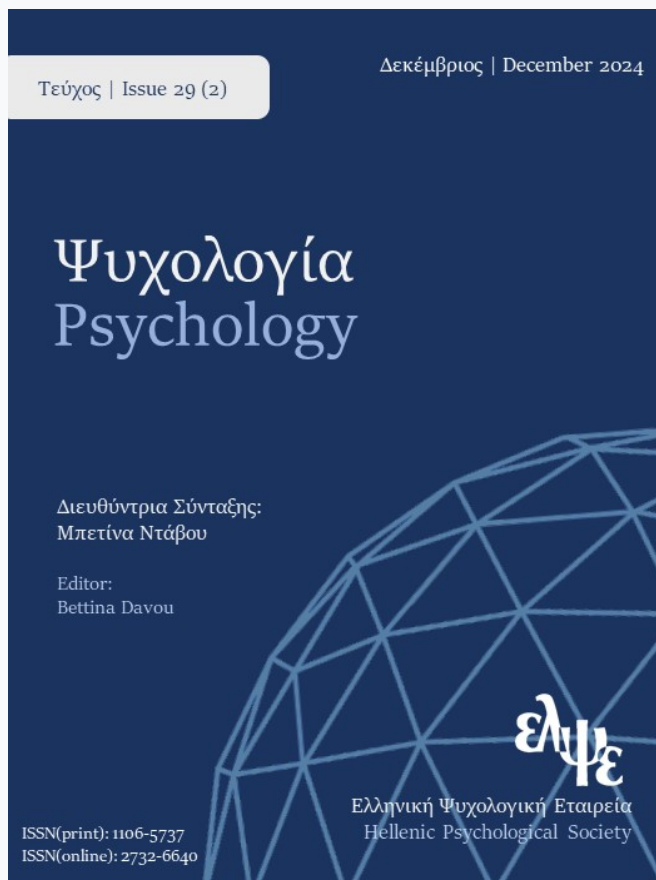


# Psychology: the Journal of the Hellenic Psychological Society

Vol 29, No 2 (2024)

December 2024



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doi: [10.12681/psy\\_hps.28172](https://doi.org/10.12681/psy_hps.28172)

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### To cite this article:

Anagnostopoulou, T., Kalaitzaki, A., Tsouvelas, G., & Tamiolaki, A. (2024). The long-term effect of childhood trauma and alexithymia on mental distress during the COVID-19 pandemic in Greece. *Psychology: The Journal of the Hellenic Psychological Society*, 29(2), 57–78. [https://doi.org/10.12681/psy\\_hps.28172](https://doi.org/10.12681/psy_hps.28172)

# The long-term effect of childhood trauma and alexithymia on mental distress during the COVID-19 pandemic in Greece

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KEYWORDS	ABSTRACT
Childhood trauma Emotional abuse Alexithymia Resilience Depression Anxiety Covid-19	The study investigated the effect of childhood trauma, alexithymia, and other psychological risk and resilience factors on peripandemic mental distress in Greece. Alexithymia was hypothesized to mediate the association between early trauma and COVID-19-related anxiety and depression. A sample of 557 adults was recruited through a web-based study and self-reported questionnaires of childhood trauma, emotional regulation, psychological attributes, depression, and anxiety were collected. Statistical analyses included hierarchical multiple regressions and structural equation modeling. Childhood emotional abuse was associated with higher levels of anxiety and depression and this association was partially mediated by the difficulty to identify feelings. In addition, psychological attributes indicating resilience or vulnerability were associated with higher or lower levels of mental distress, respectively. Pandemic factors were not significant. This research highlights the long-term effects of early trauma and alexithymia compromising mental health during a global health threat, such as COVID-19, and points to the significance of emotion regulation in public health prevention and intervention programs.
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## Introduction

Mounting evidence has suggested that quarantine and other social restriction measures inflicted to confine the COVID-19 pandemic have adverse mental health effects on the general population worldwide (World Health Organization [WHO], 2022). A systematic review and meta-analysis of data from 0.9 million people in 32 countries (Liu et al., 2024) showed that COVID-19-related daily routine disruptions were associated with depressive, anxiety, and general psychological distress symptoms. The term ‘coronaphobia’ was coined to describe the widespread fear of the COVID-19 virus and its immediate repercussions (Asmundson & Taylor, 2020). However, despite the upheaval, several individuals were able to adjust well during the pandemic (Anagnostopoulou et al., 2022; Kalaitzaki et al., 2023), even in countries hit hard by high morbidity and mortality rates (Seaborn et al., 2021; Valiente et al., 2021). Thus, it is plausible to assume that the high rates of anxiety and depression evinced during the pandemic could also be attributed to non-pandemic factors, such as prior stressors and lack of psychological and social resources.

Among the previous stressors, childhood trauma has been widely researched and literally, thousands of studies have shown the link between early adversity and adult physical and mental health problems (McKay et al., 2021). Specifically, early longitudinal studies (Cicchetti & Rogosh, 1997; Werner & Smith, 1977) espousing a developmental psychopathology paradigm (Cicchetti, 2006), have documented that childhood experiences lay the foundation for adult psychopathology. Consequent studies have demonstrated unequivocally that childhood maltreatment (physical, sexual, or emotional abuse and physical and emotional neglect) has long-term effects on physical and mental health in adult life (Anda et al., 2006; Spinazzola et al., 2014). In addition, the pernicious effects of childhood adversity on neurobiological markers, such as structural and functional alterations within the hippocampus, prefrontal cortex, and amygdala resulting from chronic or repeated activation of the hypothalamic-pituitary-adrenal (HPA) axis (Cross et al., 2017) and child abuse being positively associated with network transmission efficiency of the visual, auditory, linguistic, and motor cortex (Cai et al., 2023) have been well documented.

Currently, childhood trauma is considered to be a powerful transdiagnostic factor associated with almost every type of psychopathology (McLaughlin et al., 2020) in adolescence and early adulthood (Hughes et al., 2017; McKay et al., 2021). Notably, emotional abuse, among other types of traumas, has been consistently associated with the onset of internalizing disorders, i.e., depression (Infurna et al., 2016; Muniz et al., 2019) and anxiety in adulthood (Fernandes & Osório, 2015). A few studies have found an association between childhood trauma and mental health issues during COVID-19, such as higher levels of distress, anxiety, depression, fear, acute stress disorder, and post-traumatic stress symptoms (Doom et al., 2021; Gewirtz-Meydan & Lassri, 2022; Janiri et al., 2021; Russo et al., 2022; Seitz et al., 2021; Siegel & Lahav, 2022; Xia et al., 2023) indicating that childhood trauma may render adults more vulnerable to COVID-19-related stressors.

Several pathways have been suggested to account for the deleterious effect of early childhood trauma on subsequent psychopathology (McLaughlin et al., 2020). Lack of emotion awareness and emotion differentiation (Rieffe & De Rooij, 2012) and difficulties in emotion regulation (Kim & Cicchetti, 2010), both depicting affect deficits, are prominent mechanisms suggested by longitudinal prospective studies. Earlier, Sifneos (1973) coined the term 'alexithymia' (i.e., 'no words for feelings') to describe the lack of emotional awareness in psychosomatic patients. Alexithymia has since been widely researched (Taylor et al., 1999) and high scores in alexithymia have a strong link with psychopathology including depression, suicidality, and aggression in adulthood (Hemming et al., 2019; Honkalampi et al., 2000; Sagar et al., 2021; Taylor & Bagby, 2013). Alexithymia has also been associated with childhood trauma (Schimmenti & Caretti, 2018).

Currently, the alexithymia concept comprises three factors: difficulty identifying feelings (DIF), difficulty describing feelings (DDF), and externally oriented thinking (EOT) (Parker et al., 1993). DIF has shown the strongest association with physical, behavioral, and psychological symptoms (Bagby et al., 2020; Ledermann et al., 2020; O'Brien et al., 2008). Further empirical support on the significance of DIF has come from experimental research on low emotional awareness (Barrett & Gross, 2001), a concept similar to the difficulty identifying feelings in alexithymia (Rieffe & De Rooij, 2012). Emotional awareness is based on interoception, that is, the ability to perceive one's internal bodily state and conceptualize it with an emotional label (Weissman et al., 2020); it has been regarded (Barrett & Gross, 2001; Kalokerinos et al., 2019) as a prerequisite for effective emotion regulation. On the other hand, emotion regulation difficulties include low emotional awareness (Gratz & Roemer, 2004), rendering it difficult to disentangle the effect of emotion dysregulation from alexithymia. A few studies have reported that COVID-19-related mental distress was associated with alexithymia, particularly DIF and DDF (Li et al., 2022; Osimo et al., 2021; Tang et al., 2020).

The stress literature has also shown that the adverse effects of stress (e.g., the pandemic) may be mitigated by psychological attributes (Suls & Martin, 2005) and available social resources, such as finances and education (Quesnel-Vallée & Taylor, 2012). Psychological attributes and social resources may buffer the mental distress experienced during a stressful period leading to a resilient response. Indeed, a negative

association between COVID-19 distress and resilience has been reported (Barzilay et al., 2020). Resilience has been defined as ‘the capacity of a system to adapt successfully to disturbances that threaten the viability, function, or development of the system’ (Masten, 2014). Developmental factors, such as a protective environment in childhood, intimate adult relationships, and secure attachments are considered essential determinants of resilient individuals (Southwick et al., 2014). Personality predictors of resilient adaptation include spirituality (Sharma et al., 2017) and a sense of coherence (McGee et al., 2018). On the other hand, negative affect and neuroticism (i.e. cynicism and rumination) have been inversely associated with resilience (Nieto et al., 2023).

In sum, a multitude of longitudinal and cross-sectional studies have established the link between childhood trauma and lifetime psychopathology (Kessler et al., 2010); psychological attributes and social resources also seem to play a pivotal role in the reactions to a stressful situation, leading to resilience or psychopathology. Notably, alexithymia (Hamel et al., 2024; Hébert et al., 2018), emotion awareness (Rieffe & De Rooij, 2012), and emotional dysregulation (McLaughlin et al., 2010) have been shown to mediate the relationship between childhood trauma and adult mental distress indicating the pivotal role of affect deficits. Taken together, these studies suggest that childhood traumatic experiences, the presence or absence of psychosocial resources, and affect deficits may be significant contributors to mental distress. However, not much is known about the link between these factors (i.e., childhood trauma, psychosocial resources/deficits, and affect deficits) and adult mental distress (i.e., anxiety and depression) inflicted by COVID-19.

### ***The present study***

The present study takes into account a developmental framework positing that the high rates of peripandemic anxiety and depression may be affected by early trauma, emotional regulation deficits, and other predisposing personal and social characteristics.

Drawing on previous research findings and theoretical considerations, this study aims to further validate and extend the results of other COVID-19-related studies by hypothesizing that of all types of traumas, emotional trauma would be associated with peripandemic anxiety and depression. Likewise, certain psychological attributes and the presence or absence of social resources would be associated with peripandemic mental distress. In addition, the difficulty identifying feelings (the core feature of alexithymia) could potentially mediate this relationship.

Therefore, this study aimed to explore the following hypotheses:

**H1:** Childhood trauma experiences, particularly emotional ones, will be associated with higher levels of peripandemic anxiety and depression.

**H2:** Psychological attributes indicating alexithymia, particularly the difficulty identifying one’s feelings (DIF), emotional dysregulation, and psychological vulnerability will have a positive association with peripandemic anxiety and depression whereas attributes indicating resilience will have a negative association.

**H3:** The difficulty identifying one’s feelings (DIF), will mediate the link between early trauma and peripandemic anxiety and depression.

## **Methods**

### ***Participants***

An initial sample of 588 respondents was recruited from all geographical regions of Greece. After controlling for outliers with anomaly detection techniques, 31 cases were excluded, leaving a final sample of 557 participants. Most of them were females (81.3%), with a mean age of 38.8 years ( $SD = 13.6$ ), married (50.4%),

well-educated (University or Master/Doctoral degree: 50.4% or 34.6% respectively), and employed (65.8%). They were employed mostly as educators (15.8%), in the public (15.8%), or private sector (35%), and a proportion of them (22.8%) were university students. Regarding their residence, 54.3% lived in large urban centers, 30.2% in medium-sized towns (10.000-100.000 inhabitants), and 15.5% in villages (less than 10.000 inhabitants). A small percentage identified as belonging to a vulnerable group (10.1%), themselves (5.9%) or a family member (18.3%) had been infected by COVID-19 and 74.1% had the intention to vaccinate against COVID-19 (see Table 1).

### **Instruments**

A self-report questionnaire was developed and administered to collect the data. It included informed consent, socio-demographics (i.e., gender, age, marital status, education, occupation, permanent residence, vulnerability to COVID-19, personal or family member's infection by COVID-19 and intention to vaccinate), and a number of items and psychometric scales to investigate the study variables:

The frequency of anxiety symptoms over the past 2 weeks during the COVID-19 pandemic was assessed with the *Generalized Anxiety Disorder* (GAD-7; Spitzer et al., 2006). Its seven items (e.g., "Feeling nervous, anxious or on edge") are rated on a 4-point Likert scale (0= *not at all* to 3= *nearly every day*). The overall score ranges from 0-21, grouped into four levels of anxiety: minimal (0-4), mild (5-9), moderate (10-14), and severe (15-21). In this study, a cut-off score of 15 or above was indicative of potential generalized anxiety disorder. Cronbach's alpha coefficient for the total scale was 0.90. The Confirmatory Factor Analysis showed acceptable goodness of fit, suggesting the validation of the factor structure of the Greek version of the GAD-7 ( $\chi^2(7) = 5.49$ ,  $\chi^2/df = .79$ ,  $CFI = 1.00$ ,  $TLI = 1.00$ ,  $RMSEA = .00$  and  $SRMR = .01$ ).

The severity of depression over the past 2 weeks during the COVID-19 pandemic was assessed with the *Patient Health Questionnaire-9* (PHQ-9; Kroenke et al., 2001). Its nine items (e.g., "Little interest or pleasure in doing things") are rated on a 4-point Likert scale (0= *not at all* to 3= *nearly every day*). The overall score ranges from 0-27, grouped into five levels of depression: non-minimal (0-4), mild (5-9), moderate (10-14), moderately severe (15-19), and severe (20-27). In this study, a cut-off score of 15 or above was indicative of a potentially clinically significant condition. Cronbach's alpha coefficient was 0.86. The Confirmatory Factor Analysis showed acceptable goodness of fit, suggesting the validation of the factor structure of the Greek version of the PHQ-9 ( $\chi^2(17) = 21.27$ ,  $\chi^2/df = 1.25$ ,  $CFI = 1.00$ ,  $TLI = 1.00$ ,  $RMSEA = .02$  and  $SRMR = .02$ ).

Childhood trauma was assessed with the *Early Trauma Inventory Self-Report Short-Form* (ETI-SR-SF; Antonopoulou et al., 2017; Bremner et al., 2007). The ETI-SR-SF comprises 27 items (i.e., "Did you ever observe the death or serious injury of others?") and covers four areas of traumatic events that people may have experienced before the age of 18: physical abuse (5 items, e.g., punching or kicking, slap on the face, burning with hot water or cigarette), sexual abuse (6 items; e.g., forced oral sex or intercourse, frotteurism), emotional abuse (5 items; e.g., humiliation, ridicule, treated in a cold and indifferent way or felt not loved), and general trauma (11 items; e.g., witnessing violence or murder, experience of life-threatening disease or death). Response options were Yes or No. Cronbach's  $\alpha$  was .60 for General and Physical, .78 for Emotional and .65 for Sexual.

The Confirmatory Factor Analysis (CFA) of the four factor model showed acceptable goodness of fit, suggesting the validation of the factor structure of the Greek version of the ETI-SR-SF ( $\chi^2(301) = 524.43$ ,  $\chi^2/df = 1.74$ ,  $CFI = .91$ ,  $TLI = .90$ ,  $RMSEA = .04$  and  $SRMR = .05$ ).

Psychological attributes were assessed with discrete single items not intended to constitute psychological scales. Although long, multiple-item standardized questionnaires represent the state of the art in psychometrics (Nunnally & Bernstein, 1994), counterarguments suggest that by focusing on the association of individual items, interesting relationships may emerge that might otherwise be obscured when items are clustered in a few broad categories (Costa et al., 1996), thus leaving potentially many areas unexplored (Fuchs

& Diamantopoulos, 2009), not to mention that they may also take up a lot of space in a survey, and may result in respondent fatigue (Wanous et al., 1997). Single items that are specific, concrete and unambiguous (Bergkvist & Rossiter 2007, 2009) have been proposed as an alternative because they are easier to interpret and have greater face validity (Metz et al., 2007).

Psychological attributes were categorized into two groups:

**Alexithymia and emotion dysregulation.** Alexithymia, particularly difficulties with emotional awareness and emotional expression, was measured with two discrete items from the Toronto Alexithymia Scale (Parker et al., 1993): “I often do not know exactly how I feel” (DIF) and “I find it difficult to express my deepest feelings, even to close friends” (DDF). Emotion dysregulation was measured with two discrete items designed for this study: “If I open up, I'm afraid that I will get flooded by my feelings” and “When I do not feel well, I try to comfort myself with food, drink, or smoking”. Respondents were asked to rate their agreement on a 5-point Likert scale (1=*strongly disagree* to 5=*strongly agree*). Items were analyzed individually to delineate their differential impact on the dependent variables.

**Psychological attributes indicating resilience or vulnerability.** Twenty-two self-descriptive items (see Table 5) were designed for this study to investigate whether these psychological attributes had a positive or negative association with depression and anxiety during the COVID-19 pandemic. Because resilience is a dynamic process comprising biological, personality, social, and cultural dimensions, it was considered difficult to be assessed through traditional questionnaire methods (Windle et al., 2011) but it was rather best measured by using multiple markers (Bonanno et al., 2011). Therefore, six diverse items were used to measure resilience, two of which were adapted from the Sense of Coherence Scale (SOC, Antonovsky, 1993): “My life had clear goals till now”; “I was always finding meaning in what was happening to me”. The other four resilience items measured secure attachment in adulthood, adult faith in their abilities as children, faith in God and sense of accomplishment. The rest 16 items covered diverse areas of psychological attributes, such as introversion/extraversion, separation anxieties, self-blame, cynicism, fatalism, and practical orientation in life. Respondents were asked to rate their agreement on a 5-point Likert scale (1=*strongly disagree* to 5=*strongly agree*). Items were analyzed individually to delineate their differential impact on the dependent variables.

### **Procedure**

This was a cross-sectional nationwide web-based survey, conducted in Greece from May 22 to July 12, 2021, during the third wave of the COVID-19 pandemic. The survey link was distributed online to social media and professional networks using convenience and snowball sampling. An online informed consent form was presented on the first page of the survey, according to which participation was voluntary and anonymous and could be withdrawn at the respondent's discretion. The Research Ethics Committee of the Hellenic Mediterranean University (No. 13/07-04-2020) approved this study, which conformed with the 1964 Helsinki Declaration and its later amendments.

### **Statistical analysis**

Descriptive statistics (frequencies, percentages, means, standard deviation) were used to describe the data. Confirmatory Factor Analyses were conducted for GAD-7, PHQ-9, and ETI-SR-SF, using Maximum Likelihood estimation. Model fit indices were assessed (Hu & Bentler, 1999): the value  $\chi^2$ /degrees of freedom ratio below 3 (Kline, 2005), the standardized root mean square residual less than .08, the Tucker-Lewis index, the Comparative Fit Index above .90, and the root mean square error of approximation less than .06 (Hu & Bentler, 1999). Changes were made when the modification indices suggested improvement in the model fit. A series of independent samples t-tests was used to test differences in trauma experiences in terms of levels of depression and anxiety (low vs moderate/high). Correlation coefficients (Pearson r, Spearman rho, Point

biserial) were used to assess correlations among anxiety and depression and a) demographic factors and b) psychological attributes items. Notably, Pearson's correlation coefficients were employed to assess the association between anxiety and depression scores with continuous variables, such as age, whereas the association between anxiety and depression with binomial variables such as gender or categorical variables such as educational level were examined with Point biserial or Spearman's rank correlation coefficients, respectively. Two hierarchical multiple regression analyses using stepwise method were performed to investigate whether sociodemographic variables (age, gender, education, occupation) (step 1), and psychological attributes, emotional regulation deficits, and prior trauma exposure (step 2) predict depression and anxiety. The final models retained all variables at the 0.05 level or less. Following the regression findings, two Structural Equation Models were conducted to test the mediating effects of alexithymia (DIF) in the relationship between a) the latent variable of trauma exposure and the latent variable of depression and b) the latent variable of trauma exposure and the latent variable of anxiety. All analyses were performed using IBM SPSS Statistics version 23.0 and AMOS 21.

## Results

### *Descriptive statistics*

Means, standard deviations, and internal consistency indices for the Patient Health Questionnaire-9 (PHQ9), Generalized Anxiety Disorder (GAD7), and Early Trauma Inventory (ETI-SR-SF) can be seen in Table 1.

**Table 1.** *Descriptive statistics, number of items, and internal consistency indices for the Generalized Anxiety Disorder (GAD7), Patient Health Questionnaire-9 (PHQ-9), and Early Trauma Inventory (ETI-SR-SF)*

	Number of items	<i>M</i>	<i>SD</i>	Cronbach's $\alpha$
PHQ9	9	6.67	5.58	.86
GAD7	7	6.17	4.98	.90
Traumatic experiences General	11	2.29	1.95	.60
Traumatic experiences Physical	5	1.68	1.25	.60
Traumatic experiences Emotional	5	2.14	1.78	.78
Traumatic experiences Sexual	6	.67	1.08	.65

### *Childhood trauma and levels of depression and anxiety*

One-fourth of the participants (25.1%) presented moderate to high levels of depression (i.e., moderate 13.6%; moderately severe 8.3%; severe 3.2%). Similarly, nearly one-fourth of the participants (23.2%) presented moderate to high levels of anxiety (i.e., moderate 14%; severe 9.2%). Participants with moderate/high levels of depression and anxiety had more traumatic experiences in the past (physical, emotional, sexual abuse, general trauma) in comparison to those with low levels of depression and anxiety (see Table 2).

### *Correlation of socio-demographics with depression and anxiety*

Age, education, and employment either as a teacher/professor or in the public sector significantly correlated (inversely) with anxiety and depression, whereas being a university student correlated positively with anxiety and depression. Being a housewife marginally correlated negatively with anxiety (see Table 3). There was no correlation between gender and depression or anxiety. Age, educational level and being employed in the public sector correlated inversely with depression and anxiety.

**Correlation of psychological attributes with depression and anxiety**

All items correlated with depression (PHQ9) and anxiety (GAD7) except item #17 (“I believe that in life you should rely primarily on yourself”); item #19 (“If it is your fate to suffer something bad, you cannot escape it, no matter how hard you may try to prevent it”) marginally correlated with depression (see Table 4).

**Table 2.** Independent samples *t*-test for the evaluation of differences in past traumatic experiences in participants with moderate/high and low levels of symptoms of depression and anxiety

Traumatic Experiences	PHQ9 (depressive symptoms)				<i>t</i>	<i>d</i>
	Moderate/High (N=140)		Low (N=417)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Physical	2.11	1.34	1.53	1.19	4.89 <sup>***</sup>	.46
Emotional	2.99	1.69	1.86	1.72	6.79 <sup>***</sup>	.67
Sexual	.99	1.31	.57	.97	3.45 <sup>***</sup>	.37
General	2.84	2.05	2.11	1.88	3.85 <sup>***</sup>	.37

Traumatic Experiences	GAD7 (anxiety symptoms)				<i>t</i>	<i>d</i>
	Moderate/High (N=129)		Low (N=428)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Physical	2.04	1.34	1.57	1.21	3.80 <sup>***</sup>	.37
Emotional	3.04	1.74	1.87	1.70	6.78 <sup>***</sup>	.68
Sexual	1.01	1.37	.57	.96	3.39 <sup>***</sup>	.38
General	2.82	1.95	2.14	1.92	3.55 <sup>***</sup>	.35

\*Note. <sup>\*\*\*</sup> *p* < .001, *d* = Cohen’s *d* for the estimation of effect sizes

**Table 3.** Correlation of sociodemographic variables with depression and anxiety

	Depression (PHQ9)	Anxiety (GAD7)
Gender (Point biserial <i>r<sub>pb</sub></i> )	-.02 <sup>***</sup>	.06 <sup>***</sup>
Age (Pearson <i>r</i> )	-.23 <sup>***</sup>	-.26 <sup>***</sup>
Education (Spearman rho <i>r<sub>s</sub></i> )	-.17 <sup>***</sup>	-.08 <sup>*</sup>
Teacher/Professor (Point biserial <i>r<sub>pb</sub></i> )	-.10 <sup>*</sup>	-.07 <sup>***</sup>
Employed in the public sector (Point biserial <i>r<sub>pb</sub></i> )	-.18 <sup>***</sup>	-.18 <sup>***</sup>
Housewife/ retired (Point biserial <i>r<sub>pb</sub></i> )	-.01	-.10 <sup>*</sup>
University student (Point biserial <i>r<sub>pb</sub></i> )	.22 <sup>***</sup>	.19 <sup>***</sup>

\*Note 1. For gender 1 = male, 0 = female; for education 1 = Technical education, 2 = University, 3 = Master/PhD; for professional groups, vulnerability/contact with COVID-19 items and intention to vaccinate 0 = No 1= Yes; <sup>\*</sup> *p* < .05, <sup>\*\*</sup> *p* < .01, <sup>\*\*\*</sup> *p* < .001.

\*Note 2. Only statistically significant correlations are included.



**Table 4.** Correlation of psychological attributes, alexithymia, and emotion dysregulation items with depression and anxiety

Pearson <i>r</i>	Depression (PHQ9)	Anxiety (GAD7)
1. I am mainly an introverted person	.24 <sup>***</sup>	.19 <sup>***</sup>
2. I am mainly an extroverted person	-.19 <sup>***</sup>	-.15 <sup>***</sup>
3. My life had clear goals till now	-.28 <sup>***</sup>	-.23 <sup>***</sup>
4. I was always finding meaning in what was happening to me	-.31 <sup>***</sup>	-.30 <sup>***</sup>
5. I believe in God or some other superior power	-.14 <sup>***</sup>	-.08 <sup>*</sup>
6. I have accomplished a lot in my life despite difficulties	-.30 <sup>***</sup>	-.21 <sup>***</sup>
7. When I was growing up, someone had faith in me and my abilities	-.20 <sup>***</sup>	-.18 <sup>***</sup>
8. I have a special relationship with someone who is precious to me	-.23 <sup>***</sup>	-.19 <sup>***</sup>
9. Separations are hard for me	.11 <sup>**</sup>	.17 <sup>***</sup>
10. I cannot stand to be alone	.12 <sup>**</sup>	.10 <sup>*</sup>
11. I often do not know exactly how I feel	.39 <sup>***</sup>	.35 <sup>***</sup>
12. I find it difficult to express my deepest feelings, even to close friends.	.33 <sup>***</sup>	.28 <sup>***</sup>
13. If I open up, I'm afraid that I will get flooded by my feelings	.34 <sup>***</sup>	.28 <sup>***</sup>
14. When I do not feel well, I try to comfort myself with food, drink, or smoking	.33 <sup>***</sup>	.27 <sup>***</sup>
15. I often tell myself: "Whatever happened, happened... let's see what we can do from now on"	-.19 <sup>***</sup>	-.25 <sup>***</sup>
16. I look for practical solutions to my problems, I do not dwell on them	-.19 <sup>***</sup>	-.26 <sup>***</sup>
17. I believe that in life you should rely primarily on yourself	.06 <sup>***</sup>	.04 <sup>***</sup>
18. I believe life is unfair	.27 <sup>***</sup>	.27 <sup>***</sup>
19. If it is your fate to suffer something bad, you cannot escape it, no matter how hard you may try to prevent it.	.08 <sup>*</sup>	.05
20. I believe it's best not to trust anyone	.34 <sup>***</sup>	.30 <sup>***</sup>
21. I often blame myself for mistakes I have made in the past.	.35 <sup>***</sup>	.33 <sup>***</sup>
22. I often wonder how things would have turned out if I had acted differently in my life	.31 <sup>***</sup>	.26 <sup>***</sup>

\*Note. <sup>\*</sup>  $p < .05$ , <sup>\*\*</sup>  $p < .01$ , <sup>\*\*\*</sup>  $p < .001$ .

### Predictors of depression and anxiety

Two regression models were conducted in which only those demographics and psychological attributes that significantly correlated with depression and anxiety were introduced as predictors. Both regression models were statistically significant (Depression:  $F(13,515) = 28.07$ ,  $p < .001$ ;  $R = .64$ ,  $R^2 = .42$ , adjusted  $R^2 = .40$ ; Anxiety:  $F(12,516) = 26.28$ ,  $p < .001$ ;  $R = .62$ ,  $R^2 = .38$ , adjusted  $R^2 = .37$ ).

The following variables predicted both anxiety and depression (see Table 5): Age (inversely), employment in the public sector (inversely), emotional trauma, and five psychological attributes: "I have accomplished a lot in my life despite difficulties" (inversely for depression), "I often do not know exactly how I feel", "When I do not feel well, I try to comfort myself with food, drink, or smoking", "I believe life is unfair", "I often blame myself for mistakes I have made in the past". Depression was also predicted by education (inversely), general traumatic experiences, and the items "I believe in God or some other superior power" (inversely), "If I open up, I'm afraid that I will get flooded by my feelings", "I often say to myself: "whatever happened, happened... let's see what we can do from now on" (inversely), and "I believe it's best not to trust anyone". Anxiety was additionally predicted by sexual trauma and the items "I was always finding meaning in what was happening to me" (inversely), "When I was growing up, someone had faith in me and my abilities" (inversely), and "Separations are hard for me".

**Table 5.** Hierarchical regression analyses for predicting depression (PHQ9) and anxiety (GAD7) with socio-demographics, psychological attributes, alexithymia and emotion dysregulation items, and past trauma exposure as potential predictors

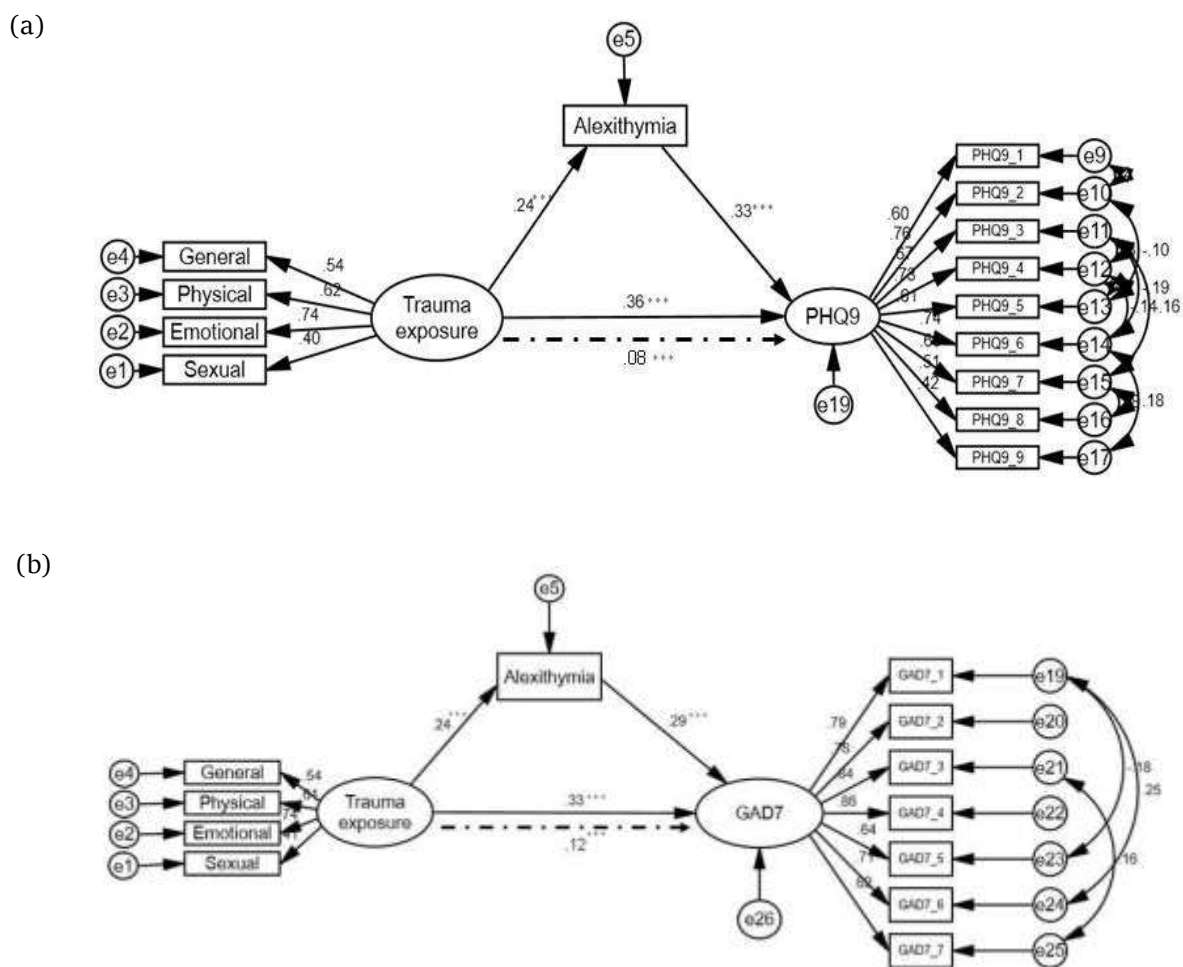
	PHQ9 (depression)					GAD7 (anxiety)				
	Step	B	SE	b	t	Step	B	SE	b	t
Age	1	-0.04	0.02	-0.09	-2.46*	1	-0.05	0.01	-0.13	-3.36***
Education	3	-0.06	0.29	-0.01	-0.19 <sup>ns</sup>					
Employed in public sector	2	-2.08	0.54	-0.14	-3.85***	2	-1.83	0.49	-0.13	-3.73***
University student										
1. Introversion										
2. Extraversion										
3. Life had clear goals										
4. Life is meaningful						5	-0.36	0.17	-0.08	-2.16*
5. Faith in God	13	-0.29	0.13	-0.08	-2.17*					
6. Sense of accomplishment	8	-0.78	0.24	-0.12	-3.29***	6	0.59	0.15	0.15	3.86***
7. Adult faith in me as a child						7	-0.73	0.16	-0.17	-4.58***
8. Strong adult attachment										
9. Difficulty with separations						10	0.41	0.17	0.09	2.45*
10. Fear of being alone										
11. Difficulty identifying feelings	7	0.55	0.16	0.14	3.45***	12	0.31	0.15	0.09	2.14*
12. Difficulty expressing feelings										
13. Fear of emotional flooding	14	0.32	0.16	0.08	2.00*					
14. Use of comfort food, drink, or smoking when feeling bad	5	0.58	0.14	0.16	4.21***	8	0.34	0.13	0.10	2.62**
15. Practical orientation in life	12	-0.44	0.17	-0.09	-2.57**					
16. Practical solutions to problems										
18. Life is unfair	11	0.45	0.17	0.09	2.60**	9	0.46	0.16	0.11	2.82**
20. Best not to trust anyone	4	0.67	0.17	0.15	3.87***					
21. Self-blame for past mistakes	10	0.46	0.17	0.11	2.77***	4	0.43	0.16	0.11	2.73**
22. Life could have been better										
General Traumatic Experiences	9	0.40	0.11	0.14	3.78***					
Physical Traumatic Experiences										
Emotional Traumatic Experiences	6	0.32	0.12	0.10	2.61**	3	0.46	0.11	0.16	4.23***
Sexual Traumatic Experiences						11	0.42	0.17	0.09	2.50*
<i>R</i> <sup>2</sup>				0.42					0.38	

\*Note: For gender 1 = male, 0 = female; for education 1 = Technical education, 2 = University, 3 = Master/PhD; for professional groups 0 = No 1= Yes; Dotted lines represent the steps. The indicators in the table are those of the final regression model. \* p < .05, \*\* p < .01, \*\*\* p < .001, ns: not statistically significant.

**Mediation of alexithymia (DIF) in the relationship of trauma exposure with anxiety or depression**

Both mediation models demonstrated acceptable model fit: Depression model:  $CMIN = 173.00$ ,  $df = 66$ ,  $p < .001$ ,  $CMIN/df = 2.62$ ,  $CFI = .95$ ,  $TLI = .94$ ,  $RMSEA = .05$  ( $LO = .04$ ,  $HI = .06$ ),  $SRMR = .04$ ; Anxiety model:  $CMIN = 102.61$ ,  $df = 49$ ,  $p < .001$ ,  $CFI = .98$ ,  $TLI = .97$ ,  $RMSEA = .04$  ( $LO = .03$ ,  $HI = .06$ ),  $SRMR = .04$ . Difficulty identifying feelings partially mediated the relationship between trauma exposure and both depression and anxiety. Figures 1a and 1b depict the two models with the standardized path coefficients.

**Figure 1.** Mediating effects of alexithymia (DIF) in the relationship between (a) trauma exposure and depression and (b) trauma exposure and anxiety. The standardized path coefficients are presented. Dotted lines refer to indirect effects



**Discussion**

This study explored the association of anxiety and depression in the general population of Greece elicited by the COVID-19 pandemic with childhood trauma, alexithymia, and other psychological and social factors denoting resilience or vulnerability to stress. Results corroborated the hypotheses of this study.

### ***The association of childhood trauma with peripandemic anxiety and depression***

The first hypothesis of this study, that childhood trauma experiences, particularly emotional ones, would be associated with higher levels of peripandemic anxiety and depression, was confirmed. Emotional abuse was the only type of early trauma experience that predicted both anxiety and depression symptoms, consistent with the results of other studies indicating that emotional abuse and neglect may lead to internalizing psychopathology (Janiri et al., 2021; Muniz et al., 2019). Anxiety and depression were additionally predicted differentially by other types of traumas. Specifically, general trauma in early life (i.e., parental divorce, illness, death) predicted depression, in keeping with extensive literature indicating that early loss is a predisposing factor of depression (Simbi et al., 2020); on the other hand, early sexual trauma predicted anxiety, being an additional risk factor for the development of anxiety disorders (Maniglio, 2013). These findings suggest that childhood trauma renders individuals more vulnerable to peripandemic mental distress.

### ***The association of psychological attributes and social resources with peripandemic anxiety and depression***

The second hypothesis of this study was that psychological attributes indicating alexithymia, particularly the difficulty identifying one's feelings (DIF), emotional dysregulation, and psychological vulnerability would have a positive association with peripandemic anxiety and depression whereas those indicating resilience would have a negative association; this hypothesis was confirmed.

In accordance with current conceptualizations of resilience (Bonanno et al., 2011) we found an inverse association of four items pertaining to aspects of resilience (i.e., someone having faith in them while growing up, religiosity and faith in God, having a strong sense of accomplishment despite difficulties and sense of coherence, i.e., ability to find meaning in life experiences) with anxiety and/or depression. Extant literature has shown that sense of coherence has a protective role on both anxiety and depression (Dadaczynski et al., 2022; Veronese et al., 2022), while religiosity /faith in God (Magin et al., 2021) have been inversely associated with depression.

In line with other research findings (Huo et al., 2021), risk factors denoting cynicism predicted depression and/or anxiety: 'life is unfair' (both anxiety and depression), and 'best not to trust anyone' (depression). Similarly, self-blame (for past mistakes) predicted both depression and anxiety (Kalaitzaki et al., 2022; Tang et al., 2020), while having difficulty with separations was associated with anxiety (Brückl et al., 2007; Milrod et al., 2014).

An unexpected finding was the inverse association of practical orientation in life (i.e., 'whatever happened, happened... let's see what we can do from now on') with depression. Interestingly, similar results have been reported for the Externally Oriented Thinking (EOT) factor of TAS-20 during the pandemic (Li et al., 2022; Osimo et al., 2021), an unexpected finding since alexithymia is positively related to depression. A possible explanation is that although EOT seemingly plays a protective role against mental distress, it is still indicative of affect deficits, leading individuals to regulate negative emotions by substance use (Kajanoja et al., 2019; Li et al., 2022). Further research is needed to clarify this issue.

Consistent with the second hypothesis, alexithymia's component 'difficulty identifying feelings', significantly predicted anxiety and depression. Similar results (Conrad et al., 2009; Grabe et al., 2004) indicate that DIF is a particularly sensitive marker for the development of subsequent psychopathology. In agreement with available research, fear of getting emotionally flooded, an aspect of emotion dysregulation, was positively related to depression (Bradley et al., 2011; Compare et al., 2014), while the inability to process negative affect and attempting to soothe oneself by employing comfort eating, drinking, and smoking predicted both anxiety and depression (Linn et al., 2020; Linn et al., 2021; Shank et al., 2019).

In this study, being older and having social resources, such as a higher education level and being employed in the public sector, reflected secure life conditions that helped individuals cope with pandemic-related challenges and adversities. In contrast, the young and those less educated reported higher rates of distress symptoms in line with other research findings (Glowacz & Schmits, 2020; Valiente et al., 2021; Wang et al., 2020). Rather surprisingly, gender predicted neither anxiety nor depression, a finding also reported by Siegel & Lahav (2022). Although most studies have identified women as more vulnerable to mental distress during the pandemic (Kalaitzaki, 2021; Mazza et al., 2020; Wang et al., 2020), other studies suggest that the assumed vulnerability of women to stress may be the outcome of pre-pandemic burnout, gender disparities in social roles and resources as well as increased caretaking responsibilities (Lowe et al., 2021; Luo et al., 2021).

These results suggest that including specific predisposing factors to anxiety and depression helps us avoid exaggerated attributions regarding the impact of a single external factor, i.e., the COVID-19 pandemic, as the main trigger of mental distress.

### ***The mediation role of difficulty identifying one's feelings (DIF) between early trauma and peripandemic anxiety and depression***

Consistent with the third hypothesis of this study, alexithymia, particularly difficulty identifying one's feelings (DIF) partially mediated the association between early trauma and peripandemic anxiety and depression. Our findings corroborated earlier research highlighting the mediation of alexithymia between childhood trauma and psychological disorders (Hamel et al., 2024; Hébert et al., 2018; Paivio & McCulloch, 2004). Recent developments in theory and experimental research (Barrett, 2017; Barrett & Gross, 2001; Burklund et al., 2014) have emphasized the significant role of emotion differentiation and effective emotion regulation (Kashdan et al., 2010) suggesting that both identification and differentiation of feeling states are essential prerequisites for the development of emotion regulation skills (Weissman et al., 2020). However, further research is required to elucidate the interconnection of these concepts.

### ***Limitations of the study***

This study has the shortcomings of any quantitative research investigating a complex social phenomenon in real-time. It is cross-sectional (i.e., no causal inferences can be made), web-based (i.e., accessible only to computer-literate individuals), retrospective (i.e., liable to recall bias), and has used self-report measures (i.e., liable to social desirability bias). Though causality cannot be claimed, the link between childhood trauma and adult psychopathology has been well established in prepandemic longitudinal studies using multiple markers, such as long-term neurophysiological alterations as a result of early abuse (Cai et al., 2023) and follow-ups of maltreated children (Sousa et al., 2011). The study also employed convenience and snowballing sampling methods recruiting people with relatively advantageous social backgrounds (e.g., well-educated, residing in urban areas) and overwhelmingly higher rates of women than men. Notwithstanding that typically these are the characteristics of the samples more likely to respond to surveys (Cotton et al., 2006; Jorm et al., 1997), our results are only generalizable to the specific demographic attributes of the particular sample.

Employing single-item measurements is usually considered a limitation. However, psychological research increasingly uses single-item measurements (Allen et al., 2022; Bowling, 2005) with valid and reliable results compared to multiple-item measures (Verster et al., 2021). In this study, single-item measurements regarding alexithymia, difficulties with emotional regulation, and psychological attributes gave clear results. Although alexithymia was originally regarded as a multi-faceted concept (Taylor et al., 1991), available research supports the view that the difficulty identifying feelings has the strongest associations with physical (Ledermann et al., 2020) and mental health (O'Brien et al., 2008) problems. Therefore, the unambiguous single item "I often do not know exactly how I feel" seems to accurately represent the core

feature of alexithymia, i.e. ‘no words for feelings’.

### ***Conclusions and implications of the study***

To our knowledge, this is the first study that (a) explored mental distress experienced during the COVID-19 pandemic in Greece from a developmental perspective linking distress with childhood trauma, (b) assessed the difficulty identifying feelings, the core feature of alexithymia, as a potential mediator between early trauma and pandemic anxiety and depression, and (c) included predisposing social and psychological factors related to resilience or vulnerability to stress employing a multiple marker perspective. In line with similar peripandemic studies across different countries (Janiri et al., 2021; Siegel & Lahav, 2022) and prepandemic longitudinal and cross-sectional research (Hébert et al., 2018), our findings indicate that early emotional trauma is associated with anxiety and depression during the pandemic with the difficulty identifying feelings (alexithymia) having a partial mediating effect. Psychological factors denoting resilience (i.e., adults having faith in them when growing up, faith in God, sense of life accomplishment, sense of coherence) were inversely associated with anxiety and depression, whereas factors related to difficulties in emotion regulation, separation anxiety, self-blame, and cynicism positively related with anxiety and depression. Moreover, being older and having access to social resources, such as secure employment and higher education had a protective role.

This study has several strengths: Firstly, our results extend and further refine the accumulating evidence from different countries that childhood trauma, and emotional abuse in particular, plays a significant role in the anxiety and depressive symptoms evinced during the COVID-19 pandemic (Janiri et al., 2021; Siegel & Lahav, 2022) contributing to the ecological validity of research outcomes.

Secondly, a methodology focused on investigating specific aspects of a concept may better elucidate the complex relations among variables and avoid conceptual blurring and unsubstantiated claims regarding the traumatogenic nature of a single experience, such as the Covid-19 pandemic. For example, difficulty identifying feelings, not just the general concept of alexithymia, or cynicism, self-blame, and sense of coherence instead of general personality variables (Big Five) advance our understanding of the mechanisms underlying a particular phenomenon (Costa et al., 1996).

Thirdly, factors indicating resilience should be included in the exploration of mental distress, to better understand the wide diversity of responses during the COVID-19 pandemic as suggested by the developmental psychopathology paradigm (Toth & Cicchetti, 2013). In this study both social (high education and stable income) and individual markers or resilience attributes (sense of coherence, adults having faith in them while growing up, religiosity) were inversely associated with peripandemic anxiety and depression.

Emotion awareness and emotion regulation skills seem to be core issues in the development of subsequent psychopathology (Gross & Jazaieri, 2014). Taking into consideration their significance, future research should address the conceptual and methodological issues regarding low emotion awareness, alexithymia, and emotion dysregulation within an integrated framework embracing neurobiological, developmental, cognitive, and other contextual factors. Prospective studies in maltreated and non-maltreated children using both neurobiological and mental health indices and systematically exploring the development of emotion awareness and emotion regulation along with other possible mediators, could be a real contribution in this field.

Lastly, the pivotal role of emotion awareness and emotion regulation may provide targeted guidelines for prevention and intervention. Policymakers in Greece should include emotion regulation skills classes in the school system starting from Kindergarten since they are easy to teach at schools (Jones et al., 2018), and less costly compared to trauma-informed interventions from mental health professionals (Taggart et al., 2021); in addition, individual treatment is scarcely able to address the global depletion of individual and social resources

evinced during the COVID-19 pandemic or any other future stressor of similar magnitude. Given the frequency of large-scale natural disasters affecting a high proportion of the Greek population (i.e. catastrophic fires in Thrace and floods in Thessaly in the summer of 2023) and the urgent warning regarding the need to prepare for the next pandemic (WHO, 2024), preventive measures to enhance the mental health of Greeks should be urgently undertaken.

## References

- Allen, M. S., Iliescu, D., & Greiff, S. (2022). Single item measures in psychological science: A call to action [Editorial]. *European Journal of Psychological Assessment*, 38(1), 1–5. <https://doi.org/10.1027/1015-5759/a000699>
- Anagnostopoulou, T., Siannis, F., Kyriafinis, D., & Sela, M. (2022). Patterns of adjustment during the Covid-19 pandemic in Greece: the Resilient, the Rebels and the Internalizers. *Psychology: The Journal of the Hellenic Psychological Society*, 27(3), 26–46. [https://doi.org/10.12681/psy\\_hps.28495](https://doi.org/10.12681/psy_hps.28495)
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S. R., & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174–186. <https://doi.org/10.1007/s00406-005-0624-4>
- Antonopoulou, Z., Konstantakopoulos, G., Tzinieri-Coccosis, M., & Sinodinou, C. (2017). Rates of childhood trauma in a sample of university students in Greece: The Greek version of the Early Trauma Inventory-Self Report. *Psychiatriki*, 28(1), 19–27. <https://doi.org/10.22365/jpsych.2017.281.19>
- Antonovsky, A. (1993). The structure and properties of the Sense of Coherence scale. *Social Science & Medicine*, 36(6), 725–733. [https://doi.org/10.1016/0277-9536\(93\)90033-Z](https://doi.org/10.1016/0277-9536(93)90033-Z)
- Asmundson, G. J. G., & Taylor, S. (2020). Coronaphobia: Fear and the 2019-nCoV outbreak. *Journal of Anxiety Disorders*, 70, 102196. <https://doi.org/10.1016/j.janxdis.2020.102196>
- Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (2020). Twenty-five years with the 20-item Toronto Alexithymia Scale. *Journal of Psychosomatic Research*, 131, Article 109940. <https://doi.org/10.1016/j.jpsychores.2020.109940>
- Barrett, L. F. (2017). The theory of constructed emotion: An active inference account of interoception and categorization. *Social Cognitive and Affective Neuroscience*, 12(1), 1–23. <https://doi.org/10.1093/scan/nsw154>
- Barrett, L. F., & Gross, J. J. (2001). Emotional intelligence: A process model of emotion representation and regulation. In T. J. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 286–310). Guilford Press.
- Barzilay, R., Moore, T. M., Greenberg, D. M., DiDomenico, G. E., Brown, L. A., White, L. K., Gur, R. C., & Gur, R. E. (2020). Resilience, COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers. *Translational psychiatry*, 10(1), 291. <https://doi.org/10.1038/s41398-020-00982-4>
- Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, 44(2), 175–184. <https://doi.org/10.1186/2193-9012-4-1>
- Bergkvist, L., & Rossiter, J. R. (2009). Tailor-made single-item measures of doubly concrete constructs. *International Journal of Advertising*, 28(4), 607–621. <https://doi.org/10.2501/S0265048709200783>
- Boisjoli, C., & Hébert, M. (2020). Importance of telling the unutterable: Alexithymia among sexually abused children. *Psychiatry Research*, 291, 113238. <https://doi.org/10.1016/j.psychres.2020.113238>

- Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7, 511-535. <https://doi.org/10.1146/annurev-clinpsy-032210-104526>
- Bowling, A. (2005). Just one question: If one question works, why ask several? *Journal of Epidemiology & Community Health*, 59, 342-345. <http://dx.doi.org/10.1136/jech.2004.021204>
- Bradley, B., DeFife, J. A., Guarnaccia, C., Phifer, J., Fani, N., Ressler, K. J., & Westen, D. (2011). Emotion dysregulation and negative affect: Association with psychiatric symptoms. *The Journal of Clinical Psychiatry*, 72(5), 685-691. <https://doi.org/10.4088/JCP.10m06409blu>
- Bremner, J. D., Bolus, R., & Mayer, E. A. (2007). Psychometric properties of the Early Trauma Inventory-Self Report. *The Journal of Nervous and Mental Disease*, 195(3), 211-218. <https://doi.org/10.1097/01.nmd.0000243824.84651.6c>
- Brückl, T. M., Wittchen, H. U., Höfler, M., Pfister, H., Schneider, S., & Lieb, R. (2007). Childhood separation anxiety and the risk of subsequent psychopathology: Results from a community study. *Psychotherapy and Psychosomatics*, 76(1), 47-56. <https://doi.org/10.1159/000096364>
- Burklund, L. J., Creswell, J. D., Irwin, M. R., & Lieberman, M. D. (2014). The common and distinct neural bases of affect labeling and reappraisal in healthy adults. *Frontiers in Psychology*, 5, Article 221. <https://doi.org/10.3389/fpsyg.2014.00221>
- Cai, J., Li, J., Liu, D., Gao, S., Zhao, Y., Zhang, J., & Liu, Q. (2023). Long-term effects of childhood trauma subtypes on adult brain function. *Brain and Behavior*, 13(5), e2981. <https://doi.org/10.1002/brb3.2981>
- Cicchetti, D. & Rogosch, F. A. (1997). The role of self-organization in the promotion of resilience in maltreated children. *Development and Psychopathology*, 9(4), 797-815. <https://doi.org/10.1017/S0954579497001442>
- Cicchetti, D. (2006). Development and Psychopathology. In D. Cicchetti & D. J. Cohen (Eds.) *Developmental psychopathology, Volume 1: Theory and method* (pp. 1-23). John Wiley & Sons.
- Compare, A., Zarbo, C., Shonin, E., Van Gordon, W., & Marconi, C. (2014). Emotional regulation and depression: A potential mediator between heart and mind. *Cardiovascular Psychiatry and Neurology*, 2014, 1-10. <https://doi.org/10.1155/2014/324374>
- Conrad, R., Wegener, I., Imbierowicz, K., Liedtke, R., & Geiser, F. (2009). Alexithymia, temperament and character as predictors of psychopathology in patients with major depression. *Psychiatry Research*, 165(1-2), 137-144. <https://doi.org/10.1016/j.psychres.2007.10.013>
- Costa, P. T., Jr., Somerfield, M. R., & McCrae, R. R. (1996). Personality and coping: A reconceptualization. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: Theory, Research, Applications* (pp. 44-61). John Wiley & Sons.
- Cotton, S. M., Wright, A., Harris, M. G., Jorm, A. F., & McGorry, P. D. (2006). Influence of gender on mental health literacy in young Australians. *Australian & New Zealand Journal of Psychiatry*, 40(9), 790-796.
- Cross, D., Fani, N., Powers, A., & Bradley, B. (2017). Neurobiological Development in the Context of Childhood Trauma. *Clinical Psychology: A publication of the Division of Clinical Psychology of the American Psychological Association*, 24(2), 111-124. <https://doi.org/10.1111/cpsp.12198>
- Dadaczynski, K., Okan, O., Messer, M., & Rathmann, K. (2022). University students' sense of coherence, future worries and mental health: Findings from the German COVID-HL-survey. *Health Promotion International*, 37(1). <https://doi.org/10.1093/heapro/daabo70>
- Doom, J. R., Seok, D., Narayan, A. J., & Fox, K. R. (2021). Adverse and Benevolent Childhood Experiences Predict Mental Health During the COVID-19 Pandemic. *Adversity and Resilience Science*, 2(3), 193-204. <https://doi.org/10.1007/s42844-021-00038-6>
- Fernandes, V., & Osório, F. (2015). Are there associations between early emotional trauma and anxiety disorders? Evidence from a systematic literature review and meta-analysis. *European Psychiatry*, 30(6), 756-764. <https://doi.org/10.1016/j.eurpsy.2015.06.004>



- Fuchs, C., & Diamantopoulos, A. (2009). Using single-item measures for construct measurement in management research: Conceptual issues and application guidelines. *Die Betriebswirtschaft*, 69(2), 195-210.
- Gewirtz-Meydan, A., & Lassri, D. (2022). A profile analysis of COVID-19 stress-related reactions: The importance of early childhood abuse, psychopathology, and interpersonal relationships. *Child abuse & neglect*, 130(Pt 1), 105442. <https://doi.org/10.1016/j.chiabu.2021.105442>
- Glowacz, F., & Schmits, E. (2020). Psychological distress during the COVID-19 lockdown: The young adults most at risk. *Psychiatry Research*, 293, 113486. <https://doi.org/10.1016/j.psychres.2020.113486>
- Grabe, H. J., Spitzer, C., & Freyberger, H. J. (2004). Alexithymia and personality in relation to dimensions of psychopathology. *The American Journal of Psychiatry*, 161(7), 1299-1301. <https://doi.org/10.1176/appi.ajp.161.7.1299>
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41-54. <https://doi.org/10.1023/B:JOBA.0000007455.08539.94>
- Gross, J. J., & Jazaieri, H. (2014). Emotion, emotion regulation, and psychopathology: An affective science perspective. *Clinical Psychological Science*, 2(4), 387-401. <https://doi.org/10.1177/2167702614536164>
- Hamel, C., Rodrigue, C., Clermont, C., Hébert, M., Paquette, L., & Dion, J. (2024). Alexithymia as a mediator of the associations between child maltreatment and internalizing and externalizing behaviors in adolescence. *Scientific Reports*, 14(1), 6359. <https://doi.org/10.1038/s41598-024-56909-2>
- Hébert, M., Boisjoli, C., Blais, M., & Oussaïd, E. (2018). Alexithymia as a mediator of the relationship between child sexual abuse and psychological distress in adolescence: A short-term longitudinal study. *Psychiatry Research*, 260, 468-472. <https://doi.org/10.1016/j.psychres.2017.12.022>
- Hemming, L., Haddock, G., Shaw, J., & Pratt, D. (2019). Alexithymia and its associations with depression, suicidality, and aggression: An overview of the literature. *Frontiers in Psychiatry*, 10, 203. <https://doi.org/10.3389/fpsy.2019.00203>
- Honkalampi, K., Hintikka, J., Tanskanen, A., Lehtonen, J., & Viinamäki, H. (2000). Depression is strongly associated with alexithymia in the general population. *Journal of Psychosomatic Research*, 48(1), 99-104. [https://doi.org/10.1016/S0022-3999\(99\)00083-5](https://doi.org/10.1016/S0022-3999(99)00083-5)
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet. Public Health*, 2(8), e356-e366. [https://doi.org/10.1016/S2468-2667\(17\)30118-4](https://doi.org/10.1016/S2468-2667(17)30118-4)
- Huo, L., Zhou, Y., Li, S., Ning, Y., Zeng, L., Liu, Z., Qian, W., Yang, J., Zhou, X., Liu, T., & Zhang, X. Y. (2021). Burnout and its relationship with depressive symptoms in medical staff during the COVID-19 epidemic in China. *Frontiers in Psychology*, 12, 616369. <https://doi.org/10.3389/fpsyg.2021.616369>
- Infurna, M. R., Reichl, C., Parzer, P., Schimmenti, A., Bifulco, A., & Kaess, M. (2016). Associations between depression and specific childhood experiences of abuse and neglect: A meta-analysis. *Journal of Affective Disorders*, 190, 47-55. <https://doi.org/10.1016/j.jad.2015.09.006>
- Janiri, D., Moccia, L., Dattoli, L., Pepe, M., Molinaro, M., De Martin, V., Chieffo, D., Di Nicola, M., Fiorillo, A., Janiri, L., & Sani, G. (2021). Emotional dysregulation mediates the impact of childhood trauma on psychological distress: First Italian data during the early phase of COVID-19 outbreak. *The Australian and New Zealand Journal of Psychiatry*, 55(11), 1071-1078. <https://doi.org/10.1177/0004867421998802>

- Jones, T. M., Nurius, P., Song, C., & Fleming, C. M. (2018). Modeling life course pathways from adverse childhood experiences to adult mental health. *Child Abuse & Neglect, 80*, 32-40. <https://doi.org/10.1016/j.chiabu.2018.03.005>
- Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). "Mental health literacy": A survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia, 166*(4), 182-186. <https://doi.org/10.5694/j.1326-5377.1997.tb140071.x>
- Kajanoja, J., Scheinin, N. M., Karukivi, M., Karlsson, L., & Karlsson, H. (2019). Alcohol and tobacco use in men: The role of alexithymia and externally oriented thinking style. *The American Journal of Drug and Alcohol Abuse, 45*(2), 199-207. <https://doi.org/10.1080/00952990.2018.1528267>
- Kalaitzaki, A. (2021). Posttraumatic symptoms, posttraumatic growth, and internal resources among the general population in Greece: A nation-wide survey amid the first COVID-19 lockdown. *International Journal of Psychology*. First published: 03 March 2021. <https://doi.org/10.1002/ijop.12750>
- Kalaitzaki, A., Tsouvelas, G., Tamiolaki, A., & Konstantakopoulos, G. (2022). Post-traumatic stress symptoms during the first and second COVID-19 lockdown in Greece: Rates, risk, and protective factors. *International Journal of Mental Health Nursing*. First published: 17 October 2021, <https://doi.org/10.1111/inm.12945>
- Kalaitzaki, A., Tsouvelas, G., & Tamiolaki, A. (2023). Perceived posttraumatic growth and its psychosocial predictors during two consecutive COVID-19 lockdowns. *International Journal of Stress Management, 30*(3), 223-234. <https://doi.org/10.1037/stro000273>
- Kalokerinos, E. K., Erbas, Y., Ceulemans, E., & Kuppens, P. (2019). Differentiate to regulate: Low negative emotion differentiation is associated with ineffective use but not selection of emotion-regulation strategies. *Psychological Science, 30*(6), 863-879. <https://doi.org/10.1177/0956797619838763>
- Karukivi, M., Hautala, L., Kaleva, O., Haapasalo-Pesu, K. M., Liuksila, P. R., Joukamaa, M., & Saarijärvi, S. (2010). Alexithymia is associated with anxiety among adolescents. *Journal of Affective Disorders, 125*(1-3), 383-387. <https://doi.org/10.1016/j.jad.2010.02.126>
- Kashdan, T. B., Ferssizidis, P., Collins, R. L., & Muraven, M. (2010). Emotion differentiation as resilience against excessive alcohol use: An ecological momentary assessment in underage social drinkers. *Psychological Science, 21*(9), 1341-1347. <https://doi.org/10.1177/0956797610379863>
- Kessler, R. C., McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., Aguilar-Gaxiola, S., Alhamzawi, A. O., Alonso, J., Angermeyer, M., Benjet, C., Bromet, E., Chatterji, S., de Girolamo, G., Demyttenaere, K., Fayyad, J., Florescu, S., Gal, G., Gureje, O., . . . Williams, D. R. (2010). Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *The British Journal of Psychiatry, 197*(5), 378-385. <https://doi.org/10.1192/bjp.bp.110.080499>
- Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology. *Journal of Child Psychology and Psychiatry, 51*(6), 706-716. <https://doi.org/10.1111/j.1469-7610.2009.02202.x>
- Kline, R. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). Guilford.
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606-613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Ledermann, K., von Känel, R., Barth, J., Schnyder, U., Znoj, H., Schmid, J. P., Meister Langraff, R. E., & Princip, M. (2020). Myocardial infarction-induced acute stress and post-traumatic stress symptoms: The moderating role of an alexithymia trait - difficulties identifying feelings. *European Journal of Psychotraumatology, 11*(1), 1804119. <https://doi.org/10.1080/20008198.2020.1804119>

- Li, R., Kajanoja, J., Lindblom, J., Korja, R., Karlsson, L., Karlsson, H., Nolvi, S., & Karukivi, M. (2022). The role of alexithymia and perceived stress in mental health responses to COVID-19: A conditional process model. *Journal of Affective Disorders*, 306, 9–18. <https://doi.org/10.1016/j.jad.2022.03.024>
- Linn, B. K., Stasiewicz, P. R., Fillo, J., & Bradizza, C. M. (2020). The great disrupter: Relationship of alexithymia to emotion regulation processes and smoking among pregnant women. *Substance Use & Misuse*, 55(7), 1113–1121. <https://doi.org/10.1080/10826084.2020.1729198>
- Linn, B. K., Zhao, J., Bradizza, C. M., Lucke, J. F., Ruszczczyk, M. U., & Stasiewicz, P. R. (2021). Alexithymia disrupts emotion regulation processes and is associated with greater negative affect and alcohol problems. *Journal of Clinical Psychology*, 77(12), 2915–2928. <https://doi.org/10.1002/jclp.23279>
- Liu, H., Tao, T. J., Chan, S. K. Y., Ma, J. C. H., Lau, A. Y. T., Yeung, E. T. F., Hobfoll, S. E., & Hou, W. K. (2024). Daily routine disruptions and psychiatric symptoms amid COVID-19: A systematic review and meta-analysis of data from 0.9 million individuals in 32 countries. *BMC Medicine*, 22(1), 49. <https://doi.org/10.1186/s12916-024-03253-x>
- Lowe, S. R., Hennein, R., Feingold, J. H., Peccoralo, L. A., Ripp, J. A., Mazure, C. M., & Pietrzak, R. H. (2021). Are women less psychologically resilient than men? Background stressors underlying gender differences in reports of stress-related psychological sequelae. *The Journal of Clinical Psychiatry*, 83(1), 21br14098. <https://doi.org/10.4088/JCP.21br14098>
- Luo, Z., Shen, Y., Yuan, J., Zhao, Y., Liu, Z., & Shangguan, F. (2021). Perceived stress, resilience, and anxiety among pregnant Chinese women during the COVID-19 pandemic: Latent profile analysis and mediation analysis. *Frontiers in Psychology*, 12, 696132. <https://doi.org/10.3389/fpsyg.2021.696132>
- Magin, Z. E., David, A. B., Carney, L. M., Park, C. L., Gutierrez, I. A., & George, L. S. (2021). Belief in God and psychological distress: Is it the belief or certainty of the belief? *Religions*, 12(9), 757. <https://doi.org/10.3390/rel12090757>
- Maniglio, R. (2013). Child sexual abuse in the etiology of anxiety disorders: A systematic review of reviews. *Trauma, Violence & Abuse*, 14(2), 96–112. <https://doi.org/10.1177/1524838012470032>
- Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development*, 85(1), 6–20. <https://doi.org/10.1111/cdev.12205>
- Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: Immediate psychological responses and associated factors. *International Journal of Environmental Research and Public Health*, 17(9), 3165. <https://doi.org/10.3390/ijerph17093165>
- McGee, S. L., Høltge, J., Maercker, A., & Thoma, M. V. (2018). Sense of coherence and stress-related resilience: Investigating the mediating and moderating mechanisms in the development of resilience following stress or adversity. *Frontiers in Psychiatry*, 9, Article 378. <https://doi.org/10.3389/fpsyg.2018.00378>
- McKay, M. T., Cannon, M., Chambers, D., Conroy, R. M., Coughlan, H., Dodd, P., Healy, C., O'Donnell, L., & Clarke, M. C. (2021). Childhood trauma and adult mental disorder: A systematic review and meta-analysis of longitudinal cohort studies. *Acta Psychiatrica Scandinavica*, 143(3), 189–205. <https://doi.org/10.1111/acps.13268>
- 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*, 18(1), 96. <https://doi.org/10.1186/s12916-020-01561-6>
- McLaughlin, K. A., Kubzansky, L. D., Dunn, E. C., Waldinger, R., Vaillant, G., & Koenen, K. C. (2010). Childhood social environment, emotional reactivity to stress, and mood and anxiety disorders across the life course. *Depression and Anxiety*, 27(12), 1087–1094. <https://doi.org/10.1002/da.20762>
- Metz, S. M., Wyrwich, K. W., Babu, A. N., Kroenke, K., Tierney, W. M., & Wolinsky, F. D. (2007). Validity of patient-reported health-related quality of life global ratings of change using structural equation

- modeling. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment. Care and Rehabilitation*, 16(7), 1193–1202. <https://doi.org/10.1007/s11136-007-9225-1>.
- Milrod, B., Markowitz, J. C., Gerber, A. J., Cyranowski, J., Altemus, M., Shapiro, T., Hofer, M., & Glatt, C. (2014). Childhood separation anxiety and the pathogenesis and treatment of adult anxiety. *The American Journal of Psychiatry*, 171(1), 34–43. <https://doi.org/10.1176/appi.ajp.2013.13060781>
- Muniz, C. N., Fox, B., Miley, L. N., Delisi, M., Cigarran, G. P. II, & Birnbaum, A. (2019). The effects of adverse childhood experiences on internalizing versus externalizing outcomes. *Criminal Justice and Behavior*, 46(4), 568–589. <https://doi.org/10.1177/0093854819826213>
- Nieto, M., Visier, M. E., Silvestre, I. N., Navarro, B., Serrano, J. P., & Martínez-Vizcaíno, V. (2023). Relation between resilience and personality traits: The role of hopelessness and age. *Scandinavian Journal of Psychology*, 64(1), 53–59. <https://doi.org/10.1111/sjop.12866>
- Nunnally, J. C., Bernstein, I. H. (1994). *Psychometric Theory* (3<sup>rd</sup> Ed.). McGraw-Hill.
- O'Brien, C., Gaher, R. M., Pope, C., & Smiley, P. (2008). Difficulty identifying feelings predicts the persistence of trauma symptoms in a sample of veterans who experienced military sexual trauma. *The Journal of Nervous and Mental Disease*, 196(3), 252–255. <https://doi.org/10.1097/NMD.0b013e318166397d>
- Osimo, S. A., Aiello, M., Gentili, C., Ionta, S., & Cecchetto, C. (2021). The influence of personality, resilience, and alexithymia on mental health during COVID-19 pandemic. *Frontiers in Psychology*, 12, 630751. <https://doi.org/10.3389/fpsyg.2021.630751>
- Paivio, S. C., & McCulloch, C. R. (2004). Alexithymia as a mediator between childhood trauma and self-injurious behaviors. *Child Abuse & Neglect*, 28(3), 339–354. <https://doi.org/10.1016/j.chiabu.2003.11.018>
- Parker, J. D. A., Michael Bagby, R., Taylor, G. J., Endler, N. S., & Schmitz, P. (1993). Factorial validity of the 20-item Toronto Alexithymia Scale. *European Journal of Personality*, 7(4), 221–232. <https://doi.org/10.1002/per.2410070403>
- Quesnel-Vallée, A., & Taylor, M. (2012). Socioeconomic pathways to depressive symptoms in adulthood: Evidence from the National Longitudinal Survey of Youth 1979. *Social Science & Medicine*, 74(5), 734–743. <https://doi.org/10.1016/j.socscimed.2011.10.038>
- Rieffe, C., & De Rooij, M. (2012). The longitudinal relationship between emotion awareness and internalising symptoms during late childhood. *European Child & Adolescent Psychiatry*, 21(6), 349–356. <https://doi.org/10.1007/s00787-012-0267-8>
- Russo, J. E., Dhruve, D. M., & Oliveros, A. D. (2022). Coping with COVID-19: Testing the stress sensitization hypothesis among adults with and without a history of adverse childhood experiences. *Journal of Affective Disorders Reports*, 10, 100379. <https://doi.org/10.1016/j.jadr.2022.100379>
- Sagar, R., Talwar, S., Desai, G., & Chaturvedi, S. K. (2021). Relationship between alexithymia and depression: A narrative review. *Indian Journal of Psychiatry*, 63(2), 127–133. [https://doi.org/10.4103/psychiatry.IndianJPsychiatry\\_738\\_19](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_738_19)
- Schimmenti, A., & Caretti, V. (2018). Attachment, trauma, and alexithymia. In O. Luminet, R. M. Bagby, & G. J. Taylor (Eds.), *Alexithymia: Advances in research, theory, and clinical practice* (pp. 127–141). Cambridge University Press. <https://doi.org/10.1017/9781108241595.010>
- Seaborn, K., Chignell, M., & Gwizdka, J. (2021). Psychological resilience during COVID-19: A meta-review protocol. *BMJ Open*, 11(6), e051417. <https://doi.org/10.1136/bmjopen-2021-051417>
- Seitz, K. I., Bertsch, K., & Herpertz, S. C. (2021). A prospective study of mental health during the COVID-19 pandemic in childhood trauma-exposed individuals: Social support matters. *Journal of Traumatic Stress*, 34(3), 477–486. <https://doi.org/10.1002/jts.22660>
- Shank, L. M., Tanofsky-Kraff, M., Kelly, N. R., Jaramillo, M., Rubin, S. G., Altman, D. R., Byrne, M. E., LeMay-Russell, S., Schvey, N. A., Broadney, M. M., Brady, S. M., Yang, S. B., Courville, A. B., Ramirez, S., Crist,

- A. C., Yanovski, S. Z., & Yanovski, J. A. (2019). The association between alexithymia and eating behavior in children and adolescents. *Appetite*, *142*, Article 104381. <https://doi.org/10.1016/j.appet.2019.104381>
- Sharma, V., Marin, D. B., Koenig, H. K., Feder, A., Iacoviello, B. M., Southwick, S. M., & Pietrzak, R. H. (2017). Religion, spirituality, and mental health of U.S. military veterans: Results from the National Health and Resilience in Veterans Study. *Journal of Affective Disorders*, *217*, 197–204. <https://doi.org/10.1016/j.jad.2017.03.071>
- Siegel, A., & Lahav, Y. (2022). Emotion regulation and distress during the COVID-19 pandemic: The role of childhood abuse. *Journal of Interpersonal Violence*, *37*(17-18), NP16302–NP16326. <https://doi.org/10.1177/08862605211021968>
- Sifneos, P. E. (1973). The prevalence of "alexithymic" characteristics in psychosomatic patients. *Psychotherapy and Psychosomatics*, *22*(2-6), 255–262. <https://doi.org/10.1159/000286529>
- Simbi, C., Zhang, Y., & Wang, Z. (2020). Early parental loss in childhood and depression in adults: A systematic review and meta-analysis of case-controlled studies. *Journal of Affective Disorders*, *260*, 272–280. <https://doi.org/10.1016/j.jad.2019.07.087>
- Sousa, C., Herrenkohl, T. I., Moylan, C. A., Tajima, E. A., Klika, J. B., Herrenkohl, R. C., & Russo, M. J. (2011). Longitudinal study on the effects of child abuse and children's exposure to domestic violence, parent-child attachments, and antisocial behavior in adolescence. *Journal of Interpersonal Violence*, *26*(1), 111–136. <https://doi.org/10.1177/0886260510362883>
- Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology*, *5*(1). <https://doi.org/10.3402/ejpt.v5.25338>
- Spinazzola, J., Hodgdon, H., Liang, L.-J., Ford, J. D., Layne, C. M., Pynoos, R., Briggs, E. C., Stolbach, B., & Kisiel, C. (2014). Unseen wounds: The contribution of psychological maltreatment to child and adolescent mental health and risk outcomes. *Psychological Trauma: Theory, Research, Practice, and Policy*, *6*(Suppl 1), S18–S28. <https://doi.org/10.1037/a0037766>
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092–1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Suls, J., & Martin, R. (2005). The daily life of the garden-variety neurotic: reactivity, stressor exposure, mood spillover, and maladaptive coping. *Journal of Personality*, *73*(6), 1485–1509. <https://doi.org/10.1111/j.1467-6494.2005.00356.x>
- Taggart, D., Rouf, K., Hisham, I., Duckworth, L., & Sweeney, A. (2021). Trauma, mental health and the COVID-19 crisis: Are we really all in it together? *Journal of Mental Health*, *30*(4), 401–404. <https://doi.org/10.1080/09638237.2021.1875415>
- Tang, A., Crawford, H., Morales, S., Degnan, K. A., Pine, D. S., & Fox, N. A. (2020). Infant behavioral inhibition predicts personality and social outcomes three decades later. *Proceedings of the National Academy of Sciences of the United States of America*, *117*(18), 9800–9807. <https://doi.org/10.1073/pnas.1917376117>
- Tang, W., Hu, T., Yang, L., & Xu, J. (2020). The role of alexithymia in the mental health problems of home-quarantined university students during the COVID-19 pandemic in China. *Personality and Individual Differences*, *165*, 110131. <https://doi.org/10.1016/j.paid.2020.110131>
- Taylor, G. J., & Bagby, R. M. (2000). An overview of the alexithymia construct. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 40–67). Jossey-Bass.
- Taylor, G. J., & Bagby, R. M. (2013). Psychoanalysis and empirical research: The example of alexithymia. *Journal of the American Psychoanalytic Association*, *61*(1), 99–133. <https://doi.org/10.1177/0003065112474066>

- Taylor, G. J., Bagby, R. M., & Parker, J. D. (1991). The alexithymia construct: A potential paradigm for psychosomatic medicine. *Psychosomatics: Journal of Consultation and Liaison Psychiatry*, 32(2), 153-164. [https://doi.org/10.1016/S0033-3182\(91\)72086-0](https://doi.org/10.1016/S0033-3182(91)72086-0)
- Taylor, G. J., Bagby, R. M., & Parker, J. D. (1999). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. Cambridge University Press.
- Toth, S. L., & Cicchetti, D. (2013). A developmental psychopathology perspective on child maltreatment. Introduction. *Child Maltreatment*, 18(3), 135-139. <https://doi.org/10.1177/1077559513500380>
- Valiente, C., Contreras, A., Peinado, V., Trucharte, A., Martínez, A. P., & Vázquez, C. (2021). Psychological adjustment in Spain during the COVID-19 pandemic: Positive and negative mental health outcomes in the general population. *The Spanish Journal of Psychology*, 24, e8. <https://doi.org/10.1017/SJP.2021.7>
- Veronese, G., Mahamid, F. A., & Bdiir, D. (2022). Subjective well-being, sense of coherence, and posttraumatic growth mediate the association between COVID-19 stress, trauma, and burnout among Palestinian health-care providers. *American Journal of Orthopsychiatry*, 92(3), 291-301. <https://doi.org/10.1037/orto000606>
- Verster, J. C., Sandalova, E., Garssen, J., & Bruce, G. (2021). The use of single-item ratings versus traditional multiple-item questionnaires to assess mood and health. *European Journal of Investigation in Health, Psychology and Education*, 11(1), 183-198. <https://doi.org/10.3390/ejihpe11010015>
- Wang, Y., Kala, M. P., & Jafar, T. H. (2020). Factors associated with psychological distress during the coronavirus disease 2019 (COVID-19) pandemic on the predominantly general population: A systematic review and meta-analysis. *PLoS ONE*, 15(12), Article e0244630. <https://doi.org/10.1371/journal.pone.0244630>
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: how good are single-item measures?. *The Journal of Applied Psychology*, 82(2), 247-252. <https://doi.org/10.1037/0021-9010.82.2.247>
- Weissman, D. G., Nook, E. C., Dews, A. A., Miller, A. B., Lambert, H. K., Sasse, S. F., Somerville, L. H., & McLaughlin, K. A. (2020). Low emotional awareness as a transdiagnostic mechanism underlying psychopathology in adolescence. *Clinical Psychological Science*, 8(6), 971-988. <https://doi.org/10.1177/2167702620923649>
- Werner, E. E., & Smith, R. S. (1977). *Kauai's children come of age*. University Press of Hawaii.
- White, L. K., Gur, R. C., & Gur, R. E. (2020). Resilience, COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers. *Translational Psychiatry*, 10(1), 291. <https://doi.org/10.1038/s41398-020-00982-4>
- Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, 9, 8. <https://doi.org/10.1186/1477-7525-9-8>
- World Health Organization. (2022, March 2). *COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide*. World Health Organization. <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>
- World Health Organization. (2024, March 20). *Call for urgent agreement on international deal to prepare for and prevent future pandemics*. World Health Organization. <https://www.who.int/news/item/20-03-2024-call-for-urgent-agreement-on-international-deal-to-prepare-for-and-prevent-future-pandemics>
- Xia, J., Zhu, L., Huang, H., Fan, P., Zhou, M., Cai, X. L., & He, H. (2023). Relationships between childhood trauma and mental health during the COVID-19 pandemic: A network analysis. *Frontiers in Psychiatry*, 14, 1251473. <https://doi.org/10.3389/fpsy.2023.1251473>

# Η χρόνια επίδραση του παιδικού τραύματος και της αλεξιθυμίας στην ψυχική υγεία κατά τη διάρκεια της πανδημίας COVID-19 στην Ελλάδα

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<sup>4</sup>Ελληνικό Μεσογειακό Πανεπιστήμιο, Ινστιτούτο Αγροδιατροφής και Επιστημών Ζωής

ΛΕΞΕΙΣ-ΚΛΕΙΔΙΑ	ΠΕΡΙΛΗΨΗ
Παιδικό τραύμα Συναισθηματική κακοποίηση Αλεξιθυμία Ανθεκτικότητα Κατάθλιψη Άγχος Covid-19	Η παρούσα μελέτη διερεύνησε την επίδραση του παιδικού τραύματος, της αλεξιθυμίας και άλλων ψυχολογικών παραγόντων κινδύνου και ανθεκτικότητας στην ψυχική δυσφορία που βίωσαν οι Έλληνες κατά τη διάρκεια της πανδημίας Covid-19. Σύμφωνα με την υπόθεσή μας, η αλεξιθυμία διαμεσολαβεί τη συσχέτιση ανάμεσα στο πρώιμο τραύμα και το πανδημικό άγχος και την κατάθλιψη. Η έρευνα ήταν διαδικτυακή και ένα δείγμα 557 ενηλίκων απάντησε σε ερωτηματολόγια αυτοαναφοράς σχετικά με το τραύμα παιδικής ηλικίας, τη ρύθμιση των συναισθημάτων, ψυχολογικά χαρακτηριστικά, την κατάθλιψη και το άγχος. Οι στατιστικές αναλύσεις περιελάμβαναν την ιεραρχική πολλαπλή παλινδρόμηση και μοντέλα δομικών εξισώσεων. Σύμφωνα με τα αποτελέσματα, η <i>συναισθηματική</i> κακοποίηση κατά την παιδική ηλικία συσχετίστηκε με υψηλότερα επίπεδα άγχους και κατάθλιψης κατά τη διάρκεια της πανδημίας, ενώ η δυσκολία της αναγνώρισης συναισθημάτων είχε μερική διαμεσολάβηση σε αυτήν τη συσχέτιση. Επιπλέον, ψυχολογικά χαρακτηριστικά που υποδήλωναν ψυχική ανθεκτικότητα ή ευαλωτότητα είχαν συσχέτιση με χαμηλότερα ή υψηλότερα επίπεδα ψυχικής δυσφορίας αντίστοιχα. Παράγοντες αναφορικά με την πανδημία δεν είχαν επίδραση στην ψυχική δυσφορία. Η παρούσα έρευνα αναδεικνύει τις μακροπρόθεσμες επιπτώσεις του πρώιμου τραύματος και της αλεξιθυμίας οι οποίες παραμένουν ενεργές στην ενήλικη ζωή, έτσι ώστε τα άτομα που έχουν υποστεί πρώιμο τραύμα να είναι περισσότερο ευάλωτα στην εμφάνιση άγχους και κατάθλιψης όταν αντιμετωπίζουν ένα μείζον στρεσογόνο γεγονός, όπως την πανδημία Covid-19. Επιπλέον, η ανάπτυξη της ικανότητας αναγνώρισης και ρύθμισης των συναισθημάτων χρειάζεται να είναι κεντρικός στόχος των προγραμμάτων πρόληψης και παρέμβασης σε καταστάσεις κρίσης που αφορούν στη δημόσια υγεία.
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