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Brief Report

Evaluating Advanced Practice Nurses' Burnout and Potential Helping Modalities

Christine Stallter, Tina S. Gustin

A B S T R A C T

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Health care providers are experiencing increased stress during the coronavirus disease 2019 pandemic. While it is understood that increased stress leads to burnout, limited research has been conducted to evaluate advance practice nurse response to coronavirus disease 2019, and more specifically, self-identified modalities that may decrease stress in the workplace or at home. This pilot study evaluated advance practice nurse-perceived burnout and evaluated perceived needs and/or perception of modalities aimed at reducing stress and improving well-being, such as essential oils, quiet room, soothing music, art therapy, pet therapy, and mobile applications, that could be easily accessed in the workplace.

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Introduction

The coronavirus disease 2019 (COVID-19) pandemic has placed unwarranted burdens and stress on health care providers globally due to prolonged shifts, staff shortages, limited personal protective equipment, and numerous patient deaths.^{1,2} Many health care workers are facing stressful situations that can increase feelings of fear and worry and lead to a deterioration in mental and physical health that will cause some to leave the health care profession.^{3,4} Health care staff experiencing emotional fatigue and depersonalization accompanied with little fulfillment among a challenging work environment are susceptible to burnout.⁵ Before COVID-19, one study evaluated causes of advanced practice nurse (APN) burnout and discovered that workload was a major cause of burnout.⁶

Modalities such as essential oils, soothing music, quiet room, art therapy, pet therapy, and mobile applications are being incorporated into hospitals to better assist patients with coping with daily stressors. Essential oils are becoming increasingly popular within society to promote tranquility and calmness. A study using essential oils through aromatherapy for patients in intensive care indicated a reduction in perceived stress when aromatherapy was used for less than 1 hour daily for 2 days.⁷ Another recent study using Citrus Bliss (doTERRA) essential oil diffusion for 2 weeks in a clinical nurse setting revealed a significant improvement in nurse stress levels.⁸

Soothing music and quiet rooms for hospital patients have been implemented with positive effects. Research regarding their use for health care providers is limited. A preliminary study evaluated the use of music therapy to assist in reduction of stress among health care staff caring for COVID-19 patients and discovered that music seemed to be a plausible intervention to support staff in high-stress

environments.⁹ Another study determined that oncology nurses who listened to 20 minutes of soothing music twice weekly for 3 weeks had reduced stress levels while at work.¹⁰ Quiet rooms are often provided within hospitals for families but are not always available for health care providers, although they have been suggested as a useful place to promote relaxation and self-care for staff needing a break from stressful work settings.¹¹

Art therapy has shown benefits for reducing stress, yet many health care facilities do not use art therapy. A pilot study that offered 3 art classes monthly for 3 months discovered that most of the health care staff participants reported increased well-being.¹² Another pilot study that evaluated health care staff well-being after providing 3 art sessions within 2 months discovered that more than half of the participants reported reduced stress levels at work.¹³

Pet therapy programs are becoming more prevalent among large health care facilities. Pet therapy programs have been used to decrease stress and combat fatigue among patients; yet, research is limited regarding their potential benefits among health care staff.¹⁴ A pet therapy program implemented for patients and staff within a surgical oncology unit revealed that staff reported lower burnout.¹⁵ A recent study that introduced pet therapy to emergency department staff revealed reduced stress levels after a 5-minute pet therapy session.¹⁶

Mobile applications geared towards stress reduction and improved well-being are increasing in popularity among health care workers. A research study targeting nurses found that those who used a mobile app aimed at reducing stress and improving well-being reported lower stress levels and higher well-being than the control group that was not provided use of the mobile app.¹⁷

Despite the use of these modalities within patient care and within some health care working environments, there is minimal research on the perceived benefits of implementing these

modalities within APN practice settings. As research continues to be published regarding the use of these modalities, it is crucial to investigate whether health care and, more specifically, APNs believe that these modalities may be of use in assisting in reduction of stress and improved well-being. The purpose of this study was to evaluate APN perceived burnout and to determine modalities APNs perceived as being beneficial to reduce stress and improve well-being, such as essential oils, quiet room, soothing music, art therapy, pet therapy, and mobile applications.

Methods

This study consisted of a nonexperimental, descriptive, causal-comparative design and was approved by Old Dominion University's Institutional Review Board under exempt status. Participants were recruited through an e-mail link sent to 3 state APN organizations: the Virginia Association of Doctors of Nursing Practice, the Virginia Council of Nurse Practitioners, and the Virginia Association of Clinical Nurse Specialists. The study link was also posted to Old Dominion University's School of Nursing social media pages. Participation was voluntary, and consent was considered implied from those who completed the survey.

The survey consisted of demographic data and the Oldenburg Burnout Inventory (OLBI). The OLBI is a 16-item tool for assessing burnout in which lower scores indicate less burnout, whereas higher scores indicate more burnout.^{18,19} Burnout was categorized into low, moderate, or high stages based off the total within 1 SD of the mean.^{19,20} Cronbach α for the OBLI subscales of exhaustion and disengagement¹⁸ were 0.74 and 0.79.

Potential therapies to reduce stress and improve well-being were evaluated by a researcher-developed tool. The tool was evaluated by 3 nurse researchers for readability and face validity. Potential therapies were evaluated by use of a 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, and 5 = strongly agree. Analysis consisted of descriptive statistics, correlational testing (Pearson r) to assess relationships between groups, and Mann-Whitney U testing to assess differences between groups.

Results

Among the 154 APNs who completed the survey, 131 (85.1%) were nurse practitioners (NPs). Other professional roles included 18 clinical nurse specialists (11.7%), 4 nurse anesthetists (2.6%), and 1 nurse educator/nurse executive (0.6%). The participants were a mean age of 44.62 (SD, 11.40) years (range, 24–69 years). There were 148 women (96.1%) and 6 men (3.9%). The number of years in an APN role ranged from 1 to 43, with a mean of 9 (SD, 9.6) years. Seventy (45.5%) participants had practiced in an APN role less than 5 years, 34 (22%) participants had practiced in an APN role for 5 years to less than 10 years, and 50 (32.5%) participants had practiced in an APN role for 10 to 43 years. There were 106 participants (68.8%) who reported their predominant place of work was an outpatient setting, 33 (21.4%) reported working in an inpatient setting, and 15 (9.7%) reported working as faculty for a university or “other.”

A total burnout score of 16 to 30 indicated low burnout, a score of 31 to 45 indicated moderate burnout, and a score of 46 to 64 indicated high burnout among APNs. Of the 154 participants, 27 (17.5%) reported high burnout, 107 (69.5%) reported moderate burnout, and 20 (13%) reported low burnout. Age was negatively (inversely) correlated with the OLBI burnout score and indicated a moderate inverse correlation with a Pearson r value of -0.217 . This was statistically significant, because the P value was .007, which

was below significance level P value of .01. The younger the APN, the more burnout reported.

Professional role was divided into NPs ($n = 131$) and “other than NP” ($n = 23$), which included clinical nurse specialists, nurse anesthetists, nurse educators, and nurse executives. The mean NP burnout score was 38.37 (SD, 7.75), and the “other than NP” mean burnout score was 35.05 (SD, 6.6). Differences between professional role groups were statistically significant at $P < .05$, because the Mann-Whitney U test P value was .034. NPs reported a higher degree of burnout than APNs practicing in professional roles “other than NP.”

Thirty-three APNs reported working “inpatient” and 104 reported working “outpatient.” The mean burnout score was 36.15 (SD, 6.62) for APNs who worked “inpatient” and 38.67 (SD, 7.78) for APNs who worked “outpatient.” Differences between place of work was not statistically significant ($P < .05$), because the Mann-Whitney U test P value was .051. There was no significant difference between place of work (inpatient vs outpatient) and burnout.

Of interest were the 149 responses indicating potential modalities perceived as being the most beneficial for reducing stress and improving well-being. Pet therapy was the most popular, as 71 (46.1%) “strongly agreed” and 47 (30.5%) “agreed,” followed by soothing music, in which 35 (22.8%) “strongly agreed” and 83 (53.9%) “agreed,” and quiet room in which 25 (16.2%) “strongly agreed” and 84 (54.5%) “agreed.” Mobile applications, essential oils, and art therapy were less popular: 14 (9.1%) “strongly agreed” and 59 (38.3%) “agreed” to using mobile applications, 10 (6.5%) “strongly agreed” and 53 (34.4%) “agreed” to using essential oils, and 11 (7.1%) “strongly agreed” and 48 (31.2%) “agreed” to using art therapy as potential therapies for reduction of stress and improved well-being.

Discussion

Most APNs reported moderate burnout during the COVID-19 pandemic. Age was inversely correlated with burnout, indicating younger APNs are experiencing higher levels of burnout than older APNs. NPs are experiencing more burnout than clinical nurse specialists, nurse anesthetists, nurse educators, and nurse executives. Most APNs “strongly agreed” or “agreed” to using pet therapy, soothing music, and quiet room as potential therapies to reduce stress and improve well-being.

Limitations

Reporting limitations is beneficial for research. Although this study had significant statistical findings, most of the APNs were NPs. It would have been beneficial to include even more APN organizations in hopes of gathering more responses from APNs in other professional roles such as nurse midwives, clinical nurse specialists, nurse anesthetists, nurse educators, and nurse executives. Because the sample size was small and limited to APNs in Virginia, the results may not be generalizable or applicable for other states.

Conclusion

This study indicates that many APNs are experiencing moderate levels of burnout during the COVID-19 pandemic. It is vital that the well-being of APNs and other health care professionals be taken into consideration during these challenging times as health care staff are experiencing an inner pandemic of clinical burnout.⁴ APNs were able to identify modalities perceived to be helpful for decreasing stress and improving well-being that can be used to improve support for APNs and encourage implementation of stress-

reducing modalities within APN practice settings. It is imperative that APNs and health care management are made aware of these potential modalities so that they can be implemented at work. As younger APNs are reporting higher burnout, special attention should be directed towards providing stress-reducing therapies for younger APNs.

Many of these modalities are low cost and could easily be implemented within APN places of work. Essential oils can be implemented through aromatherapy at low cost in a designated area when staff are socially distanced and allowed to be unmasked. Unused patient rooms with adequate ventilation can be incorporated into quiet rooms by applying a fresh coat of paint and adding comfortable furniture. Staff can disinfect these quiet rooms before leaving. Soothing music can be played from free smart phone applications. Art therapy can be implemented easily by making coloring pencils, paper, and coloring books available in break areas and disinfecting reused supplies. Hospitals who already have a pet therapy program for patients could easily integrate pet therapy for staff with no added cost while maintaining infection control guidelines. Therapy animals could be scheduled at set times for staff and made available after stressful events for staff decompression. Employers should encourage APNs to download free mobile applications designed for stress reduction.

The low cost of implementing these modalities is negligible compared with the high cost associated with health care staff turnover due to burnout. We intend to incorporate these modalities within our own working environments to improve well-being and combat burnout and intend to educate management within local hospitals on our findings and the ease of implementing these modalities into health care practice settings.

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The authors are at Old Dominion University (ODU), Virginia Beach, VA. Christine Stallter, DNP, FNP-BC, is a recent graduate of ODU's Doctor of Nursing Practice program and is an Adjunct Clinical Assistant Professor for ODU's School of Nursing. She can be contacted at christiestallter@gmail.com. Tina S. Gustin, DNP, CNS, is an Associate Professor for ODU's School of Nursing and co-director for the Center for Telehealth-Innovation, Education, and Research.

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