

SHORT COMMUNICATION

Peritraumatic distress across the lifespan: Clinical implications of age differences during the COVID-19 pandemic

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Abstract

The Peritraumatic Distress Inventory (PDI) is a well-known self-report questionnaire indexing the distress experienced during and shortly after a most stressful or traumatic event. Although sociodemographic factors contributing to peritraumatic distress have been previously investigated, no research has examined the nature and severity of peritraumatic distress reactions in a non-clinical, community sample as a function of age. An international sample of 5621 adult participants were grouped according the World Health Organization's age stratification protocol. Mean scores and item endorsement on the PDI were compared across groups with respect to their worst experience of the COVID-19 pandemic. A significant between-group difference was found, $F(55,615) = 30.74$, $p < 0.001$, $\eta^2 = 0.027$ whereby participants aged 18–39 years old reported the highest levels of peritraumatic distress. This group also endorsed a higher proportion of items on the PDI's two main factors (emotional distress and physical reactions), and were more likely to endorse feelings of helplessness, than older participants. It appears that severity of peritraumatic distress during the pandemic has affected younger people the most. Results are discussed in light of clinical implications.

KEYWORDS

age, COVID-19, mental health, PDI, peritraumatic distress

1 | INTRODUCTION

The traumatic effects of the COVID-19 pandemic are being increasingly documented (Boyras & Legros, 2020). One way of understanding these effects is through the study of its precursor, peritraumatic distress, that is, the emotional, behavioural, and physiological responses that occur *during* and *immediately after* a specific (here, COVID-related) stressful or traumatic event (Brunet et al., 2001). Peritraumatic distress is a robust predictor of post-traumatic stress disorder (PTSD) symptoms and diagnosis (see the meta-analysis by Thomas et al., 2012), the latter which can only be

diagnosed 1-month after the event (American Psychiatric Association [APA], 2013). A well-validated measure of peritraumatic distress is the Peritraumatic Distress Inventory (PDI; Brunet et al., 2001), which is composed of two factors: 'negative emotions' (e.g., helplessness), and 'perceived life threat and bodily arousal' (e.g., fear of dying). Whereas high scores on the PDI have been associated with increased risk for PTSD, specific items have also been related to specific profiles of pathologies. For instance, Fullerton et al. (2006) found that low perceived safety was associated with intrusions and hyperarousal, in addition to being positively correlated with depressive symptoms and peritraumatic

dissociation. To provide a comprehensive picture of the variability in the severity of peritraumatic distress, some studies have examined how PDI scores differ across various demographics (e.g., sex, race, ethnicity; Bunnell et al., 2018). To date, however, no study has explored the effects of age on the experience of peritraumatic distress for a given event.

1.1 | Peritraumatic distress during the COVID-19 pandemic

Age is an important pre-traumatic risk factor (Irish et al., 2011; Nishi et al., 2010). Younger individuals were found to report higher levels of peritraumatic distress during the pandemic, as measured with the COVID Peritraumatic Distress Index (Costantini & Mazzotti, 2020). However, the COVID Peritraumatic Distress Index measures a broad heterogeneous construct involving symptoms of actual disorders like depression, and specific phobia. We wondered if using the PDI (Brunet et al., 2001) would allow for a more focussed analysis of the emotional and physiological experiences predicting the development of traumatic stress symptoms during the COVID-19 pandemic across age groups. To date, a handful of studies suggest that people anxious about or at risk of contracting the virus (Yoon et al., 2021), healthcare professionals (Blekas et al., 2020), child welfare workers (Miller et al., 2020), women (Antičević et al., 2021), and individuals with poorer coping strategies (Levaot et al., 2022) experience higher levels of peritraumatic distress, as measured with the PDI, during the pandemic. Moreover, among older adults (60–92 years old), higher levels of COVID-19 health worries were correlated with higher levels of peritraumatic distress symptoms (Greenblatt-Kimron et al., 2021). However, none of such studies crossed their finding with age across the lifespan leaving this question open.

1.2 | Objectives and hypotheses

The aim of this study was to investigate how the PDI total scores and the endorsement of specific PDI items differ according to age in a sample experiencing a 'single' stressor, the COVID-19 pandemic. We hypothesized that the mean PDI total score would be higher in younger compared to older age groups. In line with the first hypothesis, we also hypothesized between-group differences in terms of the most reported peritraumatic responses.

2 | METHOD

2.1 | Participants and procedure

Data was collected as part of a cross-sectional international study of the psychosocial effects of the COVID-19 pandemic that took place between April and May 2020. Participants were recruited through

the social medias and email lists. Countries that were among the most affected by the COVID-19 pandemic (Salgotra et al., 2020) in April 2020 were targeted. The survey was adapted linguistically and culturally to each culture in accordance with the guidelines of Sousa and Rojjanasrirat (2011). Participants consisted of a convenience sample of 5621 adults (See Table 1 for the sample's sociodemographic characteristics). After providing informed consent, participants were directed to an online survey hosted on the SurveyMonkey platform (click [here](#) for their statement on data handling and confidentiality). Ethical approval for the study was obtained from the Douglas Mental Health University Institute, in Montreal (Canada). The survey completion rate was 60%, and for the purpose of this study, only the PDI was analyzed.

TABLE 1 Sociodemographic variables

	M	SD
Age	42.32	15.38
	N	%
Country of residence		
Canada	1865	33.20
United-States	1241	22.10
France	987	17.60
Italy	1035	18.40
China	298	5.30
Other	195	3.50
Gender		
Male	1156	20.60
Female	4407	78.40
Other/Prefer not to disclose	58	1.00
Marital status		
Single	1361	24.20
Dating/Co-habiting/Married	3788	67.40
Separated/Divorced/Widowed	472	8.40
Ethnicity		
First nations	142	2.50
Caucasian	4095	72.90
Black	66	1.20
Latino	307	5.50
Asian	547	9.70
Mixed	123	2.20
Other	341	6.10
Education		
Pre-university	809	14.40
Undergraduate level	1911	34.00
Graduate level	2901	51.60

2.2 | Measures

2.2.1 | The Peritraumatic Distress Inventory (Brunet et al., 2001)

The PDI is a validated 13-item self-report questionnaire measuring the severity of distress experienced at the time and shortly after a stressful/traumatic event (Brunet et al., 2001). Items are rated on a 5-point scale ranging from 0 (Not at all true) to 4 (Extremely true), with a maximum total score of 52. For this paper, participants were included if they completed at least 7 of its 13 items. *Knn* imputation was used to account for missing data (Huang et al., 2017). One proposed cut-off score for the PDI is 14 (Guardia et al., 2013).

2.2.1.1 | Measurement invariance analysis

Given our hypothesis is centred on group comparisons on the PDI, it was deemed fundamental to show evidence of the psychometric invariance across the PDI items (Greiff & Scherer, 2018). Using an alignment approach (Bauer, 2017), results showed that there was measurement variance across the majority of the PDI items. In order to ensure age invariance on the PDI items, we calculated age-weighted PDI total scores to reach approximate invariance through invariance alignment.

2.2.2 | Age variable

Age categories were created based on the World Health Organization (WHO)'s (2020b) classification for the risk of COVID-19 infection: 18–29 years old, 30–39, 40–49, 50–59, and 60–69. Due to the small sample size in the 70–79 and 80–89 age groups, these latter groups were merged into one.

3 | RESULTS

The overall mean and standard deviation of PDI total weighted scores for the entire sample was: $M = 12.96$; $SD = 7.58$. The results from a between-group ANOVA with post-hoc comparisons (Tukey's honestly significant difference [HSD]) examining differences between the 6 age groups on PDI total scores was statistically significant, $F(5, 5615) = 30.74$ $p < 0.001$, $\eta^2 = 0.027$ (see Table 2). As depicted in Table 3, there were significant differences in PDI total weighted scores between certain age groups, but not others. Results from a

TABLE 2 ANOVA table of PDI scores by age group

	Sum of squares	df	Mean square	F	p
Age group	8597.70	5	1719.54	30.74	<0.001
Residuals	314,100.39	5615	55.94		

Note: Adjusted $R^2 = 0.027$.

Abbreviation: PDI, Peritraumatic Distress Inventory.

TABLE 3 Post hoc comparisons of PDI scores by age groups

Comparison		Mean difference	SE	p_{Tukey}
Age	Age			
18–29	30–39	–0.09	0.29	1.000
	40–49	1.20	0.29	0.001
	50–59	2.29	0.32	<0.001
	60–69	3.23	0.35	<0.001
	70–89	2.96	0.49	<0.001
30–39	40–49	1.30	0.31	<0.001
	50–59	2.38	0.33	<0.001
	60–69	3.33	0.37	<0.001
	70–89	3.06	0.50	<0.001
40–49	50–59	1.08	0.33	0.017
	60–69	2.03	0.37	<0.001
	70–89	1.76	0.50	0.006
50–59	60–69	0.95	0.39	0.219
	70–89	0.68	0.51	1.000
60–69	70–89	–0.27	0.54	1.000

Abbreviation: PDI, Peritraumatic Distress Inventory.

homogeneous subset analysis with Tukey's HSD corrections indicated that the age groups 50–59, 60–69, and 70–89 did not significantly differ from one another ($p = 0.171$), age groups 50–59 and 40–49 did not significantly differ from each other ($p = 0.075$), and age groups 18–29 and 30–39 did not significantly differ from each other ($p > 0.999$). Thus, to balance the proportions within each group, 3 age groups were used in the subsequent chi-square analyses (age groups 18–39; 40–49; and 50–89). The mean PDI total weighted scores were significantly higher among people aged 18–39 ($M = 14.09$; $SD = 7.68$) compared to those aged 40–49 ($M = 12.85$; $SD = 7.52$; $p < 0.05$) and to those aged 50–89 ($M = 11.33$; $SD = 7.15$; $p < 0.05$). A significant difference was also found between those aged 40–49 and those aged 50–89 ($p < 0.05$). Of the total sample ($N = 5621$), 41.9% participants reported PDI scores above the clinical cut-off. Of note, the mean PDI total scores was above the clinical cut-off for the 18–39 age group only.

Chi-square tests with post hoc Bonferroni corrected pairwise comparisons were subsequently used to compare the age groups on the endorsement of each PDI item (see Figures 1 and 2). As shown in Figure 1, a significantly higher proportion ($p < 0.01$) of respondents aged 18–39 endorsed items 1, 2, 3, 5, 6, and 8 (the PDI's negative emotions factor) compared to the other two groups. For the items 3, 5, 6, 8 there was a significantly higher proportion ($p < 0.01$) of respondents aged 40–49 endorsing those compared to the group 50–89. However, for the item 2, there was a significantly higher proportion ($p < 0.01$) of respondents aged 50–89 endorsing it than 40–49. As shown by the Figure 2, a significantly higher proportion ($p < 0.01$) of respondents aged 18–39 endorsed items 9 and 12

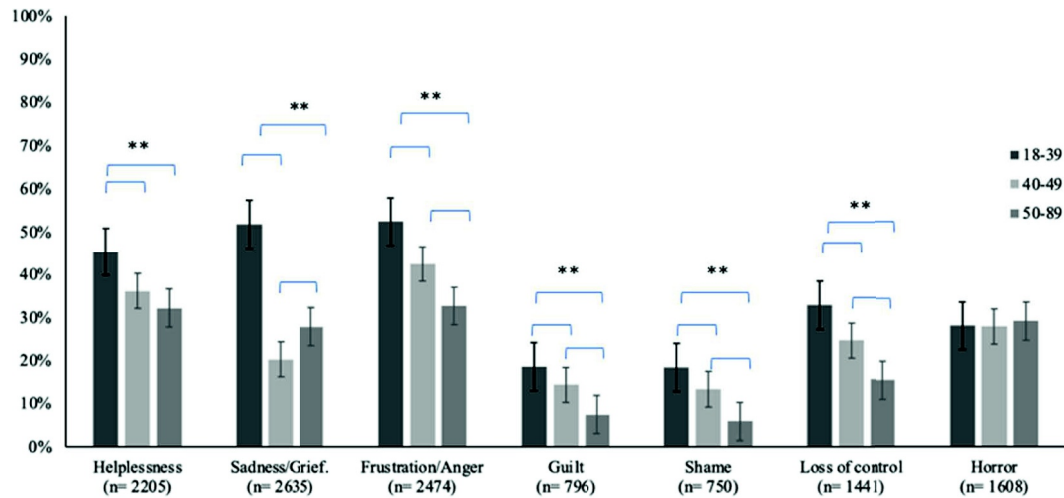


FIGURE 1 Proportion of individuals endorsing items of peritraumatic distress from the Negative Emotions subscale according to age. ** $p < 0.01$; Bracket without stars, $p < 0.05$. PDI items 'number', in order of appearance in the Figure: 1, 2, 3, 5, 6, 8, & 10. PDI, Peritraumatic Distress Inventory

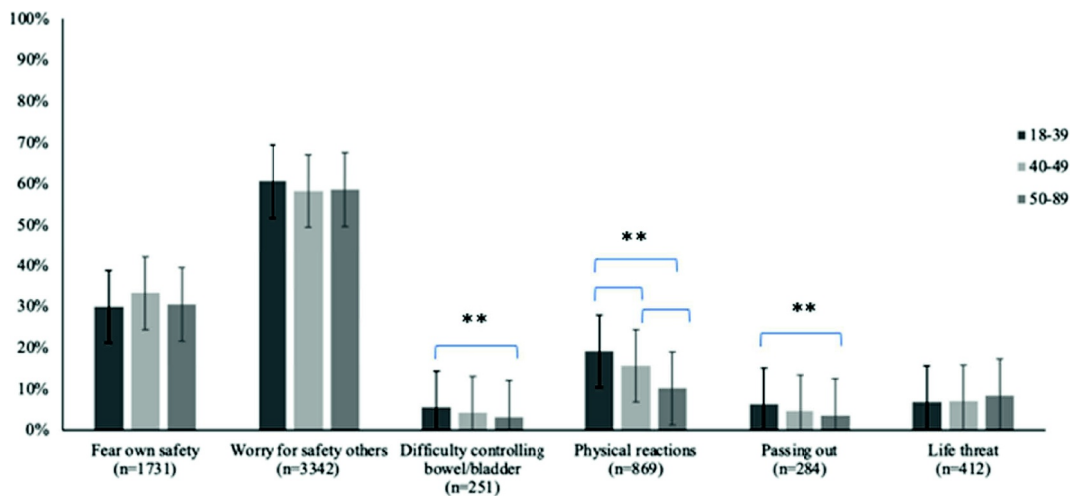


FIGURE 2 Proportion of individuals endorsing items of peritraumatic distress from the Perceived Life-Threat and Bodily Arousal subscale according to age. ** $p < 0.01$; Bracket without stars, $p < 0.05$. PDI items 'number', in order of appearance in the Figure: 4, 7, 9, 11, 12, & 13. PDI, Peritraumatic Distress Inventory

(the perceived threat and bodily arousal factor), compared to the 50–89 group. For the item 11, all groups were significantly different ($p < 0.01$), the group with the highest proportion of respondents endorsing this item was the 18–39 and the one with the lowest proportion of respondents endorsing this item was the group 50–89.

4 | DISCUSSION

In the context of the COVID-19 pandemic, age was positively associated with peritraumatic distress. When using age-weighted PDI total scores, the mean severity score of peritraumatic distress was above the clinical cut off for the 18–29 age groups. However, it is important to underscore that the mean severity scores of the two

other groups (40–49; and 50–89) were quite close to the clinical cut off score, suggesting that a large proportion of participants experienced high levels of stress/trauma during the pandemic and were at risk for the development of a trauma-and stressor-related disorder (Guardia et al., 2013). As predicted, younger participants (aged 18–39 years old) reported higher levels of peritraumatic distress than the older age groups. This is in line with prior research suggesting that young adults tend to report a greater number of daily stressors (and lower self-efficacy) than older adults (Klaiber et al., 2020). This may render them at greater risk for experiencing peritraumatic distress during the COVID-19 pandemic. Moreover, during the pandemic, older individuals may remain more optimistic and maintain better mental health than younger people (Bruine de Bruin, 2021). This study underscores the risks for mental health

issues among young adults, an age group engaged in a period of transition and development (e.g., academically, professionally, and/or relationally) that may create a sense of instability confounded or burdened by the pandemic (Shanahan et al., 2020). Importantly, however, pandemic-related peritraumatic distress was also found among older adults in this sample, which aligns with findings from other research on COVID-related PTSD symptoms among older adults (e.g., Palgi et al., 2021). One possible explanation could be that older people with health problems during the pandemic tend to have higher levels of death anxiety (Ring et al., 2020), which was not measure in the current study.

Importantly, the PDI predict specific clusters of trauma-and stressor-related disorder symptoms (Thomas et al., 2012), which allows clinicians to tailor their interventions for each age group during and after the COVID-19. In the current study, younger individuals endorsed feelings of helplessness, physiological reactions (e.g., passing out), and anger more so than the two older age groups, two elements that have been related to the development of PTSD and other mental health problems (Brewin et al., 2000; Orth & Wieland, 2006). Anger may be especially relevant for young adults, as they become increasingly exasperated in their efforts to accomplish their educational, vocational, or interpersonal goals during the pandemic (Shanahan et al., 2020). Interestingly, younger participants were also more likely to endorse emotional shame, guilt, sadness/grief, and loss of emotional control than the two other groups, findings which are in line with the notion that difficulties with emotion regulation during trauma exposure in young adulthood predicts a greater severity of PTSD symptoms (Bardeen et al., 2013). Younger people were more likely to endorse the PDI item 'I feared for my personal safety', whereas a majority of individuals irrespective of age group endorsed that they were afraid for the safety of (significant) others. Decreased perceptions of safety for the self and others may put at greater risk for developing PTSD via direct or indirect trauma exposure (Fullerton et al., 2006).

Notably, no age difference was found for the PDI's life threat item 'I thought I might die', with only 7.3% of the whole sample endorsing the item and being at risk for PTSD. According to the diagnostic criteria of the DSM-5 (APA, 2013), PTSD can only be diagnosed in individuals who have directly or indirectly experienced a life-threat. Considering that older people are at greater risk for life-threatening complications as a result of catching the coronavirus (WHO, 2020a), this result is surprising. It is possible that the perception of limits in terms of time left to live leads to a motivational shift among the older generations. According to Carstensen's (2006) revised socioemotional selectivity theory, the goals of younger individuals tend to be related to the acquisition of knowledge or experience, while older adults tend to engage in more emotionally meaningful goals. As a matter of fact, the goals of young people are more likely to be associated with negative emotions, including about the future (e.g., failure, anxiety, disappointment), whereas older adults tend to live in the present and focus more on stimuli with positive emotional valence (Cartensens, 2006).

In sum, the expression of peritraumatic distress may differ across generations. Findings from this study revealed greater peritraumatic distress among younger adults in the context of similar COVID-19 life threat experiences. The severity of peritraumatic distress, including the specific items that are endorsed, is associated with a myriad of mental health issues, most notably PTSD, and should be considered in assessment and intervention plans. An important limitation of this study concerns its cross-sectional design. Further research examining how peritraumatic distress evolves over time and across the lifespan are needed to extend our findings. Such research is needed, as even once the pandemic comes to an end, the mental health epidemic caused by this global crisis may be long-lasting and may be especially devastating for young adults.

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CONFLICT OF INTEREST

The authors declare having no conflict of interest in relation with the content of this paper.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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REFERENCES

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Antičević, V., Bubić, A., & Britvić, D. (2021). Peritraumatic distress and posttraumatic stress symptoms during the COVID-19 pandemic: The contributions of psychosocial factors and pandemic-related stressors. *Journal of Traumatic Stress, 34*(4), 691–700. <https://doi.org/10.1002/jts.22701>
- Bardeen, J. R., Kumpula, M. J., & Orcutt, H. K. (2013). Emotion regulation difficulties as a prospective predictor of posttraumatic stress symptoms following a mass shooting. *Journal of Anxiety Disorders, 27*(2), 188–196. <https://doi.org/10.1016/j.janxdis.2013.01.003>
- Bauer, D. J. (2017). A more general model for testing measurement invariance and differential item functioning. *Psychological Methods, 22*(3), 507–526. <https://doi.org/10.1037/met0000077>
- Blekas, A., Voitsidis, P., Athanasiadou, M., Parlapani, E., Chatzigeorgiou, A. F., Skoupra, M., Syngelakis, M., Holeva, V., & Diakogiannis, I. (2020). COVID-19: PTSD symptoms in Greek health care professionals. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(7), 812. <https://doi.org/10.1037/tra0000914>
- Boyras, G., & Legros, D. N. (2020). Coronavirus disease (COVID-19) and traumatic stress: Probable risk factors and correlates of post-traumatic stress disorder. *Journal of Loss & Trauma, 25*(6–7), 503–522. <https://doi.org/10.1080/15325024.2020.1763556>

- Brewin, C. R., Andrews, B., & Rose, S. (2000). Fear, helplessness, and horror in posttraumatic stress disorder: Investigating DSM-IV Criterion A2 in victims of violent crime. *Journal of Traumatic Stress, 13*(3), 499–509. <https://doi.org/10.1023/A:1007741526169>
- Bruine de Bruin, W. (2021). Age differences in COVID-19 risk perceptions and mental health: Evidence from a national US survey conducted in March 2020. *The Journals of Gerontology: Series B, 76*(2), 24–29. <https://doi.org/10.1093/geronb/gbaa074>
- Brunet, A., Weiss, D. S., Metzler, T. J., Best, S. R., Neylan, T. C., Rogers, C., Fagan, J., & Marmar, C. R. (2001). The Peritraumatic Distress Inventory: A proposed measure of PTSD criterion A2. *American Journal of Psychiatry, 158*(9), 1480–1485. <https://doi.org/10.1176/appi.ajp.158.9.1480>
- Bunnell, B. E., Davidson, T. M., & Ruggiero, K. J. (2018). The Peritraumatic Distress Inventory: Factor structure and predictive validity in traumatically injured patients admitted through a Level I trauma center. *Journal of Anxiety Disorders, 55*, 8–13. <https://doi.org/10.1016/j.janxdis.2018.03.002>
- Carstensen, L. L. (2006). The influence of a sense of time on human development. *Science, 312*(5782), 1913–1915. <https://doi.org/10.1126/science.1127488>
- Costantini, A., & Mazzotti, E. (2020). Italian validation of COVID-19 peritraumatic distress index and preliminary data in a sample of general population. *Rivista di Psichiatria, 55*(3), 145–151. <https://doi.org/10.1708/3382.33570>
- Fullerton, C. S., Ursano, R. J., Reeves, J., Shigemura, J., & Grieger, T. (2006). Perceived safety in disaster workers following 9/11. *The Journal of Nervous and Mental Disease, 194*(1), 61–63. <https://doi.org/10.1097/01.nmd.0000195307.28743.b2>
- Greenblatt-Kimron, L., Ring, L., Hoffman, Y., Shrira, A., Bodner, E., & Palgi, Y. (2021). Subjective accelerated aging moderates the association between COVID-19 health worries and peritraumatic. *Global Mental Health, 8*, E16. <https://doi.org/10.1017/gmh.2021.13>
- Greiff, S., & Scherer, R. (2018). Still comparing apples with oranges? Some thoughts on the principles and practices of measurement invariance testing. *European Journal of Psychological Assessment, 34*(3), 141–144. <https://doi.org/10.1027/1015-5759/a000487>
- Guardia, D., Brunet, A., Duhamel, A., Ducrocq, F., Demarty, A. L., & Vaiva, G. (2013). Prediction of trauma-related disorders: A proposed cutoff score for the Peritraumatic Distress Inventory. *The Primary Care Companion for CNS Disorders, 15*(1). <https://doi.org/10.4088/PCC.12101406>
- Huang, J., Keung, J. W., Sarro, F., Li, Y. F., Yu, Y. T., Chan, W. K., & Sun, H. (2017). Cross-validation based K nearest neighbor imputation for software quality datasets: An empirical study. *Journal of Systems and Software, 132*, 226–252. <https://doi.org/10.1016/j.jss.2017.07.012>
- Irish, L. A., Fischer, B., Fallon, W., Spoonster, E., Sledjeski, E. M., & Delahanty, D. L. (2011). Gender differences in PTSD symptoms: An exploration of peritraumatic mechanisms. *Journal of Anxiety Disorders, 25*(2), 209–216. <https://doi.org/10.1016/j.janxdis.2010.09.004>
- Klaiber, P., Wen, J. H., DeLongis, A., & Sin, N. L. (2020). The ups and downs of daily life during COVID-19: Age differences in affect, stress, and positive events. *The Journals of Gerontology: Series B, 76*(2), 30–37. <https://doi.org/10.1093/geronb/gbaa096>
- Levaot, Y., Greene, T., & Palgi, Y. (2022). The associations between media use, peritraumatic distress, anxiety and resilience during the COVID-19 pandemic. *Journal of Psychiatric Research, 145*, 334–338. <https://doi.org/10.1016/j.jpsychires.2020.11.018>
- Miller, J. J., Niu, C., & Moody, S. (2020). Child welfare workers and peritraumatic distress: The impact of COVID-19. *Children and Youth Services Review, 119*, 105508. <https://doi.org/10.1016/j.childyouth.2020.105508>
- Nishi, D., Matsuoka, Y., Yonemoto, N., Noguchi, H., Kim, Y., & Kanba, S. (2010). Peritraumatic Distress Inventory as a predictor of post-traumatic stress disorder after a severe motor vehicle accident. *Psychiatry and Clinical Neurosciences, 64*(2), 149–156. <https://doi.org/10.1111/j.1440-1819.2010.02065.x>
- Orth, U., & Wieland, E. (2006). Anger, hostility, and posttraumatic stress disorder in trauma-exposed adults: A meta-analysis. *Journal of Consulting and Clinical Psychology, 74*(4), 698. <https://doi.org/10.1037/0022-006X.74.4.698>
- Palgi, Y., Greenblatt-Kimron, L., Hoffman, Y., Goodwin, R., & Ben-Ezra, M. (2021). Factors associated with current posttraumatic stress disorder among COVID-19 vaccinated older adults in Israel. *Journal of Psychiatric Research, 142*, 272–274. <https://doi.org/10.1016/j.jpsychires.2021.08.005>
- Ring, L., Greenblatt-Kimron, L., & Palgi, Y. (2020). The moderating role of subjective nearness-to-death in the association between health worries and death anxieties from COVID-19. *Death Studies, 1–6*. <https://doi.org/10.1080/07481187.2020.1821261>
- Salgotra, R., Gandomi, M., & Gandomi, A. H. (2020). Evolutionary modeling of the COVID-19 pandemic in fifteen most affected countries. *Chaos, Solitons & Fractals, 140*, 110118. <https://doi.org/10.1016/j.chaos.2020.110118>
- Shanahan, L., Steinhoff, A., Bechtiger, L., Murray, A., Nivette, A., Hepp, U., Ribeaud, D., & Eisner, M. (2020). Emotional distress in young adults during the COVID-19 pandemic: Evidence of risk and resilience from a longitudinal cohort study. *Psychological Medicine, 52*(5), 1–10. <https://doi.org/10.1017/S003329172000241X>
- Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: A clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice, 17*(2), 268–274. <https://doi.org/10.1111/j.1365-2753.2010.01434.x>
- Thomas, É., Saumier, D., & Brunet, A. (2012). Peritraumatic distress and the course of posttraumatic stress disorder symptoms: A meta-analysis. *Canadian Journal of Psychiatry, 57*(2), 122–129. <https://doi.org/10.1177/070674371205700209>
- World Health Organization. (2020a). Coronavirus disease 2019 (COVID-19): Situation report (Vol. 51). Accessed December 2020. <https://apps.who.int/iris/handle/10665/3314>
- World Health Organization. (2020b). Population-based age-stratified seroepidemiological investigation protocol for coronavirus 2019 (COVID-19) infection. 26 May 2020. Accessed September 2020. <https://apps.who.int/iris/bitstream/handle/10665/332188/WHO-2019-nCoV-Seroepidemiology-2020.2-eng.pdf>
- Yoon, H., You, M., & Shon, C. (2021). Peritraumatic distress during the COVID-19 pandemic in Seoul, South Korea. *International Journal of Environmental Research and Public Health, 18*(9), 4689–4703.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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