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Letter to the editor

Prevalence of mental health symptoms in residential healthcare workers in Michigan during the covid-19 pandemic

Dear editor,

The Coronavirus disease 2019 (COVID-19) pandemic has placed an unparalleled burden on the United States healthcare system and its workers. Skilled nursing facilities have been profoundly affected by high rates of patient complications and mortality, and organizational shortfalls (Davidson and Szanton, 2020). Residential healthcare workers must contend with primary and secondary trauma, and the daily concern of disease exposure for themselves and family. Here we characterize the experiences of residential healthcare workers in the Detroit, Michigan metropolitan region during the initial COVID-19 infection peak.

As of this writing, Michigan remains in the top 10 states ranked for total number of COVID-19 cases and deaths (Centers for Disease Control and Prevention, 2020). The metropolitan Detroit region has 55.58% of COVID-19 confirmed cases and 73.48% of the deaths in Michigan, and approximately a third of deaths have been reported in skilled nursing facilities (State of Michigan, 2020). The high incidence of COVID-19 cases in these facilities, changes in care management procedures, and protective equipment shortages have placed a substantial emotional and psychological burden on healthcare workers in Detroit residential care facilities.

Employees in skilled nursing facilities, in-home care agencies and assisted living communities in the metropolitan Detroit region were surveyed online April 29 to May 14, 2020. 148 individuals (75% female; age 22-79 years, $M = 51.62$, $SD = 12.20$) began the survey. Respondents were predominantly Caucasian (60%), Black (10.8%), Middle Eastern (2.0%), Asian or Pacific Islander (1.4%). Of the available sample, $n = 113$ responded to the scales reported here. The survey included standardized self-report measures of PTSD (Blevins et al., 2015), depression, anxiety and stress symptoms (Lovibond and Lovibond, 1995). Questions on changes in daily activity at work, and perceived support at work and home were each rated on a sliding scale of 1 (not at all) to 100 (very much). The study was approved by institutional ethics review boards; participants provided informed consent by initiating the survey.

Participants reported 1-46 years work experience in residential healthcare. The majority reported social work ($n = 41$, 36.3%), nursing ($n = 21$, 18.6%) or agency director ($n = 20$, 17.7%) occupations; the remaining sample included occupational therapist ($n = 8$), administrative staff ($n = 7$), special care coordinator ($n = 6$), nurse assistant ($n = 3$), psychologist ($n = 3$), physical therapist ($n = 2$), and a physician. Participant desire to work in healthcare, measured on a scale 1 (decreased) to 100 (increased), appeared unchanged ($M = 58.24$, $SD = 25.94$; *Mode* = 50).

Mental health symptoms, on average, fell within the normal range of PTSD ($M = 19.83$, $SD = 16.89$), depression ($M = 4.13$, $SD = 4.80$), anxiety ($M = 3.06$, $SD = 3.79$) and stress ($M = 5.87$, $SD = 4.95$); however, 35.4% ($n = 40$) reported clinical elevations on at least one scale. Sample characteristics and reported experiences during COVID-19 significantly predicted cases with clinical symptom elevation in a multivariable logistic regression [$\chi^2(9) = 19.00$, $p = 0.03$, Nagelkerke $R^2 = 0.21$]; results are reported with odds ratios (OR) and 95% confidence intervals (CI). Analyses controlled for participant age, years of experience, sex and occupation, which were unrelated to clinical symptom elevation (all $p \geq 0.12$).

Participants reported change in daily activities at work ($M = 83.77$, $SD = 24.17$) that was associated with a greater risk for clinical symptom elevation ($b = 0.02$, $p = 0.05$; OR = 1.02, 95% CI: 1.00/1.05). There is cause for optimism: employees felt they had sufficient support at work ($M = 67.80$, $SD = 28.09$) and home ($M = 75.72$, $SD = 27.76$) to adapt to changes in daily activities. Greater support at work ($b = -0.02$, $p = 0.03$; OR = 0.98, 95% CI: 0.97/0.99) mitigated the risk for clinical elevation in mental health symptoms, and a lesser effect was observed for support at home ($b = -0.01$, $p = 0.21$; OR = 0.99, 95% CI: 0.98/1.01).

The diversity of occupations and experiences make residential healthcare unique as compared to other frontline healthcare environments during the COVID-19 pandemic. Interdisciplinary initiatives to provide psychosocial support may be successful to promote mental health resiliency for healthcare workers in this diverse care setting. As the rate of new COVID-19 cases has plateaued in the United States (Centers for Disease Control and Prevention, 2020), we can anticipate sustained psychological distress for residential healthcare workers, who oversee the long-term care and post-acute recovery of patients at the highest risk for complications and mortality.

Declaration of Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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