


# Perceived Social Support as Moderator of Depression and Anxiety Symptoms in Children and Youths with Psychological Trauma

Apoyo Social Percibido como Moderador de Síntomas de Depresión y Ansiedad en Niños y Jóvenes con Trauma Psicológico

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## ABSTRACT

Perceived social support (PSS) has been identified as a protective factor in mitigating symptoms of mental health conditions commonly associated with traumatic experiences. This study examines PSS as a moderator in the relationship between trauma symptoms and depression and anxiety symptoms in children and youths (N = 646). The results of the moderation analysis with regression show that PSS moderates the relationship between trauma and symptoms of depression ( $b = -.03$ ,  $p < .001$ , 95% CI [-.05, -.02]) and anxiety ( $b = -.02$ ,  $p < .001$ , 95% CI [-.03, -.01]). The simple slope analysis highlights that when PSS is high, there is a lower relationship between symptoms of trauma and those of depression,  $b = .83$ ,  $p < .001$ , 95% CI [.70, .96] and anxiety,  $b = .70$ ,  $p < .001$ , 95% CI [.60, .80]. These results show that PSS can reduce the effect of trauma in the presence of symptoms of depression and anxiety.

**Keywords:** anxiety, depression, perceived social support, Puerto Rico, trauma, youths

## RESUMEN

El apoyo social percibido (ASP) se ha identificado como un factor protector para mitigar síntomas de condiciones de salud mental comúnmente asociados con experiencias traumáticas. Este estudio examina el ASP como moderador en la relación entre los síntomas de trauma y los síntomas de depresión y ansiedad en niños y jóvenes (N = 646). Los resultados del análisis de moderación con

regresión reflejan que el ASP modera la relación entre el trauma y los síntomas de depresión ( $b = -.03, p < .001, IC\ 95\% [-.05, -.02]$ ) y ansiedad ( $b = -.02, p < .001, IC\ 95\% [-.03, -.01]$ ). Los análisis de pendiente simple resaltan que cuando el ASP es alto, existe una relación menor entre los síntomas de trauma y los de depresión,  $b = .83, p < .001, IC\ 95\% [.70, .96]$  y ansiedad,  $b = .70, p < .001, IC\ 95\% [.60, .80]$ . Estos resultados muestran que el ASP puede reducir el efecto del trauma en la presencia de síntomas de depresión y ansiedad.

**Palabras Claves:** apoyo social percibido, ansiedad, depresión, jóvenes, Puerto Rico, trauma

## **PERCEIVED SOCIAL SUPPORT AS MODERATOR OF DEPRESSION AND ANXIETY SYMPTOMS IN CHILDREN AND YOUTHS WITH PSYCHOLOGICAL TRAUMA**

Adverse childhood experiences (ACEs) are potentially traumatic events that occur in childhood (zero to 17 years) (Centers for Disease Control and Prevention [CDC], 2022a). Exposure to ACEs has been consistently associated with poor physical and mental health outcomes in adulthood, such as depression and suicidal attempts, anxiety, and posttraumatic stress disorder (Alisic et al., 2018; Briggs-Gowan et al., 2010; Chapman et al., 2004; Elkins et al., 2019; Hughes et al., 2017; Mersky et al., 2013; Poole et al., 2017; Thompson et al., 2018). In addition, some studies have addressed the impact of adverse events on internalizing behaviors among children and youths (Briggs-Gowan et al., 2010; Duru & Balkis, 2018; Tsehay et al., 2020). For example, Barzilay et al. (2018) conducted a community-based epidemiological study that examined the number of ACEs and current risk for psychopathology in a large sample ( $n = 9,498$ ) of youth aged eight to 21. Greater exposure to traumatic events was associated with increased psychopathology across all assessed domains: mood and anxiety, psychotic spectrum symptoms, externalizing behaviors, and fear.

Among all the psychopathologies, depressive and anxiety symptoms are the most common mental health outcomes of ACEs (Elmore & Crouch, 2020; Kerker et al., 2015). Studies have demonstrated that the risk of depressive and anxiety symptoms increased as the number of ACEs incremented (CDC, 2022b; Hunt et al., 2017; Yap & Jorm, 2015). For example, according to the CDC, during middle childhood, an ACE score of four or more was associated with 7.3 higher odds of depression or anxiety than those with fewer adverse experiences (Pérez-Pedrogo et al., 2016). Additionally, children and youth with higher ACE scores were three times more likely to experience depression or anxiety and four times more likely to report both internalizing behaviors (Hunt et al., 2017). It is noteworthy that mood disorders during childhood can interfere with normal brain development (Kim et al., 2013) and social functioning while increasing the risk of suicide, one of the leading causes of death among youths (Rao & Chen, 2009; Thompson et al., 2005). Therefore, it is essential to identify ACE exposures through screening tools due to its relationship with the development of depressive and anxiety symptoms among this vulnerable population (Elmore & Crouch, 2020), especially those from underserved contexts.

Existing literature has explored racial and ethnic disparities in ACEs and how these disparities impact health outcomes (Maguire-Jack et al., 2020). For example, Maguire-Jack et al. (2020) showed that regarding race and ethnicity, White children have fewer ACEs and less exposure to specific ACEs than Latinx children. A longitudinal study assessed lifetime and past-year prevalence estimates of suicide ideation and suicide attempt in the role of ACEs as a prospective risk factor for Puerto Rican young adults (Polanco-Roman et al., 2021). They found that in Puerto Rican young adults, greater exposure to childhood adversities was significantly associated with suicide ideation in young women and suicide attempts irrespective of sex. The authors emphasized the relevance of identifying children at risk for suicide ideation and suicide attempt to inform early preventive strategies and the prevention of cumulative ACEs in childhood

and youths, particularly among young women of ethnic minority groups living in underserved contexts (Polanco-Roman et al., 2021).

A growing body of evidence indicates that some social determinants of health can increase the risk of experiencing trauma (CDC, 2022b). For example, poverty, community violence, racism, and experiencing food insecurity can cause toxic stress (CDC, 2022b) and are highly comorbid with ACE exposure (Hughes & Tucker, 2018; Steele et al., 2016). Those children and youth living in poverty are more vulnerable than their counterparts to experience frequent and intense adversities (Anda et al., 2010). That is the case of children living in Puerto Rico, where almost six out of every ten children (57.3%) live in poverty (The Annie E. Casey Foundation, 2021). In addition, Puerto Rican children and youth have been the most vulnerable group to Hurricanes Irma and Maria (Rosa-Rodríguez, 2019). Hurricane Maria exposed Puerto Rican youths to high disaster-related stressors; 7.2% ( $n = 6,900$ ) of them reported clinically significant levels of posttraumatic stress disorder (PTSD) and depressive symptoms (Orengo-Aguayo et al., 2019). Finally, researchers have also argued that the unique sociopolitical relationship between the mainland U.S. and Puerto Rico may influence how exposure to ACEs influences mental health problems in Puerto Rican youths (Polanco et al., 2021).

Nevertheless, although extensive literature links potentially traumatic events with poor mental health outcomes, it is crucial to understand which protective factors contribute to a person overcoming trauma. Experiencing adversity without protective factors can influence physiological, psychological, and social well-being through this excessive, unrelieved stress (National Scientific Council on the Developing Child, 2005). Some protective factors identified were participation in community activities or service work, school engagement, school and neighborhood safety, low parenting stress, parent-child communication, the presence of an adult mentor in the child's life, and family-centered care (Liu et al., 2020). Although all of these protective factors have been identified in the literature, Latinx families have been shown as solid protective factors because they often exhibit higher cohesion, communication, and support (American Academy of Pediatrics, 2021; Hook et al., 2013). Nevertheless, although *familism* has been established as a protective factor in the literature, how children and youths perceived social support might alter the connection between potentially traumatic events and mental health, especially in Latinxs, is unclear.

Social support has been considered a protective factor in reducing psychological trauma (Fredman et al., 2017), anxiety, and depression symptoms (Evans et al., 2013; Maheux & Price, 2016). Among children and youths, perceived social support has been positively associated with quality of life (Singstad et al., 2021), self-esteem (Liu et al., 2021), and positive mental health outcomes in early adulthood (Jakobsen et al., 2021). Perceived social support is the help a person seeks from those around him (Brausch & Decker, 2014). Sherbourne and Stewart (1991) identify two types of perceived social support: structural and functional. Structural support refers to the size of the support group the person perceives to have. In comparison, functional support can be seen as the most crucial aspect since it includes the support group's different purposes regarding the person's life: instrumental support (i.e., money or information), affective support (i.e., hugs or

expression of affection); emotional support (i.e., advice and empathy); social interaction (i.e., being available for activities together) (García-Justiniano et al., 2022; Londoño-Arredondo et al., 2012; Sherbourne & Stewart, 1991).

It is essential to distinguish between perceived and received social support. Studies have found that perceived social support, rather than received support, influences individual attitudes, decreasing dysfunctional behaviors (Peter et al., 2017; Wethington & Kessler, 1986). For youths, it is essential to acknowledge that social support should adapt to the person’s needs; there should be a match between the support given and the support needed (Camara et al., 2014). Furthermore, emotional or practical support from friends or family in the form of affection, assistance, companionship, and information, can make individuals feel loved, secure, and valued (Peter et al., 2017).

Thus, this study examines the moderating role of perceived social support in mitigating symptoms of depression and anxiety in children and youths with traumatic symptoms. We hypothesized that greater perceived social support would buffer the relationship between trauma symptoms and depression and anxiety among children and youths living in Puerto Rico. High poverty rates and limited access to health insurance among Latinxs inhibit access to mental health treatment (Caballero et al., 2017). This study may inform the development of early intervention programs, including the assessment of social support resources as a protective factor for alleviating the deleterious effects of ACEs in Latinxs communities.

**METHOD**

**Participants and Procedures**

The sample comprised 646 sixths through 12<sup>th</sup>-grade students who attended public schools in the southeast and northeast parts of Puerto Rico. Urban areas in Puerto Rico have greater population density, and even though it is still limited, they have more access to health services than rural areas. For example, the poverty rate in rural Puerto Rico is 60.0%, compared with 47.7% in urban areas of the island (Economic Research Service, 2022). Table 1 shows the demographic characteristics of the sample. The average age of the participants is 14.13 years (*SD* = 2.19), with a minimum age of 10 and a maximum of 18. Of the 646 participants, 39.3% were in middle school, and 58.9% attended high school at the time of the evaluation.

**Table 1**  
*Sociodemographic Characteristics of Participants*

| Variable                           | <i>n</i> | %    |
|------------------------------------|----------|------|
| Gender                             |          |      |
| Female                             | 346      | 53.6 |
| Male                               | 288      | 44.6 |
| No response                        | 12       | 1.9  |
| Grade                              |          |      |
| 6 <sup>th</sup> grade (Ages 10-12) | 100      | 14.9 |
| 7 <sup>th</sup> grade (Ages 12-13) | 76       | 11.8 |
| 8 <sup>th</sup> grade (Ages 13-14) | 81       | 12.6 |

(Cont.)

| Variable                            | <i>n</i> | %    |
|-------------------------------------|----------|------|
| 9 <sup>th</sup> grade (Ages 14-15)  | 61       | 9.8  |
| 10 <sup>th</sup> grade (Ages 15-16) | 93       | 14.4 |
| 11 <sup>th</sup> grade (Ages 16-17) | 107      | 16.6 |
| 12 <sup>th</sup> grade (Ages 17-18) | 117      | 18.1 |
| No response                         | 11       | 1.8  |

For this study, we used secondary data from a service program titled: “Wellness Approaches in Schools: Enhancing Students’ Mental Health through Evidence-Based Programs.” We obtained permission from the program directors, Marizaida Sánchez-Cesáreo and Coralee Pérez-Pedrogo, to use the data sets with de-identified information. This secondary data analysis study was reviewed and approved by the Institutional Review Board of Albizu University. The primary project collected data from August to October 2019 as an initial assessment to identify potential participants for a school-based mental health program. Before reaching the students, personnel from the project obtained informed consent from the parents and legal caregivers. A total of 64.2% of parents from the participating schools completed the consent. Only students whose parents provided consent were invited to assent and voluntarily completed the questionnaires. A total of 63.5% of students whose parents/legal guardians signed the informed consent completed the questionnaire. Recruiters completed intensive training that addressed human subjects’ protection, informed consent protocols, interviewing protocols, and data safety. The program evaluator coordinator supervised and assisted recruiters during the data collection.

The questionnaire was divided into two parts. The first one was administered during the visit to obtain informed assent from students and included measures regarding students’ sociodemographic and academic information (i.e., gender, age, academic grades, and area of residence). The second part was completed a week later during a second visit to the school. This second part included anxiety, depression, trauma symptoms, and social support self-report scales. This time delay between measures reduces common method bias in self-reported designs (Podsakoff et al., 2012). Besides, dividing the assessment into two parts minimizes the length of the questionnaire students completed each time; a longer questionnaire may cause respondents to fatigue and decrease the response rate (Rolstad et al., 2011). During the data collection, psychologists were available to manage possible emergencies.

## **Instruments**

### ***Demographic Questionnaire***

The demographic information obtained in the secondary database included participants’ information related to gender, age, academic grades, and area of residence.

### ***Medical Outcomes Study-Social Support Survey for Adolescents (MOS-SSS-A), Spanish Version***

The MOS-SSS was developed by Sherbourne & Stewart (1991) in English and was adapted and validated for non-clinical children and adolescents in Spanish (Rodríguez-Espinola, 2011). The MOSS-SSS consists of 20 items used to measure two types of social support: structural support and functional support. The first question measures structural social support, evaluating

the approximate number of close friends and family the individual recognizes. The following 19 statements measure the functional support (i.e., “I have someone that helps me when I am sick”) using a 3-point Likert scale (1 = never; 2 = sometimes; 3 = always). The global index of social support is obtained by adding the 19 items. Higher scores indicate higher perceived levels of social support. A previous validation with children and youths (aged 11 to 18 years) in Puerto Rico shows an excellent internal consistency for the global index ( $\alpha = .93$ ) (García-Justiniano et al., 2022). This measure showed good internal consistency in this study ( $\alpha = .93$ ).

***Patient Health Questionnaire-8 Modified for Adolescents (PHQ-8-A), Spanish Version***

This self-administered instrument has eight items used to detect and monitor symptoms of depression in adolescents. Similar to the adult version (Kroenke & Spitzer, 2002), a score of zero means “never” experienced symptoms, one refers to “several days,” two implies “more than half the days in the week,” and three a high frequency or “almost every day.” The scores range from 0-24 points, where a score greater than ten is considered symptomatic of major depression, and a score greater than 20 is considered symptomatic of severe major depression. A previous study on Puerto Rico showed that the PHQ-8-A obtained a Cronbach  $\alpha$  above .70 in male and female participants. The PHQ-8-A presents adequate psychometric properties to evaluate depression symptoms in young residents of Puerto Rico (López-Torres et al., 2019). This measure showed good internal consistency in this study ( $\alpha = .88$ ).

***Generalized Anxiety Disorder 7-Item - Adolescent Version (GAD-7-A), Spanish Version***

The GAD-7 (Spitzer et al., 2006) is a self-administered 7-item instrument used to detect and measure anxiety symptoms. Each item is scored on a 0 to 3-point Likert scale (“not at all” to “nearly every day”). The minimum total score is zero, and the maximum is 21. A score between five and nine represents mild anxiety symptoms, 10 to 14 for moderate, and 15 to 21 for severe. A previous study on Puerto Rico showed that the GAD-7-A translated and adapted into Spanish presents optimal psychometric properties resulting in a Cronbach  $\alpha$  of .85, a helpful instrument for evaluating adolescent anxiety (Pérez-Pedrogo et al., 2022). This measure showed good internal consistency in this study ( $\alpha = .85$ ).

***Trauma Screening Questionnaire (TSQ), Spanish Version***

The TSQ (Brewin et al., 2002) is a 10-item self-report measure of responses to a traumatic event. The instrument has five re-experiencing items (thoughts or memories) and five arousal items (body reactions). For example, “upsetting dreams about the event” and “being jumpy or being startled at something unexpected.” Participants are asked to endorse those items they have experienced at least twice in the past week. Each question requires a “yes” or “no” answer and six or more positive responses represent a risk of having PTSD. In Puerto Rico, a study revealed that the TSQ could be considered an appropriate ( $\alpha = .80$ ) alternative to objectively evaluate trauma-related symptoms (Pérez-Morales et al., 2019). This measure showed good internal consistency in this study ( $\alpha = .84$ ).

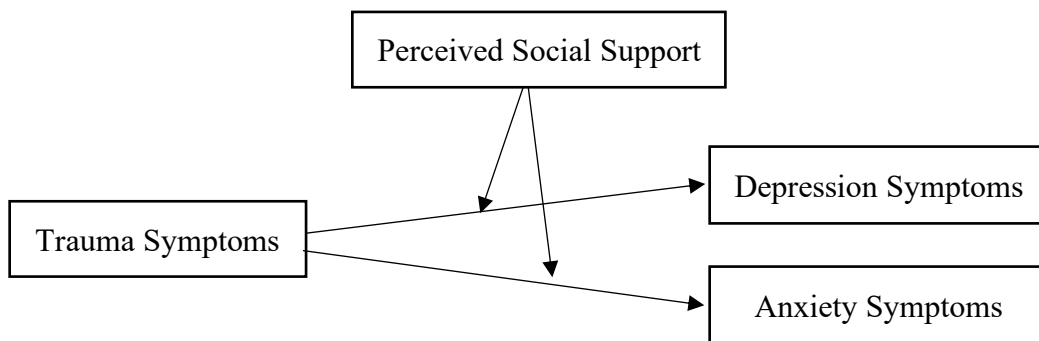
**Data Analysis**

We used the SPSS v. 27 program for the descriptive statistics (mean and standard deviation). Descriptive analyses were performed to assess missing values. The project reached 806

students; however, 160 participants were excluded for not answering all the instruments thoroughly. The sample size for further analysis was  $n = 646$ . To investigate the moderating role of perceived social support in mitigating symptoms of depression and anxiety in children and youths with traumatic symptoms, we performed a two-moderated simple regression analysis using the SPSS PROCESS Macro v. 3. Before creating the interaction terms, all the predictors were grand mean-centered. We computed 95% confidence intervals (C.I.s) using 5,000 bias-corrected bootstrap samples to examine significant results and p-values. To further analyze significant interaction effects, we performed a simple slope analysis at +1 S.D. of the moderators (Aiken & West, 1991). In the first analysis, the outcome variable was depression symptoms, and the predictor variable was trauma symptoms. In the second analysis, the outcome variable was anxiety symptoms, and the predictor variable was trauma symptoms. The moderator variable for each analysis was the perceived social support. Figure 1 presents the conceptual moderation models used in this study.

**Figure 1**

*Conceptual Model: Trauma, Depression, and Anxiety Moderated by Perceived Social Support*



## RESULTS

### Trauma and Depression: Moderating Role of Perceived Social Support

We explored the moderating effect of perceived social support on the association of trauma and depression symptoms (see Tables 2 and 3). Trauma symptoms are positively related to depression symptoms ( $b = .99, p < .001, 95\% \text{ CI } [.89, 1.09]$ ) and negatively related to perceived social support ( $b = -.09, p < .001, 95\% \text{ CI } [-.13, -.04]$ ). Perceived social support moderates the relationship between trauma and depression symptoms ( $b = -.03, p < .001, 95\% \text{ CI } [-.05, -.02]$ ). The results of the simple slope analysis reveal that when perceived social support is low, there is a significant and stronger relationship between trauma and depression symptoms,  $b = 1.21, p < .001, 95\% \text{ CI } [1.08, 1.33]$ . In contrast, when perceived social support is high, there is a significant relationship, but the effect is less between trauma and depression symptoms,  $b = .83, p < .001, 95\% \text{ CI } [.70, .96]$ . These results support our hypothesis, indicating that perceived social support buffers the effect of trauma symptoms on depression symptoms. Figure 3 plots the simple slopes for the interaction.



**Table 2***Descriptive Statistics and Correlations for Study Variables*

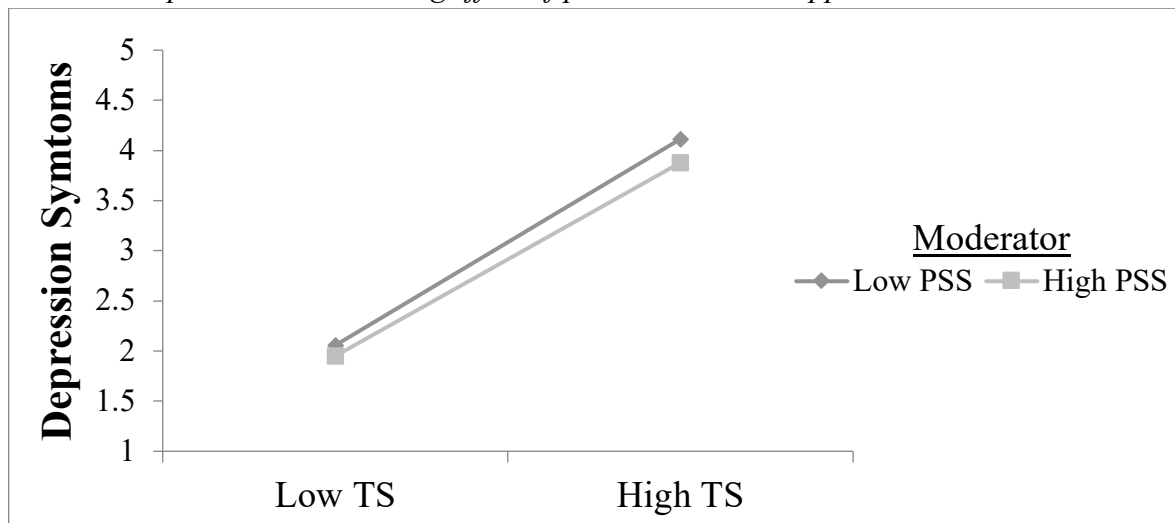
| Variable               | <i>M</i> | <i>SD</i> | 1       | 2      | 3      | 4 |
|------------------------|----------|-----------|---------|--------|--------|---|
| 1. Social Support      | 32.87    | 6.44      | —       |        |        |   |
| 2. Depression Symptoms | 3.66     | 4.82      | -.298** | —      |        |   |
| 3. Anxiety Symptoms    | 2.75     | 3.76      | -.296** | .815** | —      |   |
| 4. Trauma Symptoms     | 3.02     | 2.91      | -.267** | .651** | .658** | — |

Note. \*\* $p < .01$ .

**Table 3***Moderation Analysis: Trauma and Depression Moderated by Perceived Social Support*

|                          | <i>b</i> | <i>S.E.</i> | 95% bias-corrected CI |           | <i>t</i> | <i>p</i> |
|--------------------------|----------|-------------|-----------------------|-----------|----------|----------|
|                          |          |             | <i>LL</i>             | <i>UL</i> |          |          |
| Constant                 | 3.50     | .144        | 3.21                  | 3.78      | 24.3     | <.001    |
| Perceived Social Support | -.085**  | .023        | -.130                 | -.041     | -3.75    | <.001    |
| Trauma Symptoms          | .997**   | .050        | .898                  | 1.10      | 19.8     | <.001    |
| PSS x T.S.               | -.032**  | .007        | -.046                 | -.019     | -4.64    | <.001    |
| R square                 | .456**   |             |                       |           |          |          |
| R square interaction     | .018**   |             |                       |           |          |          |

Note. PSS = Perceived Social Support; TS = Trauma Symptoms; CI = Confidence Interval; *LL* = Lower Limit; *UL* = Upper Limit; \*\* $p < .01$ .

**Figure 2***Trauma and depression: Moderating effect of perceived social support*

Note. TS = Trauma Symptoms; PSS = Perceived Social Support.

### Trauma and Anxiety: Moderating Role of Perceived Social Support

We explored the moderating effect of perceived social support on the association between trauma and anxiety symptoms (see Table 4). Trauma symptoms are positively related to anxiety symptoms ( $b = .80, p < .001, 95\% \text{ CI } [.72, .98]$ ) and negatively related to perceived social support ( $b = -.05, p < .05, 95\% \text{ CI } [-.03, -.01]$ ). Perceived social support moderates the relationship between trauma and anxiety symptoms ( $b = -.02, p < .001, 95\% \text{ CI } [-.03, -.01]$ ). The results of the simple

slope analysis reveal that when perceived social support is low, there is a significant and stronger relationship between trauma and anxiety symptoms,  $b = .94, p < .001, 95\% \text{ CI } [.84, 1.03]$ . In comparison, when perceived social support is high, there is a significant relationship, but the effect is less between trauma and anxiety symptoms,  $b = .70, p < .001, 95\% \text{ CI } [.60, .80]$ . These results support our hypothesis, indicating that perceived social support buffers the effect of trauma symptoms on anxiety symptoms. Figure 4 plots the simple slopes for the interaction.

**Table 4**

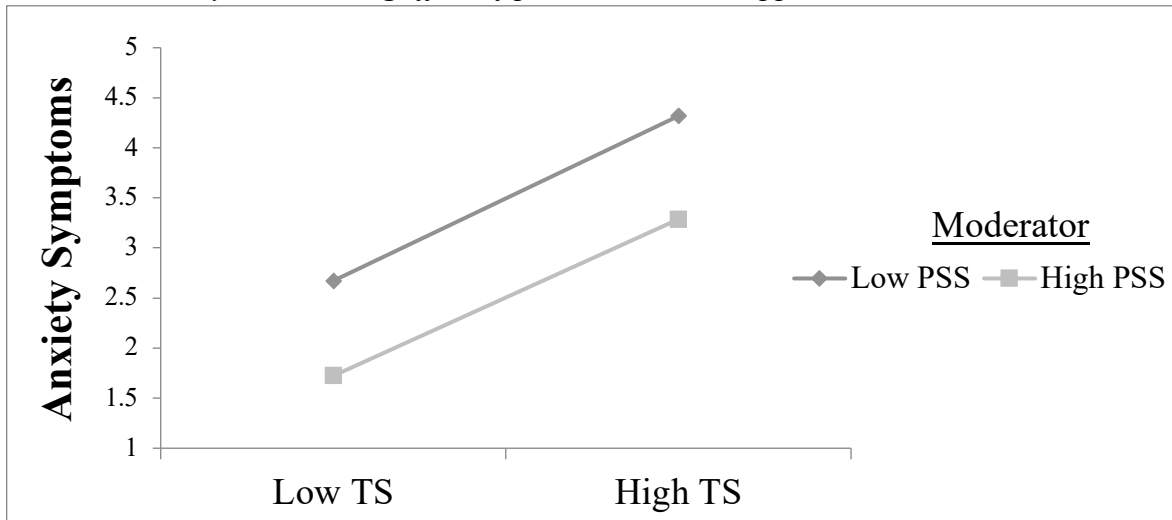
*Moderation Analysis: Trauma and Anxiety Moderated by Perceived Social Support*

|                          | b       | S.E. | 95% bias-corrected CI |       | t     | p     |
|--------------------------|---------|------|-----------------------|-------|-------|-------|
|                          |         |      | LL                    | UL    |       |       |
| Constant                 | 2.65    | .113 | 2.43                  | 2.87  | 23.4  | <.001 |
| Perceived Social Support | -.050** | .018 | -.085                 | -.015 | -2.78 | <.01  |
| Trauma Symptoms          | .803**  | .039 | .725                  | .880  | 20.4  | <.001 |
| PSS x T.S.               | -.021** | .006 | -.031                 | -.010 | -3.77 | <.001 |
| R square                 | .455**  |      |                       |       |       |       |
| R square interaction     | .012**  |      |                       |       |       |       |

Note. PSS = Perceived Social Support; TS = Trauma Symptoms; CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit; \*\* $p < .01$ .

**Figure 3**

*Trauma and anxiety: Moderating effect of perceived social support*



Note. TS = Trauma Symptoms; PSS = Perceived Social Support.

**DISCUSSION**

This exploratory study builds upon existing knowledge concerning the protective factors for children and youth trauma symptoms. To our knowledge, this is the first study in Puerto Rico to examine perceived social support as a moderator of mental health symptoms (depression and anxiety) among children and youths who exhibit trauma symptoms. In the current study, findings reveal significant moderation effects indicating that perceived social support buffers the impact of trauma symptoms on anxiety and depression symptoms. These results are consistent with the

literature and show that perceived social support reduces the effect of trauma in the presence of symptoms of depression and anxiety.

Individuals with adverse childhood experiences such as maltreatment have increased odds of mental health outcomes (depressive, anxiety, and trauma symptoms) (Alisic et al., 2018; Barzilay et al., 2018; Hughes et al., 2017; Hunt et al., 2017). In addition, children of different races and ethnicities do not experience ACEs equally. Thus, the scientific community has explored racial and ethnic disparities in ACEs and how these disparities impact health outcomes (Maguire-Jack et al., 2020). In that regard, the children and youth in Puerto Rico, as mentioned previously, are at higher risk for developing psychological disorders due to higher poverty levels (57.3%) (The Annie E. Casey Foundation, 2021) and frequent exposure to natural disasters (Orengo-Aguayo et al., 2019; Rosa-Rodríguez, 2019). In addition, recent studies have shown that low socioeconomic status is associated with limited access to mental health services and poorer general health (Hodgkinson et al., 2017; Reiss et al., 2019). However, according to the findings obtained in the current study, social support could be a protective factor, and these findings are consistent with other studies. Greater perception of social support from friends or family predicts lower trauma symptoms, especially for those who have experienced low to moderate-severity adversity (Evans et al., 2013) and are less likely to score above the cutoff point on symptoms of depression, anxiety, and psychological trauma (Lagdon et al., 2021). These results are particularly important since social support remains a protective factor even with contextual challenges such as poverty and community violence to which our children and youth are exposed (Pérez-Pedrogo et al., 2016). In that sense, interventions that explore and include this protection factor as part of the services will be essential.

Given these findings and the implications for the emotional well-being of this population, there is a need for more research that targets the impacts of perceived social support on people's experiences and emotional symptomatology. Future research should examine the relationship between perceived social support and other mental health conditions, such as social anxiety, panic disorder, and conduct disorders. Further inquiry is needed about additional protective factors that could impact the presence of trauma symptoms and overall psychological well-being.

Several limitations in our study require caution in the interpretation of the findings. First, the sample used for this study was not representative of the general population of children and youths living in Puerto Rico. This study did not include information about students from schools in Puerto Rico's urban areas. Second, inferences about causality cannot be made due to the cross-sectional nature of this study. Third, the primary study assessment was not designed to examine the moderating role of perceived social support in mitigating symptoms of depression and anxiety in children and youths with traumatic symptoms. It is unclear whether traumatic symptoms occurred before or after the development of emotional symptomatology. Fourth, we did not assess social desirability, so we cannot confirm if certain symptoms were unreported or underreported.

Despite these limitations, we are confident these results can inform future efforts to include and evaluate perceived social support in early intervention programs aimed at children and youths with trauma who also exhibit a clinical picture of depression and anxiety. Adopting innovative

treatment and screening processes should increase professionals' capacity to work with adversity (Claypool & Moore, 2021) and could mitigate its negative effects on children and youths (Jakobsen et al., 2021). Mental and physical health providers should be trained in trauma-informed interventions to use this protective factor as part of a patient-centered approach. In addition, personnel in schools and community settings should also be trained in trauma-informed practices to help identify and refer students to mental health providers.

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