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The Relationship Between Psychological Distress of Nursing Faculty With Burnout

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Abstract

Introduction: Approximately 83% of U.S. workers suffer from work-related stress. Burnout affects approximately 38% of nurses and nurse faculty per year. Contributing factors, including growing levels of mental health issues, can be seen among nursing faculty, leading to more and more nurses leaving nursing academia.

Objectives: This study objective aimed to identify associations between psychological distress with burnout in nursing faculty teaching in an undergraduate nursing program.

Methods: A quantitative design was utilized using a descriptive method with a convenience sample of nursing faculty ($n = 150$) from the Southeastern United States The Kessler Psychological Distress Scale was correlated with the Oldenburg Burnout Inventory. Regression analysis was used to analyze the data.

Results: Psychological distress was reported in 25% of the sample. Burnout was reported in 94% of the sample. Psychological distress and burnout were significantly correlated ($p < .05$). Race, gender, and age ($p < .05$) contributed to psychological distress.

Conclusion: Interventions promoting healthy mental well-being among nursing faculty are needed to address issues related to increasing rates of burnout and psychological distress. Implementation of workplace health promotion programs, increased mentorship, inclusion of diversity within nursing academia, and mental health awareness can improve mental health outcomes among nursing faculty. Further research is needed to explore the improvement of mental well-being among nursing faculty.

Keywords

burnout, mental health, nursing faculty, other-zero level, quantitative research, research, nursing education

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Introduction

Approximately 83% of U.S. workers suffer from work-related stress leading to an increased risk for burnout and psychological distress (OSHA, 2019). As a result of high-stress work environments and increased workloads, increasing rates of burnout and psychological distress can be seen among nurses and nursing faculty. The term burnout has been identified as an occupational phenomenon resulting from chronic exposure to workplace stress (WHO, 2022). Nursing faculty that experience burnout and psychological distress report symptoms of exhaustion, a decrease in work effectiveness and feelings of psychological disconnect toward their job (Chirico et al., 2021). Nursing faculty are more prone to burnout and psychological distress due to their roles in response to the COVID-19 pandemic, which added significant stress and emotional exhaustion to their workloads (Sacco & Kelly, 2021). Previous studies indicate that the mental well-being of healthcare workers, including nurses and nursing faculty, has been negatively impacted as a result of the COVID-19 pandemic (Chirico & Leiter, 2022). Nursing faculty providing care to patients during the COVID-19 pandemic were more prone to occupational stress and high levels of compassion fatigue (Magnavita et al., 2021). Burnout and psychological distress among nursing faculty are important to consider in nursing education and are causes for concern regarding student progression and student success.

Review of Literature

Psychological distress can be experienced at different levels of severity and is characterized by overwhelming feelings of

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stress and anxiety that can affect and impair mental health (Chirico et al., 2021; Vierto et al., 2021). Published literature has previously reported that a significant percentage of nursing faculty are leaving nursing academia as a consequence of burnout and psychological distress. The national nurse faculty vacancy rate is 8.8% with data indicating an increasing issue with a nursing faculty shortage (AACN, 2022). Nurses and nursing faculty were found among those individuals that experienced severe levels of psychological distress and reported increased depression, burnout, anxiety, and issues with sleep (Chirico & Leiter, 2022). Psychological distress and burnout can increase mental health challenges among nursing faculty and can negatively affect the workplace environment leading to negative student and patient outcomes.

Nursing faculty teach and guide nursing students in a clinical setting and have a direct impact on patient care. Psychological distress and burnout among nursing faculty have a significant impact on patient safety and can increase risks of adverse incidents and patient harm (Chirico & Leiter, 2022). Studies show a correlation between high levels of burnout among nurses and increased errors leading to poor patient safety (Garcia et al., 2019). Previous research indicates that unhealthy work environments contribute to factors leading to psychological distress and burnout among nurses and nursing faculty, which can negatively impact patient care.

Nursing faculty are at higher risk for psychological distress and burnout due to exposure to unhealthy work environments from both the clinical and the didactic work environments. Staffing shortages, workplace violence, and increase workloads account for contributing factors to an unhealthy work environment within the patient care and clinical setting. Experiences of workplace violence can negatively affect patient care and can lead to psychological distress and burnout among nurses and nursing faculty (Chirico et al., 2022). High levels of stress related to research, service, and teaching account for contributing factors to an unhealthy work environment within the didactic setting (Thomas et al., 2019). Exploring contributing factors of psychological distress and burnout is imperative to healthy mental well-being among nursing faculty, which can facilitate positive student and patient outcomes. Burnout and psychological distress have been extensively researched in clinical practice but have received little attention in nursing education and among nursing faculty (Sacco & Kelly, 2021). This study objectives are aimed to explore associations between psychological distress with burnout in nursing faculty in effort to minimize the gap in research and to contribute to the developing knowledge. The following objectives were developed to explore psychological distress and burnout among nursing faculty:

- Correlations between the demographics of BSN undergraduate nursing faculty with psychological distress?
- Relationship between nursing faculty's psychological distress with burnout?

Methods

Study Design and Institutional Review Board

The researcher utilized a descriptive method within the quantitative study to investigate the relationship between psychological distress and burnout among nursing faculty. Ensuring that the research design matches the research problem can further enhance rigor in quantitative research (Maula & Stam, 2019). The researcher utilized a descriptive method design to match the research problem which aims to explore psychological distress and burnout among nursing faculty and intended to gain insight and understanding of contributing factors. The researcher utilized guidelines from the STrengthening the Reporting of OBservational Studies in Epidemiology (STROBE) to report the study. Utilization of STROBE guidelines can enhance rigor by aiding authors to present their work in a transparent manner (University of Guelph, 2021).

The Kessler Psychological Distress Scale (K6), the Oldenburg Scale (OLBI), and questions regarding demographics were utilized via an online survey in data collection within the quantitative study. Within the study, the independent variable is burnout, which is measured by the Oldenburg, and the dependent variable is psychological distress, which is measured by the K6. The demographics survey required participants to self-report answers, while the K6 and the OLBI required participants to answer Likert-type scale questions. The online survey was input into the Qualtrics platform, which is an online software to collect and categorize data, and resulted in 150 complete response sets. The online survey was available and open to participants for 4 weeks in December 2022. Participants spent approximately 20 min to complete the online survey. At the beginning of the survey, all participants were prompted to complete an informed consent which indicated their willingness to participate. All responses were confidential, and participants were given the opportunity to withdraw from the study at any time.

The survey offered an option to include a participant's contact information if they wanted to inquire about their results within the K6 and the Oldenburg. The K6 and Oldenburg results determine the severity of psychological distress and burnout among individuals. Those participants interested in their results were informed of their scores via email and information regarding what their scores indicated. All of the participants that received their results were also given resources regarding mental well-being. Information provided by the National Alliance on Mental Illness and the National Suicide Prevention Lifeline were included in the resources. The informational email also prompted

faculty to reach out to their university's employee assistance programs as needed. This study was reviewed and approved by The University of Southern Mississippi Institutional Review Board IRB-22-1469.

Research Questions/Survey Tools

The researcher conducted a review of the literature to explore appropriate measurement tools that gauge psychological distress and burnout among individuals, which addresses the previously developed objectives. Ensuring appropriate measurement tools to address each research question within a study can further enhance rigor in quantitative research (Maula & Stam, 2019). Numerous research studies in the review of literature utilized the K6 and the OLBI. The researcher determined that the K6 and the OLBI were appropriate instruments to include in the quantitative study to measure perceptions of psychological distress and burnout among nursing faculty. Demographic information, the K6, and the OLBI were utilized to address the following research questions:

1. What is the relationship between the demographics of BSN undergraduate nursing faculty with psychological distress?
2. What is the relationship between nursing faculty's psychological distress with burnout?

Kessler Psychological Distress Scale (K6)

Numerous research studies have utilized the K6 to measure psychological distress. The K6 was used in this study to measure psychological distress among nursing faculty. Ronald C. Kessler developed the Kessler Psychological Distress Scale to inquire about six manifestations of nonspecific psychological distress over a 30-day recall period (Kessler et al., 2002). The six manifestations are addressed using Likert-type scale questions. Participants' responses include a score of 1 to 5. The response scores are summed at the completion of the survey and will range from scores of 10 to 50. Score ranges will indicate the severity of psychological experienced.

Participants that score <20 are considered to be well. Participants with scores ranging from 20 to 24 are likely to have mild mental health disorder. Participants with scores ranging from 25 to 30 are likely to have moderate mental health disorder. Participants with scores >30 are likely to have severe mental health disorder. Any score over 20 indicates that the participant has some degree or severity of psychological distress (Al-Tammemi et al., 2020). The K6 in this study was found to be highly reliable with an appropriate Cronbach's alpha (6 items; $\alpha = .72$).

Oldenburg Burnout Inventory

The Oldenburg Burnout Inventory (OLBI) has been extensively used in research to measure burnout and was utilized in this study to measure burnout among nursing faculty. The OLBI was developed by Demerouti and Nachreiner (1998) and helps to evaluate the severity of job and academic burnout based on exhaustion and disengagement statements (Nedea, 2020). The survey includes 16 Likert-type scale questions and the responses are associated with numbers 1 to 4. The 16 items are divided into two subscales that further break down burnout into disengagement burnout and exhaustion burnout. At the completion of the survey, the numbers are summed, and the total score will range from 16 to 64. Higher scores indicate that a participant has a greater level of burnout. Scores can be categorized as low burnout, medium burnout, and high burnout. The OLBI in this study was found to be highly reliable with an appropriate Cronbach's alpha (6 items; $\alpha = .82$).

Sample

Participants were selected from nursing programs in the United States. The nursing programs were located in the Southeastern United States. As defined by the U.S. federal government, the Southeastern United States includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Maryland, Texas, Virginia, and West Virginia (Britannica, 2023).

Inclusion/Exclusion Criteria

The study included a convenience sample of BSN nursing faculty ($n = 150$). All nursing faculty working full-time in their respective universities located in the Southeastern United States and willing to partake in the online survey were eligible to participate in the study. Inclusion criteria excluded nursing faculty teaching in Licensed Practical Nurses, RN-BSN students, and Associate Degree in Nursing programs. The researcher utilized the Student Nurses Association and the Southern Association of Colleges and Schools to obtain listservs in recruitment efforts. Other methods of recruitment included the utilization of social media platforms such as Facebook and Instagram where advertisements for participation in the study were posted.

Statistical Analysis

Quantitative data from the 150 response sets were coded and imported from the Qualtrics platform to the Statistical Package for the Social Sciences (SPSS) version 27 for analysis. Demographic data, the K6, and the OLBI were analyzed using descriptive statistical analysis, univariate analyses,

bivariate analyses, and multivariate regression analysis. For the demographic variables of race, marital status, and the K6 scale, the categories with fewer data points were merged for descriptive statistical analysis purposes. The univariate statistics display the frequency count, percent, mean, and standard deviation for the quantitative variables. The bivariate analysis was performed for the psychological distress score variable on an ordinal scale with the sociodemographic and disease variables. All statistically significant data were identified with a significance threshold of $p < .05$.

Results

Sample Characteristics

The nursing faculty ($n = 150$) were in early adulthood with a mean age of 29.82 years ($SD = 9.42$). The highest percentage of participants selected African American ($n = 103$, 69%), male ($n = 87$, 59%), and married ($n = 82$, 55%). Descriptive statistical analysis was conducted on the K6 and the resulting scores determined that 25% of the participants were likely to have a mild to severe mental disorder. Descriptive statistical analysis was conducted on the OLBI and the resulting scores determined that 94% experienced more burnout. Descriptive statistics can be seen in Table 1.

Table 1. Descriptive Statistics ($n = 150$).

Variable	Level	Frequency (%)	Mean (*SD*)
Race			
	Black	103 (68.67)	
	Non-Black	47 (31.33)	
Gender [Q5]			
	Male	87 (58.39)	
	Female	62 (41.61)	
Marital Status [Q7]			
	Married	82 (55.03)	
	Others	67 (44.97)	
Age			29.81 (9.42)
Burnout [OLBITOTAL]			39.76 (3.95)
Psychological distress [K6TOTAL]			17.25 (3.84)
Burnout in categories			
	Less burnout	9 (6.00)	
	More burnout	141 (94.00)	
Psychological distress in categories			
	Well	112 (74.67)	
	Mental disorder	38 (25.33)	

Note: For the variables Race, Marital Status, and Psychological distress, the categories with fewer data points have been merged for analysis purposes.

Research Question Results

1. What is the relationship between the demographics of BSN undergraduate nursing faculty with psychological distress?

The study sample ($n = 150$) includes, 58% ($n = 87$) males and 42% ($n = 62$) females, aged 25 to 69 years, and stratified for race—69% ($n = 103$) African American, 30% ($n = 45$) White, and 1% ($n = 2$) Asian. The marital status reported by the participants includes 55.03% (82) married, 6.04% (9) widowed, 5.37% (8) divorced, 7.38% (11) separated, and 26.17% (39) single.

Descriptive statistics can be found in Table 1.

Bivariate analysis was performed for the psychological distress score variable on an ordinal scale with the sociodemographic and disease variables. A statistically significant relationship at $\alpha = .05$ was observed with variables—race ($p = .0121$), gender ($p = 0.0002$), and age ($p < .0001$). Bivariate analysis can be found in Table 2.

A multivariate regression analysis was conducted between psychological distress and the demographic variables. The multivariate regression model of the total score of psychological distress is statistically significant at $\alpha = .05$ with gender ($p < .0001$) and race ($p = .0230$) suggesting that there is a linear relationship between the outcome variable and these independent variables. Multivariate regression analysis can be found in Table 3.

Overall analysis regarding demographics and psychological distress indicates a significant relationship between race with psychological distress, gender with psychological distress, and age with psychological distress. Study results addressing research question 1 indicate the following findings: (a) African American nursing faculty reported more psychological distress; (b) male nursing faculty reported more psychological distress; (c) younger nursing faculty reported more psychological distress.

2. What is the relationship between nursing faculty's psychological distress with burnout?

The total psychological distress score was calculated using 6 items and was observed to range from 6 to 25 with an average of 17.25. A total of 74.67% ($n = 112$) participants reported being well, 24% ($n = 36$) reported a mild mental disorder, and 1.33% ($n = 2$) reported a moderate mental disorder. None of the participants reported severe mental disorder.

The total burnout score was calculated using 16 items and was observed to range from 26 to 55 with an average of 39.76. Higher scores >35 indicate more burnout levels. A total of 94% ($n = 141$) of participants reported more burnout, while only 6% (9) reported less burnout.

Bivariate analysis was performed between psychological distress and the OLBI scale. From Table 2, we can see a significant relationship at $\alpha = 0.05$ between psychological distress and the OLBI scale. Multivariate regression analysis was performed between psychological distress and the

Table 2. Bivariate Analysis.

Outcome variable	Independent variable	Test	Test statistic	*p*-value
Psychological distress [K6TOTAL]	Race	Spearman	−0.21	**.0121**
	Gender	Spearman	−0.31	**.0002**
	Marital status	Spearman	0.05	.5652
	Age	Spearman	0.31	**<.0001**
	Burnout [OLBITOTAL]	Mantel Haenszel	10.05	**.0015**

Bold values are statistically significant at α=0.05.
Note: Mantel Haenszel chi-square test was performed because both variables are ordinal scale variables.

Table 3. Multivariate Linear Regression Model With Psychological Distress and Independent Variables.

Outcome variable	Independent variable	β	Standard error	*p*-value
Psychological distress [K6TOTAL]	Gender	−2.45	0.58	**<.0001**
	Race	−1.45	0.63	**.0230**
	Burnout	0.23	0.07	**.0018**
Sample size (n) = 150				
$R^2 = 0.1860$				

Bold values are statistically significant at $\alpha = 0.05$.

OLBI scale. The multivariate regression model of the total score of psychological distress is statistically significant at $\alpha = 0.05$ with burnout ($p = .0018$) suggesting that there does exist a linear relationship.

Overall analysis regarding burnout and psychological distress noted a significant relationship among nursing faculty. Study results addressing research question 2 indicate that nursing faculty that experience psychological distress also experience burnout. High levels of psychological distress are indicative of mental health impairment, including burnout (Vierto et al., 2021).

Discussion

The study findings contribute to the growing research that explores the relationship between psychological distress and burnout among nursing faculty. Bivariate analyses indicated a significant relationship at $\alpha = .05$ between psychological distress and race. With the majority of the study population being African American (69%), we can note that the study findings are in agreement with previous research indicating that African American nursing faculty have a higher risk for psychological distress. Research suggests that the adult African American community is 20% more likely to experience serious mental health problems, such as major depressive disorder or generalized anxiety disorder (Vance, 2019). Lawrence et al. (2022) highlighted a study that examined racial and ethnic differences in psychological distress and burnout among faculty and found a higher prevalence of burnout among African Americans (30%) compared to Caucasians (18%) and Asians (3%).

Bivariate analysis and multivariate regression analysis indicated a statistically significant relationship between psychological distress and gender. With the majority of the study population being male (58%), we can note that the study findings are in agreement with previous research indicating that male nursing faculty have a higher risk for psychological distress. Research has highlighted barriers to male nursing faculty as stereotypes, discrimination, higher attrition rates, feminized curriculums, and tokenism (Palmer, 2019). These barriers can increase psychological distress among male nursing faculty. The American Organization for Nursing Leadership (2021) report that male academic faculty report feeling isolated and lack mentorship which can increase their risk for psychological distress and burnout.

Bivariate analysis and multivariate regression analysis indicated a statistically significant relationship between psychological distress with age. With the majority of the population in the study being in the young adult age range and an average age of 29, we can note that the study findings are in agreement with previous research indicating that the young and new nursing faculty are at higher risk for psychological distress. Thomas et al. (2019) highlighted that younger faculty experienced psychological distress and burnout at a higher rate than veteran faculty. The younger and new nursing faculty face many challenges in their professional role that require mentorship, preparation, and adequate support. The lack of adequate mentorship among nursing faculty can contribute to unhealthy work environments. New faculty exposed to unhealthy work environments can lead to psychological distress and burnout and include demanding course loads, multiple commitments, and a necessity for continuing education in efforts to practice the current research (Shirey, 2006).

Bivariate analysis and multivariate regression analysis indicated a statistically significant relationship between psychological distress with burnout. The linear relationship indicates a positive correlation between psychological distress and burnout, implying that those individuals that experience psychological distress also experience burnout. Bentjen (2019) conducted a study utilizing the emotional exhaustion subscale score to measure burnout among nursing faculty. The study found high levels of burnout among mid-career nurse educators as a result of the nursing faculty shortage which include factors such as increased workplace responsibilities and challenges with work–life balance. These contributing factors of burnout can negatively affect the mental well-being of nursing faculty and can lead to psychological distress.

Strengths and Limitations

Strengths and limitations can be noted within the study. Recruitment of nursing faculty from multiple universities can contribute to the strengths of the study. This study is one of the first explorations to uncover contributing factors of psychological distress and burnout among BSN faculty practicing in the Southeastern United States. The inclusion of a population with only BSN faculty can contribute to the limitations of the study. The inclusion of a specific population can cause an external validity threat by limiting the ability to generalize the findings to the larger population of BSN faculty. Another limitation of the study included a sample of mostly male faculty (59%), which may not represent other BSN programs that include more female faculty. Assumptions that participants are always truthful and accurate with survey responses contributed to the study's limitations. Future research might include a qualitative approach or the inclusion of open-ended questions to understand faculty's perceptions of the experiences with psychological distress and burnout.

Implications for Practice

Quality evaluation utilizing evidence-based tools to measure psychological distress and burnout is imperative in aiding policymakers in developing solutions (Chirico & Magnavita, 2020) to address the mental well-being of nursing faculty. Future implications for policymakers and administrators within nursing academia should encourage the implementation of preventative measures such as surveillance methods to recognize nursing faculty at risk for psychological distress and burnout. Deteriorating mental well-being among nursing faculty as a result of the COVID-19 pandemic should also be considered in efforts to combat psychological distress and burnout.

Policymakers should consider collaborating with workplace health promotion programs to improve mental well-being among nursing faculty. Self-awareness and coping strategies can be incorporated within workplace health promotion programs. All aspects of well-being, including spiritual and physical well-being, should be addressed within these programs. Spirituality can play an important role in coping with the negative effects resulting from the pandemic by tackling challenges within the workplace environment (Chirico, 2021). Physical well-being should be encouraged and can be promoted through employee exercise programs. Previous research has identified the benefits of exercise for mental health and includes alleviating symptoms such as stress, anxiety, depression, and pain (NAMI, 2021). Workplace health promotion programs should promote resources and training to address potential psychological challenges. Programs such as the Mental Health First Aid training courses can improve understanding of potential psychological challenges within nursing academia and can provide action plans to safely identify and address psychological challenges (National Council for Mental Wellbeing, 2023).

Conclusion

Creating a supportive and positive working environment to promote healthy mental well-being among nursing faculty is vital in addressing the nursing faculty shortage issue (Aquino et al., 2018). Burnout and psychological distress are contributing factors among nursing faculty that can negatively affect the work environment and add to the reasons why faculty are leaving nursing academia. Nursing faculty that are new to academia and are in the young adult age range can be at higher risk for burnout and psychological distress. The average age of nursing faculty in the study was 29, which can be attributed to the theory that nursing faculty are aging out of the profession with increases in nursing faculty retirements. A wave of faculty retirements is expected across the United States over the next decade (AACN, 2022). According to the AACN's report 2021–2022 *Salaries of Instructional and Administrative Nursing Faculty*, the average age of nursing faculty was 56.6 years. The threat of increasing nursing faculty shortages and the introduction of new and younger faculty to nursing academia can contribute to an increase in workplace stressors. Providing effective mentorship and resources to the new wave of nursing faculty can help address these workplace stressors and improve mental well-being and enhance the work experience, leading to intent to stay within nursing academia.

The study revealed that male and African American nursing faculty are at higher risk for psychological distress and burnout. The inclusion of diversity within nursing academia can improve the work environment, which can decrease work stressors. A lack of minority nurse educators or male nurse educators may gesture to potential nursing faculty and nursing students that diversity is not valued (AACN, 2022). Potential nursing faculty seeking academic role models to guide them in their academic careers can find it challenging to find mentors and a community of support, leading to unhealthy work environments. Lack of support and lack of mentoring can leave nursing faculty at a higher risk for psychological distress and burnout. The need to attract nursing faculty from underrepresented groups in nursing, especially men and individuals from diverse backgrounds is a high priority for the nursing profession (AACN, 2022), which can improve unhealthy work environments.

Addressing mental well-being and healthy work environments among nursing faculty is imperative to nursing education and the nursing profession. Despite the fortitude to combat the deteriorating mental well-being of nursing faculty, contributing factors such as increased levels of burnout, faculty shortages, and an imbalance in the supply of nursing faculty to nursing students continue to hamper

those efforts (Bakewell-Sachs et al., 2022). Interventions and measures such as providing nursing faculty with a healthy work environment can address psychological issues leading to distress and burnout. The study revealed that stressors such as lack of mentorship, lack of diversity, and lack of mental well-being resources can lead to burnout and psychological distress among nursing faculty. These stressors can be effectively addressed with a collective effort from policymakers and administration within nursing academia. Action plans to incorporate preventative measures and workplace health promotion programs may be the key to gaining the upper hand in the battle against psychological challenges and potential risks for declining mental well-being among nursing faculty.

Ethical Statement

This study was conducted in accordance with the Helsinki Declaration and the protocol was approved by the University of Southern Mississippi Institutional Review Board IRB-22-1469. All participants gave their informed consent for inclusion prior to participation in the study.

Author Contributions

MFW conceived the study and determined the methodology. MFW collected and analyzed the data. MFW lead in writing and organizing the manuscript. MFW contributed to the writing and reviewed the final manuscript before submitting it for publication.

Declaration of Conflicting Interests

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