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Exploring burnout and job stressors among advanced practice providers

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ABSTRACT

Background: Minimal research exists on how engagement, burnout, work-family balance, and job stressors impact advanced practice nurses and physician assistants, collectively referred to advanced practice providers (APPs).

Purpose: To investigate the interrelationships among burnout, job stressors, work-family balance, and engagement with APPs.

Methods: An online questionnaire was distributed to APPs working in four healthcare systems. A total of 1,216 APPs completed the survey. A hypothesized model was tested using structural equation modeling.

Findings: There was a high correlation of job stressors with development of burnout. A significant negative effect between job stress and work engagement was supported; however, indirect effects of stress through job burnout had a stronger impact on work engagement. Higher levels of work-family balance contributed to a lower level of stress experienced by providers.

Discussion: Organizational leaders desiring to improve employee engagement and reduce burnout need to focus on the significance of work-family balance to job stressors.

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Introduction

Burnout as a phenomenon has been well documented in nurses who provide direct care and its prevalence has been established (Aiken et al., 2001; McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011). Advanced practice providers (APPs) is a term used to describe advanced practice registered nurses (APRNs) and physician assistants (PAs) who work collaboratively with physicians. The rising concern for burnout among nurses and physicians globally (Linzer et al., 2001; Shanafelt et al., 2015) has prompted a need for a closer investigation of its possible existence in APPs who are expected to help address the projected shortage of 23,640 primary care physicians by 2025 within the

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United States of America (USA) (Health Resources Services Administration, 2016). However, there is very little research on the construct of burnout among APPs. The consequences of burnout within the healthcare professions include stress-related health problems, shorter careers, and turnover (Aiken et al., 2001; Bianchi, Mayor, Schonfield, & Laurent, 2018; Shanafelt et al., 2015; West, Dyrbye, & Shanafelt, 2018). It is difficult to know the degree to which burnout exists among different professionals (Helfrich et al., 2017). Retention of all providers is necessary to enhance the delivery and quality of care as access to care, particularly in rural areas, remains challenging.

Emerging models of care that allow all healthcare professionals to work at the full scope and extent of their licensure are recommended as ways to improve efficiency, quality, and to meet healthcare needs; yet considerable challenges to full practice expansion of APRNs persist (Altman, Butler, & Shern, 2015). The expectations for APPs working within these new models suggest a need for consideration of their impact on job stressors. Fortney, Luchterhand, Zakletskaia, Zgierska, and Rakel (2013) proposed addressing elements of the work environment and self-care to avoid alienation and depersonalization, which are viewed as possible effects associated with an increasingly complex healthcare system.

Waddimba et al. (2016) used a cross-sectional design to validate three single-item measures in comparison to the Maslach Burnout Inventory (MBI) subdimensions of emotional exhaustion and depersonalization (cynicism) among advanced practice clinicians (n = 126) and physicians (n = 182) who practice in rural New York. No significant differences were found between the subgroups of physicians and APPs. Findings of a key predictor for the emotional exhaustion subdimension were evident with a single-item measure, though researchers identified limitations in its use. Thus, it cannot be considered as a complete replacement for the MBI-Human Services Survey (HSS) (Maslach & Jackson, 1981), widely recognized as the best measure for burnout. A dated nursing specialty study by Browning, Ryan, Thomas, Greenberg, and Rolniak (2007) identified significant differences in depersonalization among nurse practitioners and nurse managers, which were due to stressor frequency.

The limited scope of existing APP studies concerning burnout and work engagement extends beyond the USA. Meeusen, Van Dam, Brown-Mahoney, Van Zundert, and Knape (2011) investigated burnout's relationship to the work environment among nurse anesthetists (N = 882) in the Netherlands. Their findings indicated a positive relationship between work context dimensions and work climate with significant mediating effects of burnout and job satisfaction. Study implications projected the need to consider work climate and enhancement of autonomy for these APRNs.

Findings of recent studies within the medical profession serve as a foundation for developing a framework for an exploratory study of APP burnout and its related concepts. Burnout among U.S. physicians was measured initially in 2011 (Shanafelt et al., 2012) and within 3 years, a notable increase it its prevalence (10%) was reported by Shanafelt et al. (2015). Over half (54.4%, n = 3680) of the physicians reported burnout when using the full 22-item MBI.

Globally, researchers have studied physician burnout and other confounding variables such as administrative tasks, healthcare system changes, and work-life balance (Goehring, Bourvier Gallacchi, Künzi, & Bovier, 2005; Leiter, Frank, & Matheson, 2009; Turk, Davas, Tanik, & Montgomery, 2014). Additional contributors to burnout include excessive workload and loss of autonomy (Maslach & Leiter, 2016; West et al., 2018). An initial perspective of burnout prevalence is beneficial before embarking on intervention studies with APPs. This study extends the body of knowledge in APP well-being and considers the interrelationships among job stressors, job burnout, and work-family balance, and their relationship to the development of work engagement.

Review of Literature

The hypothesized model tested in this study was derived in part from the Job Demands-Resources Model (JD-R) developed by Demerouti, Bakker, Nachreiner, and Schaufeli (2001). Work pressures, though, may extend beyond those identified in the JD-R model (Teoh, Hassard, & Cox, 2018). As such, hypotheses were formulated to examine the interrelationships between job stressors, work engagement, work-family balance, and burnout based on theoretical and empirical evidence.

Job Stressors

Montgomery, Todorova, Baban, and Panagopoulou (2013) recommended consideration of other contextual working conditions, such as loose governance. Similarly, Demerouti and Bakker (2011) suggested further research exploration of what is defined as hindrance demands (role conflict, role overload, and role ambiguity) and challenge stressors (high levels of workload, time pressures, and responsibility). These same researchers also advised using different measurement tools and occupations to investigate job demands. The Frone, Russell, and Cooper's (1995) instrument encompasses work pressures, role ambiguity, and autonomy and is derived from supporting literature for job stressor measures.

Definitions of job attitudes and stressors include those factors that may influence a person's physical and psychological health and behavioral outcomes (Frone et al., 1995; Maslach, Schaufeli, & Leiter, 2001). Frone et al.'s (1995) testing of their identity theory indicates that work pressures and role ambiguity may be more closely associated with perceptions of effective role performance

than lack of autonomy. Job stressors are comprised of work pressures resulting from job demands of heavy workloads and responsibilities. Lack of autonomy is defined by the inability to function independently to influence key job factors, whereas role ambiguity stems from unclear job expectations and goals.

Burnout

Despite this extensive body of knowledge exploring various dimensions associated with burnout, challenges in measuring/defining burnout and engagement continue (Schaufeli, Leiter, & Maslach, 2009). Freudenberger (1974), a clinician, is credited with identification of burnout within himself and others working within the health related professions. Subsequent studies conducted by Maslach et al. (2001) determined burnout to be comprised of three key dimensions: Emotional exhaustion, feelings of depersonalization (also referred to as cynicism), and personal accomplishment (inefficacy). As separate constructs, each may be present within individuals to varying degrees. The first, exhaustion, is construed as feeling overwhelmed emotionally and physically over a prolonged period. The second, depersonalization, is described as a detached response or inability to care toward those to whom one is providing service or treatment. The third construct is associated with feelings of a lack of personal accomplishment and/or decreasing competence (Maslach et al., 2001). Burnout is distinguishable from depression and compassion fatigue in that it is distinctly associated with a person's relationship to work; however, recent controversies surround its connection with depression (Bianchi et al., 2018; Maslach & Leiter, 2016). Burnout may coexist with any of these related but different constructs.

Work Engagement

Previous studies of healthcare professions have demonstrated a relationship between work engagement and turnover intention (Lee & Ashforth, 1996; Meeusen et al., 2011). Work engagement is identified by three unique factors: Vigor, dedication, and absorption. Vigor is the ability to persevere and to extend higher levels of energy that may be needed to meet job expectations (Demerouti, Mostert, & Bakker, 2010). Dedication is exemplified by enthusiasm, pride, and inspiration. Absorption is characterized by the ability to lose one's self in work with display of full concentration (Schaufeli & Bakker, 2004). The Utrecht Work Engagement Scale (UWES) is one of the most widely used instruments to measure engagement. Differing perspectives are present regarding this construct as separate from burnout (Cole, Walter, Bedian, & O'Boyle, 2012) though most recently, researchers have supported use of the UWES in healthcare professionals along with the MBI (Shanafelt & Noseworthy, 2017) and as a distinctive measure of engagement (Byrne, Peters, & Weston, 2016).

Work-Family Balance

As mentioned earlier, the work-life balance of medical professionals requires exploration (Shanafelt et al., 2012; Shanafelt et al., 2015; Shanafelt & Noseworthy, 2017). Turk et al. (2014) described the tension between work and family demands, which adds to the professional stressors for female professionals in Turkey. Also noted by these researchers are the potential positive influences of sharing job-related pressures with family members. Strong support systems may help to manage or alleviate stress. In the USA, the population of APPs is comprised largely of women; however, female gender has not been a stronger predictor of burnout (Maslach et al., 2001). In prior medical studies conducted by Shanafelt et al. (2015) physicians' satisfaction with work-life balance deteriorated during a three-year period.

Hypotheses

The hypotheses supporting the proposed model are as follows:

Hypothesis 1: Job stressors are positively related to burnout
Hypothesis 2: Burnout is negatively related to work engagement
Hypothesis 3: Job stressors are negatively related to work engagement
Hypothesis 4: Burnout mediates the relationship between job stressors and work engagement
Hypothesis 5: Work-family balance is negatively related to stress and burnout, and positively related to work engagement.

Methods

Design and Sample

Following Institutional Review Board (IRB) approvals, a multi-site recruitment strategy was used to engage executive advanced practice leaders from large healthcare systems across the USA who were interested in research. A recruitment flier was distributed with initial contact that occurred via phone or email. Four of eight leaders agreed to participate and identified a study coordinator who worked directly with the multi-site principal investigator (PI) to ensure internal administrative and local IRB approval (if needed), sample determination, study logistics, and implementation from the participating institution. An initial invitation to participate was sent to 3,939 APPs via email in 2017. Local study coordinators distributed an invitation to participate, a survey link, and an implied consent cover letter. Three reminder requests with an updated response rate for the institution were delivered during the six-week period that the survey was open to participants.

This APP study was comprised of PAs and four recognized categories for APRNs: Nurse practitioners,

clinical nurse specialists, certified nurse anesthetists, and certified nurse midwives. All APPs employed at the participating healthcare systems, regardless of their work setting (inpatient or ambulatory), were eligible to participate. Practice settings varied from rural to large metropolitan areas within four different states (Midwestern, Eastern, Western regions of USA). Participation was elective and anonymous with assurances of data results reporting in aggregate to participating institutions. An informed consent survey invitation letter explained the study purpose, participants' rights, and contact information for the local and multi-site PI. Qualtrics, a secure electronic survey platform, was used to collect data with no linkage to individual responders.

Variables and Measurement

The online survey included four standardized questionnaires to measure study variables within the hypothesized conceptual framework. All measures have reported acceptable reliability for use in other healthcare populations. Descriptions of the measures include Cronbach's alphas obtained in this study, which validate those previously reported. Additional questions were included to address demographics, sample characteristics, and stress management (two open-response items – results are described elsewhere).

Job Stressors

The Job Stressors measure (Frone et al., 1995) includes three subscales with 20 items. Work pressure (eight items, $\alpha = .79$) includes perceptions of job demands resulting from heavy workloads. Lack of autonomy (six items, $\alpha = .79$) reflects the individual's perception of his/her ability to function independently and influence job factors. Role ambiguity (six items, $\alpha = .86$) reflects the degree and frequency of role-confusion and job expectations. Each item uses a 4-point scale with choices of never (1) to always (4).

Burnout

To measure burnout, the MBI-HSS was used (Maslach & Jackson, 1981). The survey is comprised of 22 items that are ranked on a 7-point frequency Likert scale from 0 (never) to 6 (every day). Three subscales are scored within the tool: Emotional exhaustion (nine items, $\alpha = .93$), depersonalization (five items, $\alpha = .75$), and personal accomplishment (eight items, $\alpha = .76$). The tool has established predictive validity in other studies involving nursing and physician samples conducted nationally and globally (Shanafelt & Noseworthy, 2017).

Work Engagement

The 17-item self-report Utrecht Work Engagement Scale (UWES) consisting of three subscales: vigor, dedication, and absorption, was used to evaluate work engagement using 7-point Likert scale (never = 0 to every day = 6). In earlier studies, internal consistency measures demonstrated correlations ranging between 0.80 and 0.90 for latent variables of a covariance structure model (Schaufeli, Bakker, & Salanova, 2006). A range of .69 to .86 was reported within this study, with the absorption measure ($\alpha = .69$, six items), similar to that reported by Mauno, Kinnunen, and Ruokolainen (2007). Work engagement can be considered as either one or three-dimensional; however, due to this study's exploratory nature and intended use of SEM, the 17-item scale was used (Seppälä et al., 2009). Vigor ($\alpha = .79$) contained six items. Dedication ($\alpha = .86$) used five items to assess a deeper degree of involvement that is beyond identification.

Work-Family Balance

Perceived work-family balance was evaluated using a six-item measure ($\alpha = .928$) with a 1 = strongly disagree to 5 = strongly agree Likert scale, which has been to designed to investigate its conceptualization in employed individuals (Carlson, Grzywacz, & Zivnuska, 2009; Valcour, 2007). This six-item measure allowed for a more robust evaluation as opposed to the one-item satisfaction measure used in physician studies (Shanafelt et al., 2012; Shanafelt et al., 2015). Developers of the work-family measure indicated its usefulness for researchers seeking to determine the interface between work and family using a theoretical and practical basis (Carlson et al., 2009).

Statistical Analyses

Mathieu and Taylor (2006) identified several structural equation modeling (SEM) techniques and statistical approaches used to test for mediational relationships. To examine the mediating effects of burnout for the relationship between work stress and employee engagement, we used SEM in Mplus 8 (Muthén & Muthén, 1998-2012). We followed Anderson and Gerbing's (1988) two-step approach to SEM. Specifically, we initially tested a measurement model using confirmatory factor analysis (CFA). Next, we compared nested structural models in order to determine the best fitting model. Additionally, we examined the significance of the path estimates in order to test our first, second, third, and fifth hypotheses. To test our fourth hypothesis we assessed the significance of a potential indirect effect by bootstrapping to test for mediation, as suggested by Preacher and Hayes (2008).

Findings

Sample Description

Of the 3,939 invited participants, 1,368 participated in the study, yielding a response rate of 34.7%. Of those participating, a total of 1,218 completed the entire survey. Participants who reported no active clinical practice were removed from the study, yielding a final

Table 1 – Descriptive Statistics and Bivariate Correlations Among Variables

Variable	*Mean*	*SD*	1	2	3
1. Job stressors	2.32	.40	-		
2. Burnout	2.56	.83	.57**		
3. Work engagement	5.51	.87	−.26**	−.54**	
4. Work-family balance	3.83	.74	−.52**	−.49**	−.29**

Note: $N = 1216$.

** Significant at $p < .01$.

sample of 1,216 usable surveys. The majority were female (84.8%), with 90.5% working full-time, and 59% reported six or more years of experience. Age categories ranged from 23 to greater than 60. The largest group represented was 31 to 39 years old (32.7%), followed by 40 to 49 years old (21.1%). All APP categories were represented with the largest percentage identifying themselves as physician assistants (36.7%), followed by ambulatory-based nurse practitioners (30.4%). Acute care nurse practitioners comprised 20.8% of the sample, with smaller percentages of certified registered nurse anesthetists (7.0%), clinical nurse specialists (3.4%), and certified nurse midwives (1.7%). Detailed demographic characteristics are presented in Supplementary Table 1.

Descriptive Statistics

Table 1 displays the descriptive statistics and bivariate correlations for all study variables in the mediational model used to test our hypothesized relationships. Note that there are strong correlations between stress, burnout, and engagement, thereby providing initial evidence that the investigation of the combined effects of these variables may provide additional insights regarding burnout and engagement. Also, note that the work-family control variable has significant ($p < .01$) correlations with the variables of interest in this study.

Test of the Measurement Model

First, we conducted a confirmatory factory analysis (CFA) to test our measurement model. We specified a model with four constructs (job stress, burnout, work engagement, and work-family balance) in Figure 1. Job stress has three first-order latent variable subdimensions: Work pressure, lack of autonomy, and role ambiguity (Frone et al., 1995). For work pressure, eight individual items were assigned as latent variables. For lack of autonomy, six individual items were assigned as latent variables. For role ambiguity, six items were assigned as latent variables. Burnout has three first-order latent variable subdimensions: emotional exhaustion, depersonalization, and personal accomplishment (Maslach & Jackson, 1981). For emotional exhaustion, nine individual items were assigned as latent variables. For depersonalization, five individual items were assigned as latent variables. For personal accomplishment, eight items were assigned as latent variables. The UWES has three first-order latent variable subdimensions: Vigor, dedication, and absorption (Schaufeli & Bakker, 2004). For vigor, six individual items were assigned as latent variables. For dedication, five individual items were assigned as latent variables. For absorption, six items were assigned as latent variables. Finally, work-life balance is unidimensional and is comprised of six individual latent variables.

The measurement model demonstrated adequate fit with the data [$\chi(626.09)^2 = 11464.88$, $p < .01$, root mean square error of approximation (RMSEA) = .07, comparative fit index (CFI) = .95, and standardized root mean square residual (SRMR) = .04], and all of the latent

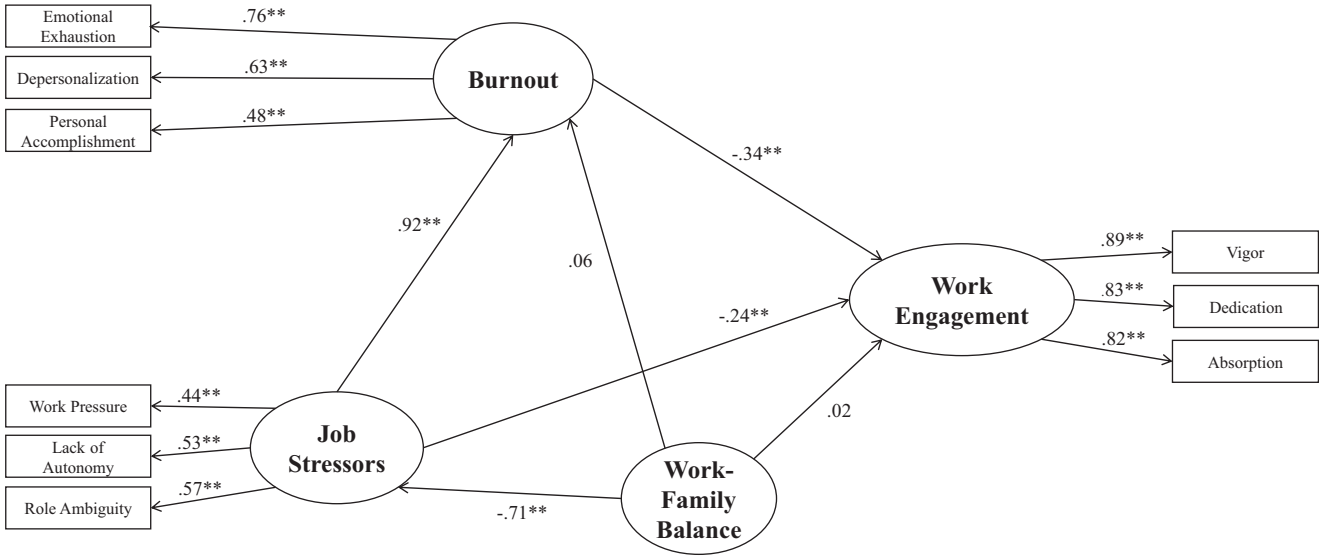

Figure 1 – Path coefficients in mediation model for job stressors and engagement. *$p < .05$; **$p < .01$. Values are standardized coefficients.

indicators had statistically significant loadings on their intended constructs ($p < .01$).

Test of the Structural Model

The hypothesized mediational model received adequate fit [$\chi(626.01)^2 = 12090$, $p < .01$, RMSEA = .07, CFI = .95, SRMR = .05]. The standardized path estimates for the hypothesized model are displayed in Figure 1. Hypothesis 1 (stress is positively related burnout) is supported ($\beta = .92$, $p < .01$). Hypothesis 2 (burnout is negatively related to work engagement) is supported ($\beta = -.34$, $p < .01$); as well, Hypothesis 3 (stress is negatively related to work engagement) is supported ($\beta = -.24$, $p < .01$).

Hypothesis 4 suggested that the relationship between job stress and work engagement is mediated by burnout. As mentioned previously, in order to test the significance of the indirect effect of stress on engagement through burnout, we constructed a 95% unstandardized bootstrap confidence interval (CI) as advised by Preacher and Hayes (2008). We resampled from our data set and estimated the indirect effect each time. We repeated this process 10,000 times (Preacher & Hayes, 2008) to arrive at an empirical approximation of the sampling distribution and obtained the estimate and confidence interval for this indirect effect. We found a significant and positive indirect effect of stress on engagement through burnout ($b = -.26$, 95% CI [−.18, −.35]). Thus, Hypothesis 4 was supported. Moreover, note that the total indirect effect of stress on engagement (−.31) is stronger than the total direct effect (−.24).

Finally, Hypothesis 5 suggested that work-family balance is negatively related to stress and burnout, and positively related to work engagement. We found partial support for this hypothesis. Specifically, even though there were significant correlations in all of the predicted directions, the only significant relationship seen in the structural equation model was the significant negative relationship between work-family balance and stress ($\beta = -.71$, $p < .01$).

Ancillary Investigation of Covariates

We considered demographic control variables as covariates in the structural equation model (SEM). Specifically, we created a dichotomous variable to test differences between APRN and PA subgroups, as few studies have investigated possible differences associated with role ambiguity in APPs (Casida & Pastor, 2012). Additionally, Schaufeli and Enzmann (1998) suggested that age and gender may covary with job burnout for nurses. To test the potential effect of these covariates, we analyzed several different models. First, we included the dichotomous variable for APRNs and PAs subgroups as a covariate in the structural equation model, along with age and gender. Only age showed a significant positive relationship with job engagement (r = .11; $p < .05$) and a significant negative relationship with job stress (r = −.10; $p < .05$), suggesting that older professionals experience higher levels of engagement, and younger professionals experience higher levels of job-related stress. However, age as a demographic variable explained less than 1% of variance and did not modify results of the structural equation model (SEM).

Second, we analyzed both ordinary least squares (OLS) regression models and tetrachoric correlations for the full model, as well as separate analyses investigating possible relationships between APRN and PA subgroups and the three subdimensions of job stress. None of these analyses showed a significant relationship between the APRN role subgroups and variables of interest.

Discussion

Utilizing a sample of 1,216 APPs across different practice environments and organizations, we have derived a model with a close fit to the data and determined the impact of burnout as a mediator in the stress-engagement relationship. This study represents the first comprehensive investigation of APPs, which enables future research to be aimed at enhancing the work environment and clinician well-being.

The job stressors of role ambiguity, work pressures, and lack of autonomy contribute substantially to a higher correlation with development of burnout, thus confirming the findings of prior research that shows development of burnout in physicians associated with chronic work stress (Maslach et al., 2001; West, et al., 2018). The diverse sample of APPs displays similarities to studies of physicians and nurses with regard to exhaustion and depersonalization subscale dimensions, which show higher correlations and a weaker association to personal accomplishment (Kalliath, O'Driscoll, Gillespie, & Bluedorn, 2000; Shanafelt et al., 2015).

Studies of work stress throughout the past four decades have shifted in focus from factors in the work environment to those of the individual (Bianchi et al., 2018; Väänänen, Anttila, Turtiainen, & Varje, 2012); yet this model indicates that the relationship between not only the job stressors, but also work-family balance and work engagement are to be considered. Examination of the job stressors' subdimensions revealed higher correlations with role ambiguity and lack of autonomy and to a lesser degree, work pressures. These results substantiate other research that identified the role of control within the work environment and its relationship with burnout (Leiter, Gascon, & Martinez-Jarreta, 2010). Shirom, Nirel, and Vinokur (2010) used a large group of physician medical specialists and confirmed that perceived workload and autonomy mediated the effects of physician burnout. Bakker, Demerouti, and Euwema (2005) also supported the relationship between lower levels of job autonomy and burnout's three subdimensions. Hagan and Curtis (2018) identified lower autonomy as one of the strongest predictors for intention to leave a current position

in a sample of nurse practitioners in Texas. In our study, role ambiguity is the primary contributor, and lack of autonomy follows within the job stressors subscale dimensions. The negative relationship between age (as a control variable) and job stress with younger professionals confirms the need for support of APPs who are transitioning into practice as new providers (Faraz, 2017).

Engagement as a unique and separate construct from burnout was reinforced within our model, lending further support to work within the fields of psychiatry and occupational health (Maslach & Leiter, 2016). The confirmation of the indirect effects of stress on engagement, while found in studies of nurses in their traditional roles, has not been examined in APPs. It is worth noting that engagement and burnout are considered as more chronic in nature as opposed to a condition that is more transient (Schaufeli et al., 2006).

The role of work-family interface as specified by Mauno et al. (2007) and Bakker and Geurts (2004) and its relationship to engagement in healthcare workers are also reinforced by our study. Mauno et al. (2007) determined that work-to-family conflict resulted in less work engagement for healthcare workers. Our findings confirmed a significant negative association between job stressors and work-family balance. More research focused on this antecedent of work engagement is needed, as only vigor (subdimension) was reduced by high work-family conflict in their longitudinal study of Finnish healthcare personnel (Mauno et al., 2007). We used a measure that expands the focus to a theory-based consideration of an employee's ability to meet responsibilities in both capacities, work and family. Our study provides a unique contribution to research with a larger and more diverse sample of APPs. Consideration of the transaction between the individual and his/her environment (work stress and work-family imbalance) received greater attention in the 1970s, '80s, and '90s (Väänänen et al., 2012); however, our results demonstrate the need to refocus on organizational strategies that seek proactively to minimize job stressors.

Limitations

Limitations noted with this study include its cross-sectional design that prevents a causal inference to be drawn between the presumed mediators (Mathieu & Taylor, 2006) and use of APPs employed within healthcare systems. The use of multiple, self-reported measures are a limitation to be noted; though all tools used are well-designed, which may decrease the likelihood of common method variances (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Convenience sampling, use of the Internet for survey distribution, and the number of survey items may have impacted response rates. Assurances of confidentiality and anonymity may have improved the response rates; however, this too limits our ability to compare and determine differences in non-respondents. The use of site coordinators to send out multiple reminders and our response rate of 34.7%, which is consistent with other Internet-based research, minimizes the possibility of non-response bias (Fowler, 2014).

Implications for Research and Practice

In light of these findings, it then becomes important to consider the changes that are occurring in healthcare such as health care reform, team-based care, electronic medical record documentation, the emphasis on productivity and efficiency, as well as expectations for patient satisfaction (Shanafelt & Noseworthy, 2017; West et al., 2018). In review of intervention studies designed to alleviate burnout, Ahola, Toppinen-Tanner, and Seppänen (2017) found little evidence that supports one approach over another, and thus recommended use of theoretical frameworks and research results to inform intervention strategies. Longitudinal mixed-methods studies with valid tools of measurement are needed to assess the impact of organizational and individual strategies over time on APP engagement.

More recently, larger healthcare systems have put into place designated advanced practice leaders to lead strategies for recruitment, retention, and engagement. Dedicated APP leadership allows for focused time, attention, open dialogue, and meetings with APPs. Identifying processes or work-related stressors that contribute to burnout and lack of engagement is part of an organization's assessment (Shanafelt & Noseworthy, 2017). Some possible solutions for management of time pressures have been studied with physicians, such as adjusted work schedules, offloading of clerical burdens, and reduced workload. However, further research is needed to determine their long-term impact and along with other strategies such as mindfulness and stress management used in intervention studies (Panagioti et al., 2017; West, Dyrbye, Erwin, & Shanafelt, 2016; West et al., 2018). APP leaders are better equipped to understand their workforce needs/desires, and also have greater insight into expectations from an administrative perspective (Brom, Melnyk, Szalacha, & Graham, 2016). Team-based approaches to care require improved role delineation for APPs. Role clarity at the point of care will help to improve collaboration and communication, which ultimately improves patient care. The inherent value of social relationships has been identified, particularly with regard to the work-family balance and stress. Consideration for effective ways of strengthening relationships within both spheres can be woven into management plans and organizational culture.

These research findings may help to inform organizational strategies developed by APP and physician executive leaders as they seek to balance priorities of the organization while simultaneously improving workforce engagement. Employer-based clinician care policies and programs designed as confidential can be used to support APPs in developing and maintaining personal health and well-being. An organizational focus across disciplines on the enculturation of self-care and

the development of highly functioning teams needs to be evident in the day-to-day operations. Intentional cultural assimilation of new APPs into provider roles could be considered as well in order to reduce role ambiguity.

Conclusions

This study engaged APRNs and physician assistants in research questions with direct relevance to their practice and with cost implications, as well as personal and professional considerations. Findings of this study lend insights into the current practice climate for APPs and the presence of job-related stressors. Targeted organizational strategies may improve APP work-life balance, reduce burnout, and increase retention. Knowledge of the associations between job stressors, age, and burnout as noted in the mediated structural model represents the first step in determining interventions that can be tested in future studies.

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Supplementary Materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.outlook.2019.09.005.

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