Examining the Impact of the COVID-19 Pandemic on Burnout and Stress Among U.S. Nurses

Brendan Martin, PhD; Nicole Kaminski-Ozturk, PhD; Charlie O'Hara, PhD; and Richard Smiley, MS

Background: The COVID-19 pandemic has amplified long-standing issues of burnout and stress among the U.S. nursing workforce, renewing concerns of projected staffing shortages. Understanding how these issues affect nurses' intent to leave the profession is critical to accurate workforce modeling. **Purpose:** To identi5 328.93/fn3.2 (o24(d)-18.94 (u)-3.62(e)-24.51 (i)-9.3 (o)-2 (e v We used a subset of data from the 2022 National Nursing Workforce Survey for analysis. Binary logistic regression models and natural language processing were used to determine the significance of observed trends. **Results:** Data from a total of 29,472 registered nurses (including advanced practice registered nurses) and 24,061 licensed practical nurses/licensed vocational nurses across 45 states were included

Similarly high proportions reported feeling emotionally drained (50.8%), used up (56.4%), fatigued (49.7%), burned out (45.1%), or at the end of their rope (29.4%) "a few times a week" or "every day." These issues were most pronounced among nurses with 10 or fewer years of experience, driving an overall 3.3% decline in the U.S. nursing workforce during the past 2 years. **Conclusion:** High workloads and unprecedented levels of burnout during the COVID-19 pandemic have stressed the U.S. nursing workforce, particularly younger, less experienced RNs. These factors have already resulted in high levels of turnover with the potential for further declines. Coupled with disruptions to prelicensure nursing education and comparable declines among nursing support staff, this report calls for significant policy interventions to foster a more resilient and safe U.S. nursing workforce moving forward.

Ke d : Workforce, burnout, stress, pandemic, COVID-19, nursing shortage

F [illegible] -292 (2.9 ( )-3.43.6 ((1)0.5 (9)0.6 [illegible]

C D-19 [illegible] 2022 [illegible]

B 4. 53632.5 5.252.5)-24 ,4)2.9 (( )-6.3.1 25-54.2 ()-28.8 (4 1 0)- [illegible] 2023; [illegible] 2022), [illegible] 2022; [illegible] 2022). E [illegible]

[illegible] 67% [illegible] 3 [illegible] ([illegible]., 2022).

A[illegible] C [illegible] D

[illegible] A [illegible] 11, 2022, [illegible] ([illegible] , [illegible]). [illegible] 6 [illegible] 10 [illegible] 20 [illegible]

TABLE 1-

TABLE 2

[illegible]

Years' Experience | Increased Workload Interaction[a]	Emotionally Drained	Used Up	Fatigued	Burned Out	End of Rope
≤10 y | Yes	All $p < .001$	All $p < .001$	All $p < .001$	All $p < .001$	All $p < .001$
≤10 y | No (*Ref*)	3.13 (2.85, 3.43)	2.93 (2.68, 3.21)	2.67 (2.44, 2.93)	2.77 (2.52, 3.04)	2.47 (2.21, 2.76)
11+ y | Yes (*Ref*)	1.13 (1.07, 1.20)	1.18 (1.11, 1.25)	1.23 (1.16, 1.31)	1.18 (1.11, 1.25)	1.10 (1.03, 1.17)
11+ y | No (*Ref*)	4.14 (3.85, 4.45)	4.23 (3.93, 4.54)	3.86 (3.59, 4.15)	3.66 (3.40, 3.94)	3.10 (2.84, 3.38)

Note. Ref = reference. Multivariable model *n* ranges from 29,941 to 30,060 observations across all five dependent variables. Dependent variables were collapsed to identify and isolate respondent characteristics that align with a reported frequency of "a few times a week" or "every day" across each of the five outcomes. Results presented as odds ratios and 95% confidence intervals.

[a] In addition to years' experience and increased workload, each model further adjusted for respondents' self-reported sex, ethnicity, race, salary, and license type, as well as indicators for full-time nurse employment, direct patient care, and travel nurse designation.

[illegible] (50.8%, [illegible] n = 2,352,775), [illegible] (56.4%, [illegible] n = 2,601,572), [illegible] (49.7%, [illegible] n = 2,296,545), [illegible] (45.1%, [illegible] n = 2,080,380), [illegible] (29.4%, [illegible] n = 1,353,809). [illegible] 10 [illegible] 28% [illegible] 56% [illegible] (*OR*: 1.41, 95% C : 1.36 1.47), [illegible] (*OR*: 1.50, 95% C : 1.44 1.56), [illegible] (*OR*: 1.56, 95% C : 1.50 1.63), [illegible] (*OR*: 1.43, 95% C : 1.38 1.49), [illegible] (*OR*: 1.28, 95% C : 1.23 1.34) [illegible] ($p < .001$, [illegible] 1). [illegible] (*OR*: 3.31, 95% C : 3.19 3.44), [illegible] (*OR*: 3.32, 95% C : 3.19 3.45), [illegible] (*OR*: 2.99, 95%

C : 2.88 3.11), [illegible] (*OR*

[illegible] (B[illegible], [illegible], [illegible], & [illegible], 2022; [illegible], 2022; [illegible]., 2021; [illegible]., 2023). [illegible] 50% [illegible] (50.8%), [illegible] (56.4%), [illegible] (49.7%), [illegible] (45.1%) [illegible] (29.4%) [illegible] (62%). [illegible] ( ) 6 ( )- ( )10 3 0 ( )16.9 (5.2 ( ))-3.4 ( )7.-3 ( )16 (.9 ( )15.6 ( ). ( )

[illegible]

[illegible] C[illegible]D-19 [illegible] 2 [illegible] F [illegible]

A[illegible], [illegible]., C[illegible], [illegible]., [illegible], D. [illegible]., [illegible], [illegible]., & [illegible], [illegible]. (2002). [illegible]. *JAMA, 288*(16), 1987 1993. [illegible]://[illegible]/10.1001/[illegible].288.16.1987

A[illegible], [illegible]., [illegible], D. [illegible]., B[illegible], [illegible]., G[illegible], [illegible]., [illegible], F., & [illegible], D. (2018). [illegible]. *Health Affairs, 37*(11), 1 [illegible]

[illegible] B., A[illegible], [illegible], D. [illegible], F[illegible], [illegible], B., [illegible], [illegible], A[illegible], [illegible], & [illegible] D. (2021). C[illegible] C[illegible]D-19: A[illegible]. *BMJ Quality & Safety, 30*(8), 639 647.

[illegible]ć, [illegible], B[illegible], A., B[illegible]ń[illegible], C[illegible], & [illegible] (2019). A[illegible] A[illegible]. *International Nursing Review, 66*(1), 9 16. [illegible]://[illegible]/10.1111/[illegible].12473

[illegible], B., [illegible], [illegible], [illegible], [illegible], [illegible], B[illegible], & A[illegible]. (2023). A[illegible] C[illegible]D-19 [illegible]: A[illegible]