Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Am J of Geriatric Psychiatry 30:6 (2022) 740−742

Available online at www.sciencedirect.com
ScienceDirect
journal homepage: www.ajgponline.org

Letter to the editor

Prevalence and Risk Factors of PTSD in Older Survivors of Covid-19 Are The Elderly so Vulnerable?

Numerous studies have highlighted the negative effects of the COVID-19 pandemic on mental health.[1] Several works more specifically focused on older adults because of their high risk for a severe and lethal course of COVID-19. Findings indicate that, although they are likely to express a more pronounced fear of COVID-19,[2] older people appear to be less impacted than younger people by the psychological consequences of the pandemic.[3] Nevertheless, most studies were conducted in the general population whereas a more severe psychological burden has been demonstrated in patients infected with SARS-CoV-2.[4] Only one study has assessed self-reported post-traumatic stress disorder (PTSD) symptoms in older COVID-19 survivors but it included a very small sample of 26 participants, used an online survey when older people are less likely to use the internet, and was conducted while patients were still under quarantine, probably reflecting acute stress symptoms rather than PTSD.[5]

The present study assessed the prevalence of and the factors associated with PTSD in a sample of 139 patients over 60 years old (mean age 68 ± 6 years; 42 women) with a laboratory-confirmed COVID-19 who were recruited at the Lille University Hospital Center. A qualified psychiatrist assessed PTSD by phone with the PTSD Checklist for DSM-5 (PCL-5) during the second month after the onset of COVID-19 symptoms. During this evaluation, In line with previous studies[6−9] we specifically assessed PTSD symptoms related to COVID-19 that were currently experienced by patients during the second month after the onset of COVID-19 symptoms. While in a recent general population study (N = 138; mean age: 53 ± 16), we reported a prevalence of PTSD of 6.5% of the Covid-19 survivors using the same methodology,[8] only 2.9% [95%CI: 0.9, 7.6] of the 139 followed elderly patients (median PCL-5 score of 5 [interquartile range: 0−11] out of 80) presented a probable PTSD (PCL-5 score ≥ 33). Our findings confirm results from previous studies indicating less intense trauma-related distress in older adults compared to younger populations in non-COVID-19 traumatic contexts and higher levels of resilience.[10] A possible explanation for this result is that older people might be able to consider the current pandemic in a broader context, relativizing its impact, as they are more likely to have experienced traumatic and stressful events throughout their life.[2,5]

As described in Table 1, we used multivariate analysis to identify two factors significantly associated with a higher PCL-5 score: (1) being a woman (d = 7.20 [95%CI: 3.19-11.21], $p < 0.001$), which is consistent with epidemiological data pointing to higher prevalence rates of PTSD in women than in men[10]; and (2) having a relative infected with COVID-19 (d = 4.27 [0.09, 8.45], $p = 0.045$), which has probably impacted older people not only because of the worry for the health of their family or friends but also because of the increased feeling of loneliness due to the recommendations to maintain physical distancing.[11]

Despite some limitations (the study was conducted only in the northern district of France, with small sample size composed mainly of women, and only assess PTSD symptoms specifically related to COVID-19), this work is the first to examine PTSD symptoms related to COVID-19 in elderly people diagnosed with COVID-19 based on hetero-evaluation. The results confirm previous data suggesting that older people present less PTSD compared to younger populations, even in the pandemic context in which they have been constantly presented as highly vulnerable.

TABLE 1. Characteristics of the Sample and Factors Associated With Probable PCL-5 Score According to Multivariate Analyses

		% of the 139 Patients	d [95% CI]	p
Age			-0.26 [-0.55, 0.03]	0.080
Sex	Men	69.8%	Ref	
	Women	30.2%	7.20 [3.19, 11.21]	**<0.001**
Recruitment period	First	41.0%	Ref	
	Second	59.0%	−0.10 [−4.26, 4.06]	0.962
Living alone	No	82.0%	Ref	
	Yes	15.8%	1.17 [−4.13, 6.47]	0.662
Healthcare worker	No	88.5%	Ref	
	Yes	7.2%	1.75 [−11.64, 15.15]	0.796
History of psychiatric disorder	No	90.6%	Ref	
	Yes	8.6%	0.46 [−5.92, 6.85]	0.886
Physical comorbidities	No	35.3%	Ref	
	Yes	64.7%	−0.79 [−4.77, 3.18]	0.692
Type of care for the covid-19 infection	Ambulatory	5.0%	Ref	
	Hospitalization	59.0%	1.38 [−14.13, 16.89]	0.860
	ICU	36.0%	4.22 [−11.30, 19.74]	0.591
Relatives	None	33.8%	Ref	
	Infected	59.0%	4.27 [0.09, 8.45]	**0.045**
	Deceased	3.6%	8.65 [−2.74, 20.04]	0.135

Significant results ($p < 0.05$) are **in bold.** Multivariate analyses concerned only 113 patients due to missing data.

AUTHOR CONTRIBUTIONS

All authors substantially contributed to the conception and design of the study and to the acquisition of data. MW performed the analysis. MH, AA, TF, and FDH interpreted the data and drafted the work; all authors performed critical revision of the paper for important intellectual content and finally approved of the version to be published.

All authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

DISCLOSURES

We would like to thank the Fondation de France for the financial support to the consultation-liaison psychiatry service of the University Hospital Center of Lille during this unprecedented sanitary crisis. The authors report no conflicts with any product mentioned or concept discussed in this article.

DATA STATEMENT

The data has not been previously presented orally or by poster at scientific meetings.

Mathilde Horn, M.D., Ph.D.[a,b]
Marielle Wathelet, M.D.[a,b,c,d]
Ali Amad, M.D., Ph.D.[a,b,c]
Fanny Vuotto, M.D.[e]
Karine Faure, M.D., Ph.D.[e]
Margot Henry[b]
Guillaume Vaiva, M.D., Ph.D.[a,b,d]
Thomas Fovet, M.D., Ph.D.[a,b,d]
Fabien D'Hondt, Ph.D.[a,b,d]
[a] *Univ. Lille, Inserm, CHU Lille, U1172 - LilNCog - Lille Neurosciences & Cognition, Lille, France*
[b] *CHU Lille, Pôle de Psychiatrie, Lille, France*
[c] *Fédération Régionale de Recherche en Santé Mentale et Psychiatrie (F2RSM), Lille, France*
[d] *Centre National de Ressources et de Résilience Lille-Paris (CN2R), Lille, France*
[e] *Service de Maladies Infectieuses et Tropicales CHU Lille, Equipe OpInfIELD Infections Opportunistes, Immunité, Environnement & Maladies Pulmonaires, Centre Infection et Inflammation, Inserm U1019, CNRS UMR9017, Université de Lille, Institut Pasteur de Lille, CHU de Lille, Lille, France*

References

1. Vindegaard N, Benros ME: COVID-19 pandemic and mental health consequences: systematic review of the current evidence. Brain Behav Immun 2020; 89:531–542
2. Parlapani E, Holeva V, Nikopoulou VA, et al: A review on the COVID-19-related psychological impact on older adults: vulnerable or not? Aging Clin Exp Res 2021; 33:1729–1743
3. Palgi Y, Shrira A, Ring L, et al: The loneliness pandemic: loneliness and other

concomitants of depression, anxiety and their comorbidity during the COVID-19 outbreak. J Affect Disord 2020; 275:109–111

4. Krishnamoorthy Y, Nagarajan R, Saya GK, et al: Prevalence of psychological morbidities among general population, healthcare workers and COVID-19 patients amidst the COVID-19 pandemic: a systematic review and meta-analysis. Psychiatry Res. 2020; 293:113382
5. Cai X, Hu X, Ekumi IO, et al: Psychological distress and its correlates among COVID-19 survivors during early convalescence across age groups. Am J Geriatr Psychiatry 2020; 28:1030–1039
6. Srifuengfung M, Thana-Udom K, Ratta-Apha W, et al: Impact of the COVID-19 pandemic on older adults living in long-term care centers in Thailand, and risk factors for post-traumatic stress, depression, and anxiety. N. J Affect Disord. 2021; 295:353–365
7. Bo HX, Li W, Yang Y, et al: Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. Psychol Med. 2021; 5:1052–1053
8. Horn M, Wathelet M, Fovet T, et al: Is COVID-19 associated with posttraumatic stress disorder? J Clin Psychiatry 2020; 82:20m13641
9. Janiri D, Carfì A, Kotzalidis GD, et al: Posttraumatic stress disorder in patients after severe COVID-19 infection. JAMA Psychiatry 2021; 78:567–569
10. Justo-Alonso A, García-Dantas A, González-Vázquez AI, et al: How did different generations cope with the COVID-19 pandemic? Early stages of the pandemic in Spain. Psicothema 2020; 32:490–500
11. Shrira A, Hoffman Y, Bodner E: COVID-19-related loneliness and psychiatric symptoms among older adults: the buffering role of subjective age. Am J Geriatr Psychiatry 2020; 28:1200–1204