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Mental Health Impact of SARS-COV-2 Pandemic on Long-Term Care Facility Personnel in Poland



Dear Editor:

The COVID-19 pandemic has had a disproportionate impact on long-term care facility (LTCF) residents worldwide, with 19% to 72% of COVID-19–related deaths occurring in LTCFs.¹ While facing this critical situation, LTCF personnel have to cope with an overwhelming workload, a depletion of adequate personal protection equipment (PPE), and deaths caused by SARS-CoV-2 infections.^{2,3} As of this

writing, there are few scientific studies addressing epidemiologic data and intervention models focused on LTCF and COVID-19. Therefore, the aim of this study was to assess psychological consequences (somatic symptoms, anxiety and insomnia, social dysfunction, and depression) among LTCF employees exposed to the SARS-CoV-2 coronavirus pandemic crisis. In addition, we investigated if factors such as PPE availability, safety guidelines, or access to psychiatric and psychological support at the workplace correlated with the level of psychological distress experienced by personnel.

Data were collected through an anonymous online survey between May 25 and June 25, 2020, among personnel of Polish LTCFs. The survey was accessed 242 times, and 12 participants' responses were rejected for leaving >70% questions unanswered. The response rate was 73.5% (n = 178 completed surveys); participants included LTCF personnel, including managers, administrative and maintenance staff, nurses, medical doctors, medical caregivers, social workers, physiotherapists, occupational therapists, and psychologists.

The survey consisted of 3 sections: (1) the sociodemographic section; (2) the authors' questionnaire with questions related to COVID-19 exposure, working conditions, access to PPE and mental health services; and (3) the General Health Questionnaire (GHQ-28),⁴ which consists of 28 questions scored on a 4-point Likert-type scale, illustrating the frequency of specific psychopathological symptoms such as somatic symptoms, anxiety and insomnia, social dysfunction, and depression experiences over the preceding 4 weeks. Higher GHQ-28 scores indicate higher levels of distress. The study obtained ethical clearance (KB-365/2020) and was performed in accordance with the Declaration of Helsinki.

The statistical analysis was performed with the R for Windows package (version 4.0.2). The normality of data was analyzed using the D'Agostino-Pearson test and visual assessment. Comparisons of qualitative variables were performed using the chi-squared test. Qualitative and quantitative variables were compared using the Mann-Whitney or Kruskal-Wallis test. The level of statistical significance was set at 0.05.

The study findings demonstrate the importance of institutional factors of LTCF on mental health of employees (Table 1). First, LTCF staff who had PPE access at the workplace received lower scores in the GHQ-28 social dysfunction subscale ($P = .018$); especially important were disposable aprons ($P = .02$) and full-body protection suits ($P = .006$). These findings are in accordance with recent studies by Zhang et al⁵ and Maciaszek et al⁶ in which PPE access predicted better physical health and lower distress. Implementation of a mandatory face mask policy in Poland significantly reduced scores on all GHQ-28 subscales in the general population,⁷ indicating the significance of PPE for both physical and mental health.

Second, the results suggest that the availability of workplace safety guidelines reduced anxiety symptoms. Participants whose workplaces had well-developed guidelines scored lower in the GHQ-28 anxiety and insomnia subscale ($P = .031$). It is also in line with the Medicare & Medicaid Services perspective that sets quality and safety standards in the health care system and defined one of its goals as prevention of COVID-19 transmission through issuing guidance and recommendations, providing PPE and testing needs recommendations in LTC facilities, and increasing payment for COVID-19 testing.⁸

Third, working conditions were crucial for the mental health of the respondents, as LTCF shift workers scored higher in the GHQ-28 somatic symptoms subscale ($P = .05$). The feeling that there were too few people in the workplace during the pandemic was related to the greater severity of psychopathological symptoms as evaluated with the GHQ-28 total score ($P = .009$).

Finally, availability of psychological support and care was also a crucial factor associated with better coping with the pandemic situation. Our study presents evidence that people who knew that they

Table 1
Factors Related to the GHQ-28 Total Score and Its Subscales

Variable, Answer	n (%)	Score, Mean (SD)	P value
GHQ-28 total score			
Access to psychological support at workplace			
Yes	105 (59)	20.09 (8.07)	<.001*
No	74 (41)	26.16 (9.51)	
Too few employees compared to the workload due to COVID-19			
Strongly disagree	0	—	.009 [†]
Disagree	5 (2.8)	24.00 (12.39)	
Neutral	61 (34.3)	20.50 (7.83)	
Agree	68 (38.2)	21.39 (7.59)	
Strongly agree	44 (24.7)	27.14 (11.27)	
Access to PPE: disposable aprons			
Yes	149 (83.7)	21.75 (8.36)	.02*
No	29 (16.3)	26.86 (11.81)	
Access to PPE: protection suits			
Yes	110 (61.8)	24.95 (9.97)	.006*
No	68 (38.2)	21.11 (8.35)	
GHQ-28 Social Dysfunction subscale			
Access to PPE in general			
Yes	173 (97.2)	6.65 (2.26)	.018*
No	5 (2.8)	9.75 (3.59)	
GHQ-28 Somatic Symptoms subscale			
Work in a shift system			
Yes	55 (30.9)	6.85 (2.71)	.05*
No	123 (69.1)	6.03 (2.40)	
GHQ-28 Anxiety and Insomnia subscale			
Availability of workplace safety guidelines during COVID-19			
Yes	173 (97.2)	5.45 (2.15)	.031*
No	5 (2.8)	6.70 (2.23)	

*Univariate analysis: Mann-Whitney *U* test.[†]Univariate analysis: Kruskal-Wallis test.

have the opportunity to talk to a psychologist at their workplace (not necessarily use it) received significantly lower GHQ-28 total scores than personnel who did not have access to such services ($P < .01$).

In summary, our study argues that psychopathologic manifestations may be modifiable through workplace factors such as access to PPE, safety guidelines, and psychological support. As far as we are aware, no specific guidelines have been developed for managing personnel well-being in LTCF. Findings from this study create grounds for effective interventions aiming to restore psychological health in this group. Therefore, to avoid significant mental health crisis among LTCF personnel, availability of protective measures and psychological support should become a recommended response to COVID-19 internationally.

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