stress, EI, and anxiety and depression. No directional hypotheses were made given the exploratory nature of these analyses. Studying the associations between COVID-19 stress, parent EI, and child mental health will address a gap in the literature to further develop our understanding of how COVID-19 may be impacting families, with the ultimate goal of developing programming for families to support them during the pandemic and in the aftermath.

Methods

Participants

Fifty parents participated in this study, which was approved by the Saint Paul University Research Ethics Board. Written informed consent was obtained from each participant. To be eligible for the study, participants needed to be parents and legal guardians of a child between the ages of 8 and 11 years, have lived with the child for the past year, be currently residing with their child in Ottawa, Ontario, and surrounding areas, and be able to read and understand English in order to complete the questionnaires. One out of the 50 participants did not live in Ottawa and surrounding areas, although they lived in Ontario. This participant met all other eligibility criteria for the study. The majority of participants were mothers (88%), the mean age for parents was 41.98 years ($SD = 4.70$), and the age range of parents was 31 to 51 years. The majority of children of the participants were identified as boys (64%), with a mean age of 9.46

years ($SD = 1.05$). All children were between the grades of 2-7. Parent participants identified their child's ethnicity as the following: twenty-five participants (50%) identified their child as Canadian, seven participants (14%) identified their child as European-Canadian, seven participants (14%) identified their child as Caucasian, five participants (10%) identified their child as having a mixed ethnicity, two participants (4%) identified their child as European, one participant (2%) identified their child as Asian-Canadian, one participant (2%) identified their child as Jewish, one participant (2%) identified their child as Arab/Middle Eastern, and one participant (2%) did not identify the ethnicity of their child. Parents self-identified their ethnicity as the following: twenty-seven (54%) identified as Canadian, seven (14%) identified as Caucasian, five (10%) identified as European-Canadian, two (4%) identified as European, two (4%) identified as having a mixed ethnicity, one (2%) identified as Asian-Canadian, one (2%) identified as Asian, one (2%) identified as African-Canadian, one (2%) identified as African, one (2%) identified as Jewish, one (2%) identified as Arab/Middle Eastern, and one participant (2%) did not identify an ethnicity. See Table 1 for additional participant information.

Procedure

Participants were recruited via word of mouth and social media within the community as well as from a lab registry based on previous participants who had indicated that they would like to hear about future lab studies. Potential participants emailed the Attention, Behaviour, and Cognitions (ABC) Lab at Saint Paul University, and a graduate research assistant scheduled a time with them for a telephone screening to discuss the study consent form, determine eligibility for the study, and answer any questions they had. If determined to be eligible for the study, the graduate research assistant emailed the participant the online consent form and study questionnaire. Participants were asked to complete the questionnaires thinking of the child that they had indicated during the phone screening. At the end of the study, participants were emailed a $10 online gift card honourarium of their choice.

Measures

Demographics Questionnaire. The demographics questionnaire was developed in the lab, and measures self-reported demographic questions such as parent age, child age, number of children in the home, marital status, parent education, child and parent ethnicity, parental employment, and total family income.

COVID Stress Scale (CSS; Taylor et al., 2020). The CSS is a self-report questionnaire that examines distress linked to COVID-19 by measuring five aspects of COVID-19-related stress: (1) fear of danger and contamination, (2) socioeconomic consequences of COVID-19, (3) xenophobia, (4) traumatic stress, and (5) compulsive checking regarding COVID-19. The CSS consists of 36 items that are rated on a 5-point scale, 0 representing *not at all* and 4 representing *extremely.* In the past, this scale has been used with a Canadian sample and demonstrates adequate

convergent and discriminant validity (Taylor et al., 2020). Additionally, this scale demonstrates high reliability, as the internal consistency for individual subscales has been found to be greater than .80 (Taylor et al., 2020). In this study, the internal consistency for total COVID stress was α = .84. With respect to individual subscales, the internal consistencies were α = .74 for the Danger subscale, α = .84 for the Socioeconomic Consequences subscale, α = .85 for the Xenophobia subscale, α = .83 for the Contamination subscale, α = .83 for the Traumatic Stress subscale, and α = .72 for the Compulsive Checking subscale.

Schutte Emotional Intelligence Scale (SEIS; Schutte et al., 1998). The SEIS is a self-report questionnaire that measures emotional intelligence, which includes emotional regulation, understanding emotions, expressing emotions, and the use of emotions in problem-solving. This scale consists of 33 items with a 5-point Likert response format (Salovery & Mayer, 1990; Schutte et al., 1998; Jonker & Vosloo, 2008). This scale has a stable test-retest reliability at .78, and Cronbach's alphas range from .87 and .90 (Schutte et al., 1998). This measure has evidence that supports its discriminant validity, convergent, and concurrent criterion-related validity (Ng et al., 2010; Schutte et al., 1998). Within this study, the internal consistency was α = .90 for total EI, α = .74 for the subscale of Perception of Emotion, α = .85 for the subscale of Managing Own Emotion, α = .63 for the subscale of Managing Others' Emotion, and α = .74 for the subscale of Utilization of Emotion.

Revised Child Anxiety and Depression Scale - Parent Version (RCADS-P; Chorpita et al., 2000). The RCADS-P is based on DSM criteria and is a parent-rated questionnaire for anxiety and depression in children and adolescents. This scale has 47 items with six subscales: (1) Anxiety Disorder, (2) Social Phobia, (3) Generalized Anxiety Disorder, (4) Panic Disorder, (5) Obsessive-Compulsive Disorder, and (6) Major Depressive Disorder (Chorpita et al., 2000; Ebesutani, 2010). Parents rate each of the 47 items based on how applicable the statement is to their child on a 1 to 4 Likert scale with the anchors of 1 (*never*), 2 (*sometimes*), 3 (*often*), and 4 (*always*) (Chorpita et al., 2000). This scale has desirable psychometric properties, such as a high internal consistency at .95, and sufficient convergent and discriminant validity for both the anxiety and depression subscales (Ebesutani, 2010). In this study, the internal consistencies were α = .94 for the overall measure and α = .94 for overall anxiety. With respect to individual subscales, the internal consistencies were α = .89 for Social Phobia, α = .79 for Panic Disorder, α = .83 for Separation Anxiety, α = .83 for Generalized Anxiety, α = .68 for Obsessive-Compulsive Disorder, and α = .87 for Major Depression.

Data Analysis

Means and standard deviations were calculated along with two-tailed bivariate correlations for descriptive statistics. For main analyses, regression analyses were conducted to examine the associations between COVID-19-related stress, parental EI, and child anxiety and depression symptoms. In particular, multiple regressions examined the associations between overall parental COVID-19 stress, overall parental EI, and overall child anxiety and depression symptoms. One-tailed results for the regression analyses were also computed given the study's directional hypotheses.

As well, exploratory analyses using bivariate correlations were conducted to investigate associations between particular domains of parental COVID-19 stress, parental EI, and child anxiety and depression outcomes.

Results

Descriptive Statistics

See Table 2 for means and standard deviations of all variables used for main and exploratory analyses. See Table 3 for bivariate correlations of main variables. All bivariate correlation statistics were based on two-tailed analyses. The bivariate correlations of the main variables show that child depression and anxiety were significantly correlated, that COVID-19 stress was not significantly related to child depression or parental EI, that parental EI was not significantly correlated with child anxiety or depression, and that a marginally significant relationship existed between COVID-19 stress and child anxiety.

Main Results

Parental COVID-19 stress was not significantly associated with parental EI, nor was it associated with child depression. Parental EI was also not associated with child depression or anxiety. However, parental COVID-19 stress was marginally significantly associated with higher child anxiety, $\beta = .27$, $p = .055$, based on a two-tailed regression analysis. Given our *a priori* directional hypothesis of this association, a one-tailed *p*-value of this statistic was computed, which resulted in a significant association between parental COVID-19 stress and child anxiety, $\beta = .27$, $p = .028$. No associations were found between child age, parental age, parental level of education, household income, and child grade with parental COVID-19 stress, parental EI, and child anxiety and depression.

Exploratory Results

See Table 4 for two-tailed bivariate correlations of exploratory variables. Due to the exploratory nature of these analyses, only significant results are denoted. The COVID-19 stress of xenophobia was positively correlated with the following: child social phobia, $r = .32$, $p < .05$, child separation anxiety, $r = .37$, $p < .05$, child generalized anxiety, $r = .28$, $p < .05$, and child obsessions and compulsions, $r = .39$, $p < .05$. Also, parental COVID-19 stress related to compulsions was positively correlated with child obsessions and compulsions, $r = .29$, $p < .05$. Further, parental COVID-19 stress related to socio-economic concerns was positively correlated with child social phobia, $r = .30$, $p < .05$. Finally, the parental EI subscale of utilization of emotions was positively related to the COVID-19 stress subscale of traumatic stress, $r = -.31$, $p < .05$.

Discussion

This study examined the associations between COVID-19 stress, parental EI, and child anxiety and depression. We predicted significant associations between higher parental COVID-19 stress, lower parental EI, and higher child anxiety and depression outcomes. Specific hypotheses were not made for the exploratory analyses among the specific domains of COVID-19 stress, parental EI, and child anxiety and depression. However, it was expected overall that parents who experienced higher pandemic-related stress would have lower levels of EI, with correspondingly greater child psychological difficulties.

Results from this study did not support the role of EI in associations between COVID-19 stress and child mental health outcomes. Indeed, no significant associations were found between COVID-19 stress, parental EI, and child anxiety or depression. However, a marginally significant association ($p = .055$) was found between COVID-19 stress and child anxiety. This marginally significant association was fully significant when a one-tailed test was used, consistent with our directional hypothesis. Turning to specific correlations within the individual domains of COVID-19 stress, parental EI, and child outcomes, results show that the majority of child mental health symptoms were positively associated with the specific COVID-19 stress of xenophobia, such that higher parental stress related to xenophobia was associated with higher child social phobia, separation anxiety, generalized anxiety, and obsessive-compulsive disorder. As well, the COVID-19 stress of compulsions was related to child obsessions and compulsions, and the COVID-19 stress of socioeconomic concerns was related to child social anxiety.

No Associations between Overall COVID-19 Stress and Parental EI

No significant associations were found between COVID-19 stress and parental EI as a whole. It is possible that COVID-19 stress and parental EI are unrelated. Indeed, no prior research has examined COVID-19 stress in relation to parental EI. It may be that parental EI is more stable and less susceptible to change due to pandemic stressors. Some research suggests the stability of EI. For instance, research on the stability of EI outside of the COVID-19 context shows that EI typically is moderately stable (Birks et al., 2009). Another study suggests that EI becomes more stable as one's age increases, from a longitudinal study analyzing trait emotional intelligence in youth (Keefer et al., 2013). It is also possible that COVID-19 stress may be more likely to impact the EI capacities that may be more trait-based, such as empathy, emotion recognition in others, and recognition of emotions in the self (Gardner et al., 2014).

Association between Overall COVID-19 Stress and Child Anxiety

Overall parental COVID-19 stress was positively associated with child anxiety. This result aligns with the findings of Achterberg et al. (2021), Lee et al. (2021), and Spinelli et al. (2020), showing that parents who experienced more stress surrounding COVID-19 had children who experienced more stress or anxiety as well. It is possible that COVID-19 stress is related to higher levels of child anxiety outside of parental EI, and prior research supports this link (Orgilés

et al., 2021). One explanation for this finding is that the parental response to COVID-19 and stress levels toward it may be having an impact on their children. It is possible that parents who are stressed may be less available to their children for support and more likely to be engaged in negative parenting, which may also heighten child anxiety (Clayborne et al., 2020). An additional explanation could be that having parents who are stressed about COVID-19 may lead to more stressful and chaotic households and disruptive family dynamics. This home chaos and stress may in turn increase child anxiety (Raver et al., 2015). A further explanation is that children may be anxious about COVID-19 itself or COVID-19-related changes, such as school closures, parents working from home, mask requirements, or getting sick with COVID-19, irrespective of parenting behaviour and the family dynamic (Hawes et al., 2021). There may also be a hereditary factor that may result in parental stress and child stress responses to COVID-19 to be related. For instance, McClure et al.'s (2001) study suggests that there may be a biological or genetic factor that is associated with anxiety, and that mothers with anxiety were at higher risk of their children having anxiety. Child anxiety may also influence parental stress, in context of research on the bidirectional influences between parent and child (Yirmiya et al., 2021).

No Association between COVID-19 Stress and Child Depression

Interestingly, the link between overall COVID-19 stress and child depression was not significant despite an association between COVID-19 stress and child anxiety. Child depression was also highly and significantly associated with child anxiety, which would also suggest a potential correlation between COVID-19 stress and child depression. However, none of the COVID-19 stressors were even marginally significantly related to child depression. Therefore, it is likely that the two constructs may not be associated. Participants and their children from Ottawa and surrounding areas may not have had the same experiences with COVID-19 stress and negative child mental health outcomes as samples from other studies (Connell & Strambler, 2021; Spinelli et al., 2020). There may have also been differences in COVID-19 regulations and supports available specific to Ottawa and surrounding areas. Overall, study findings suggest a stronger link between COVID-19 stress and child anxiety rather than child depression.

Potential Associations between Child Anxiety and COVID-19 Stress of Xenophobia

Results show that the specific COVID-19 stressor of xenophobia was particularly relevant in being associated with four of the five child anxiety domains measured. That is, COVID-19-related xenophobia was related to child social phobia, separation anxiety, generalized anxiety, and obsessive-compulsive disorder. This pattern of findings found through exploratory analyses suggests that higher parental xenophobia related to the pandemic appears related to higher child anxiety. It is possible that xenophobia during COVID-19 may be particularly detrimental to child anxiety. The xenophobia subscale from the CSS involves items that assess a fear of foreigners who may transmit the COVID-19 virus (Taylor et al., 2020). Indeed, a fear of foreigners appears associated with greater child anxiety, which may be due to a transmission of parent anxiety to child anxiety through social learning. Another explanation is that both parents and children from the

same family may have experienced similar COVID-19 stressors, which may be associated with higher parent xenophobia. However, this may be less likely the case due to the relative lack of correlations between child anxiety and other COVID-19 stressors.

Demographic Factors associated with Main Variables

In analyses of the associations between demographic factors and main variables in this study, a marginally significant association was found between the number of other children of the participant and overall parental EI. The association between number of other children and parental EI was positive such that participants who had more children reported higher levels of EI. No other associations between demographic factors and the main variables of parental COVID-19 stress and child outcomes were found.

Limitations

This study has its limitations. The scope of this study and relatively short surveys mean that not every variable that could be related to the main variable was measured. It was important to keep the survey relatively short so as to reduce the potential burden on parents of participating in the study and maximize participant recruitment and retention during an unprecedented time. Expanding the study to include other variables, such as child mental health diagnoses, would improve our understanding of the current experiences of both parents and children during the pandemic. Additionally, the sample size in this study was limited to 50 participants and there may have been a restriction in power. Therefore, future studies should include a higher sample size. This study only included parent-reports on questionnaires, and it would be helpful for future studies to use a multi-method, multi-rater methodology, such as including child-reports and more objective measures (e.g., observational). In addition, the majority of participants in this study were mothers of sons, limiting the extent to which gender could be examined in analyses. Future studies with fathers and daughters would be important. As well, it would be important for future studies to examine these questions among samples with greater diversity, such as in terms of ethnicity, family structure, and sexual orientation. In addition, it is possible that parents who were not experiencing very high levels of COVID-19 stress may be more likely to participate in this study, and therefore represent families with more resources who might not have been as affected by the pandemic as others. Future studies should include samples that are more likely to experience higher levels of COVID-19 stress. Furthermore, our sample involved participants who lived in and around Ottawa, Ontario, Canada, which may impact the generalizability of results given its unique position as the capital of Canada. Studies in the future could consider expanding locations, not only to improve generalizability but also to understand the potential impacts of geographical location on results. Finally, this study used a cross-sectional methodology to assess associations between constructs, which precludes causal interpretations. Future studies should consider using a longitudinal methodology to better determine causality by assessing changes in associations between COVID-19 stress, parental EI, and child mental health over time.

Implications and Conclusion

This study adds to the literature on COVID-19 stress and child mental health among families as well as the literature on EI. Although no significant associations between COVID-19 stress, parental EI, and child depression were found, there was support for a positive association between COVID-19 stress and child anxiety. These findings suggest that child anxiety may be more pertinent to examine in understanding COVID-19 stress on children, as compared to depression. Findings also suggest that parental EI was not associated with COVID-19 stressors. In addition, significant exploratory associations between particular COVID-19 stress domains and child anxiety were found, particularly between the COVID-19 stress of xenophobia and child anxiety outcomes. This pattern of results suggest that it may be more important to focus on pandemic-related xenophobia in future research studies to better understand related child mental health outcomes. In addition, there was a lack of associations between domains of COVID-19 stress and child depression, which combined with the main finding of no association between overall COVID-19 stress and child depression, point to the salience of child anxiety as an important mental health construct to attend to during the pandemic.

Prioritizing child anxiety as an at-risk mental health outcome during COVID-19 may be important. Having interventions that work on developing child coping and resilience to symptoms of anxiety and increasing parents' ability to cope with COVID-19 stress may optimize mental health and well-being for parents and children. These results may also steer clinicians to being more aware that parents with higher levels of COVID-19 stress may have children who are also at higher risk for anxiety symptoms, thereby leading to more time dedicated to assessing this area. As well, the need for future studies to study COVID-19-related xenophobia in particular may be important, which may also lead to prioritizing areas of assessment and treatment in service of targeted clinical and public health interventions given limited time and resources. Overall, this study addresses an existing gap in the literature and adds to our understanding of COVID-19 stress, parental EI, and child outcomes for anxiety and depression during the pandemic. This research represents an important step towards understanding the impact of COVID-19 on children and families, with the ultimate goal of informing mental health resources and support for families in response to the psychological consequences of COVID-19. Our findings shed light on families as an at-risk population that needs to be supported during the COVID-19 pandemic. It is our hope that this research ultimately leads to better insight of the relevant areas in need of evaluation and intervention among children and families.

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Table 1: *Demographic Variables*

Demographic variable	%	Demographic variable	%
Child Gender		Current Employment	
Girl	36	Employed	68
Boy	64	Not employed	32
Other Children (siblings)		Parent Yearly Income	
One other child	48	Between $20,000-$34,999	6
Two other children	22	Between $35,000-$49,999	4
Three other children	6	Between $50,000-$74,999	16
Four other children	4	Between $75,000-$99,999	16
Five other children	2	Between $100,000-$149,999	30
No other children	18	Between $150,000- $199,999,	8
Parent Marital Status		$200,000 and higher	18
Married or Common Law	84	Did not answer	2
Divorced or Separated	14		
Single	3		
Parent Education Level			
University or College graduate	48		
Graduate or Professional training	42		
Partial College/University or special training	8		
High School graduate	2		

Table 2: *Means and Standard Deviations of Variables*

Variable	M	SD
CSS Overall	.60	.32
CSS Danger	1.18	.70
CSS Socioeconomic Consequences	.28	.46
CSS Xenophobia	.37	.54
CSS Contamination	.76	.54
CSS Traumatic Stress	.42	.48
CSS Compulsive Checking	.55	.58
SEIS Overall	3.85	.39
SEIS Perception of Emotion	3.90	.41
SEIS Managing Others' Emotion	3.93	.42
SEIS Managing Own Emotion	3.73	.60
SEIS Utilization of Emotion	3.86	.52
RCADS Anxiety Overall	1.64	.38
RCADS Social Phobia	2.07	.58
RCADS Panic Disorder	1.29	.29
RCADS Separation Anxiety	1.63	.56
RCADS Generalized Anxiety	1.85	.49
RCADS Obsessive-Compulsive	1.33	.35
RCADS Major Depression	1.54	.44

Note. CSS = COVID Stress Scale. SEIS = Schutte Emotional Intelligence Scale. RCADS = Revised Child Anxiety and Depression Scale.

Table 3: *Two-tailed Bivariate Correlations of Main Variables*

Variables	1	2	3	4
1. SSEIT Overall	-			
2. CSS Overall	-.04	-		
3. RCADS Anxiety Overall	.03	.27†	-	
4. RCADS Depression	-.06	.12	.74**	-

Note. CSS = COVID Stress Scale. SEIS = Schutte Emotional Intelligence Scale. RCADS = Revised Child Anxiety and Depression Scale. $^{\dagger}p = .055.$ *$p < .05$, **$p < .01$, ***$p < .001$

Table 4: *Two-tailed Bivariate Correlations of Exploratory Variables*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. CSS Danger	-															
2. CSS Socioeconomic Consequences	.02	-														
3. CSS Xenophobia	.20	.19	-													
4. CSS Contamination	.56***	-.01	.18	-												
5. CSS Traumatic Stress	.15	.26	.25	.08	-											
6. CSS Compulsive Checking	.18	.18	.18	.23	.50**	-										
7. SEIS Perception of Emotion	.14	-.03	-.11	.12	-.16	-.05	-									
8. SEIS Managing Others' Emotion	.12	.07	-.04	.06	.10	.09	.63**	-								
9. SEIS Managing Own Emotion	-.10	-.22	-.03	.01	-.12	.05	.56**	.55**	-							
10. SEIS Utilization of Emotion	.06	.02	-.02	-.11	-.31*	-.05	.53**	.44**	.42**	-						
11. RCADS Social Phobia	.10	.30*	.32*	-.01	.21	.02	-.11	.22	-.21	.04	-					
12. RCADS Panic Disorder	.06	.00	.19	-.01	.12	.18	.05	.20	.16	.15	.45**	-				
13. RCADS Separation Anxiety	.14	.01	.37***	.05	.09	.09	-.04	.24	-.03	.11	.57**	.70**	-			
14. RCADS Generalized Anxiety	-.01	.09	.28*	-.04	.26	.03	-.13	.18	-.12	-.02	.61**	.69**	.76**	-		
15. RCADS Obsessive-Compulsive	.19	.07	.39**	.11	.27	.29*	.00	.21	.14	.07	.54**	.74**	.60**	.69**	-	
16. RCADS Major Depression	.14	-.05	.20	-.06	.10	.05	-.19	.09	-.03	-.05	.56**	.72**	.66**	.60**	.56**	-

Note. CSS = COVID Stress Scale. SEIS = Schutte Emotional Intelligence Scale. RCADS = Revised Child Anxiety and Depression Scale. *p < .05, **p < .01, ***p < .001