KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 14 June 2024
Revised 03 September 2024
Accepted 13 September 2024
Published online 10 October 2024

Journal of Adolescent and Youth Psychological Studies

Volume 5, Issue 10, pp 139-148

E-ISSN: 2981-2526

# Cognitive Avoidance as a Mediator Between Trauma Exposure and Emotional Numbing

Dimitra. Kalogeropoulos[1], Eleni. Papadopoulos[2*]

[1] Department of Clinical Psychology, University of Crete, Rethymno, Greece
[2] Department of Health Psychology, National and Kapodistrian University of Athens, Athens, Greece

*** Corresponding author email address**: epapadopoulos@psych.uoa.gr

A r t i c l e  I n f o

**Article type:**
*Original Research*

**How to cite this article:**
Kalogeropoulos, D., & Papadopoulos, E. (2024). Cognitive Avoidance as a Mediator Between Trauma Exposure and Emotional Numbing. *Journal of Adolescent and Youth Psychological Studies*, *5*(10), 139-148.
http://dx.doi.org/10.61838/kman.jayps.5.10.17



A B S T R A C T

**Objective:** This study aimed to examine the mediating role of cognitive avoidance in the relationship between trauma exposure and emotional numbing among young adults.

**Methods and Materials:** The research followed a descriptive correlational design using a sample of 445 participants from Greece, selected based on Morgan and Krejcie's sample size table. Data were collected using three standardized instruments: the Life Events Checklist for DSM-5 (LEC-5) for trauma exposure, the Cognitive Avoidance Questionnaire (CAQ) for cognitive avoidance, and the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) for emotional numbing. Descriptive statistics and Pearson correlation coefficients were computed using SPSS-27. Structural Equation Modeling (SEM) was conducted through AMOS-21 to evaluate the mediating effect of cognitive avoidance and the overall fit of the hypothesized model.

**Findings:** Participants reported moderate levels of trauma exposure (M = 7.83, SD = 2.61), high cognitive avoidance (M = 78.42, SD = 11.97), and moderate emotional numbing (M = 6.14, SD = 1.72). Pearson correlations indicated significant positive associations between trauma exposure and cognitive avoidance ($r = .52$, $p < .001$), trauma exposure and emotional numbing ($r = .46$, $p < .001$), and cognitive avoidance and emotional numbing ($r = .58$, $p < .001$). The SEM analysis confirmed that cognitive avoidance partially mediated the relationship between trauma exposure and emotional numbing. The model demonstrated good fit indices ($\chi^2/df = 2.07$, CFI = 0.96, RMSEA = 0.049). Direct, indirect, and total effects were all statistically significant ($p < .01$), supporting the hypothesized mediation.

**Conclusion:** These findings highlight the importance of addressing cognitive avoidance in therapeutic interventions aimed at reducing emotional disengagement in trauma-exposed individuals, particularly in emerging adult populations.

***Keywords:*** *trauma exposure, cognitive avoidance, emotional numbing*

## 1. Introduction

Trauma exposure has consistently been linked to the development of a wide range of psychological disturbances, with post-traumatic stress disorder (PTSD) being among the most extensively studied. Emotional numbing, characterized by a diminished capacity to experience or express emotions, is a central symptom of PTSD and can severely disrupt interpersonal relationships and psychological functioning (Li et al., 2023). Despite extensive research into the consequences of trauma, less is known about the underlying psychological mechanisms that mediate the link between trauma exposure and emotional numbing. One such potential mechanism is cognitive avoidance, which involves consciously or unconsciously evading trauma-related thoughts and feelings as a coping strategy (Procaccia & Castiglioni, 2022).

Emotional numbing has emerged as a key construct in understanding the broader impacts of trauma on psychological well-being. It is distinct from, though often co-occurring with, other PTSD symptom clusters such as hyperarousal and re-experiencing (Brody, 2019; Carper et al., 2015). Characterized by feelings of detachment, blunted affect, and a reduced capacity to feel positive emotions, emotional numbing is thought to represent a maladaptive regulatory response to overwhelming distress (Li et al., 2023). Research suggests that emotional numbing may independently predict functional impairment and psychiatric comorbidities, such as depression and substance use disorders (Bhalla et al., 2022; Goldstein et al., 2016). Particularly concerning is its prevalence in populations with cumulative trauma histories, including those exposed to chronic stress, war, interpersonal violence, and systemic discrimination (Hecker et al., 2017; Post et al., 2014). This form of emotional disengagement not only interferes with trauma recovery but also impairs social and occupational functioning.

Several theoretical models have attempted to explain how trauma exposure translates into emotional numbing. Traditional trauma theories emphasize the physiological dysregulation of the autonomic nervous system and the chronic activation of the fear response system (Vanderheyden et al., 2014). More recent cognitive-behavioral models highlight the importance of maladaptive cognitive processes, including avoidance, suppression, and dissociation, in the development of PTSD symptoms (Duffy & Wild, 2017; Thompson-Hollands et al., 2017). Among these processes, cognitive avoidance has gained increasing attention. Cognitive avoidance includes behaviors such as distraction, denial, and thought suppression, all aimed at keeping trauma-related information out of conscious awareness (Galano et al., 2014). While such strategies may offer temporary relief, they have been shown to maintain and even exacerbate trauma-related symptoms over time (Hardy et al., 2020; Whitaker & Gilpin, 2016).

The role of cognitive avoidance in trauma adaptation is particularly complex. On one hand, it may initially serve as a protective buffer that helps individuals maintain a semblance of functioning in the immediate aftermath of trauma. On the other hand, chronic reliance on avoidance hinders emotional processing and prevents the integration of traumatic memories into autobiographical memory networks (Eichhorn et al., 2014; Eth & Pynoos, 2017). This failure to emotionally and cognitively process the trauma can give rise to enduring symptoms of detachment and affective restriction—core features of emotional numbing (Kerig et al., 2012). In a study of trauma-exposed adolescents, cognitive avoidance was found to predict long-term emotional dysregulation, including emotional numbing and social withdrawal (Kerig et al., 2012). These findings are supported by cross-cultural research indicating that avoidance is a consistent predictor of PTSD severity, regardless of the type of trauma or cultural context (Ali et al., 2022; Xue et al., 2022).

One domain where the interplay between trauma exposure, cognitive avoidance, and emotional numbing is particularly salient is in the aftermath of large-scale collective traumatic events. The COVID-19 pandemic, for instance, led to widespread psychological distress, with emotional numbing being frequently reported among those experiencing loss, isolation, or health-related fears (Ali et al., 2022; Li et al., 2023). Such findings reinforce the need to examine how individuals cognitively cope with overwhelming and persistent stressors and how these coping strategies affect their emotional functioning. Cognitive avoidance in these settings may provide short-term relief from distressing memories but often leads to greater psychological disengagement over time (Belevegka & Smyth, 2024).

In addition to theoretical and clinical significance, understanding the role of cognitive avoidance in trauma outcomes has practical implications for treatment. Several evidence-based interventions for PTSD, such as cognitive processing therapy and prolonged exposure therapy, specifically aim to reduce avoidance and promote emotional processing of traumatic memories (Carper et al., 2015;

Goldstein et al., 2016). These treatments operate on the assumption that avoidance impairs the natural recovery process by preventing habituation to trauma-related cues and impeding the reevaluation of maladaptive beliefs. Studies have shown that reductions in cognitive avoidance during therapy are associated with improved emotional expression and reduced emotional numbing (Duffy & Wild, 2017; Procaccia & Castiglioni, 2022). Thus, targeting cognitive avoidance may be a critical mechanism in restoring emotional responsiveness and enhancing treatment outcomes.

Moreover, developmental factors may moderate the relationship between trauma exposure, cognitive avoidance, and emotional numbing. Childhood trauma, for example, has been linked to greater reliance on avoidant coping styles and a heightened risk for dissociative symptoms in adulthood (Eth & Pynoos, 2017; Hecker et al., 2017). Early trauma may sensitize individuals to perceive future stressors as overwhelming, reinforcing the use of avoidance as a default coping strategy (Post et al., 2014). In addition, neurobiological studies have demonstrated that trauma alters the functioning of brain regions involved in emotion regulation and threat detection, further complicating the individual's ability to remain emotionally engaged when confronted with trauma-related stimuli (Vanderheyden et al., 2014; Whitaker & Gilpin, 2016). These findings emphasize the importance of addressing trauma histories and their cognitive consequences in clinical assessment and intervention.

Emerging research also highlights the intersection of emotional numbing and other comorbid conditions, such as depression, substance use, and suicidal ideation (Goldstein et al., 2016; Kim & Sung-pil, 2018). Emotional numbing may act as a transdiagnostic risk factor, reducing an individual's capacity to engage in adaptive emotion regulation and social connection. Notably, individuals who experience emotional numbing often report feelings of meaninglessness and alienation, which can further exacerbate psychological distress (Kerig et al., 2012; Solberg et al., 2016). In this context, cognitive avoidance functions not only as a maladaptive coping mechanism but also as a reinforcing factor in the downward spiral of affective disengagement.

However, relatively few studies have focused on emotional numbing as a distinct outcome variable, despite its strong association with functional impairment and treatment resistance. This study investigates the mediating role of cognitive avoidance in the relationship between trauma exposure and emotional numbing.

## 2. Methods and Materials

### *2.1. Study Design and Participants*

This study employed a descriptive correlational design to investigate the mediating role of cognitive avoidance in the relationship between trauma exposure and emotional numbing. The statistical population consisted of adolescents and young adults residing in Greece. Based on Morgan and Krejcie's sample size determination table, a total of 445 participants were selected through stratified random sampling to ensure demographic representation across gender and age groups. Inclusion criteria required participants to be between 18 and 30 years of age, have sufficient proficiency in Greek to comprehend the questionnaire items, and provide informed consent. Exclusion criteria included current psychiatric hospitalization or cognitive impairment that would hinder reliable questionnaire completion. All participants completed a set of standardized self-report instruments, including the Life Events Checklist for DSM-5 (LEC-5), the Cognitive Avoidance Questionnaire (CAQ), and the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5).

### *2.2. Measures*

#### *2.2.1. Emotional Numbing*

Emotional numbing was assessed using the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5), developed by Weathers et al. in 2013. The CAPS-5 is a structured diagnostic interview widely regarded as the gold standard for assessing PTSD symptoms, including the emotional numbing cluster. It contains 30 items, of which several directly correspond to Criterion D of PTSD in DSM-5, particularly D6 ("Feelings of detachment or estrangement from others") and D7 ("Persistent inability to experience positive emotions"), both reflecting emotional numbing. Items are rated on a 5-point Likert scale ranging from 0 (absent) to 4 (extreme/incapacitating), based on frequency and intensity over the past month. Higher scores indicate greater symptom severity. The CAPS-5 has demonstrated excellent internal consistency, inter-rater reliability, and convergent validity in multiple clinical studies, confirming its appropriateness for measuring emotional numbing in trauma-exposed populations (Kerig et al., 2012; Li et al., 2023; Sippel et al., 2018).



JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

#### 2.2.2. *Cognitive Avoidance*

Cognitive avoidance was measured using the Cognitive Avoidance Questionnaire (CAQ), developed by Sexton and Dugas in 2008. The CAQ is a 25-item self-report scale designed to assess the extent to which individuals engage in cognitive avoidance strategies in response to distressing thoughts and experiences. It includes five subscales: Thought Substitution, Transformation of Images into Thoughts, Distraction, Avoidance of Threatening Stimuli, and Thought Suppression. Each item is rated on a 5-point Likert scale ranging from 1 (not at all true) to 5 (very true), with higher scores indicating a greater tendency toward cognitive avoidance. The CAQ has demonstrated strong psychometric properties, including high internal consistency (Cronbach's alpha values for subscales typically above 0.80) and good construct validity across both clinical and non-clinical populations, making it a reliable tool for assessing cognitive avoidance in trauma-related research (Mohammd, 2022; Scotta et al., 2022; Shahini et al., 2023).

#### 2.2.3. *Trauma Exposure*

Trauma exposure was assessed using the Life Events Checklist for DSM-5 (LEC-5), developed by Weathers et al. in 2013. The LEC-5 is a standardized 17-item self-report instrument that screens for exposure to potentially traumatic events across the lifespan. Respondents indicate the extent of their exposure for each event (e.g., "happened to me," "witnessed it," "learned about it") using categorical response options. The checklist covers a wide range of traumatic experiences, including natural disasters, physical assault, sexual violence, and life-threatening illness or injury. Though primarily a screening tool, the LEC-5 is frequently used in conjunction with clinical interviews to determine trauma history. Its validity and reliability have been well-established in various populations, and it is recommended by the National Center for PTSD for both research and clinical purposes (Dixon De Silva et al., 2020; Mason et al., 2014; McLaughlin et al., 2020).

### 2.3. *Data Analysis*

For data analysis, both correlational and structural modeling techniques were employed. Initially, Pearson correlation coefficients were calculated using SPSS version 27 to examine the bivariate relationships between trauma exposure, cognitive avoidance, and emotional numbing. Subsequently, to test the hypothesized mediation model, Structural Equation Modeling (SEM) was conducted using AMOS version 21. The SEM approach allowed for the assessment of both direct and indirect effects among the study variables, while also evaluating the overall model fit using standard indices such as the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and the Chi-square/degrees of freedom ratio ($\chi^2$/df). Statistical significance was determined at the $p < .05$ level.

## 3. Findings and Results

The final sample consisted of 445 participants from Greece, including 259 females (58.2%) and 186 males (41.8%). The participants' ages ranged from 18 to 30 years, with a mean age of 23.47 years (SD = 3.26). In terms of educational background, 192 participants (43.1%) were undergraduate students, 134 (30.1%) held a bachelor's degree, 76 (17.1%) had completed a master's degree, and 43 (9.7%) reported having a high school diploma. Regarding marital status, 312 participants (70.1%) were single, 119 (26.7%) were married or in a relationship, and 14 (3.1%) were divorced or separated.

**Table 1**

*Descriptive Statistics for Research Variables (N = 445)*

| Variable | Mean (M) | Standard Deviation (SD) |
|---|---|---|
| Trauma Exposure | 7.83 | 2.61 |
| Cognitive Avoidance | 78.42 | 11.97 |
| Emotional Numbing | 6.14 | 1.72 |

The descriptive statistics in Table 1 revealed that participants reported a moderate level of trauma exposure (M = 7.83, SD = 2.61) and high levels of cognitive avoidance (M = 78.42, SD = 11.97). Emotional numbing scores also indicated moderate levels on average (M = 6.14, SD = 1.72), suggesting substantial variability among participants in emotional responsiveness post-trauma.

Prior to conducting the main analyses, the assumptions of normality, linearity, multicollinearity, and homoscedasticity were examined and met. The Shapiro-Wilk test indicated



JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

that the data for all key variables were approximately normally distributed ($p > .05$ for all variables). Skewness and kurtosis values ranged between -0.63 and 0.87, which fall within the acceptable range of ±1. Multicollinearity diagnostics showed that all variance inflation factor (VIF) values were below 2.3 and tolerance values were above 0.43, indicating no issues with multicollinearity. Scatterplots confirmed linear relationships among the variables, and the Breusch-Pagan test for homoscedasticity was not significant ($\chi^2 = 4.12$, $p = .13$), supporting the assumption of equal error variances. These findings confirmed that the data were suitable for both Pearson correlation and SEM analyses.

**Table 2**

*Pearson Correlations Between Study Variables (N = 445)*

| Variables | 1 | 2 | 3 |
|---|---|---|---|
| 1. Trauma Exposure | — | | |
| 2. Cognitive Avoidance | .52** ($p < .001$) | — | |
| 3. Emotional Numbing | .46** ($p < .001$) | .58** ($p < .001$) | — |

The results of the Pearson correlation analysis in Table 2 indicated significant positive relationships among all variables. Trauma exposure was significantly correlated with cognitive avoidance ($r = .52$, $p < .001$) and emotional numbing ($r = .46$, $p < .001$). Additionally, cognitive avoidance was strongly associated with emotional numbing ($r = .58$, $p < .001$), supporting the proposed mediating role.

**Table 3**

*Goodness-of-Fit Indices for the Structural Model*

| Fit Index | Value | Acceptable Threshold |
|---|---|---|
| $\chi^2$ (Chi-Square) | 128.64 | — |
| df (Degrees of Freedom) | 62 | — |
| $\chi^2$/df | 2.07 | < 3 |
| GFI (Goodness-of-Fit) | 0.94 | > 0.90 |
| AGFI (Adjusted GFI) | 0.91 | > 0.90 |
| CFI (Comparative Fit) | 0.96 | > 0.95 |
| RMSEA | 0.049 | < 0.06 |
| TLI (Tucker-Lewis) | 0.95 | > 0.95 |

The structural model in Table 3 demonstrated good overall fit. The Chi-square statistic was 128.64 with 62 degrees of freedom, resulting in a $\chi^2$/df ratio of 2.07, which falls within the acceptable range. Other fit indices also indicated a well-fitting model: GFI = 0.94, AGFI = 0.91, CFI = 0.96, RMSEA = 0.049, and TLI = 0.95. These values confirm that the hypothesized model adequately represents the observed data.

**Table 4**

*Total, Direct, and Indirect Path Coefficients in the Structural Model*

| Path | B | S.E. | β | p |
|---|---|---|---|---|
| Trauma Exposure → Cognitive Avoidance | 3.12 | 0.41 | .52 | < .001 |
| Cognitive Avoidance → Emotional Numbing | 0.08 | 0.01 | .47 | < .001 |
| Trauma Exposure → Emotional Numbing | 0.14 | 0.05 | .17 | .006 |
| Trauma Exposure → Emotional Numbing (indirect via CA) | 0.25 | 0.04 | .24 | < .001 |
| Trauma Exposure → Emotional Numbing (total effect) | 0.39 | 0.05 | .41 | < .001 |

As shown in Table 4, trauma exposure significantly predicted cognitive avoidance ($B = 3.12$, $\beta = .52$, $p < .001$), and cognitive avoidance significantly predicted emotional numbing ($B = 0.08$, $\beta = .47$, $p < .001$). Trauma exposure also had a significant direct effect on emotional numbing ($B = 0.14$, $\beta = .17$, $p = .006$), as well as a significant indirect effect through cognitive avoidance ($B = 0.25$, $\beta = .24$, $p < .001$). The total effect of trauma exposure on emotional numbing

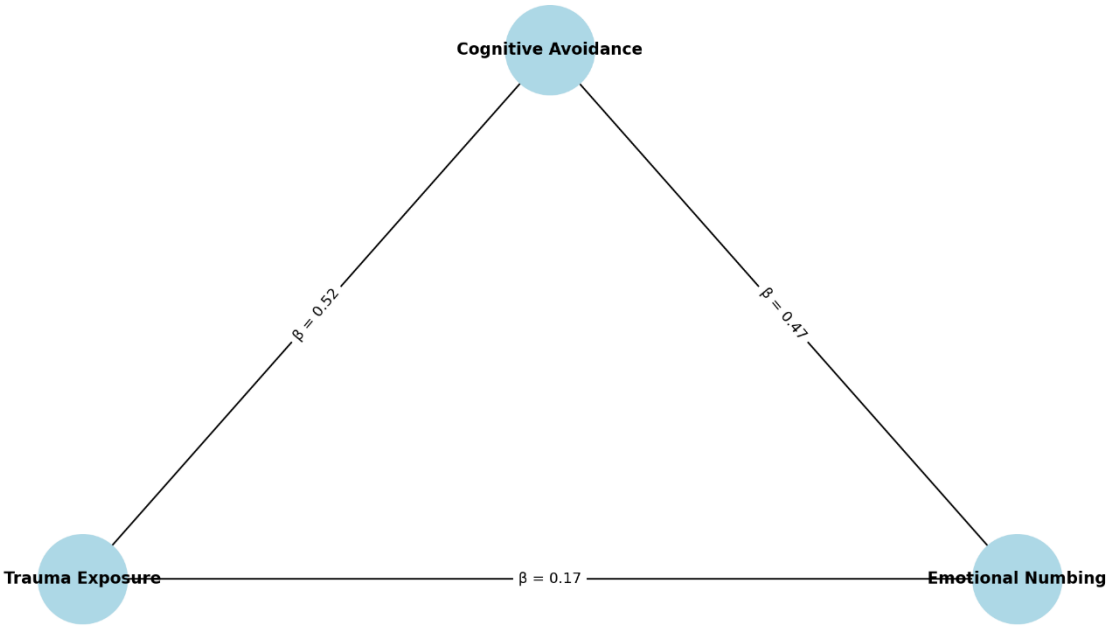


JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

was significant (B = 0.39, β = .41, p < .001), confirming the partial mediation model.

**Figure 1**

*Standardized Total, Direct, and Indirect Effects in the Structural Model*




## 4. Discussion and Conclusion

The purpose of this study was to investigate the mediating role of cognitive avoidance in the relationship between trauma exposure and emotional numbing among Greek young adults. Using both Pearson correlation and structural equation modeling (SEM), the findings revealed that trauma exposure was significantly associated with emotional numbing and that cognitive avoidance served as a partial mediator in this relationship. Specifically, individuals with higher trauma exposure reported greater use of cognitive avoidance strategies, which in turn predicted increased levels of emotional numbing. These results underscore the importance of considering cognitive avoidance not merely as a symptom of post-traumatic stress, but as an active cognitive process contributing to emotional disengagement following trauma.

The correlation analysis demonstrated that trauma exposure was positively associated with both cognitive avoidance and emotional numbing. This finding aligns with prior research that has identified trauma exposure as a significant risk factor for both cognitive dysregulation and affective flattening (Carper et al., 2015; Post et al., 2014). The direct relationship between trauma exposure and emotional numbing supports the notion that traumatic experiences can disrupt an individual's capacity for emotional responsiveness, particularly when the trauma involves interpersonal betrayal or chronic exposure to violence (Galano et al., 2014; Kerig et al., 2012). However, the mediation analysis revealed that cognitive avoidance partially explained this association, indicating that the path from trauma to emotional numbing may be shaped in part by how individuals cognitively respond to their traumatic experiences.

The mediating role of cognitive avoidance is consistent with cognitive-behavioral models of PTSD, which propose that avoidant strategies such as suppression, distraction, and denial interfere with the emotional processing of traumatic memories (Duffy & Wild, 2017; Thompson-Hollands et al., 2017). These strategies prevent integration of traumatic experiences into coherent memory networks, maintaining the distress and facilitating the emergence of emotional numbing as a coping response. Our results support this theoretical framework and are in line with the findings of Procaccia and Castiglioni (2022), who reported that cognitive processing styles significantly mediated the relationship between trauma and PTSD symptomatology,


JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

including affective symptoms such as emotional blunting (Procaccia & Castiglioni, 2022).

In this study, cognitive avoidance was shown to be a statistically significant predictor of emotional numbing. This aligns with earlier work demonstrating that individuals who rely on cognitive avoidance tend to exhibit reduced emotional awareness and decreased responsiveness to both positive and negative emotional stimuli (Eichhorn et al., 2014; Goldstein et al., 2016). Cognitive avoidance may impair emotional engagement not only by inhibiting the recall of traumatic memories, but also by dampening the activation of affective systems more broadly. In this regard, the work of Goldstein et al. (2016) is particularly relevant, as their findings indicated that emotion dysregulation and emotional detachment were common among trauma-exposed females with high levels of cognitive avoidance (Goldstein et al., 2016). Similarly, studies of emotional numbing among populations with chronic exposure to trauma, such as military veterans and refugees, have also implicated avoidant cognitive strategies as a core contributor to affective suppression (Hecker et al., 2017; Solberg et al., 2016).

The present findings further contribute to a growing body of research emphasizing the transdiagnostic role of emotional numbing across trauma-related disorders. For instance, emotional numbing has been observed in individuals with substance use disorders, depression, and suicidal ideation, suggesting that it may function as a general marker of emotion dysregulation rather than a symptom specific to PTSD (Bhalla et al., 2022; Kim & Sung-pil, 2018). In this context, the mediating role of cognitive avoidance takes on added significance, as it may help explain why emotional numbing emerges in various clinical presentations following trauma. As noted by Bakhshaie et al. (2015), the interaction between anxiety sensitivity and emotional non-acceptance significantly predicted PTSD symptoms among trauma-exposed individuals who used avoidance-based coping (Bakhshaie et al., 2015). This is echoed in findings by Xue et al. (2022), who observed that maladaptive emotion regulation strategies mediated the relationship between stress and PTSD symptoms in healthcare professionals during the COVID-19 pandemic (Xue et al., 2022).

An important contribution of this study lies in its focus on emotional numbing as a distinct outcome rather than subsuming it under general PTSD severity. Emotional numbing is often overlooked in trauma research due to its subtle presentation and overlap with depressive symptoms. However, mounting evidence suggests that it contributes uniquely to functional impairment and poor treatment outcomes (Li et al., 2023; Whitaker & Gilpin, 2016). By identifying cognitive avoidance as a mechanism underlying this symptom cluster, the present study advances the understanding of emotional numbing as not only a passive reaction to trauma but also a dynamic, cognitively mediated process. These findings are consistent with the model proposed by Kerig et al. (2012), which conceptualized emotional numbing as a cognitive-affective adaptation to overwhelming stress that fosters emotional detachment and social disengagement in youth (Kerig et al., 2012).

The use of structural equation modeling provided a robust statistical approach for testing the proposed mediation model. This technique allowed for the examination of latent constructs and simultaneous evaluation of direct and indirect pathways. Consistent with previous SEM studies on trauma processing, our model demonstrated good fit indices and statistically significant path coefficients (Procaccia & Castiglioni, 2022; Xue et al., 2022). Furthermore, the results obtained in this Greek sample align with findings from other cultural contexts, supporting the cross-cultural generalizability of the mediation model. In particular, the findings echo those of Belevegka and Smyth (2024), who reported that individuals with maladaptive stress mindsets were more likely to engage in avoidant coping, which in turn predicted affective dysregulation in Greek participants (Belevegka & Smyth, 2024).

It is also notable that the participants in this study were emerging adults, a group particularly vulnerable to emotional dysregulation following trauma. Developmental research suggests that individuals in this age range are still consolidating their emotion regulation capacities and may be especially prone to relying on avoidance strategies in response to trauma (Eth & Pynoos, 2017; Reddy et al., 2013). As such, this study adds to the literature on trauma and cognitive processing in young adults and highlights the importance of early identification and intervention to prevent long-term psychological consequences. Future work may benefit from investigating whether the mediating effect of cognitive avoidance differs across developmental stages or trauma types.

## 5. Limitations and Suggestions

While the findings of this study contribute important insights, several limitations should be acknowledged. First, the cross-sectional design precludes causal inferences about



JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

the directionality of relationships among trauma exposure, cognitive avoidance, and emotional numbing. Longitudinal studies are needed to confirm the temporal ordering of these variables. Second, the reliance on self-report measures may introduce biases such as social desirability or inaccurate memory recall, particularly regarding traumatic experiences. Third, although the sample was demographically diverse within the Greek context, it may not be representative of other populations, limiting generalizability. Fourth, while emotional numbing was assessed as part of a validated PTSD instrument, future research could benefit from using dedicated scales to capture the full dimensionality of emotional numbing. Lastly, unmeasured variables such as social support, attachment style, or neurobiological correlates may also influence the observed relationships and should be explored in future models.

Future studies should consider adopting longitudinal or experimental designs to further explore the causal mechanisms linking trauma exposure, cognitive avoidance, and emotional numbing. Investigations across different age groups, trauma types (e.g., acute vs. chronic), and cultural settings would enhance the generalizability of findings. It would also be valuable to explore the role of moderators, such as gender, resilience, or trauma disclosure, which may influence the strength of the mediation pathway. Additionally, neuroimaging or physiological methods could be employed to examine the biological correlates of cognitive avoidance and emotional numbing. Comparing therapeutic interventions that target avoidance with those that focus on emotional expression could offer clinical insights into the most effective strategies for reducing emotional numbing in trauma-exposed individuals.

The findings of this study have important implications for clinical practice. Interventions for trauma-exposed individuals should include components that explicitly target cognitive avoidance, such as cognitive restructuring, mindfulness training, or exposure-based techniques. Clinicians should be aware that emotional numbing is not merely a symptom of PTSD but may represent a coping strategy rooted in cognitive avoidance. Therapeutic approaches that encourage emotional engagement and promote the safe processing of trauma memories may help reduce numbing symptoms. Routine assessment of cognitive avoidance and emotional numbing during intake could assist in treatment planning and outcome monitoring. Finally, psychoeducation about the effects of avoidance on emotional functioning may empower clients to adopt more adaptive coping strategies over time.

## Authors' Contributions

Authors contributed equally to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

## Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

## Declaration of Interest

The authors report no conflict of interest.

## Funding

According to the authors, this article has no financial support.

## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

## References

Ali, A. M., Al-Amer, R., Kunugi, H., Stănculescu, E., Taha, S. M., Saleh, M., Alkhamees, A. A., & Hendawy, A. O. (2022). The Arabic Version of the Impact of Event Scale-Revised: Psychometric Evaluation Among Psychiatric Patients and the General Public Within the Context of COVID-19 Outbreak and Quarantine as Collective Traumatic Events. *Journal of Personalized Medicine*, *12*(5), 681. https://doi.org/10.3390/jpm12050681

Bakhshaie, J., Zvolensky, M. J., Allan, N. P., Vujanovic, A. A., & Schmidt, N. B. (2015). Differential Effects of Anxiety Sensitivity Components in the Relation Between Emotional Non-Acceptance and Post-Traumatic Stress Symptoms Among Trauma-Exposed Treatment-Seeking Smokers. *Cognitive behaviour therapy*, *44*(3), 175-189. https://doi.org/10.1080/16506073.2015.1004191

Belevegka, A., & Smyth, N. (2024). An Investigation Into the Relationship Between Stress Mindset and Stress Responses: The Role of Coping Mechanisms. *Psychology the Journal of the Hellenic Psychological Society*, *29*(2), 349-366. https://doi.org/10.12681/psy_hps.39610



JAYPS Adolescent and Youth Psychological Studies E-ISSN: 2981-2526

Bhalla, A., Bamer, A. M., Temes, C. M., Roaten, K., Carrougher, G. J., Schneider, J. C., Stoddard, F. J., Stewart, B. T., Gibran, N. S., & Wiechman, S. A. (2022). Posttraumatic Stress Disorder Symptom Clusters as Predictors of Pain Interference in Burn Survivors: A Burn Model System National Database Study. *Journal of Burn Care & Research*, *44*(1), 27-34. https://doi.org/10.1093/jbcr/irac088

Brody, D. L. (2019). Post-Traumatic Stress Disorder. 86-93. https://doi.org/10.1093/med/9780190054793.003.0012

Carper, T. L. M., Mills, M. A., Steenkamp, M. M., Nickerson, A., Salters-Pedneault, K., & Litz, B. T. (2015). Early PTSD Symptom Sub-Clusters Predicting Chronic Posttraumatic Stress Following Sexual Assault. *Psychological Trauma Theory Research Practice and Policy*, *7*(5), 442-447. https://doi.org/10.1037/tra0000060

Dixon De Silva, L. E., Ponting, C., Rapp, A. M., Escovar, E., & Chavira, D. A. (2020). Trauma Exposure and Mental Health Symptoms in Rural Latinx Adolescents: The Role of Family Processes. *Child Psychiatry & Human Development*, *51*(6), 934-942. https://doi.org/10.1007/s10578-020-00971-0

Duffy, M., & Wild, J. (2017). A Cognitive Approach to Persistent Complex Bereavement Disorder (PCBD). *The Cognitive Behaviour Therapist*, *10*. https://doi.org/10.1017/s1754470x17000034

Eichhorn, S., Brähler, E., Franz, M., Friedrich, M., & Glaesmer, H. (2014). Traumatic Experiences, Alexithymia, and Posttraumatic Symptomatology: A Cross-Sectional Population-Based Study in Germany. *European Journal of Psychotraumatology*, *5*(1). https://doi.org/10.3402/ejpt.v5.23870

Eth, S., & Pynoos, R. S. (2017). Posttraumatic Stress Disorder in Children. https://doi.org/10.4135/9781483369532.n385

Galano, M. M., Miller, L. E., & Graham-Bermann, S. A. (2014). Avoidance Symptom Presentation of Preschoolers Exposed to Intimate Partner Violence in a Group Therapy Setting. *Child Care in Practice*, *20*(4), 399-414. https://doi.org/10.1080/13575279.2014.905455

Goldstein, B., Bradley, B., Ressler, K. J., & Powers, A. (2016). Associations Between Posttraumatic Stress Disorder, Emotion Dysregulation, and Alcohol Dependence Symptoms Among Inner City Females. *Journal of Clinical Psychology*, *73*(3), 319-330. https://doi.org/10.1002/jclp.22332

Hardy, A., O'Driscoll, C., Steel, C., Gaag, M. v. d., & Berg, D. V. D. (2020). A Network Analysis of Post-Traumatic Stress and Psychosis Symptoms. *Psychological medicine*, *51*(14), 2485-2492. https://doi.org/10.1017/s0033291720001300

Hecker, T., Ainamani, H. E., Hermenau, K., Haefele, E., & Elbert, T. (2017). Exploring the Potential Distinction Between Continuous Traumatic Stress and Posttraumatic Stress in an East African Refugee Sample. *Clinical Psychological Science*, *5*(6), 964-973. https://doi.org/10.1177/2167702617717023

Kerig, P. K., Bennett, D. C., Thompson, M., & Becker, S. P. (2012). "Nothing Really Matters": Emotional Numbing as a Link Between Trauma Exposure and Callousness in Delinquent Youth. *Journal of Traumatic Stress*, *25*(3), 272-279. https://doi.org/10.1002/jts.21700

Kim, S.-J., & Sung-pil, Y. (2018). The Influence of Posttraumatic Stress on Suicidal Ideation in Firefighters : Cognitive Emotion Regulation as a Moderator. *Fire Science and Engineering*, *32*(2), 92-101. https://doi.org/10.7731/kifse.2018.32.2.092

Li, G., Hampel, A., Li, C., & Hall, B. J. (2023). Emotional Numbing: A Key Construct in the Assessment of Mental Health During COVID-19 Pandemic. *Journal of Pacific Rim Psychology*, *17*. https://doi.org/10.1177/18344909231217649

Mason, S. M., Flint, A. J., Roberts, A. L., Agnew-Blais, J., Koenen, K. C., & Rich-Edwards, J. W. (2014). Posttraumatic stress disorder symptoms and food addiction in women by timing and type of trauma exposure. *JAMA Psychiatry*, *71*(11), 1271-1278. https://jamanetwork.com/journals/jamapsychiatry/article-abstract/1904804

McLaughlin, K. A., Colich, N. L., Rodman, A. M., & Weissman, D. G. (2020). Mechanisms Linking Childhood Trauma Exposure and Psychopathology: A Transdiagnostic Model of Risk and Resilience. *BMC Medicine*. https://doi.org/10.1186/s12916-020-01561-6

Mohammd, S., Asgari, Parviz, Makvandi, Behnam, Naderi, Farah. (2022). The Effect of Schema Therapy on Cognitive Avoidance, Anxiety, and Empathy in Couples Referring to Ahvaz Counseling Centers. *Family and Health*, *11*(4), 58-69. https://journal.astara.ir/article_252836.html?lang=en

Post, M., Hanten, G., Li, X., Schmidt, A., Avci, G., Wilde, E. A., & McCauley, S. R. (2014). Dimensions of Trauma and Specific Symptoms of Complex Posttraumatic Stress Disorder in Inner-City Youth: A Preliminary Study. *Violence and Victims*, *29*(2), 262-279. https://doi.org/10.1891/0886-6708.vv-d-12-00097r1

Procaccia, R., & Castiglioni, M. (2022). The Mediating Effect of Cognitive and Emotional Processing on PTSD and Depression Symptoms Reduction in Women Victims of IPV. *Frontiers in psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1071477

Reddy, M. K., Anderson, B. J., Liebschutz, J. M., & Stein, M. D. (2013). Factor Structure of PTSD Symptoms in Opioid-Dependent Patients Rating Their Overall Trauma History. *Drug and Alcohol Dependence*, *132*(3), 597-602. https://doi.org/10.1016/j.drugalcdep.2013.04.009

Scotta, A. V., Cortez, M. V., & Miranda, A. R. (2022). Insomnia is associated with worry, cognitive avoidance and low academic engagement in Argentinian university students during the COVID-19 social isolation. *Psychology, Health & Medicine*, *27*(1), 199-214. https://doi.org/10.1080/13548506.2020.1869796

Shahini, M., Ghorbaninezhad, M., Kamkar, M., & Naimabady, Z. (2023). The effectiveness of mindfulness-based cognitive therapy on autobiographical memories, cognitive avoidance and cognitive emotion regulation in patients with major depression [Research]. *Journal of nursing education*, *11*(3), 82-93. https://doi.org/10.22034/ijpn.11.3.9

Sippel, L. M., Watkins, L. E., Pietrzak, R. H., Hoff, R. A., & Harpaz-Rotem, I. (2018). The Unique Roles of Emotional Numbing and Arousal Symptoms in Relation to Social Connectedness Among Military Veterans in Residential Treatment for PTSD. *Psychiatry*, *81*(3), 271-282. https://doi.org/10.1080/00332747.2017.1395313

Solberg, Ø., Birkeland, M. S., Blix, I., Hansen, M. B., & Heir, T. (2016). Towards an Exposure-Dependent Model of Post-Traumatic Stress: Longitudinal Course of Post-Traumatic Stress Symptomatology and Functional Impairment After the 2011 Oslo Bombing. *Psychological medicine*, *46*(15), 3241-3254. https://doi.org/10.1017/s0033291716001860

Thompson-Hollands, J., Jun, J. J., & Sloan, D. M. (2017). The Association Between Peritraumatic Dissociation and PTSD Symptoms: The Mediating Role of Negative Beliefs About the Self. *Journal of Traumatic Stress*, *30*(2), 190-194. https://doi.org/10.1002/jts.22179

Vanderheyden, W. M., Poe, G. R., & Liberzon, I. (2014). Trauma Exposure and Sleep: Using a Rodent Model to Understand Sleep Function in PTSD. *Experimental Brain Research*, *232*(5), 1575-1584. https://doi.org/10.1007/s00221-014-3890-4



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E-ISSN: 2981-2526

Whitaker, A. M., & Gilpin, N. W. (2016). Inhibition of ERK Phosphorylation Decreases Post-stress Avoidance in High Stress Reactive Rats. *The FASEB Journal*, *30*(S1). https://doi.org/10.1096/fasebj.30.1_supplement.1231.3

Xue, M., Yuan, Y., Chen, H., Liu, Y., Dai, M., Sun, H., Qu, J., Zhou, T., Zhou, J., Qu, J., Bu, Y., Ji, S., Hu, Y., Yao, Z., Feng, Y., & Gu, X. (2022). Perceived Stress and Symptoms of Post-Traumatic Stress Disorder in Nurses: A Moderated Mediation Model of Maladaptive Cognitive Emotional Regulation and Psychological Capital. *Frontiers in Psychiatry*, *13*. https://doi.org/10.3389/fpsyt.2022.902558