

Assessing and addressing practitioner burnout: Results from an advanced practice registered nurse health and well-being study

April N. Kapu, DNP, APRN, ACNP-BC, FAANP (Associate Chief Nursing Officer)¹, Elizabeth Borg Card, MSN, APRN, FNP-BC, CPAN, CCRP, FASPAN (Nursing Research Consultant)², Heather Jackson, MSN, APRN, FNP-BC (Director of Advanced Practice)³, Ruth Kleinpell, PhD, RN, FAAN (Assistant Dean for Clinical Scholarship and Professor)⁴, Jim Kendall, LCSW, CEAP (Manager)⁵, Buffy Krauser Lupear, DNP, CRNA, APRN (Director of Professional Development)⁶, Kiersten LeBar, DNP, MMHC, APRN, CPNP-AC (Director of Advanced Practice)⁷, Mary S. Dietrich, PhD, MS (Professor, Statistics and Measurement)⁸, Wendy A. Araya, DNP, APRN, NNP-BC (Advanced Practice Manager)⁹, Janelle Delle, DNP, APRN, ACNP-BC (Nurse Practitioner)¹⁰, Kate Payne, JD, RN, NC-BC (Associate Professor of Nursing)¹¹, Jaquelyn Ford, PA-C (Physician Assistant)¹², & Marilyn Dubree, MSN, RN, NE-BC (Executive Chief Nursing Officer)²

ABSTRACT

Background: Numerous nursing and physician studies have reported the effects of workload, environment, and life circumstances contributing to burnout. Effects may include job dissatisfaction, poor quality of life, and associated negative patient outcomes. Although assessing clinician burnout to determine effective interventions has become a topic of great importance, there are minimal studies specific to advanced practice registered nurses (APRNs).

Purpose: This single-center study was conducted to assess the prevalence and impact of APRN burnout and to recommend targeted interventions toward improvement of overall health and well-being.

Methods: A cross-sectional, mixed methods design was used. The voluntary, anonymous survey examined perceptions of wellness, inclusion, social support, personal coping mechanisms, and status of burnout.

Results: The 78-question survey was sent to 1,014 APRNs (94%) and PAs (6%), with a 43.6% response rate ($n = 433$); 76.4% were nurse practitioners. Participants were identified as currently experiencing burnout, formerly burned out, or never having experienced burnout. Profiles were developed, and similarities and differences between each group were compared. Of 433 respondents, 40.4% ($n = 175$) reported having never experienced burnout, 33.3% ($n = 144$) reported they had formerly experienced burnout, and 26.3% ($n = 114$) reported they were currently experiencing burnout.

Implications for practice: The results of the study identified that some APRNs report experiencing burnout at different times in their careers. Recommendations by participants to mitigate burnout included self-care, organizational promotion of health and well-being, career development, and leadership support. This study is one of the first to report on burnout among APRNs and potential interventions to build resilience; however, additional research is warranted.

Keywords: Advanced practice; APRN; burnout; fatigue; health; nurse practitioner; resilience; well-being.

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¹Advanced Practice, Vanderbilt University Medical Center and Professor of Clinical Nursing, Vanderbilt University School of Nursing, Nashville, Tennessee, ²Vanderbilt University Medical Center, Nashville, Tennessee, ³Outpatient Surgery, Vanderbilt University Medical Center, Nashville, Tennessee, ⁴Vanderbilt University School of Nursing, Nashville, Tennessee, ⁵Work/Life Connections-EAP, Vanderbilt University School of Nursing, Nashville, Tennessee, ⁶Office of Advanced Practice, Vanderbilt University Medical Center, Nashville, Tennessee, ⁷Vanderbilt Ingram Cancer Center, Vanderbilt University Medical Center, Nashville, Tennessee, ⁸Vanderbilt University Schools of Medicine and Nursing, Nashville, Tennessee, ⁹Neonatal Intensive Care Practitioners, Vanderbilt University Medical Center, Nashville, Tennessee, ¹⁰Trauma Surgery, Vanderbilt University Medical Center, Nashville, Tennessee, ¹¹Center for Biomedical Ethics and Society, Vanderbilt University Medical Center, Nashville, Tennessee, ¹²Neurosurgery, Vanderbilt University Medical Center, Nashville, Tennessee.

Correspondence: April N. Kapu, DNP, APRN, ACNP-BC, FAANP, 1161 21st, Avenue South, Medical Center North D2106, Nashville, TN 37232. Tel: 615-343-1465; 614-454-0469; Fax: 615-322-3490; E-mail: april.n.kapu@vumc.org

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Introduction

Advanced practice registered nurses (APRNs) and physician assistants (PAs) are rapidly increasing in numbers to address health care demands for access to high-quality care. With rising health care costs, declining insurance reimbursement, changing consumer demands, and other health disparities, the landscape is changing. Health care clinicians, beyond physicians, are being educated, trained, and licensed to provide care for various specialties and populations. Although the need for a larger workforce of clinical providers has increased exponentially in the last few years, encouraging nurses and physician assistants to seek additional education and expertise in providing advanced clinical care is not new (AANP, 2018; AAPA, 2018). The push for advanced training in public health services for APRNs and PAs began over 60 years ago and has continued to mature, until today there are several established, accredited educational programs and specialty certifications to meet growing demand.

Although expansion of roles for APRNs and PAs has been viewed as a health care necessity for high-quality and cost-effective care, national and organizational demands of role expansion and workload have also increased, causing both positive and negative effects. Positive effects include increased job prospects, opportunities in education and research, and satisfaction related to belonging to a health care team as well as improving patient outcomes (Chen, Chaing, & Storey, 2012). However, negative effects have included poor job satisfaction related to workload, volume, demands for productivity, inability to spend quality time with patients, decreased empowerment within organizational system constraints, role strain, questions surrounding scope of practice, high turnover, and burnout (Hooker, Kuilman, & Everett, 2015; Woo, Lee, & Tam, 2017; Panagioti, et al., 2018; Hoff, Carabetta, & Collinson, 2017; Welp, Meier, & Manser, 2015; Maslach, Schaufeli, & Leiter 2001).

Background

Vanderbilt University Medical Center (VUMC) is a well-known national leader in promoting advance practice (Moote, Krsek, Kleinpell, & Todd, 2011). Transformational leadership, structural empowerment, autonomous practice, and high respect for these clinician types are key attributes to VUMC's program. In addition, the affiliation with Vanderbilt University School of Nursing (VUSN) has further increased the integrity of the APRN program, as VUSN leads the nation in rankings and scholarship. At the same time, VUMC is a not-for-profit health care organization, with common financial constraints that affect the ability to provide high-quality, cost-effective care to a high volume of patients throughout Tennessee and surrounding region (Taylor, Hepworth, Buerhaus, Dittus, & Speroff, 2007). In 2018, there were over 1,000 APRNs and 60

PAs working at VUMC to meet demands for access and quality care. As mentioned previously, the national demand for growth has had both a positive and a negative impact. This holds true for VUMC, in that the need for more advanced practitioners has promoted a positive picture for advanced practice, but the increased role demands can also have a negative impact.

Prior VUMC advanced practice studies have demonstrated substantial demands for this unique clinician group (Kapu, Kleinpell, & Pilon, 2014). Compensation, workload, and opportunities for professional growth and development are among the most common issues. Although there have been several VUMC market adjustments throughout the years, the rapidly changing market for APRNs and PAs continues to create a highly competitive environment.

Based on physician and nursing literature, any or all of the aforementioned factors may contribute to burnout (Embriaco, et al, 2007; Wright, 2011). According to Maslach and Leiter (2016), burnout can be defined as a stress experience related to one's environment and social context. "Burnout is a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment" (Maslach & Leiter, 2016 p. 103). Lewin and Balsler (2017) stated "Burnout in health care is a threat to all of us. It hurts quality of life, the morale of groups and teams, and the productivity of organizations. It costs money through inefficiency, ineffectiveness, and the unnecessary and premature turnover of highly trained professionals representing substantial societal investment. It threatens the health of patients, in the form of suboptimal outcomes as well as avoidable errors, and it threatens the health of practitioners, through a spectrum of outcomes that range from exhaustion and depersonalization all the way to depression, suicidal ideation, and all too tragically, suicide itself" (p. 5). Understanding burnout and promoting resilience has increasingly become a priority for organizations as there is a great expense associated with mitigating burnout and the related impact including the potential for medical errors, turnover, poor work place environment, lack of teamwork, and lack of commitment (Shanafelt & Noseworthy, 2017). Among recent years, there has been a national realization of clinician burnout, with more studies demonstrating substantial and often-times devastating impact (Panagioti, et al., 2018; Lyndon, 2016; Moss, Good, Gozal, Kleinpell, Sessler, 2016; Welp, Meier & Manser, 2015; Rogers, Hwant, Scott, Aiken, & Dinges, 2004; Rogers, et al., 2004).

The National Academy of Medicine launched its campaign for clinician wellbeing in 2017, citing that both external and internal factors may affect clinician well-being

and resilience (Dyrbye, Shanafelt, & Sinsky, 2017). External factors include social and cultural influences, regulatory, business, and payer environment, organizational climate, and environment for learning and practice, whereas internal factors include professional roles and responsibilities, type of health care practice, career trajectory, personal health, family dynamics, personality traits, sense of purpose, and developed social, emotional, and leadership skills and abilities, among others. Knowledge of individual and organizational interventions is important in developing programs as well as shaping a culture that promotes health and well-being (<https://nam.edu/initiatives/clinician-resilience-and-well-being/>).

Table 1 indicates notable physician- and nursing-related studies examining factors related to burnout. However, there has been limited research specifically related to advanced practice burnout, its impact, and resilience factors (Dyrbye et al., 2017). For VUMC, a well-timed opportunity presented in 2017, when physicians formed a group to evaluate the impact of physician burnout. When this group was formed, the Executive Chief Nursing Officer requested a meeting to better understand the correlation between physician burnout and APRN/PA burnout, and whether the efforts to understand and address could be combined. At this time, several factors were identified that were both similar and different when comparing physicians to advanced practitioners. Therefore, it was decided to launch two parallel projects, one focused on physicians and the other focused on APRNs and PAs, with a goal that there would be unique profession-based discovery but also parallel similarities in short-term and long-term interventions. The purpose

of this descriptive, mixed methods research study was to measure the prevalence of burnout and explore wellness practices in advanced practitioners at a single institution.

Project design

Methods

A cross-sectional survey design was used to investigate the prevalence and factors associated with wellness, resilience, and burnout in VUMC APRNs (inclusive of Certified Registered Nurse Anesthetists [CRNAs], Certified Nurse Midwives [CNMs], Clinical Nurse Specialists [CNSs], and Nurse Practitioners [NPs]) and PAs. The wellness survey examined perceptions of overall wellness and possible relationships with demographic variables, prevalence and status of burnout, physiological and physical health status, social support and personal coping, and perceptions of diversity. The voluntary anonymous survey was delivered electronically via REDCap, a secure web-based data repository (Harris et al., 2009). This study was approved by the Institutional Review Board at Vanderbilt University Medical Center.

Measures

Demographic variables. Demographic data were collected on age, gender, and discipline (NP, CRNA, PA, CNM, and CNS) to compare to the organization’s demographics and ascertain if the study sample was representative of the overall advanced practice group at VUMC.

Maslach Burnout Inventory. The Maslach Burnout Inventory (MBI) (Maslach, 1986; Schaufeli, Leiter, & Maslach, 2009) has been used extensively since the 1980s across disciplines (Dell’Erba, Venturi, Rizzo, Porcù, & Pancheri,

Table 1. Pertinent literature findings

Source	Information
Hoff et al., 2017	As role expansion may result in more complex work and decision making, increased workload, and job demands, it may also precipitate greater signs of burnout among APRNs/PAs.
Welp et al., 2015	Aggregate level of burnout correlated with standardized mortality ratios.
Cimiotti et al., 2012	Correlation between nurse burnout at hospital level and independently reported hospital acquired infections.
Welp et al., 2016	Burnout correlated with erosion in teamwork and decreased patient safety.
Lyndon, 2016	More than half of US physicians have at least one sign of burnout. Contributors to burnout are time pressure, lack of control over work processes, relationships, role conflict, and work–life discord. Characterized by (1) EE, (2) DP and detachment, and (3) decreased personal work accomplishment.
Kumar et al., 2015	Factors affecting resilience include connectedness, change acceptance, communication skills, curiosity, control and crisis management, confidence, clarity of focus, and creativity.
Hart et al., 2014	We are all capable of resilience yet we are not fully aware of its mechanisms. A conscious awareness of the underlying skills will help us to deploy the resilience strategies consistently, to ensure positive outcomes.

Note: APRN = advanced practice registered nurses; DP = depersonalization; EE = emotional exhaustion.

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1994; Gabbe, Melville, Mandel, & Walker, 2002; Hyman et al, 2011; Maslach, Leiter & Schaufel, 2001) and consists of 22 questions that measured components and prevalence of burnout. The MBI measures three key elements of burnout: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PAC). The MBI scores are reported as high, median, or low. The higher EE and DP component, the greater the level of burnout; however, lower PAC scores reflect poor job satisfaction or meaningfulness, indicating higher burnout. Reliability of the scores from the measure generated in this work using the Cronbach alpha statistic were 0.92 (EE), 0.78 (DP), and 0.76 (PAC).

Burnout status. The burnout status survey consists of nominal dichotomous (yes/no) and open-ended free text questions. Responses allowed differentiation of all respondents into three groups: those currently experiencing burnout, those who had formerly experienced burnout, and those who had never experienced an episode of job burnout. Face validity was established within a small group of VUMC multidisciplinary researchers with subsequent use in three large national studies. Pilot data confirmed congruency of specific groups and their MBI burnout scores (Card & Hyman, 2015).

Health status (RAND 20). The RAND 20 consists of 20 questions examining health status and function with subscales for both physical and mental health. This is a valid and reliable instrument with normative data (Müller-Nordhorn, Roll, & Willich, 2004). Question format includes a 7-point Likert of frequency with response selections ranging from never to every day, or from all of the time to none of the time. Physical and mental composite scores range from 0 (worst health state) to 100 (best health state). Composite scores are standardized to national norms, scores below 50 indicate worse health state relative to population norms and vice versa. The reliabilities of the scores from the measure generated in this work using the Cronbach alpha statistic were 0.79 (physical function), 0.66 (role function), 0.86 (psychological function), and 0.86 (general health). The social function and pain scores are derived from a single item.

Social support and coping. The social support and personal coping contains 25 items exploring perceptions of support, work environment, and personal coping. Response format included a 7-point Likert from strongly disagree to strongly agree; a visual analogue scale from 0 (strongly disagree) to 100 (strongly agree); and a count of the number of support people identified. The hobby inventory was a single-item checklist that categorized hobbies as high, moderate, or low physical activities; distraction activities; mindful practice; and creative activities to examine the relationship between burnout status and activities outside of work.

Preliminary construct validity was supported by the relationships found in a single-site study and two large national study (Card & Hyman, 2015; Hyman 2011, Hyman 2017).

Procedure

The study was introduced by VUMC Chief Executive Nursing Officer at the 2018 Advanced Practice Grand Rounds on January 23, 2018. Participants were emailed an invitation to participate in the research project from the VUMC office of advanced practice. Participant list included all APRNs and PAs currently employed at the organization. A live link to the anonymous survey was included in the invitation. Two reminders were sent before the survey link was closed on February 23, 2018.

Statistical analysis

Categorical variables were summarized using percentages; continuous variables were summarized using the median (25th and 75th percentile). Pearson Chi-square tests (categorical) and Kruskal–Wallis tests (continuous) were used for comparisons among the burnout groups. All analyses were performed using SPSS version 24, and two-sided significance levels of 0.05 were used to define statistical significance. Bonferroni-adjusted alphas maintaining a type I rate of 0.05 were used for assessing pairwise differences among the groups if the overall tests were statistically significant.

An Advanced Practice Health and Well-Being Taskforce was created to analyze and interpret the survey findings. This group included the researchers and representatives of advanced practice from CNMs, CRNAs, NPs, and PAs, in the adult and pediatric settings in both leadership and clinician roles. Additional members of the team included representation from the school of nursing, ethics office, and employee assistance program so as to provide diverse perspectives during interpretation of these substantial data. The task force divided into subcommittees to interpret the data based on burnout status (i.e., never, former, or currently burnout). The group came together for face-to-face meetings and to create evidence-based recommendations to the institution based on interpretation of the data. Their recommendations are found in the Discussion section.

Results

The survey was emailed to 1,014 APRNs and PAs. A total of 445 began the survey (43.9% response rate). Of those, 433 (97.3%) completed a sufficient number of items for inclusion in these analyses. The median age was 38 years (interquartile range = 33–47) and 91.8% (390 of 425 responding) were female. Seventy-six percent (330 of 432 responding) were practicing as an NP.

Table 2. Summary of demographic characteristics by burnout status

	Total N (%)	Burnout Status Group ^a			p-Value
		Never n (%)	Former n (%)	Current n (%)	
Age (years) group (N = 433)					.018
24–34	140 (32.3)	58 (33.1)	47 (32.6)	35 (30.7)	
35–44	150 (34.6)	57 (32.6)	59 (41.0)	34 (29.8)	
45–54	94 (21.7)	31 (17.7)	31 (21.5)	32 (28.1)	
55–64	37 (8.5)	21 (12.0)	4 (2.8)	12 (10.5)	
≥65	12 (2.8)	8 (4.6)	3 (2.1)	1 (0.9)	
Gender (N = 425)					.904
Male	35 (8.2)	13 (7.6)	12 (8.5)	10 (9.0)	
Female	390 (91.8)	159 (92.4)	130 (91.5)	101 (91.0)	
Type of practice (N = 432)					<.001
NP	330 (76.4)	122 (70.1)	121 (84.0)	87 (76.3)	
CNS	3 (0.7)	2 (1.1)	1 (0.7)	0 (0.0)	
CNM	29 (6.7)	7 (4.0)	6 (4.2)	16 (14.0)	
PA	27 (6.3)	15 (8.6)	7 (4.9)	5 (4.4)	
CRNA	43 (10.0)	28 (16.1)	9 (6.3)	6 (5.3)	

Note: NP = nurse practitioner.

^aValues listed are % (total number in parentheses) of the column for burnout group category.

Burnout status

Of the 433 respondents, 40.4% ($n = 175$) reported never experiencing burnout, 33.3% ($n = 144$) reported they had formerly experienced burnout, and 26.3% ($n = 114$) reported they were currently experiencing burnout.

Demographics and burnout status

Summaries of the associations of age, gender, and type of practice with burnout status are shown in Table 2. Age group and type of practice were found to be associated with whether a respondent identified as being in the “never”, “former”, or “current” burnout group ($p < .05$).

Maslach Burnout Inventory and burnout status

A total of 432 respondents completed the MBI. Summaries of the MBI categorizations of those participants are shown in Table 3. Slightly more than a third reported high levels of EE (37.5%, $n = 162$), 15.7% ($n = 68$) reported high levels of DP while 15.3% ($n = 66$) reported low levels of PAC. Also shown in Table 3 are summaries of the associations of the MBI categorizations with the burnout groups. High EE and/or high DP were both associated with an increased likelihood of being the current burnout group (>50% current vs. 20–30% never or former, $p < .001$). In contrast, those in the high PAC

group were less likely to be in the current burnout group than in the never or former groups (14.5% vs. 53.4%, 32.1% respectively, $p < .001$; Table 3).

RAND SF-20 and burnout status

Summaries of the RAND-20 scores for each of the burnout groups are shown in Table 3. Statistically significant differences among the groups ($p < .05$) were observed for each of the RAND-20 scores with the exception of role function. Post hoc analyses revealed that for each of the statistically significant findings, the respondents in the current burnout group had lower functioning/health and lower pain scores than did respondents in the other two groups (Bonferroni-corrected $p < .05$) (Table 3).

Discussion

Never burned out group

A total of 175 respondents (41%) reported that they have never experienced burnout. The median age of the group was 38 years, with the largest group noted to be between the ages of 24 and 44 years. The number of those who self-reported that they had never experienced burnout decreased as the age brackets went up, suggesting age may be protective. Respondents who identified as “never burned out” were in the lower tier of EE. Additionally, they

Table 3. Summary of MBI score categories and SF-20 scores by burnout status (N = 432)

	N (%)	Burnout Status Group ^a			p-Value
		Never n (%)	Former n (%)	Current n (%)	
EE					<.001
Low	133 (30.8)	93 (69.9)	38 (28.6)	2 (1.5)	
Moderate	137 (31.7)	50 (36.5)	67 (48.9)	20 (14.6)	
High	162 (37.5)	32 (19.8)	38 (23.5)	92 (56.8)	
DP					<.001
Low	245 (56.7)	130 (53.1)	79 (32.2)	36 (14.7)	
Moderate	119 (27.5)	32 (26.9)	44 (37.0)	43 (36.1)	
High	68 (15.7)	13 (19.1)	20 (29.4)	35 (51.5)	
PAC					<.001
Low	66 (15.3)	16 (24.2)	21 (31.8)	29 (43.9)	
Moderate	117 (27.1)	26 (22.2)	42 (35.9)	49 (41.9)	
High	249 (57.6)	80 (53.4)	80 (32.1)	36 (14.5)	
		Burnout Status Group ^a			
RAND-20 Score	N, Median (IQR)	Never n, median (IQR)	Former n, median (IQR)	Current n, median (IQR)	p-Value
Physical function	424, 100 (100–100)	171, 100 (100–100)	141, 100 (100–100)	112, 100 (91–100)	.002
Role function	433, 100 (100–100)	175, 100 (100–100)	144, 100 (100–100)	114, 100 (100–100)	.105
Social function	432, 100 (100–100)	175, 100 (100–100)	144, 100 (100–100)	113, 100 (83–100)	<.001
Psych function	428, 83 (70–87)	174, 83 (76–90)	143, 83 (73–90)	111, 70 (56–80)	<.001
Pain	432, 40 (20–60)	174, 40 (20–60)	144, 40 (20–60)	114, 40 (40–60)	.012
General health	425, 88 (76–96)	172, 88 (80–96)	140, 88 (80–96)	113, 80 (68–92)	<.001

Note: DP = depersonalization; EE = emotional exhaustion; MBI = Maslach Burnout Inventory; PAC = personal accomplishment.

^aValues listed are % (total number in parentheses) of the column for burnout group category.

were reported to have low levels of DP. Seventy-five percent of the “never burned out” group also reported high levels of PAC. The “never burned out” group presented a picture of having strong family support, close friends, and involvement in group activities including church. They also reported supportive relationships with their coworkers and leadership, sense of appreciation, and opportunities for career advancement. Seventy-eight percent of the respondents also felt their work/life balance was healthy.

The never group scored statistically significantly better health satisfaction and function in five of the six subcategories in the RAND 20 (physical function [$p = .002$], social function [$p < .001$], psychiatric function [$p < .001$], pain [$p = 0.012$], and general health [$p < .001$]). There was no difference in the role function between the groups. Positive health implications of resilience have been reported by other researchers when looking at impact of

nurses’ heavy workload and maladaptive chronic stress outcomes (Winwood, & Lusington, 2006).

The majority of those responding to the open-ended questions identified taking time off or vacation time was essential to avoiding burnout (Table 4). They also found changing roles, talking with someone, and seeking out support were important. Mindful self-care seemed to be a theme among this group. To recharge, this group spent time with family, children, and pets (Table 5). They also had hobbies and used spiritual items to regroup. Despite hobbies being listed, exercise was low on the “never burned out” group’s list of ways to help with stress and recharge. When asked to give advice to someone with burnout, this group highly recommended time off, speaking with someone (either support person or a professional person), finding an activity to de-stress, change in job or role, finding their initial purpose, and exercise.

Table 4. “What happened to improve your burnout symptoms?”

	Never Burned Out Group	Formerly Burned Out Group	Currently Burned Out Group
1	Took vacation/time off 23%	Took vacation/time off/rest 28%	Took vacation/time off 20%
2	Changed roles 14%	Changed job/positions/role 22%	Nothing/not improved 19%
3	Sought counseling/family 10%	No response 20%	Work load/job support 12%
4	Left job 9%	Changed schedule/decreased workload 13%	Support system/mentor 11%
5	Changed work load 6%	Exercise/self care/healthy eating 8%	Change jobs 11%
6	Self-care 5%	Time (over time it got better) 8%	Variety of work 7%
7	Time (over time it got better) 5%	Other 3.5%	Exercise 6%
8	Exercise 5%	Therapy/medication 2%	Work environment/no control 6%
9	Decreased work time 3%	Talking with family/colleague/friend 2%	Therapy/counseling 3%

Formerly burned out group

A total of 144 respondents self-reported as “formerly burned out.” The age range for the “formerly burned out” group was between 26 and 68 years, with a median of 38 years. Less of this group (2.1%) were aged 55–64 years compared with those who indicated as “never burned out” (12%) or those who indicated being “currently burned out” (10.5%) ($p = .018$), which further suggest that the older the respondent was, the less likely they were to experience with burnout. The formerly burned out group had the highest percent of NPs (84%) compared with those who reported as being “never burned out” (70%) and those reporting “currently burned out” (76.3%).

Respondents who identified as “formerly burned out” reported moderate levels of EE compared with the “never burned out” group, which reported low levels, and the “currently burned out” group, which reported high levels of EE. Even though the episode of job burnout has resolved, overall this group’s perception of their relationship with their work reflects that perhaps their passion for their work contributed to their burnout resolution. The “formerly burned out” respondents also reported low to moderate DP scores compared with the “never burned out” group, which reported low levels of DP, and the “currently burned out” group, which reported equal levels of low, moderate, and high levels of DP.

The “formerly burned out” respondents reported moderate to high levels of PAC in comparison with the “never burned out” group, which reported high levels of PAC, and the “currently burned out” group, which reported moderate and low levels of PAC. Perhaps this ability to experience PAC was a factor in for these individuals to have resolution of burnout. The majority of the “formerly burned out” who responded to the open-ended questions identified taking time away from work and time to rest assisted in improving burnout symptoms, followed by changing positions or changing jobs. Other modifications

included changing their work schedule, exercise, self-care measures and healthy eating.

Although 25% of the “formerly burned out” group indicated changing jobs was beneficial to appease their symptoms of burnout, it is important to point out that only 8% indicated they would recommend changing jobs to ease symptoms of burnout. This group chose colleagues and coworkers as someone they could rely on and talk to about work-related problems. This underlines this groups’ perception of positive team experience and loyalty to their work team. Prior research reports the association of consciousness stress (a need to separate personal beliefs from work) and burnout (Gustafsson, Strandberg, & Norberg, 2010). Additional research reports the positive affect of team support on perceptions of occupational stress (Singh, 1990). Perhaps strong feelings of team support negate some of the effects of burnout and may explain this groups’ ability to journey through an episode of burnout and remain employed in health care. The “formerly burned out” group also indicated that they would suggest to coworkers experiencing burnout to take time off, rest, exercise, and pursue self-care measures, healthy eating, and meditation. Others suggested talking with family members or coworkers, changing positions, and seeking therapy if needed.

Currently burned out group

The “currently burn-out” group reported a high level of EE. These providers care strongly for patients and their empathy can be taxing, which may lead to compassion fatigue. Perceptions of working hard and not being recognized for contributions, or feelings of being too burnt out to give any more effort or energy toward PAC or even exercising were expressed. The current group scored statically significantly lower in physical health function ($p .002$) and general health ($p < .001$).

The “currently burned out” group reported fewer opportunities for advancement and less perceptions of

Table 5. “What advice would you give a coworker who is experiencing burnout?”

	Never Burned Out Group's Advice to Coworkers		Formerly Burned Out Group's Advice to Coworkers	
1	Take paid time off/vacation time	32%	Time off/away from VUMC/rest	27.8%
2	Talk to family/friends/coworkers	20.6%	Exercise/self-care/healthy eating/meditate	22.2%
3	Seek VUMC Employee Assistance Program/counselor	17%	No response	20.1%
4	Talk to your management	14%	Spend time/talk with family/colleague	13.2%
5	Find an activity to de-stress/activity for fun	14%	Changed job/positions/role	8.3%
6	Take time for yourself/self-care	12%	Therapy/medication	8.3%
7	Change jobs/roles	10%	Change schedule/decrease workload	3.5%
8	Reevaluate why you are in this profession	10%	“Time”	2.1%
9	Exercise	4%	Misc.	2.1%

Note: VUMC = Vanderbilt University Medical Center.

work appreciation. This group would consider another job opportunity more than the other groups and reported far less work–life balance when compared with those indicating little or no burn out symptoms. The “currently burn-out” group also reported having no control over their workload and lack of social support from their supervisors. This group believed their supervisors did not understand their day-to-day work struggles and barriers. For this group, coworker relationships are most likely the reason for their retention, as they were the highest group to confide in coworkers. They indicated reliance on their colleagues, believed them to understand their challenges, and entrusted them with personal matters.

Many of this group stated they do not partake in strenuous exercise. The “formerly burned out” group ranked highest in strenuous exercise. This is possibly a learned coping mechanism and is reflected in the disparity in general health status between these groups ($p < .001$). The current group reported less alcohol use compared with the other groups, which may indicate less social engagement.

Advanced practice health and well-being taskforce recommendations

Recommendations were created for the organization and the individual based on the study results and evidence found in the literature related to building resiliency (Gillespie, Chaboyer, Wallis, & Grimbeck, 2007; Guo et al, 2018; Hart, Brannan, & De Chesnay, 2014; Kumar & Shah, 2015; Mealer et al, 2017; Moss et al, 2016; Siu et al, 2014). Organizational recommendations were grouped into four categories: self-care, career development, leadership

support, and community. Additionally, recommendations were made for individuals, for self-guided actions to promote health and well-being, and mitigate burnout. The task force created specific strategies for implementing the organizational and individual recommendations, which are listed below.

Organizational recommendations

1. Support self-care

- Provide resources for health and well-being. Creating a central location that educates staff and faculty opportunities to use existing organizational services such as the employee assistance program (coaching, counseling, debriefing, skill development, peer support), Recreational Facility, Occupational Health Clinic, Human Resources Workforce Development classes, etc.
- Institutional promotion of engagement in health and well-being. Examples might include massages, gift cards, pet therapy, creating a de-stressing space, positive message for computer screensavers, prioritize meal and mindfulness breaks, offer organizational discounts to art supply places, art museums, music events, sports events, etc.
- Provide access. Ensure availability of interventions to all APRNs and PAs, including those at various locations across the systems and those who work variable day and night shifts.
- Ensure communication. Consider or combine with nursing wellness for a website that has these resources in one place.

2. Career development

- Promote mentorship and create a formal mentorship program.
- Create an advanced practice career advancement pathway for nonfaculty and sufficiently promote existing rank promotion pathways for faculty practitioners.
- Consider compensation equity with market. Also consider pay for performance and time to devote to advancement activities.

3. Leadership support

- Promote leader rounding specific to health and well-being, ensuring that leaders are equipped with options and resources to provide emotional support, identify and address burnout.
- Promote organizational, individual, and team employee recognition and appreciation.
- Offer job change options. As a burnout option, consider temporary or long-term job alternatives for those who are experiencing burnout, such as sabbaticals, education, quality, or research roles, job sharing, etc.

4. Create community

- Promote team building. Support and provide resources for organizational and local team building events.
- Promote community events, groups, and interprofessional collaboration.

Individual/personal recommendations.

1. Make a change, adopt an internal locus of control. Literature on personality psychology, locus of control is the degree to which people believe that they have control over the outcome of events in their lives, as opposed to external forces beyond their control, making a positive work change could be the first step (Noe, 1986).
2. Use all vacation time. Consider complete break from email, texts, or any work-related activities (Chittenden & Ritchie, 2011; Fritz & Sonnentag, 2006; Gillespie et al., 2007).
3. Exercise. Consider joining a group exercise class to encourage steady attendance and increase your social circle. Exercise increases serotonin (Young, 2007). Increasing positive socialization can improve perceptions of wellbeing (Sin & Lyubomirsky, 2009).
4. Learn a new skill; this can increase perceptions of PAC (Fritz & Sonnentag, 2006).
5. Join a group activity. Examples: book club, bowling, bridge, church, sports, etc. Increasing socialization and creating relationships with non-health care workers can give a new perspective on what success looks like (Levinson, 1977).
6. Download mobile applications that help with mindfulness, relaxation, and coping with stress and commit to using them regularly.

7. Mentor/volunteer

8. Individuals to find an outlet they enjoy. Examples include taking art lessons, exercise, hiking, etc.

Limitations

There are several limitations to the study, including a moderate response rate (48%), a single-center study design, and the subjective reporting of respondents designating themselves as never, currently, or formerly burned out. Due to the cross-sectional design of the study, causality cannot be determined. However, drawing from these data, there are some strategies that may prevent or treat the occurrence of burnout in advanced practitioners working in the urban academic medical center acute or ambulatory care setting. A challenge in implementation of resiliency strategies is to ensure access across a large multicampus entity.

Conclusion

The results of the study demonstrate a significant number of advanced practitioners (59%) either have experienced burnout or formerly experienced burnout. Equally of interest is that 41% self-identified as not experiencing burnout. Additional research on factors that affect APRN burnout is needed. The recommendations to mitigate and prevent burnout identified by the APRN participants can be used to help organizations and individual APRNs implement measures to promote health and well-being and mitigate burnout. This study is one of the first to report on burnout among APRNs and potential interventions to build resilience. The results of this study may be used to inform key stakeholders of important considerations identified by APRNs that affect the development and recovery from burnout, including key strategies for addressing and building resilience. The results of the study highlight similar themes being reflected in national initiatives, including the National Academy of Medicine's Clinician Well-being collaborative (<https://nam.edu/initiatives/clinician-resilience-and-well-being/>), the American Association of Nurses Healthy Nurse Healthy Nation campaign (<http://www.healthynursehealthynation.org/>), and the American Association of Critical Care Nurses Healthy work environment framework (<https://www.aacn.org/nursing-excellence/healthy-work-environments>), among others.

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References

- American Academy of Physician Assistants. (2018). AAPA Salary Report. Retrieved from <https://www.aapa.org/shop/salary-report/>.
- American Association of Nurse Practitioners. (2018). NP Fact Sheet. Retrieved from <https://www.aanp.org/about/all-about-nps/np-fact-sheet>.
- Card, E., & Hyman, S. (2015). Prevalence and risk factors for burnout in the perianesthesia setting. *Journal of PeriAnesthesia Nursing*, 30, e40–e41.
- Cimiotti, J.P., Aiken, L.H., Sloane, D.M., & Wu, E.S. (2012). Nurse staffing, burnout, and health care-associated infection. *American Journal of Infection Control*, 40, 486–490.
- Chen, H., Chiang, R. H., & Storey, V.C. (2012). Business intelligence and analytics: From big data to big impact. *MIS Quarterly*, 36, 1165–1188.
- Chittenden, E.H., & Ritchie, C.S. (2011). Work-life balancing: Challenges and strategies. *Journal of Palliative Medicine*, 14, 870–874.
- Dell'Erba, G., Venturi, P., Rizzo, F., Porcù, S., & Pancheri, P. (1994). Burnout and health status in Italian air traffic controllers. *Aviation, Space, and Environmental Medicine*, 65, 312–322.
- Dyrbye, L., Shanafelt, T., & Sinsky, C. (2017). Burnout among health care professionals: a call to explore and address this underrecognized threat to safe, high-quality care. NAM Perspectives. Discussion paper. Washington, DC: National Academy of Medicine. Retrieved from <https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>.
- Embriaco, N., Azoulay, E., Barrau, K., Kentish, N., Pochard, F., Loundou, A., & Papazian, L. (2007). High level of burnout in intensivists: Prevalence and associated factors. *American Journal of Respiratory and Critical Care Medicine*, 175, 686–692.
- Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: The role of workload and vacation experiences. *The Journal of Applied Psychology*, 91, 936–945.
- Gabbe, S.G., Melville, J., Mandel, L., & Walker, E. (2002). Burnout in chairs of obstetrics and gynecology: Diagnosis, treatment, and prevention. *American Journal of Obstetrics & Gynecology* 186, 601–612.
- Gillespie, B. M., Chaboyer, W., Wallis, M., & Grimbeck, P. (2007). Resilience in the operating room: Developing and testing of a resilience model. *International Journal of Advanced Nursing Studies*, 59, 427–438.
- Guo, Y.F., Luo, Y.H., Lam, L., Cross, W., Plummer, V., & Zhang, J.P. (2018). Burnout and its association with resilience in nurses: A cross-sectional study. *International Journal of Nursing & Clinical Practices*, 27, 441–449.
- Gustafsson, G., Strandberg, G., & Norberg, A. (2010). Burnout and perceptions of conscience among health care personnel: A pilot study. *Nursing Ethics*, 17, 23–38.
- Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap)—a metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, 42, 377–381.
- Hart, P. L., Brannan, J. D., & De Chesnay, M. (2014). Resilience in nurses: An integrative review. *Journal of Nursing Management*, 22, 720–734.
- Hoff, T., Carabetta, S., & Collinson, G. (2017). Satisfaction, burnout, and turnover among nurse practitioners and physician assistants: A review of the empirical literature. *Medical Care Research and Review*, 76, 3–31.
- Hooker, R., Kuilman, L., & Everett, C. (2015). Physician assistant job satisfaction: A narrative review of the empirical research. *The Journal of Physician Assistant Education*, 25, 176–186.
- Hyman, S. A., Michaels, D. R., Berry, J. M., Schildcrout, J. S., Mercaldo, N. D., & Weinger, M. B. (2011). Risk of burnout in perioperative clinicians: A survey study and literature review. *Anesthesiology*, 114, 194–204.
- Hyman, S. A., Shotwell, M. S., Michaels, D. R., Han, X., Card, E. B., Morse, J. L., & Weinger, M. B. (2017). A survey evaluating burnout, health status, depression, reported alcohol and substance use, and social support of anesthesiologists. *Anesthesia and Analgesia*, 125, 2009–2018.
- Kapu, A. N., Kleinpell, R., & Pilon, B. (2014). Quality and financial impact of adding nurse practitioners to inpatient care teams. *The Journal of Nursing Administration's Annual Conference*, 44, 87–96.
- Kumar, M., & Shah, S. (2015). A multistep model of resilience development. *International Journal of Indian Psychology*, 3. Retrieved from: <http://oaji.net/articles/2015/1170-1448038605.pdf>.
- Levinson, D. J. (1977). The mid-life transition: A period in adult psychosocial development. *Psychiatry*, 40, 99–112.
- Lewin, J., & Balsler, J. (2017). The hidden epidemic: the moral imperative for academic health centers to address health professionals' well-being. The Blue Ridge Academic Health Group. WINTER 2017-2018 F REPORT 22.
- Müller-Nordhorn, J., Roll, S., & Willich, S. (2004). Comparison of the short form (SF)-12 health status instrument with the SF-36 in patients with coronary heart disease. *Heart*, 90, 523–527.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Clinical Psychology*, 52, 397–422.
- Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (1986). *Maslach burnout inventory* (Vol. 21), pp. 3463–3464. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C. & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15, 103–111.
- Mealer, M., Hodapp, R., Conrad, D., Dimidjian, S., Rothbaum, B. O., & Moss, M. (2017). Designing a resilience program for critical care nurses. *Advanced Critical Care*, 28, 359–365.
- Moote, M., Krsek, C., Kleinpell, R., & Todd, B. (2011). Physician assistant and nurse practitioner utilization in academic medical centers. *American Journal of Medical Quality*, 26, 452–460.
- Moss, M., Good, V. S., Gozal, D., Kleinpell, R., Sessler, C. N. (2016). A Critical Care Societies collaborative statement: Burnout syndrome in critical care health-care professionals. A call for action. *American Journal of Respiratory and Critical Care Medicine*, 194, 106–113.
- Noe, R. (1986) Trainees' attributes and attitudes: Neglected influences on training effectiveness. *Academy of Management Review*, 11, 736–749.
- Pangagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., ... Esmail, A. (2018). Association between physician burnout and patient safety, professionalism, and patient satisfaction: A systematic review and meta-analysis. *JAMA Internal Medicine*, 178, 1317–1330.
- Rogers, A., Hwang, W., Scott, L., Aiken, L., & Dinges, D. (2004). The working hours of hospital staff nurses and patient safety. *Health Affairs*, 23, 202–212.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14, 204–220.
- Shanafelt, T., & Noseworthy, J. (2017). Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout. *Mayo Clinic Proceedings. Innovations, Quality & Outcomes*, 92, 129–146.
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology*, 65, 467–487.
- Singh, R. G. (1990). Relationship between occupational stress and social support in flight nurses. *Aviation, Space, and Environmental Medicine*, 61, 349–352.
- Siu, O. L., Cooper, C. L., & Phillips, D. R. (2014). Intervention studies on enhancing work wellbeing, reducing burnout and improving recovery experiences among Hong Kong healthcare workers and teachers. *International Journal of Stress Management*, 21, 69–84.
- Taylor, C. R., Hepworth, J. T., Buerhaus, P. I., Dittus, R., & Speroff, T. (2007). Effect of crew resource management on diabetes care and patient outcomes in an inner-city primary care clinic. *Quality and Safety Health Care*, 16, 244–247.

- Welp, A., Meier, L., & Manser, T. (2015). Emotional exhaustion and workload predict clinician-rated and objective patient safety. *Frontiers in Psychology*, 5, 1573.
- Welp, A., Meier, L.L., Manser, T. (2016). The interplay between team-work, clinician's emotional exhaustion, and clinician-rated patient safety: A longitudinal study. *Critical Care*, 20, 110.
- Winwood, P., & Luszczynska, K. (2006). Disentangling the effects of psychological and physical work demands on sleep, recovery and maladaptive chronic stress outcomes within a large sample of Australian nurses. *Journal of Advanced Nursing*, 56, 679–689.
- Woo, B., Lee, J., & Tam, W. (2017). The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency and critical care settings: A systematic review. *Human Resources for Health*, 15, 1–22.
- Wright, A. (2011). Communication competence approach to health-care worker conflict, job stress, job burnout, and job satisfaction. *Journal for Healthcare Quality*, 33, 7–14.
- Young, S. N. (2007). How to increase serotonin in the human brain without drugs. *Journal of Psychiatry & Neuroscience*, 32, 394.

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