



COVID-19-Related Occupational Burnout and Moral Distress among Nurses: A Rapid Scoping Review

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Table 1. Characteristics of selected studies

Reference	Country of origin/ stage of pandemic	Research design/ focus	Sample characteristics (population, gender, age, direct care to COVID-19 patients)	Outcome(s) of interest and measures	Key findings related to outcomes of interest	Risk/protective factors
Barello et al. (2020)	Italy/peak	Cross-sectional/ prevalence	Healthcare workers (overall sample: $n = 376$; nurses: $n = 271$) F: 73.7% Mean age (SD): 40 (11) Direct care: $n = 376$	Burnout; Maslach Burnout Inventory	<ul style="list-style-type: none"> 60% of respondents endorsed moderate-to-high levels of emotional exhaustion 52% showed moderate-to-high levels of depersonalization 72% showed moderate-to-high levels of personal gratification 	<ul style="list-style-type: none"> Females showed higher levels of emotional exhaustion than males ($M = 24.05$, $SD = 11.57$; $M = 18.74$, $SD = 12.65$, respectively) Physicians experienced symptoms less frequently than nurses ($M = 2.47$, $SD = 0.83$; $M = 3.05$, $SD = 0.93$, respectively)
Cai et al. (2020)	China/peak pandemic period in adjacent province	Cross-sectional/ prevalence	Healthcare workers (overall sample: $n = 534$; nurses: $n = 248$) F: 68.7% Mean age (SD): 36.4 (16.18) Direct care: $n = 534$	Exhaustion; single item on a 4-point Likert-type scale ("You feel exhausted," not at all to very much)	<ul style="list-style-type: none"> Feelings of exhaustion were significantly higher in older staff ($p = 0.03$) 	<ul style="list-style-type: none"> Older age is a risk factor for feelings of exhaustion
Kisely et al. (2020)	Selected studies from Mainland China ($n = 13$), Taiwan ($n = 10$), Canada ($n = 10$), Hong Kong ($n = 9$), other ($n = 18$)/ various stages	Rapid review and meta-analysis/ prevalence	Included studies ($n = 59$) covering MERS, Ebola, H1N1, H7N9 and COVID-19 pandemics	Burnout; Maslach Burnout Inventory, Oldenburg Burnout Inventory and a composite measure derived from the Maslach Burnout Inventory	<ul style="list-style-type: none"> Greater burnout associated with direct contact with affected patients Nurses have a higher risk of pandemic-related psychological distress than doctors 	<ul style="list-style-type: none"> Predisposing factors for pandemic-related psychological distress include younger age, female gender, having less work experience, having dependent children, experiencing prolonged quarantine and having pre-existing psychological or physical health problems

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Liu et al. (2020)	China/peak	Qualitative/ phenomenological	Nurses and physicians (overall sample: <i>n</i> = 13; nurses: <i>n</i> = 9) F: 62% Median age (range): 32 (22–42) Direct care: <i>n</i> = 13	Exhaustion and moral distress	<ul style="list-style-type: none"> • Feelings of exhaustion and being overwhelmed were among the main challenges of working on a COVID-19 ward • Activities of daily living are facilitated by nurses as patients are confined to their rooms • All orders are implemented by nurses through the most direct contact with patients • Participants reported having to relieve patients’ emotional burdens because families were not able to be present • Participants reported feelings of powerlessness in having to treat patients outside their areas of expertise and with inadequate treatments • Shortages of medical protective supplies necessitated limiting the number of healthcare workers, thus creating a heavier burden for those on the front line • Fear and anxiety about becoming infected and infecting their family 	<ul style="list-style-type: none"> • Strong logistical support, including providing adequate PPE; educational resources; accommodations; transportation; food, medications and subsidies; and reduced strain

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Morgantini et al. (2020)	60 countries/ various stages	Cross-sectional/ prevalence	Healthcare workers (overall sample: <i>n</i> = 2,707; nurses: <i>n</i> = 855) Gender not reported Age not reported Direct care: <i>n</i> = 1,255	Burnout; single item on 7-point Likert scale ("I am burned out from my work"; strongly disagree to strongly agree) Moral distress; two dichotomous items ("made life- prioritizing decisions due to supply shortages," yes/no; "felt pushed beyond training," yes/no)	<ul style="list-style-type: none"> • 51% of respondents endorsed burnout from COVID-19-related work (somewhat agree, agree, strongly agree) • Nurses had higher odds of burnout compared to physicians (OR = 1.47, 95% CI [1.12, 1.92], <i>p</i> = 0.006) 	<ul style="list-style-type: none"> • Risk factors for burnout: <ul style="list-style-type: none"> ◦ Work impacting household activities (RR = 1.57, 95% CI [1.39, 1.78], <i>p</i> < 0.001) ◦ Feeling pushed beyond training (RR = 1.32, 95% CI [1.20, 1.47], <i>p</i> < 0.001) ◦ Direct contact with COVID-19 patients (RR = 1.18, 95% CI [1.05, 1.32], <i>p</i> = 0.005) ◦ Making life-prioritizing decisions due to supply shortages (RR = 1.16, 95% CI [1.02, 1.1], <i>p</i> = 0.03) ◦ Stage of pandemic (burnout was higher in countries where pandemic was peaking compared to those where cases were pre- or post-peak at the time of the survey) ◦ Working in high-income versus low-to-middle-income countries (RR = 1.18, 95% CI [1.02, 1.36], <i>p</i> = 0.018) • Protective factors for burnout: <ul style="list-style-type: none"> ◦ Adequate PPE (RR = 0.88, 95% CI [0.79, 0.97], <i>p</i> = 0.01)

CI = confidence interval; IQR = interquartile range; MERS = Middle East respiratory syndrome; PPE = personal protective equipment; RR = relative risk; SD = standard deviation.