

Work-Related Burnout, Compassion Fatigue, and Nurse Intention to Leave the Profession During COVID-19

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The purpose of this mixed-method study was to understand the relationships between work-related burnout (WRB), compassion fatigue (CF), and intention to leave the nursing profession. The Job Demands-Resources model was used to predict intention to leave as a function of WRB, CF, and caring for COVID-19 patients in a sample of 1299 US nurses. Greater WRB and CF scores were associated with intention to leave the profession. Contrary to prior research, working with COVID-19 patients was associated with greater intention to stay in nursing. Personal finances may represent the rationale for nurses to choose to stay nurses despite burnout.

The nursing workforce has faced immense stress and challenges during the COVID-19 pandemic. Over 83 million Americans have had confirmed cases of COVID-19, and over 988,000 Americans have died from COVID-19 as of May 2022.¹ Nurses have reported job-related stress, perceived betrayal by health care authorities and institutions, and poor control over their professional environment during the COVID-19 pandemic.^{2,3} The long-term result of chronic stress is work-related burnout (WRB), which may be characterized by exhaustion, frustration with the workplace, and decreased work achievement.⁴⁻⁶

Caregivers experiencing WRB may develop compassion fatigue (CF), which is a reduced capacity for empathizing with patients, if they internalize the trauma experienced by others.⁷ However, not all nurses experience trauma maladaptively; some individuals are able to thrive even when traumatized. Perceived social support and control over one's situation can positively influence coping mechanisms that limit development of CF in those who are traumatized.⁸ Greater control of one's work and support in the workplace are associated with less CF and WRB both during and prior to the COVID-19 pandemic.⁹⁻¹¹

There are potential negative outcomes for both the nursing workforce and patient health related to WRB and CF during the COVID-19 pandemic. Nurses experiencing greater WRB are more likely to report intention to leave the profession (ITL).¹²⁻¹⁵ Care

administered by a nurse experiencing WRB is associated with increased incidence of iatrogenic infection, prolonged hospital lengths of stay, and increased patient mortality.^{16,17} Given the ongoing health system precariousness, a better understanding of WRB would be helpful for nursing leaders responsible for staffing nurses. Thus, the purpose of this study was to examine the relationship between WRB, CF, and ITL during the COVID-19 pandemic in the United States.

FRAMEWORK

This study was framed by the Job Demands-Resources model,^{18,19} which predicts that lack of resources and high work demands play a role in the development of burnout and consequent ITL (*Figure 1*). Reductions in resources and/or increase in work-related demands have been documented during the COVID-19

KEY POINTS

- **Work-related burnout and compassion fatigue are significant contributors to nurse intention to leave the profession.**
- **Contrary to prior research findings, working with COVID-19 patients was associated with intention to stay in the profession.**
- **Nurses reported personal financial reasons for staying in the profession despite burnout.**

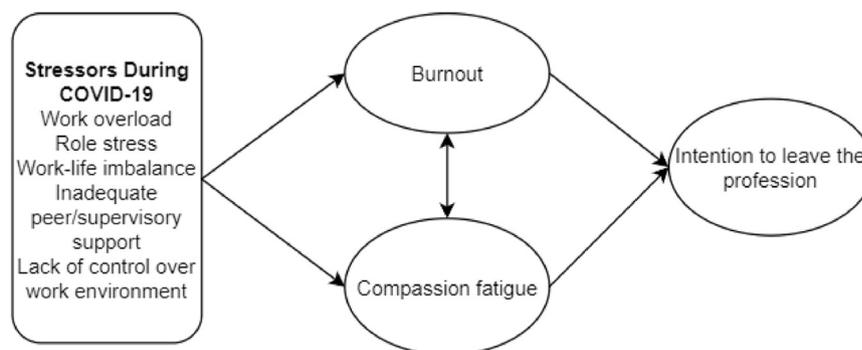


Figure 1. Theoretical Framework Based on the Jobs Demands-Resources Model

pandemic.^{2,3} This lack of resources is theoretically associated with development of WRB and CF, which in turn influences nurse ITL.

METHODS

Sample

A cross-sectional descriptive mixed method study was conducted on actively licensed United States registered nurses (RNs) and licensed practical nurses (LPNs) between November 2021 and January 2022. This study protocol was reviewed and approved by the Marquette University institutional review board for ethical acceptability. The study was advertised via mass email communication to RNs and LPNs in the state of Wisconsin, advertisement via the Wisconsin Nurses Association, and word-of-mouth type dissemination via postings on the authors' social media platforms. Inclusion criteria included current active nursing license anywhere in the United States, work as a nurse any time after March 2020, and willingness to participate in a 15- to 20-minute survey. Surveys were delivered via the online survey platform Qualtrics.²⁰ Online consent was obtained on the first survey page prior to commencing the study.

Demographics

Age, gender, education level, and number of years in nursing, highest degree in nursing, current practice area, and current practice type were collected. Practice area was described as area of practice, such as acute care, primary care, or long-term care. Practice type described where the participant worked, for example, direct patient care, management, education, or "other," which entailed roles like informatics.

Work-Related Burnout

Nurse burnout was measured by the Copenhagen Burnout Inventory WRB scale. The scale measures burnout that is specifically related to the work environment with Likert-style questions, such as: "Are you exhausted in the morning at the thought of another

day at work?" Subscales are scored from 0 (low burnout) to 100 (high burnout).²¹ The tool itself does not provide a specific reference range for low/medium/high burnout, however, a prior study on nurse burnout that took place prior to COVID-19 found a mean \pm SD WRB score of 45.4 ± 13 ($n = 973$).²²

Compassion Fatigue

The 18-question Compassion Fatigue Short Scale (CFSS) was used to measure CF. The CFSS is composed of Likert-style 1 to 10 scales questions measuring 2 subscales: work burnout and vicarious trauma. A vicarious trauma subscale score of 15+ indicates presence of vicarious trauma, and the job burnout subscale of 30+ indicates job burnout may be present.²³

Intention to Leave the Profession

Nurse ITL was evaluated by the question: "Do you want to continue to work as a nurse? Why or why not?" This question was hand coded to categorize nurses into 3 groups: intend to leave (ITL), intend to stay (ITS), or uncertain. This question was also analyzed using content analysis, a method in which qualitative data is coded for meaning and is abstracted to understand the overarching themes contained within the data.^{24,25} Qualitative coding was performed by hand without automation by 2 researchers (JC and AN) who came to a consensus that the themes were a representative sample of the dataset.

DATA ANALYSIS

Data were analyzed in SPSS version 28.0.²⁶ Descriptive statistics were used to describe characteristics of the study population. Chi-square test was used to describe categorical variables and ANOVA was used for numeric continuous variables in ITL groups. A multinomial regression was performed to predict ITL in 3 groups: ITL, uncertain, ITS, with the reference category being ITS. CF, practice type, managing COVID-19 patients, and WRB were included as independent variables in the regression analysis as measures of stressors during the COVID-19 pandemic.

FINDINGS

A total of 1299 individuals participated in the study. The majority were RNs (94.2%, $n = 1224$; 5.2% LPNs [$n = 68$]), identified as female ($n = 1183$, 91.1%), were between ages 25 and 44 ($n = 672$, 51.8%), attained a BSN as the highest degree ($n = 700$, 53.9%), worked in direct patient care ($n = 1052$, 81%), and worked with confirmed COVID-19 patients ($n = 1069$, 82.3%) (*Table 1*).

Personal and Work-Related Burnout, Compassion Fatigue

The mean scores for WRB was 63.87 (SD ± 16.8). The mean score for the overall CFSS was 56.75 (SD ± 25.42). There was a significant difference between the ITL groups: the ITS group had a mean WRB score of 49.99 (SD ± 23.85), where the ITL group mean was 72.89 (SD ± 14.6), $p < 0.001$. Within the CFSS subscales, the mean score for vicarious trauma and job burnout was 18.74 (SD ± 10.79) and 37.51 (SD ± 17.1), respectively. There was a significant difference between the ITL groups for the overall CFSS and both subscales ($p < 0.001$) (*Table 1*).

Regression Model

Overall, the multinomial regression model was statistically significant, $p < 0.001$, chi-square test = 263.93 (df 12). The R was 0.416, indicating a moderate fit. The R-square and adjusted R-square were 0.472 and 0.471, respectively. Within the overall model, CF, WRB, COVID patient management, and practice type were significant, however, the influence of these variables differed in the uncertain and ITL regression models. WRB was a significant variable for both the uncertain and ITL groups, odds ratio [OR] 1.034 ($p < 0.001$) and OR 1.047 ($p < 0.001$), respectively. In the ITL group, CF, COVID patient management, and practice type were significant, but they were not significant in the uncertain group. In the ITL group, greater CF and practice in direct care were significant within the regression model, however, practice as a supervisor/manager or educator was not. No COVID patients were associated with ITL in the ITL group, OR 1.837, $p = 0.004$ (*Table 2*).

Intention to Leave Themes

Several themes emerged from the ITL question and are summarized by exemplary quotes in *Table 3*. Many nurses in the ITL group expressed frustration or futility in their professional roles. Sentiments around the thankless nature of the profession, chronic understaffing, exhaustion, and hostilities in the workplace such as abusive behaviors from patients were cited as reasons for ITL. Several participants discussed an imbalance between the efforts required to be a nurse and the commensurate rewards, using words such as: "Not worth the emotional toll" (Participant #65). Retirement

was also a commonly cited reason for leaving the profession; some expressed that they were retiring on schedule, however, many indicated they intended to retire earlier than previously planned.

Nurses in the ITS group frequently cited passion for their chosen career or the desire to help others as a motivation for staying in the profession. However, many nurses who intended to stay stated they are primarily staying in the profession for financial reasons rather than altruism. One participant stated, "If I was younger and could find another profession that would keep me as financially stable as nursing, I would be gone!" (Participant #866). Some nurses discussed an anchoring in the profession via the cost and effort of education to become a nurse or to retrain in another profession. One nurse stated: "Honestly, if it wasn't for my student loans, I would choose a different career path" (Participant #719) and "It's all I know how to do.... I'm too old to do anything else" (Participant #517) are examples of anchoring due to perceived barriers to leaving. Finances were a common source of anchoring: "I would love to do anything but be a nurse at this point, but unfortunately, I'm tethered like a ball and chain" (Participant #1027).

Participants who were undecided about their intention to stay or leave often cited conflict between the themes found in the ITS and the ITL groups. Numerous undecided nurses discussed their enjoyment of helping others and being able to behave altruistically in their profession, the financial benefits of nursing work, and anchoring in professional nursing due to finances. Simultaneously, many discussed the same problems the ITL group highlighted, such as burnout, effort-reward imbalance, exhaustion, and desire for early retirement due to job stress.

DISCUSSION

Intention to leave the profession (ITL) for nurses practicing during the COVID-19 pandemic was correlated with higher WRB or CF scores, yet many plan to stay in the profession for financial reasons. The 65+ age group and nurses with >20 years of nursing experience were most highly correlated with ITL, citing retirement intention as the rationale for leaving the profession. Nurses who reported direct care as their practice type were the least likely to indicate ITL. The nurses in the "other" category were associated with increased ITL. These nurses had roles such as case management, informatics, and included nurses who indicated they had already left the profession for a non-nursing role; inclusion of nurses who have already left within the "other" practice type category may account for this finding.

COVID-19 Patients and Intention to Leave

Nurses who worked with COVID-19 patients were less likely to indicate ITL than nurses who did not work with COVID-19 patients. This finding is contrary to

Table 1. Intention to Leave by Demographics and WRB, CF

Characteristic	Total (N = 1299)	Intention to Stay (n = 768)	Uncertain (n = 246)	Intention to Leave (n = 285)	χ^2 (df) or F(df)	p Value
<i>Gender, n (%)</i>					4.783 (4)	0.310
Female	1183 (91.1)	702 (91.4)	224 (91.1)	257 (91.2)		
Male	106 (8.2)	63 (8.2)	21 (8.5)	22 (7.7)		
Nonbinary/other	10 (0.8)	4 (0.5)	1 (0.4)	5 (1.8)		
<i>Age, years, n (%)</i>					50.094 (10)	<0.001 ^a
18-24	89 (6.9)	59 (7.7)	18 (7.3)	12 (4.2)		
25-34	345 (26.6)	194 (25.3)	71 (28.9)	80 (28.1)		
35-44	327 (25.2)	217 (28.3)	62 (25.2)	48 (16.8)		
45-54	278 (21.4)	161 (21)	60 (24.4)	57 (20)		
55-64	202 (15.6)	110 (14.3)	32 (13)	60 (21.1)		
65+	58 (4.5)	27 (3.5)	3 (1.2)	28 (9.8)		
<i>Years in nursing, n (%)</i>					21.544 (4)	<0.001 ^a
<10	575 (44.3)	351 (45.7)	119 (48.4)	105 (36.8)		
10-20	357 (27.5)	218 (28.4)	70 (28.5)	69 (24.2)		
>20	367 (28.3)	199 (25.9)	57 (23.2)	111 (38.9)		
<i>COVID patients, n (%)</i>					8.366 (2)	0.015 ^a
Yes	1069 (82.3)	630 (82)	216 (87.8)	223 (78.2)		
No	229 (17.6)	137 (17.8)	30 (12.2)	62 (21.8)		
<i>Highest degree, n (%)</i>					5.943 (10)	0.820
LPN	68 (5.2)	41 (5.3)	13 (5.3)	14 (4.9)		
ADN	258 (19.9)	150 (19.5)	48 (19.5)	60 (21.1)		
BSN	700 (53.9)	402 (52.3)	141 (57.3)	157 (55.1)		
MSN	211 (16.2)	135 (17.6)	33 (13.4)	43 (15.1)		
DNP	39 (3)	27 (3.5)	6 (2.4)	6 (2.1)		
PhD	16 (1.2)	11 (1.2)	2 (0.8)	3 (1.1)		
<i>Practice area n (%)</i>					45.439 (28)	0.020 ^a
Acute care	623 (48)	372 (48.4)	133 (54.1)	118 (41.4)		

(continued on next page)

Table 1. (continued)

Characteristic	Total (N = 1299)	Intention to Stay (n = 768)	Uncertain (n = 246)	Intention to Leave (n = 285)	χ^2 (df) or F(df)	p Value
Primary care	129 (9.9)	79 (10.3)	19 (7.7)	31 (10.9)		
Long-term care/hospice	172 (13.2)	101 (13.2)	29 (11.8)	42 (14.7)		
ICU	30 (2.3)	20 (2.6)	2 (0.8)	8 (2.8)		
Emergency department	66 (5.1)	39 (5.1)	16 (6.5)	11 (3.9)		
Management	6 (0.5)	1 (0.1)	1 (0.4)	4 (1.4)		
Mental health	17 (1.3)	13 (1.7)	1 (0.4)	3 (1.1)		
Obstetrics/L&D	48 (3.7)	25 (3.3)	13 (5.3)	10 (3.5)		
Educator	14 (1.1)	10 (1.3)	2 (0.8)	2 (0.7)		
Peri- or intraoperative	29 (2.2)	20 (2.6)	5 (2)	4 (1.4)		
School/public health	35 (2.7)	17 (2.2)	6 (2.4)	12 (4.2)		
Specialty services	16 (1.2)	9 (1.2)	3 (1.2)	4 (1.4)		
Corrections	8 (0.6)	6 (0.8)	1 (0.4)	1 (0.4)		
Other clinical	73 (5.6)	43 (5.6)	9 (3.7)	21 (7.4)		
Other nonclinical	26 (2)	9 (1.2)	4 (1.6)	13 (4.6)		
Practice type, n (%)					16.646 (6)	0.011 ^a
Direct patient care	1052 (81)	634 (82.6)	205 (83.3)	213 (74.7)		
Supervisor/manager	118 (9.1)	66 (8.6)	24 (9.8)	28 (9.8)		
Educator	58 (4.5)	35 (4.6)	7 (2.8)	16 (5.6)		
Other	69 (5.3)	33 (4.3)	9 (3.7)	27 (9.5)		
Work-related burnout, mean \pm SD ^b	63.6 \pm 17.07	58.57 \pm 17.16	68.56 \pm 13.02	72.89 \pm 14.6	98.98(2)	<0.001 ^a
Compassion fatigue, mean \pm SD ^b	57.07 \pm 25.8	49.99 \pm 23.85	62.05 \pm 23.05	71.88 \pm 25.91	91.65 (2)	<0.001 ^a
Vicarious trauma, CF subscore, mean \pm SD ^b	19.02 \pm 10.79	17.06 \pm 9.99	20.54 \pm 10.86	22.97 \pm 11.52	36.06 (2)	<0.001 ^a
Job burnout, CF subscore, mean \pm S ^b	38.06 \pm 17.08	32.93 \pm 15.70	41.52 \pm 14.42	48.91 \pm 16.99	114.08 (2)	<0.001 ^a

The chi-square test was used for categorical variables, Analysis of variance (ANOVA) was used for continuous variables.

^aStatistically significant results.

^bContinuous variables for which the ANOVA was used.

CF, compassion fatigue; ICU, intensive care unit; L&D, labor and delivery; LPN, licensed practical nurse; WRB, work-related burnout.

Table 2. Multinomial Regression Predicting Intention to Leave the Profession

Characteristic	Odds Ratio	Lower 95% CI	Upper 95% CI	p Value
<i>Uncertain in leaving vs intention to stay</i>				
WRB	1.034	1.021	1.047	<0.001 ^a
CF	1.007	0.999	1.015	0.082
COVID patients	0.886	0.559	1.402	0.604
Practice type – direct practice	0.812	0.367	1.794	0.606
Practice type – supervisor/manager	1.020	0.411	2.529	0.966
Practice type – educator	0.836	0.271	2.577	0.755
<i>Intention to leave versus intention to stay</i>				
WRB	1.047	1.033	1.061	<0.001 ^a
CF	1.022	1.015	1.030	<0.001 ^a
COVID pts	1.837	1.218	2.772	0.004 ^a
Practice type – direct practice	0.295	0.157	0.555	<0.001 ^a
Practice type – supervisor/manager	0.455	0.211	0.981	0.045 ^a
Practice type – educator	0.622	0.255	1.522	0.299

The reference category for both regression models is intention to stay. The reference category for COVID-19 patients is yes, and the reference category for practice type is other.

^aStatistically significant results.

CF, compassion fatigue; CI, confidence interval; WRB, work-related burnout.

prior research comparing nurses working in COVID areas compared to non-COVID areas, and indeed, contrary to the Jobs Demands-Resources model.²⁷ Considering this, we performed 2 post hoc independent samples t-tests to evaluate whether COVID-19 patient care was correlated with elevated risk of CF or WRB given our finding that COVID nursing was associated with ITS. Both WRB and CF were significantly higher in COVID nurses than non-COVID nurses ($p < 0.001$ for both variables, WRB $t = -6.391$, CF $t = -6.606$). The mean WRB score for COVID nurses was 65.04 (SD ± 16.33), compared to 57.5 (SD ± 17.65) for non-COVID nurses. The mean CF score for COVID nurses was 58.66 (SD ± 25.83) and 48.3 (SD ± 23.24) for non-COVID nurses.

One explanation for findings may be financial implications of COVID nursing, mentioned in the quotations in the qualitative data collected that help inform the quantitative surveys. Nurse household income or individual salary was not collected, thus, it is outside the scope of this study to discuss the specific effects of finances and ITL. However, it is possible there is an income disparity between non-COVID and COVID nurses. Further research is needed to better understand the specific role of compensation on ITL.

It is concerning that many nurses have WRB. Nurse burnout is associated with adverse patient and fiscal outcomes, such as increased incidence of nosocomial infections, increased morbidity and mortality,

and consequently, higher health care costs.^{16,28} Although some nurses did express hope for return of pre-COVID normalcy, it was not a prevailing theme within the qualitative analysis. Further research is needed to evaluate the ways to ameliorate WRB.

Nurse Burnout, Compassion Fatigue, and Intention to Leave

Higher WRB and CF scores were both associated with increased ITL. This finding is consistent with prior research before and during COVID-19.^{10,29} Within our regression models, WRB had the highest impact upon ITL, followed by CF. It is notable that the mean WRB measures were 51% higher in our sample compared to the pre-COVID reference study.²² Nurses (21.9%) indicated ITL, and an additional 18.9% reported uncertainty; our ITL group represented an 85.6% increase compared to a 2019 comparison study (11.8%).¹⁴

CONCLUSION

The COVID-19 pandemic has placed physical, mental, and emotional strain upon nurses. Work-related burnout and compassion fatigue are positively correlated with intention to leave the profession (ITL), however working with COVID-19 patients was associated with lower ITL in contrast to findings from prior studies. Although nurse compensation was not directly measured by this study, many participants discussed financial reasons as a motivation for staying the

Table 3. Exemplary Quotes From Participants by Intention to Leave Category

Intention to Stay	Uncertain	Intention to Leave
<i>"Yes. Reason number 1 is money. I need to support my family, and I can do this better as a nurse." (#208)</i>	<i>"I do because I love my job and I love my patients, but I feel it killing me every day. I cry almost every shift." (#55)</i>	<i>"I don't have the feeling of making any difference." (#147)</i>
<i>"Yes, because I love helping others." (#507)</i>	<i>"Maybe, if staffing does not improve, then no" (#133)</i>	<i>"No, I don't enjoy it anymore. Dread going to work to see what I'm going to walk into." (#476)</i>
<i>"Yes, because I have gotten a degree to do this work, and I do make good money." (#727)</i>	<i>"Sometimes yes and sometimes no. There are very little rewards in nursing now, we're overworked, understaffed, and underpaid." (#239)</i>	<i>"I've decided to retire 5 years earlier than previously." (#623)</i>
<i>"I do. I want to stay to help future nurses learn without feeling they're in a toxic work environment, I want to stay because I'm hoping I'll get my passion back, and I don't know what else I would do. Leaving nursing would feel like reacclimating into society after a war." (#937)</i>	<i>"I have mixed feelings. The amount of challenge is exhausting, but I am not sure what else I could do and make the same money." (#595)</i>	<i>"No, I am broken. The passion I once had is gone. I cry as I type this. I work because I have to support my family. I work because my coworkers are the only people who understand how I am feeling, and I can be transparent with them." (#879)</i>
<i>"I have left bedside nursing and went on to case management. It was a great decision for me and one of the reasons I am still a nurse." (#947)</i>	<i>"I'm a new grad, and if things continue this way, I'm not sure how much longer I can be a bedside nurse. I'm exhausted and feel burnt out already." (#697)</i>	<i>"No, I have lost faith in our health care system, and every day I work, I feel like I am betraying patients." (#913)</i>

The number with the hashtag denotes the number of the participant quoted.

profession in the qualitative portion of the study. Further research is needed to evaluate the possible role of compensation in mitigating ITL despite increased WRB. Increased nurse burnout during the pandemic raises concerns for both its impact on nurse ITL and the negative consequences of having burned out nurses continue to work in their roles. The stressors associated with working during the COVID-19 pandemic must be ameliorated to preserve a functional nursing workforce.

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Note: This work was supported by an internal grant from the Marquette University College of Nursing, Milwaukee, Wisconsin. The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

1541-4612/2022/\$ See front matter
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<https://doi.org/10.1016/j.mnl.2022.06.007>