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The Moderating Effects of Perceived Social Support and Perceived Impact of the COVID-19 Pandemic on Psychopathology Symptoms in Young Adults with a History of Childhood Maltreatment

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Abstract

Childhood maltreatment places individuals at greater risk for developing psychopathology in adulthood. Social support has been shown to moderate mental health outcomes. The Coronavirus of 2019 (COVID-19) resulted in a pandemic that created an environment that increased isolation through quarantine rules, therefore decreasing opportunities to socialize and receive social support. The relationship between social support, the perceived impact of the COVID-19 pandemic, depression, anxiety, and PTSD during the first year of the pandemic was explored in a sample of young adults with and without childhood maltreatment. It was hypothesized that social support and the perceived impact of the pandemic moderated changes in psychopathology symptoms in a cohort of young adults with a history of childhood maltreatment. Results showed significant increases in both depression and PTSD symptoms at the start of the pandemic. No significant moderation effects were found for social support or the perceived impact of the pandemic.

Introduction

Childhood maltreatment is an immense issue that is associated with psychopathology in adulthood (Dovran et al., 2016), to include depression, anxiety, and posttraumatic stress disorder (PTSD). Young adulthood is a critical time period for biological and social development. Many psychological disorders peak or emerge during young adulthood (Bonnie et al., 2015). Social support may ameliorate symptoms associated with these psychological disorders. The effect of social support, however, may have been disrupted by the COVID-19 pandemic. Additionally, the extent to which an individual perceived the pandemic to impact their daily functioning may have amplified negative feelings. It is important to explore these relationships to determine if social support and perceived impact of the pandemic moderate anxiety, depression, and PTSD symptoms in this vulnerable population.

Defining Childhood Maltreatment

The World Health Organization defines childhood maltreatment as the abuse or neglect that occurs to children under eighteen years of age (World Health Organization, 2022). In 2021, one in seven children experienced abuse or neglect in the United States (CDC; Center for Disease Control and Prevention, 2022); however, the prevalence of childhood maltreatment is likely higher due to unreported cases. Abuse is defined as an intentional action to harm, for example, hitting or episodes of verbal humiliation, while neglect is defined as a failure to care for a child's basic and developmental needs, such as providing food or attending to a child's feelings (Infurna et al., 2016). Abuse can be further broken down into three categories: physical abuse, sexual abuse, and emotional abuse (Lobbestael et al., 2010). According to the CDC, physical abuse is the intentional use of force that can result in injury. Sexual abuse includes pressuring or forcing a child to participate in sexual acts. Emotional abuse involves behaviors that damage a

child's emotional well-being. Similarly, neglect can be subdivided into two categories: physical neglect and emotional neglect. Physical neglect is the inability to provide for a child's material needs, while emotional neglect is the inability to provide for the child's emotional needs. "Active" childhood maltreatment refers to physical, sexual, and emotional abuse, while "passive" childhood maltreatment refers to physical and emotional neglect (Infurna et al., 2016). For the present study, childhood maltreatment included physical, sexual, and emotional abuse, as well as physical and emotional neglect.

There is no single predictor of childhood maltreatment, however, many factors significantly increase the likelihood of maltreatment, including parental substance abuse, parental depression (Lavi et al., 2021), parental maltreatment history, poverty, financial stress, the presence of neighborhood violence, and children who require higher levels of care, like younger children or those with special needs (Austin et al., 2020). Additionally, there are marked gender differences in the types of childhood abuse experienced. Females are more likely to experience sexual abuse, while males are more likely to experience physical and emotional abuse (Meng & D'Arcy, 2016). Neglect, the most common type of childhood maltreatment, does not vary significantly among genders (Child Welfare Information Gateway).

Childhood Maltreatment and Subsequent Mental Health Outcomes

Research aimed at understanding the relationship between childhood maltreatment and later mental health outcomes identified strong evidence that childhood maltreatment is associated with subsequent psychopathology. Dovran et al. found that individuals with a history of childhood maltreatment had greater severity levels of psychological distress during adolescence and adulthood. Childhood maltreatment has been specifically linked to higher levels of

depression, anxiety, eating disorders (Kendler et al., 2000), and PTSD in adulthood (Dovran et al., 2016).

A meta-analysis investigating the relationship between depression and specific childhood experiences of abuse and neglect concluded that individuals with a history of childhood maltreatment were at higher risk for developing depression relative to individuals without a childhood maltreatment history (Nelson et al., 2017). The same meta-analysis examined the correlation between childhood maltreatment and adult depression and found that adults who experienced any kind of childhood maltreatment were up to three times more likely to develop depression in adulthood compared to adults who did not experience childhood maltreatment. The basis for this interaction is postulated to be a result of the possibility that individuals with a history of emotional maltreatment may have intense negative self-models and a tendency to ruminate on negative events (Infurna et al., 2016). Negative self-models and rumination interfere with self-confidence, self-compassion, and positive thinking and may limit an individual's confidence in forming positive relationships with others.

Childhood maltreatment has also been associated with anxiety in adulthood (Springer et al., 2007). A meta-analysis examining the association between the different types of childhood maltreatment and depressive and anxiety disorders concluded that all types of childhood maltreatment were associated with a significantly increased risk for developing both anxiety and depressive disorders (Gardner et al., 2019). It is theorized that because maltreatment is commonly perpetuated by someone the child expects love and care from, the infringement of this expectation may cause severe emotional damage (Gibb & Alloy, 2006).

Past research has also shown that there is a significant association between childhood maltreatment and the development of PTSD (Gardner et al., 2019). Early studies focused on the

associations between childhood abuse and PTSD and identified childhood abuse as a risk factor for developing PTSD (Widom, 1999). Later studies expanded to investigate the relationship between childhood neglect and PTSD. A 2008 cross-sectional study examined if the type of neglect experienced could predict PTSD and emotional dysregulation in adulthood (Grassi-Oliveira & Stein, 2008). Results showed that all types of childhood maltreatment had a moderate association with PTSD symptoms and emotional dysregulation. Childhood emotional abuse and emotional neglect had a slightly stronger correlation to PTSD in adulthood relative to physical abuse, sexual abuse, and physical neglect.

The COVID-19 Pandemic and Mental Health

The Coronavirus of 2019 (COVID-19) resulted in an ongoing pandemic that dramatically altered international societal functioning. The global pandemic started in January of 2020 and is ongoing. The Vermont Department of Health announced the first case of COVID-19 on March 7th, 2020 (Vermont Department of Health, 2020). At its earliest stages in March of 2020, the spread of the virus was rampant with little understanding of how the virus was transmitted or how it affected the body. As time progressed, research uncovered that COVID-19 is an infectious disease caused by the SARS-CoV-2 virus that spreads through particles released into the air (John Hopkins Medicine, 2022). The virus spreads quickly and can result in death in severe cases. To protect against the initial rapid spread of the virus, Governor Phil Scott declared a state of emergency in Vermont on March 13th, 2020. A "Stay Home, Stay Safe" order was enacted on March 24th through May 15th of 2020, which directed the closure of all in-person and non-essential businesses. Vermonters were instructed to quarantine in their homes, decreasing the amount of outside socialization and engagement with the community.

Since the pandemic began, there has been an influx of research examining the impact of the pandemic on mental health outcomes. While pandemics are stressful for most individuals, early research exploring the impact of the COVID-19 pandemic on mental health identified young age and prior history of mental health problems as risk factors for worse mental health outcomes (Mazza et al., 2020). A study investigating the mental health of a cohort of young adults in Italy throughout the first four weeks of quarantine found that there was an increase in both internalizing and externalizing problems, as well as an increase in anxiety and depression symptoms (Parola et al., 2020). One possible explanation for these results is that decreased socialization contributed to increased loneliness, leading to more negative thoughts and rumination. To investigate this relationship, researchers at the University of Washington conducted a study to investigate loneliness and mental health problems in a cohort of young adults living near Seattle during the COVID-19 pandemic (Lee et al., 2020). The study found that loneliness increased from January to May of 2020, when quarantine protocols were enacted, and that changes in loneliness were greater for females. Additionally, results showed that depression, but not anxiety, increased during this time with the increase being accounted for by changes in loneliness. These results indicate that those with higher levels of social support at the beginning of the pandemic felt lonelier relative to individuals who reported lower levels of social support initially. This finding suggests that increased social support may moderate depression symptoms.

Social Support

Social support, which can be defined as an individual's perception of being involved in a social group where they feel supported, has been shown to have a significant association with mental health outcomes (Koelmel et al., 2017). Namely, increased social support tends to reduce

psychopathology. This finding has been supported by research investigating the relationship between social support, resilience, and mental health among healthcare workers during COVID-19 (Hou et al., 2020).

Stressful experiences, such as a mandated quarantine, can exacerbate anxiety, depression, and PTSD symptoms. Preexisting anxiety, depression, and PTSD can also worsen stressful experiences, highlighting the negative reinforcement interaction between stress and psychopathology (de Kloet et al., 2005). Research has shown that perceived social support moderates depression and stress in college-aged students (Shi, 2021). Perceived social support has also been found to moderate anxiety in college students (Zhou et al., 2013) and the severity of PTSD symptoms in adults (Zalta et al., 2021). Feeling supported likely decreases loneliness and increases connectedness among individuals, decreasing the severity of depressive symptoms. This connection may allow for conversations about life experiences, to include worries and fears, building a sense of trust and community, therefore decreasing anxiety symptoms and the severity of PTSD symptoms.

Perceived Impact of the COVID-19 Pandemic

Individual perception of stressful situations likely influences the impact of the stressor on mental health outcomes, particularly among those who express prior difficulty with emotion regulation, such as in anxiety and depressive disorders. If an individual believes that the pandemic is having a significantly negative impact on their daily functioning, they will likely have worse mental health outcomes relative to individuals who do not believe that the pandemic is having a significantly negative impact on their daily functioning.

The perceived impact of a pandemic may moderate mental health outcomes. Past research exploring the impact of the equine influenza pandemic in Australia on psychological

distress concluded that higher levels of perceived impact, that is, believing that the pandemic would significantly impact daily functioning, were related to higher levels of non-specific psychological distress, with younger adults having higher distress relative to older adults (Taylor et al., 2008). A 2020 study examining the perceived impact of the COVID-19 pandemic across different mental health disorders concluded that individuals with a self-identified mental health disorder had higher personal worries and a higher fear of contracting the virus itself relative to healthy controls (Quittkat et al., 2020), likely increasing anxiety symptoms.

Childhood maltreatment is associated with higher levels of depression, anxiety, and PTSD in adulthood. Additionally, because of social expectations and the brain not yet being fully developed, young adults are more vulnerable to increased depressive, anxiety, and PTSD symptoms. Social support can act as a moderator for these psychopathology symptoms (Zhou et al., 2013). However, minimal research has examined the relationship between the perceived impact of the COVID-19 pandemic, social support, and psychopathology in a cohort of young adults with a history of childhood maltreatment. The present study sought to determine the extent to which social support and the perceived impact of the pandemic acted as moderators for depression, anxiety, and PTSD symptoms in a cohort of young adults with a history of childhood maltreatment throughout the first year of the COVID-19 pandemic. The relationship between these variables was examined to highlight trends in the trajectories of the psychopathology symptoms and to determine if social support and perceived impact of the pandemic were effective moderators. It was hypothesized that individuals with a history of childhood maltreatment would have increased levels of depression, anxiety, and PTSD symptoms throughout the first year of the COVID-19 pandemic. Additionally, it was hypothesized that

perceived social support and perceived impact of the pandemic would act as moderators for depression, anxiety, and PTSD symptoms.

Methods

Participants

Data for this project was obtained through an addendum to a larger research project, Brain Resilience After Trauma Exposure (BRITE), that was interrupted by the COVID-19 pandemic. The BRITE study aimed to examine the association between childhood maltreatment and psychopathology in young adults. Inclusion criteria for the BRITE study required that the participants be between the ages of 18 and 20. Additionally, to meet criteria for having a maltreatment history, participants had to have a score of 3 or greater on the Adverse Childhood Experiences (ACE; Felitti et al., 1998) scale and experience an event that met criteria to warrant reporting to the Department for Children and Families. Participants in the control group had to have a score of 2 or lower on the ACE scale.

For the present study, participants who previously completed the BRITE study were contacted to complete measure batteries over the course of a year that included self-report mental health assessments in exchange for a gift card at six different time points: baseline, 1 month, 3 months, 6 months, 9 months, and 12 months. A total of 68 participants from the BRITE study completed the measures ($M_{age} = 18.91$, SD = 0.89). Participants self-reported their gender ($n_{female} = 56, n_{male} = 12$).

Measures

Childhood Trauma Questionnaire Short-Form (CTQ-SF)

The CTQ-SF is a twenty-eight item self-report questionnaire adapted from the Childhood Trauma Questionnaire (Bernstein et al., 2003). The retrospective questionnaire assesses the level

of trauma exposure and the experience of physical, sexual, and emotional abuse, as well as physical and emotional neglect in childhood. There are five subsections to account for each type of childhood trauma. Each statement is measured on a Likert scale of 1-5: (1) never true, (2) rarely true, (3) sometimes true, (4), often true, and (5) very often true. Scores for each subsection: physical abuse, emotional abuse, sexual abuse, physical neglect, and emotional neglect, are totaled. Score ranges for the level of abuse include: no abuse, low abuse, moderate abuse, and severe abuse and have different cutoff scores depending on the subsection.

Patient Health Questionnaire Depression Scale (PHQ-9)

The PHQ-9 is a nine-item self-report questionnaire used to assess depression symptoms. The PHQ-9 is derived from the Patient Health Questionnaire (PHQ), a longer questionnaire that assesses multiple mental health diagnoses. Developed by Kroenke and Spitzer (2002), the PHQ-9 is used clinically to establish a provisional depressive disorder diagnosis, as well as score symptom severity. Each item measures symptom frequency on a Likert scale of 0-3: (0) not at all, (1) several days, (2) more than half of the days, and (3) nearly every day. Scores are totaled and range from 0 – 27. Scores that range from: 0-4 indicate minimal depression, 5-9 indicate mild depression, 10-14 indicate moderate depression, 15-19 indicate moderately severe depression, and 20-27 indicate severe depression. The present study used the PHQ-9 to assess the severity of depression symptoms at each time point.

Generalized Anxiety Disorder Questionnaire (GAD-7)

The GAD-7 is a self-report questionnaire used to assess anxiety symptoms within the past two weeks. The seven-item questionnaire assesses the degree to which a person feels nervous or on edge, is unable to control worrying or is worrying about many different things, is having trouble relaxing, is becoming restless, and is feeling easily annoyed or irritable. Created by

Spitzer et al. (2006) each symptom is rated on a Likert scale for frequency: (0) not at all, (1) for several days, (2) for more than half the days, and (3) nearly every day. Scores are totaled and can range from 0-21 with cut-off points of 5, 10, and 15 representing mild, moderate, and severe anxiety, respectively. The current study used the GAD-7 to assess the severity of anxiety symptoms of participants at each time point.

PTSD Checklist for DSM-5 (PCL-5)

The PCL-5 is a 20-item self-report questionnaire that assesses each of the twenty DSM-5 symptoms of PTSD (*PTSD Checklist for DSM-5 (PCL-5) PTSD, 2013*). While a structured clinical interview, such as the Clinician-Administered PTSD Scale (CAPS-5), is the gold standard for diagnosing PTSD, the PCL-5 can be used to give a provisional diagnosis of PTSD. Each symptom is measured on a Likert scale of 0-4: (0) not at all, (1) a little bit, (2) moderately, (3) quite a bit, and (4) extremely. Symptom severity scores are totaled and range from 0-80, with a cutoff score between 31-33 suggesting probable PTSD presence. The present study used the PCL-5 to assess PTSD symptom severity at each time point.

Fear of Illness and Virus Evaluation (FIVE) COVID-19 Scale

The FIVE scale is a self-report measure that assesses fears, worries, and experiences related to the COVID-19 pandemic. The FIVE survey is separated into four subscales; (1) Fears about Contamination and Illness, (2) Fears about Social Distancing, (3) Avoidance and Mitigation Behaviors, and (4) Total Fears (Sáez-Clarke et al., 2022). The present study utilized data gathered from the fourth subscale, Total Fears, which focuses on the perceived impact of the pandemic within the past week. There are two items in this subscale that gauge how true each item is. Each item is measured using a Likert scale of 1-4: (1) not true for me at all, (2) somewhat true, (3) mostly true, and (4), definitely true. Standard scores are generated for each

subscale and range from 0-8. The present study used the Total Fears subscale of the FIVE scale to assess perceived impact of the COVID-19 pandemic at each time point.

Medical Outcomes Study Social Support Survey (MOS-SS)

The MOS-SS survey is a self-report measure that assesses the perception of availability of social support. The MOS-SS survey was developed for patients in the Medical Outcomes Study (MOS), a study that investigated the outcome of health care for patients with treatable chronic conditions. The MOS-SS scale measures social support within four dimensions: emotional-informational support, tangible support, positive social interactions, and affectionate support (Sherbourne & Stewart, 1991). There are 19 items on the MOS-SS that are measured using a 5-point Likert scale to reflect how frequently an individual receives support: (1) none of the time, (2), a little of the time, (3), some of the time, (4) most of the time, (5) all of the time. Scores are totaled and transformed to range from 0 – 100, with higher scores reflecting higher perceived social support. Studies have shown that the MOS-SS has high validity and reliability in evaluating perceived social support in a young non-clinical population (Giangrasso & Casale, 2014). The present study used the MOS-SS to assess perceived social support of the young adults at each time point.

Procedures

Data collection for the present study took place across two waves. The first wave was conducted as part of a larger study, BRITE. Participants were recruited from the community via flyers, online advertisements, and partnerships with local advocacy agencies that work with youth with maltreatment histories. Initial recruitment occurred from July 18th, 2018 to February 13th, 2020. For the present study, participants were contacted from April 3rd, 2020, to April 9th, 2020 to complete a measure battery that included self-report mental health assessments.

Following the initial baseline assessment, measures were again completed 1 month, 3 months, 6 months, 9 months, and 12 months later. The assessment batteries at all follow-ups were the same.

Data analysis. Using Rversion 4.2.2, data was organized and cleaned. The hypotheses were assessed using a series of multilevel models. Time was scaled in months with the pre-COVID-19 assessment serving as the intercept. In these models, the fixed effects of interest were the intercept, slope, and the predictors of interest, which were maltreatment, social support and perceived impact, as well as an interaction between the three. Psychopathology, social support, perceived impact, and childhood maltreatment scores were mean centered.

Results

The extent to which depression symptoms changed over the 12 months was evaluated first. After controlling for maltreatment severity, depression symptoms significantly increased over the year, b = 0.11, SE = 0.05, p = .030. The effect of social support and impact of COVID-19 fears were included in the model. Both main effects for social support (b= -0.12, SE = 0.19, p = < .001) and COVID-19 impact were significant (b= 0.82, SE = 0.15, p = < .001). There were no significant interactions between the rate of change in depression and social support or COVID-19 impact, p's> .196.

The extent to which anxiety symptoms changed over the 12 months was similarly evaluated. After controlling for maltreatment severity, there was no significant change in anxiety symptoms, b = 0.08, SE = 0.05, p = .080. The effect of social support and impact of COVID-19 fears were included in the model. Both main effects for social support (b= -0.06, SE = 0.02, p = < .001) and COVID-19 impact were significant (b= 1.07, SE = 0.18, p = < .001). There were no

significant interactions between the rate of change in anxiety symptoms and social support or COVID-19 impact, p's > .705.

The extent to which PTSD symptom severity changed over the 12 months was evaluated. After controlling for maltreatment severity, PTSD symptom severity significantly increased over the year, b = 0.35, SE = 0.13, p = .006. The effect of social support and impact of COVID fears were included in the model. Both main effects for social support (b= -0.23, SE = 0.05, p = < .001) and COVID-19 impact were significant (b= 1.67, SE = 0.49, p < .001). There were no significant interactions between the rate of change in PTSD symptoms and social support or COVID-19 impact, p's > .402.

Discussion

The present study examined the trends of depression, anxiety, and PTSD symptom severity during the first year of the COVID-19 pandemic and the extent to which social support and the perceived impact of the pandemic acted as moderators for psychopathology symptoms in a cohort of young adult with a history of childhood maltreatment. As hypothesized, the results concluded that individuals with a history of childhood maltreatment had a significant increase in depression and PTSD symptoms throughout the first year of the pandemic, although not anxiety symptoms. The increase in depression and PTSD symptoms throughout the first year of the COVID-19 pandemic is not surprising given the restrictions placed on socialization and the lack of engagement in community activities. Because the sample consisted of young adults, an age group with high mobile device and social media use, the COVID-19 restrictions likely resulted in higher screen time and less physical activity. Physical activity has been shown to reduce anxiety, depression, and PTSD symptoms (Martinsen, 2008; Rosenbaum et al., 2015). Higher screen time

is associated with increased anxiety, depression, and PTSD symptoms and can also disrupt sleep in college-aged individuals which has been linked to worsening these symptoms (Wu et al., 2015). An increase in mobile device use and a decrease in physical activity may help to explain the significant increase in depression and PTSD symptoms and slight increase in anxiety symptoms.

While a significant increase in anxiety symptoms was hypothesized because of decreased socialization, there was only a slight increase in the severity of anxiety symptoms, placing individuals in the range of mild to moderate anxiety. The slight increase as opposed to a significant increase may be explained by the quarantine restrictions. Decreased socialization and less functioning in society led to more time alone which may have increased feelings of loneliness and ruminative thoughts, resulting in a significant increase in depression and PTSD symptoms, but not anxiety. The trajectory of worsening psychopathology symptoms in this population suggests that childhood maltreatment may exacerbate the likelihood of developing later psychopathologies when faced with an abnormally stressful event like a global pandemic. Screening measures and interventions should be implemented to decrease this risk. The significant increase in depression and PTSD symptoms noted during the initial months of the COVID-19 pandemic suggests that interventions should be tailored to target these symptoms first.

Contrary to the hypothesis, social support and the perceived impact of the pandemic had no significant moderating effects on depression, anxiety, or PTSD symptoms. The main effects for social support and perceived impact of the pandemic were significant in all three psychopathology symptom models, however, there were no significant interaction effects. At each time point throughout the year, higher social support was associated with less

psychopathology. This finding suggests that social support had a fixed effect and was beneficial to mental health at each time point but did not directly change psychopathology outcomes. Increased perceived impact of the pandemic was associated with more psychopathology at each time point, as well. Worries regarding the perceived impact of the pandemic were disadvantageous to mental health outcomes at each time point but did not directly change psychopathology outcomes. These results suggest that social support and the reduction of worries around the daily impact of the COVID-19 pandemic are not adequate in treating psychopathology symptoms. In conclusion, increased social support and less perceived impact of pandemic are beneficial, but neither is sufficient in significantly reducing psychopathology symptoms.

More intense interventions, such as cognitive-behavioral therapy (CBT) have been found to be effective in significantly reducing depression, anxiety, and PTSD symptoms in young adults (Gutermann et al., 2016; Otte, 2011; Reinecke et al., 1998). Because of the quarantine restrictions in Vermont during the first year of the pandemic, in-person therapy may not have been offered and telehealth therapy may not have been accessible for all individuals, further explaining the increase in depression, anxiety, and PTSD symptoms.

Individuals who experience childhood maltreatment are at greater risk for developing psychopathology later in life, especially when placed in stressful situations. The COVID-19 pandemic, an extremely stress-inducing situation, created an environment that resulted in less socialization, an area essential for the social development and welfare of college-aged students. In a cohort of young adults with a maltreatment history, PTSD and depression symptoms significantly increased throughout the first year of the COVID-19 pandemic, suggesting that these symptoms should be targeted during intervention. Additional research with a larger sample

size should be conducted to determine the extent to which social support impacts the development of psychopathology in individuals with a maltreatment history. Particularly, the mode in that social support is received, whether in-person or online via social media or other mobile applications, should be explored to determine if the same benefits are experienced in each mode. Additionally, the relationship between the type of maltreatment experienced and mental health outcomes should be explored to determine if there are differences between groups that different interventions should target.

Limitations

The present study had several limitations. Because participants were recruited from a parent study, the sample size was restricted. The small sample size may have prevented potential findings from being extrapolated, particularly in moderator interaction effects. It would be beneficial to have a larger sample size to determine if similar findings to the present study are found.

Another limitation that may have impacted the results is the lack of diversity in the sample, with 62 of the participants self-identifying as white and 56 self-identifying as female. This largely homogenous sample underrepresents individuals of color, a population that is more likely to experience childhood maltreatment (Lanier et al., 2014), greater COVID-19 related stress (Stinson et al., 2021), and is at greater risk for developing mental health issues in adulthood (McLaughlin et al., 2012). The homogenous sample may not be generalizable to the American population because of the lack of racial and gender diversity.

Maltreatment type was not considered. Emotional neglect and abuse have been shown to have a greater impact on depression relative to sexual and physical abuse (Infurna et al., 2016). Sexual abuse has been found to have a greater link to anxiety disorders relative to other types of

maltreatment (Gardner et al., 2019). The present study grouped all types of childhood maltreatment together, which limits the nuances between the types of childhood maltreatment endured and later mental health outcomes from being explored. This generalization could impact treatment design and efficacy. It is important to indicate differences in traumatizing experiences to develop the most effective treatments possible.

Conclusion

The present study examined the trajectories of depression, anxiety, and PTSD symptom severity during the first year of the COVID-19 pandemic and the extent to which social support and perceived impact of the pandemic moderated psychopathology symptoms in a cohort of young adults with a history of childhood maltreatment. While there was only a slight increase in anxiety symptoms, there were significant increases in both depression and PTSD symptoms, highlighting that mental health outcomes worsened over the pandemic. Increased social support was significantly associated with less psychopathology, while higher scores for the perceived impact of the pandemic were significantly associated with more psychopathology at each time point during the first year of COVID-19. Social support and perceived impact of the pandemic did not have significant moderator effects.

Figures

Figure 1

Interaction Between Depression Symptoms and Social Support

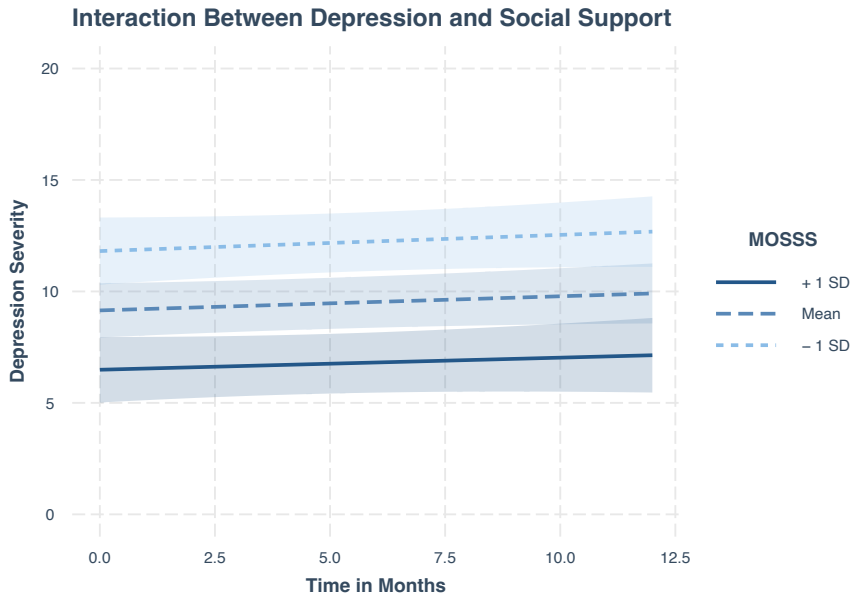


Figure 2

Interaction Between Depression Symptoms and Perceived Impact of the COVID-19 Pandemic

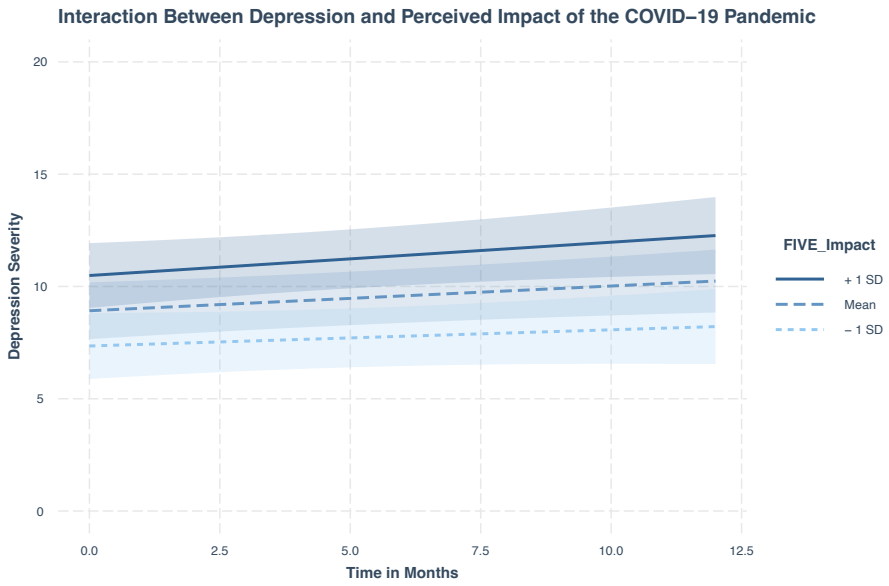


Figure 3

Interaction Between Anxiety Symptoms and Social Support

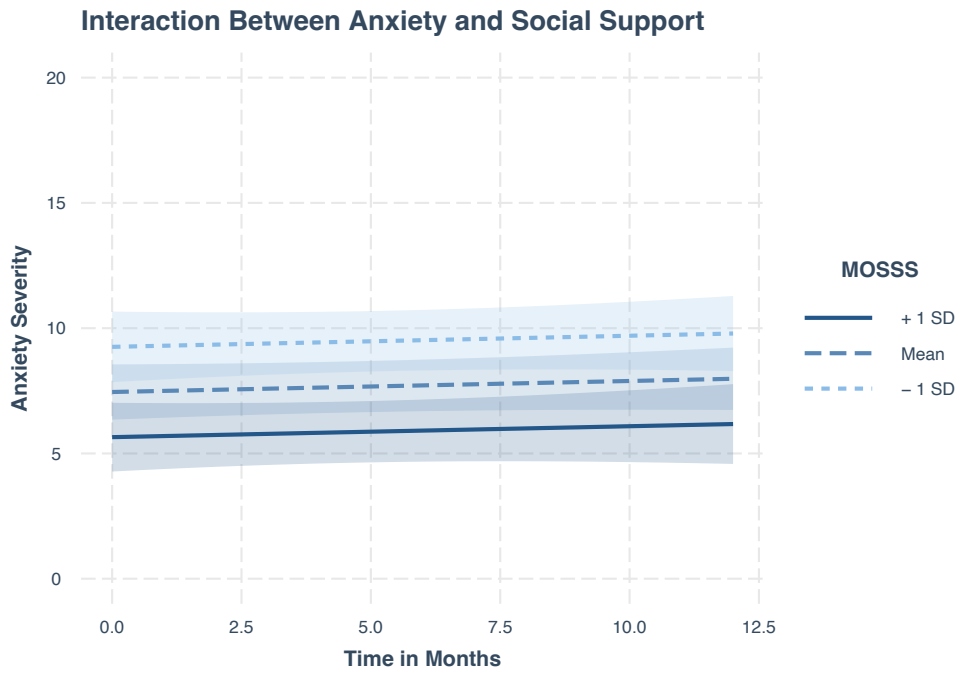


Figure 4

Interaction Between Anxiety Symptoms and Perceived Impact of the COVID-19 Pandemic

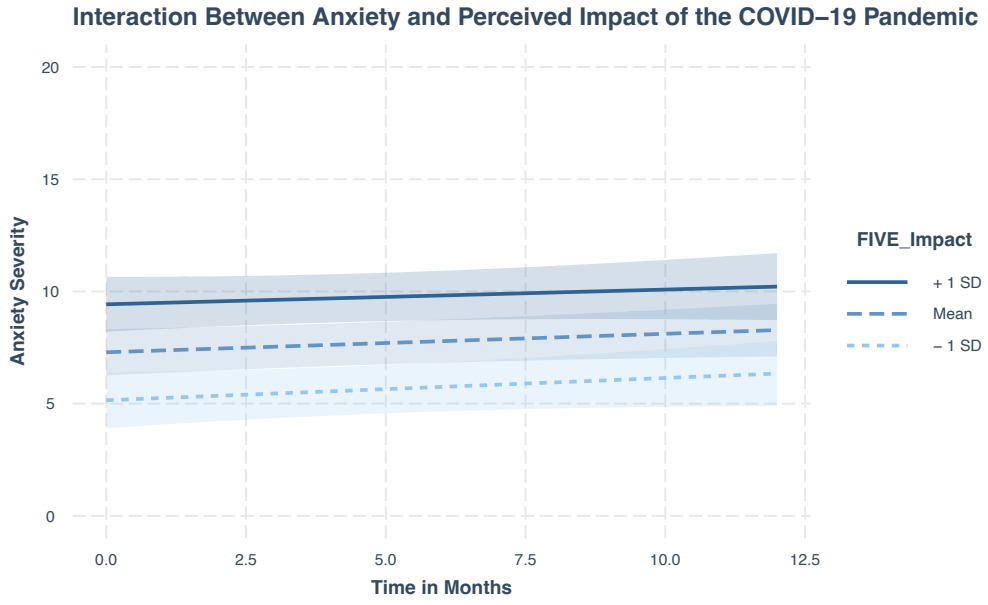


Figure 5

Interaction Between PTSD Symptoms and Social Support

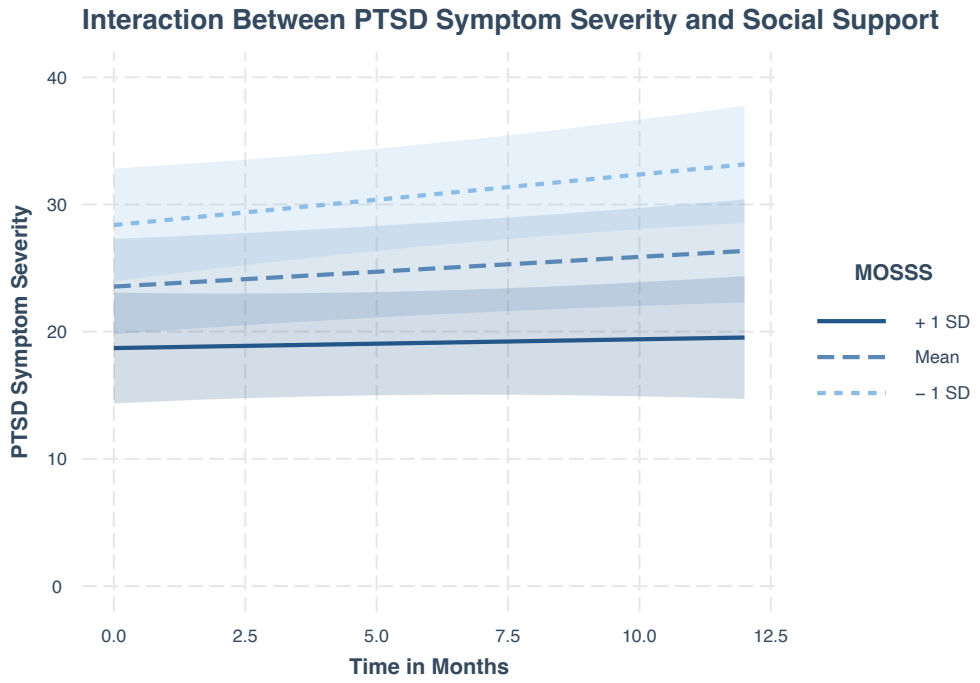
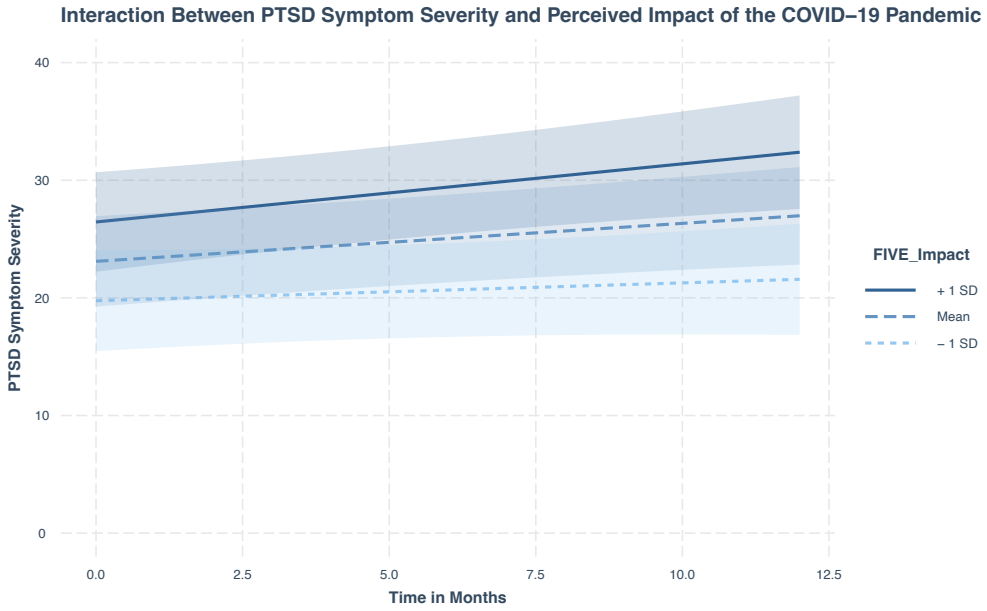


Figure 6

Interaction Between PTSD Symptoms and Perceived Impact of the COVID-19 Pandemic



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