WORK ENGAGEMENT, BURNOUT, AND WELL-BEING IN NURSING PROFESSIONAL DEVELOPMENT PRACTITIONERS

by

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ABSTRACT

WORK ENGAGEMENT, BURNOUT, AND WELL-BEING IN NURSING PROFESSIONAL DEVELOPMENT PRACTITIONERS

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This article-based manuscript dissertation will follow a two-manuscript process. The two manuscripts are related to work engagement, burnout, and well-being in the nursing professional development (NPD) practitioner. The first completed manuscript is a literature review that examines personal resources that affect work engagement, uncovers strategies to improve work engagement, and discusses the implications for the NPD practitioner. Fourteen studies met the inclusion criteria for the literature review identifying self-efficacy, resilience, optimism, meaning, mattering, hardiness, and grit as personal resources influencing work engagement. Strategies identified to improve work engagement included policy development, implementing self-awareness programs, and providing resilience, strengths, and gratitude training. Implications included implementing strategies for NPD teams and the staff they professionally develop to improve work engagement.

The second manuscript explored the relationships between work engagement, burnout, and well-being in NPD practitioners using a cross-sectional associational research design and web-based survey for data collection. Study results demonstrated that NPD practitioners maintained an average level of work engagement, had high levels of burnout, and low levels of well-being. Implications for NPD practitioners include developing strategies promoting increased self-awareness and nurturing personal resources. The second manuscript was submitted to the *Journal for Nurses in Professional Development* for peer review.

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Work Engagement, Burnout, and Well-being in Nursing Professional Development Practitioners

CHAPTER 1

INTRODUCTION

The experiences of Nursing Professional Development (NPD) practitioners during the COVID-19 pandemic and its' effect on their work engagement, burnout, and well-being has not been explored. Chapter one of this article-based dissertation defense includes a review of the literature on work engagement, burnout, and well-being in the NPD practitioner. The job demands-resource theory guiding the literature review and research study is also described. Finally, the rationales, definition of terms, and the research objectives for each manuscript are provided.

Review of Literature

Nursing professional development (NPD) practitioners specialize in employing adult learning principles to address the learning needs of nurses, ancillary staff, and organizations (Harper & Maloney, 2022). Additionally, NPD practitioners are instrumental in continuing the professional growth and role development of registered nurses (RNs). They are responsible for continuous environmental scanning, conducting learning needs assessments, and providing education to maintain and develop the knowledge and skills of RNs to provide quality patient care (Harper & Maloney, 2022).

Work engagement is a positive state of mind related to one's work and is portrayed by three dimensions: vigor, dedication, and absorption (Schaufeli et al., 2001). Vigor is defined as high levels of energy and the ability to bounce back when faced with difficulty in the work

setting (Schaufeli et al., 2001). Dedication is the sense of pride and enthusiasm one feels at work. Lastly, absorption is the ability to fully concentrate and be deeply immersed in one's work (Schaufeli et al., 2001). Reports of work engagement in nursing have shown a positive correlation with increased teamwork, improved patient experience, and better organizational outcomes (Dempsey & Assi, 2018). On the contrary, nurse disengagement may lead to adverse outcomes such as poor patient experience, reduced productivity, and patient harm (Day, 2014; Dempsey & Assi, 2018).

Internal and external factors may influence nurse work engagement. The presence of internal factors innately or developed in individuals leads to personal resources such as resilience, hope, and optimism (Bakker & Demerouti, 2008). An absence of internal factors leads to the inability to cope. External factors are resources provided to an individual by their job, such as receiving feedback, supervisory coaching, and training. However, there is a paucity of evidence identifying the personal resources contributing to nursing work engagement and strategies to develop personal resources in nurses.

Burnout is a state that occurs when job demands are high and job resources are low, and it is characterized by exhaustion and disengagement (Demerouti et al., 2001). Burnout and work engagement in direct patient care and nursing leadership has been the subject of recent studies. The characteristics of burnout were found to be negatively correlated with the three dimensions of work engagement and negatively correlated with personality factors such as agreeableness, openness, and extraversion (Perez-Fuentes et al., 2019). Nurse leaders along with nurses who provide direct patient care experience burnout. Nurse leaders with less experience were more likely to report symptoms of burnout (Kelly et al., 2019). Burnout

reaches further than the nurses experiencing burnout. Organizational outcomes such as patient safety, quality care, nurses' organizational commitment, nurse productivity, and patient satisfaction were associated with nurse burnout (Jun et al., 2021). Burnout in NPD practitioners has not been explored in recent research.

Finally, well-being is a state of overall good physical and mental health, suitable quality of life characterized by happiness, and low levels of distress (American Psychological Association, 2020). Healthcare workers' well-being has been highlighted as a priority to address. The National Academies of Sciences, Engineering, and Medicine (NASEM, 2019) released a report evaluating burnout in clinicians stating that burnout directly impacts employee well-being. Well-being determines employees' human functioning and job performance (Bakker & Demerouti, 2018). Additionally, the well-being of healthcare workers can be predicted by the following factors: (1) lower resilience levels, (2) not utilizing support resources, (3) perception that the organization does not understand the emotional support needs of healthcare workers, (4) perception of increased workload, (5) insufficient PPE, (6) inadequate staffing, and (7) poor psychological safety (Munn et al., 2021). Well-being may be maintained by nurse leaders who create and sustain a culture that fosters resilience in team members (Bernard, 2019). However, NPD practitioners have not been the focus of research on well-being.

The negative effects of COVID-19 are not limited to frontline nurses. NPD practitioners quickly adapted to the pandemic's fluctuating effect to meet the needs of the hospital organizations and the staff working in the trenches. Ensuring the staff has the skills to don and doff personal protective equipment safely (Schivinski & McNulty, 2021), delivering education

virtually (Weiss et al., 2020), and cross-training staff to assist in unfamiliar units (Breaux, 2021) are just snapshot of strategies adopted by NPD practitioners to respond to the demands of the pandemic. As a result, NPD practitioners responding to the pandemic may have experienced decreased work engagement, symptoms of burnout, and poor well-being. However, the NPD practitioner's level of work engagement, burnout, and well-being is unknown.

Theoretical Framework

The job demands-resource (JD-R) theory was selected to provide a theoretical framework for both manuscripts (Bakker & Demerouti, 2008). The JD-R theory initially was comprised of two constructs, job demands and job resources (Demerouti et al., 2001). The revised JD-R theory later included the concept of personal resources (Xanthapoulou et al., 2007).

The JD-R theory consists of three constructs: job demands, job resources, and personal resources. Job demands are the work pressures that place demands on an individual's emotional, mental, and physical capacity in the workplace. When the skill to overcome the demand is absent, it could potentially lead to negative physiological and psychological effects (Bakker & Demerouti, 2008). Job resources are resources provided by the workplace to promote the employee's physical, social, and psychological capacity (Demerouti et al., 2001), such as social support from peers and supervisors, performance feedback, skills variety, and autonomy (Bakker & Demerouti, 2008). Finally, personal resources are the ability to reach goals and protect oneself from physiological and psychological costs to stimulate personal growth contributing to one's sense of well-being. Personal resources include optimism, self-efficacy, and resilience (Xanthopoulou et al., 2009).

The JD-R theory has helped organizations in various fields to investigate their employees' engagement and has been studied and applied in diverse settings and occupations (Bakker & Demerouti, 2008). The theory, including personal resources, postulates both job and personal resources, independently or combined, positively influence engagement when employees experience increased work demands. As employees became more engaged, their work performance improved, stimulating enhanced personal resources creating a cyclical process (Bakker & Demerouti, 2008). Additionally, the theory proposes that job and personal resources have a buffering effect on job demands, preventing burnout and promoting work engagement (Bakker & Demerouti, 2008). However, increased job demands and decreased personal resources and job resources influence disengagement and burnout (Demerouti et al., 2001).

Rationale for Manuscript One

Nurse work engagement can positively or negatively influence the nursing workforce and organizational outcomes. Disengagement is related to patient harm, poor patient experience, and increased nurse turnover contributing to the nursing shortage (Day, 2014). In addition, nursing turnover costs acute care hospitals to lose between $5.2 million to $9 million annually (Nursing Solutions Inc, 2022). Therefore, enhancing nurse work engagement may be an approach to retaining nurses in the workforce. Work engagement is influenced by external factors and internal factors; however, the internal factors that most contribute to work engagement are not clear. Additionally, there is evidence lacking on strategies for NPD practitioners to utilize to develop personal factors in nurses.

Definition of terms for Manuscript #1

Registered nurse (RN) works to prevent illness, promote health, and care for vulnerable populations in various care settings (International Council of Nurses, no date). The NPD practitioner is an RN who has a bachelor's degree in nursing or higher that facilitates role development, develops education, promotes a spirit of inquiry, and acts as a change agent to meet the learning needs of nurses and ancillary staff and the organizational needs (Harper & Maloney, 2022). There are many definitions of work engagement in nursing literature. However, for the purpose of the literature review, work engagement is defined as a positive state of mind related to one's work and is portrayed by vigor, dedication, and absorption (Schaufeli et al., 2002).

Research Purpose for Manuscript One

The purpose of the literature review was to identify the personal resources that affect work engagement in RNs working in the acute care setting, uncover the potential strategies that NPD practitioners can utilize to improve nurse work engagement, and share the implications for NPD practitioners.

Assumptions for Manuscript #1:

Three assumptions support the literature review. The first assumption postulates that individuals' personal factors could potentially positively influence work engagement.
The second assumption is that personal factors such as self-efficacy, resilience, hope, and optimism can be developed in individuals who lack these characteristics. The last assumption is that NPD practitioners can develop curriculum to foster personal factors in nurses with underdeveloped personal factors.

Rationale for Manuscript Two

Work engagement, burnout, and well-being have been studied in nurses who work in direct patient care and nurse leaders, but little is known about how these may be experienced by NPD practitioners. NPD practitioners are instrumental in supporting the educational needs of nurses in various healthcare settings. However, the number of practicing NPD practitioners in the United States is unknown. With 6,090 hospitals in the United States, it is difficult to estimate the number of NPD practitioners who support the 4.3 million RNs actively working in the United States (American Hospital Association, 2021; National Council of State Boards of Nursing, 2021). Manuscript two strives to fill this identified gap in the literature.

Definition of Terms for Manuscript #2

The NPD practitioner is an experienced RN committed to promoting lifelong learning, role development, and professional growth in the learners of the interprofessional environment (Harper & Maloney, 2022). The NPD Specialist is a graduate-level prepared nurse certified in the NPD specialty (Harper & Maloney, 2022). The overall goal of NPD practitioners and specialists is to improve population health indirectly by improving the practice of the learner.

The study variables for manuscript two are burnout, work engagement, and well-being. Work engagement is a fulfilling, work-related state of mind demonstrated by vigor, dedication, and absorption (Schaufeli & Bakker, 2004). Conversely, burnout is a state that occurs when there is an imbalance between job demands and job resources, leading to exhaustion and disengagement (Demerouti et al., 2001). Lastly, well-being is a state of overall quality of life, good physical and mental health illustrated by happiness, and low levels of distress (American Psychological Association, 2020).

Research objectives for manuscript #2

The research objectives are as follows: (1) to describe the experiences of work engagement, burnout, and well-being in NPD practitioners; (2) to explore the associations among work engagement, burnout, and well-being in NPD practitioners; (3) to compare the differences between work engagement, burnout, and well-being in NPD practitioners with less than one year of experience with those with greater than one year of experience; and (4) and to compare the differences between work engagement, burnout, and well-being in NPD practitioners who deployed to direct patient care during COVID-19 with those NPD practitioners who did not deploy during COVID-19**.**

Assumptions for Manuscript #2

There are four assumptions underpinning the study. The first assumption suggests that NPD practitioners are RNs. The second assumption is that hospital organizations employ NPD practitioners. The next assumption is that NPD practitioners experience work engagement, burnout, and well-being. Lastly, the assumption is that all NPD practitioners are members of the professional organization.

Summary

The purpose of chapter one was to provide a review of the literature on work engagement, burnout, and well-being in NPD practitioners. The job demands-resource theory guiding the research study was described. Finally, the rationale for the two manuscripts, the definition of terms, and the research questions for each manuscript were discussed. The next chapter will present the literature review on personal resources and work engagement published in the *Journal of Continuing Education in Nurses*.

CHAPTER 2

INTRODUCTION

Manuscript one, published in the *Journal of Continuing Education in Nursing*, is a literature review looking to synthesize literature related to personal resources and work engagement. Chapter two of this article-based dissertation includes an abstract and a copy of the published manuscript.

PERSONAL RESOURCES AND WORK ENGAGEMENT: A LITERATURE REVIEW

The level of nurse work engagement affects retention, burnout, job satisfaction, patient satisfaction, and outcomes. However, there is a paucity of evidence identifying the specific personal resources that benefit nurse work engagement and mechanisms to develop personal resources. The purpose of this literature review was to examine which personal resources affect work engagement, reveal strategies to improve work engagement, and uncover implications for the nursing professional development practitioner. A total of 400 articles were yielded from the search, with fourteen studies meeting the inclusion criteria. Personal resources vary, and interventions to promote personal resource development are described in the article.

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Personal Resources and Work Engagement: A Literature Review

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abstract

The level of nurse work engagement affects retention, burnout, job satisfaction, patient satisfaction, and outcomes. However, there is a paucity of evidence identifying the specific personal resources that benefit nurse work engagement and mechanisms to develop personal resources. The purpose of this review was to examine which personal resources affect work engagement, reveal strategies to improve work engagement, and uncover implications for the nursing professional development practitioner. A total of 400 articles resulted from a review of the literature, with 14 studies meeting inclusion criteria. Personal resources varied. Interventions to promote the development of personal resources are described. **[*J Contin Educ Nurs*. 2022;53(3):115-121.]**

Nurses are the backbone of health care, comprising the majority of health care professionals. There are currently 5,930,584 RNs licensed in the United States (National Council of State Boards of Nursing, 2020). According to the U.S. Bureau of Labor Statistics (2020), the employment of RNs is projected to grow 9% from 2020 to 2030, much faster than the average for all occupations. This projection causes concern surrounding the nursing workforce. The increasing nursing shortage is a global crisis (World Health Organization, 2020). The leading causes of the nursing shortage in the United States include the aging population, the aging workforce, nurse burnout, staffing ratios, a lack of empowerment, and a lack of nursing educators, limiting the number of new nurses entering the workforce (Haddad et al., 2020). A recent study surveying 108,047 RNs in the United States reported that the average cost of turnover for a bedside nurse was $44,375, causing hospitals to lose $4.9 million per year on average (Nursing Solutions, Inc., 2020). Nursing research has been conducted to examine the level of nurse engagement and its effects on retention, burnout, job satisfaction, patient satisfaction, and improved patient outcomes.

A considerable amount of literature has been published on work engagement; however, these studies have varying definitions of work engagement. The different meanings of engagement focus on individuals' interaction with the organizations or the individuals' experience (Bargagliotti, 2012). Work engagement has been defined as an employee's involvement in organizational decision-making, participation in interdisciplinary collaboratives, and the motivation and autonomy to continue to grow professionally (Brooks Carthon et al., 2019). The developers of the widely used Utrecht Work Engagement Scale defined work engagement as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002).

Nurse engagement is influenced by external and internal factors with the varying definitions that exist. Dempsey and Reilly (2016) contended that nurse engagement determines the nurse's level of commitment to the organization employing them and their commitment to

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the nursing profession. Nurse engagement can lead to many positive outcomes. Dempsey and Assi (2018) reported an association of nurse engagement with improved teamwork, patient experience, and overall organizational outcomes.

Consequently, nurse disengagement can lead to dire outcomes. Recent evidence suggests there is a correlation between nurse disengagement and patient harm (Day, 2014). With an increased level of pressure placed on nursing, nurses experience compassion fatigue, disengagement, and increased avoidable harm (Day, 2014). An environment with disengaged nurses leads to a hostile environment that is not conducive to healing and providing physical and spiritual care. Additionally, nurse disengagement affects the patient experience and reduces productivity, costing health care organizations more than $22,000 in lost revenue annually (Dempsey & Assi, 2018). Finally, nurse disengagement tends to lead to turnover, contributing to the nursing shortage.

Improving nurse engagement is a potential strategy to keep nurses in the workforce. However, there is minimal evidence regarding which personal resources are the most beneficial in enhancing nurse engagement and strategies for developing personal resources in nurses. Additionally, nursing professional development (NPD) practitioners are instrumental in preparing nurses for their current or future roles in the clinical setting. NPD is a specialty nursing practice that uses adult learning principles and evidence-based practice to facilitate growth in staff development (Harper & Maloney, 2016). NPD practitioners facilitate the role development of nurses and ancillary staff, promote a spirit of inquiry, act as change agents, and develop and implement education to meet adult learning principles (Brunt & Morris, 2022).

The theoretical framework for this literature review was the job demands resource (JD-R) theory. The JD-R theory has demonstrated positive associations between personal and job resources leading to increased work engagement. The JD-R theory posits that job resources and personal resources combined or independently predict work engagement (Bakker & Demerouti, 2008). Job resources include workload, work environment, work demands, and colleague and leadership support. Personal resources include self-efficacy, self-esteem, and optimism (Bakker & Demerouti, 2008). Personal resources and job resources buffer job demands, thereby improving job satisfaction, which in turn increases work engagement.

The purpose of this review was to (1) identify and understand specific personal resources that affect engagement, (2) identify potential strategies for NPD practitioners to use to improve nurse work engagement, and (3) present practical implications for NPD practitioners.

METHOD

A literature search for peer-reviewed publications was conducted using the electronic databases PubMed and Cumulative Index to Nursing and Allied Health Literature (CINAHL). The keywords used to search each database were grit, resilience, resiliency, resilient, strength, hardiness, personal intrinsic factors, nurse engagement, involvement, and participation. Additionally, a manual search by hand and a scan of the reference lists of the retrieved articles were performed to identify additional publications. Studies that used a quantitative research design, were published between 2010 and 2020, and examined personal factors and engagement were included. Studies that used a qualitative research design and literature reviews were excluded. The JD-R theory was followed for the narrative and thematic synthesis of the literature associated with personal resources.

RESULTS

The search yielded a total of 400 articles. The results of the databases were reviewed, and duplicate publications were removed. Titles, abstracts, and full text were screened for eligibility for inclusion. A total of 14 articles were included in the literature synthesis. Data extracted from the 14 articles are presented in **Table A** (available in the online version of the article). Thorough scanning was performed; concepts needed to be noted in at least two articles to be considered an identified theme. The 14 articles were thoroughly reviewed and evaluated for repeated topics, ideas, and patterns of meaning among them. Two central themes were identified: personal resources affecting nurse engagement and strategies for improving nurse work engagement for NPD practitioners.

Personal Resources Affecting Nurse Engagement

The following personal resources were identified from the articles: psychological capital (including subscales of efficacy, optimism, hope, and resilience), empathy, resilience, self-efficacy, self-regulation, optimism, mattering, meaning, commitment, sense of coherence, self-transcendence, grit, and hardiness. However, seven of the personal resources—self-efficacy, resilience, optimism, meaning, mattering, hardiness, and grit—were noted to be themes in at least two of the articles. Therefore, they were deemed to play critical roles in affecting nurse engagement.

Self-efficacy

Four of the 14 studies revealed that higher levels of self-efficacy were correlated with higher levels of work engagement. De Simone et al. (2018) found that patient satisfaction was positively associated with nurses' job satisfaction, work engagement, self-efficacy, and agentic capacities, which in turn were positively correlated with nurses'

turnover intention. De Simone et al. (2018) reported that nurses who had higher job satisfaction also tended to have higher self-efficacy. This correlation was moderate (r = 0.45, p < .001). They also reported that nurses who had higher levels of work engagement also tended to have higher levels of self-efficacy. This correlation was strong and clinically important (r = 0.52, p < .001). Orgambídez et al. (2020) found a significant positive correlation between self-efficacy and work engagement (r = 0.43, p < .01). Bonner (2016) reported that the correlation between self-efficacy, a component of the psychological capital measurement, and work engagement was insignificant. This was inconsistent with the findings from De Simone et al. (2018) and Orgambídez et al. (2020). The sample in the study by Bonner (2016) was small (n = 137); therefore, this study was likely underpowered. Shahpouri et al. (2016) found a positive effect of personal resources, which included self-efficacy as a subscale, on work engagement (β = 0.70, p < .01) using linear regression. However, because a full scale was not used, it was not known if self-efficacy would significantly affect nurse engagement. Self-efficacy overall was found to have a positive effect on nurse work engagement.

Resilience and Optimism

Four of the 14 studies reported an association of resilience and optimism with work engagement. Cao and Chen (2019) concluded that resilience was positively correlated with work engagement, but they did not report the correlation coefficients. Bonner (2016) concluded that work engagement and psychological capital scores were positively correlated, but resilience and optimism as subscales of the psychological capital were not explicitly described in the findings. Shahpouri et al. (2016) reported a combined effect of resilience and optimism on work engagement (β = 0.70, p < .01) using linear regression, but they did not reveal if resilience and optimism each had an independent effect on work engagement. Garrosa et al. (2011) found that nurses with greater levels of optimism reported lower levels of emotional exhaustion (r = -0.22, p < .01) but they experienced higher levels of role stress. This finding was inconsistent with the findings of Cao and Chen (2019), Bonner (2016), and Shahpouri et al. (2016). The sample in the study by Garrosa et al. (2011) was larger (n = 508) than that of Cao and Chen (2019; n = 345), Bonner (2016; n = 137), and Shahpouri et al. (2016; n = 208). Therefore, the finding of Garrosa et al. (2011) had higher power than the findings of the other studies. Resilience and optimism were measured using the following scales in these studies: PsyCap (Cao & Chen, 2019), the Revised Life Orientation Test (Bonner, 2016), the Personal Resource Inventory (Shahpouri et al., 2016), and the Resilience scale-10 items (Cao & Chen, 2019). All of these studies demonstrated a positive relationship of resilience and optimism with work engagement.

Meaning and Mattering

Three cross-sectional studies examined the correlations between meaning and mattering and work engagement. Haizlip et al. (2020) found that (1) nurses who felt a sense of meaning were more engaged; (2) a sense of mattering showed a positive correlation with a sense of meaning and nurse engagement; (3) mattering and meaning were moderately correlated (r = 0.67, p < .01); and (4) nurse engagement was moderately correlated with mattering (r = 0.50, p < .01) and meaning (r = 0.54, p < .01). Malagon-Aguilera et al. (2019) found that a sense of meaningfulness was positively correlated with levels of work engagement (r = 0.227, p < .05) and dedication (r = 0.341, p < .001). Although these correlations were statistically significant, they were weak, possibly due to the small sample of the study (n = 109). Santos et al. (2016) found that perceived social worth was positively related to work engagement (r = 0.35, p < .01). Thus, meaning and mattering are personal resources positively associated with nurse work engagement.

Hardiness and Grit

Two studies examined the correlations of hardiness and grit with work engagement. Garossa et al. (2011) reported that hardiness was negatively correlated with emotional exhaustion (r = -0.45, p < .01) and depersonalization (r = -0.47, p < .01) and positively correlated with dedication (r = 0.58, p < .01) and vigor (r = 0.50, p < .01). Because work engagement was considered to be a positive mindset at work characterized by the concepts of vigor, dedication, and absorption (Schaufeli et al., 2002), these findings indicated the positive relationship of hardiness with work engagement. Suzuki et al. (2015) reported that grit had a significant positive association with work engagement (r = 0.26, p < .001). Although the findings of Garossa et al. (2011) and Suzuki et al. (2015) were consistent, Garossa et al. (2011) targeted only nurses while Suzuki et al. (2015) targeted regional working adults in Japan. Because it was not known if Suzuki et al. (2015) included nurses, it was not known if the finding was generalizable to nurses.

Strategies for Improving Nurse Work Engagement for NPD Practitioners

Strategies have been developed to foster nurse work engagement. These include (1) developing policy of personal resources (Cao & Chen, 2019); (2) developing self-awareness programs to increase consciousness of one's own personal resources and level of engagement (Bonner, 2016); and (3) developing and providing training and education such as resilience training programs, strengths training, and gratitude exercises (Harty et al., 2015; Mey-

ers & van Woerkom, 2017; Winslow et al., 2017). Cao and Chen (2019) contended that establishing nursing policies should take precedence to support a healthy work environment for nurses and their leaders to foster work engagement. The American Association of Critical Care Nurses (2016) recommended that the development of a healthy work environment policy incorporate six standards as non-negotiable behaviors and expectations of all health care staff: appropriate staffing, meaningful recognition, authentic leadership, skilled communication, true collaboration, and effective decision-making. The ultimate goal of establishing these standards was to create an environment conducive for engagement.

Bonner (2016) found that psychological capital self-awareness training stimulated a level of recognition of self to ensure that role model behaviors were being exhibited. The psychological capital "HERO Within" was a program to develop hope, optimism, self-efficacy, and resiliency in staff that included daily HOPE huddles, a reflection of past successful experiences, and the "3 Good Things" exercise (Dimino et al., 2020). These strategies could be facilitated by trained department leaders, supervisors, or well-being champions during daily huddles. Additional examples included mental health-focused phone applications (apps) using tools conveniently available on smartphones for team members to offer daily interventions and weekly thought questions focused on addressing mental health, stress, and burnout (National Academies of Sciences, Engineering, and Medicine, 2021). Team members could be encouraged to download the apps and participate in activities.

Harty et al. (2015) found that resilience training programs increased self-efficacy and job satisfaction. Examples of these programs included webinars, synchronous training, and asynchronous training provided for leaders and team members to identify burnout, compassion fatigue, triggers of stressors, and how to partake in self-care activities (The Joint Commission, 2019). These programs could also be implemented through buddies/peers consultation, in which peers are matched based on demographics/specialty and their role is focused on listening, validating feelings, and providing feedback (Albott et al., 2020). Mental health-focused phone apps (e.g., brief mindfulness interventions) could be used during huddles, involving activities such as deep breathing and meditating (National Academies of Sciences, Engineering, and Medicine, 2021). Meyers and van Woerkom (2017) developed a strengths training program and reported that it assisted employees in identifying, developing, and using their strengths to improve employee positive affect, which in turn improved their psychological capital and work engagement. Leaders could identify team members' strengths with a strengths assessment tool. Team members could be invited to participate in committees they would benefit from based on the results of their strengths assessment, receive meaningful recognition from leaders, and receive guidance from leaders on how to further develop their strengths (Meyer et al., 2019). One way to foster the strengths of team members was to provide them with training focused on how to identify their strengths, develop a personal goal plan, identify the tasks of their current job, and implement strengths in their daily job tasks (van Woerkom & Meyers, 2019). Winslow et al. (2017) implemented gratitude interventions for employees and asked them to identify and record two things in their work for which they were grateful. The results indicated that the gratitude interventions had notably benefited the employees' ability to appreciate the meaning of their work. The American Nurses Foundation and Greater Good Science Center (2021) developed the Gratitude Practice for Nurses: Toolkit for Well-Being for use in such activities as huddles, staff meetings, and luncheons. It includes eight activities to cultivate gratitude. The identified strategies would be beneficial for NPD practitioners and nurse leaders to incorporate into their daily practice to improve and maintain their level of work engagement.

DISCUSSION

This review explored the included studies' findings to understand the relationship between personal resources and nurse work engagement, revealed the specific personal resources that influence work engagement, and identified potential strategies for NPD practitioners to use to improve nurse work engagement. Nursing disengagement has been linked to poor patient outcomes, reduced productivity, and increased nurse turnover. This review identified seven personal resources that influence nurse work engagement, including self-efficacy, resilience, optimism, meaning, mattering, hardiness, and grit.

This review revealed that the personal resource of self-efficacy is associated with nurse engagement. Self-efficacy is an individual's perception or belief of their abilities, which impacts their level of motivation to execute a specific task (Stajkovic & Luthans, 1998). Nurses with higher levels of self-efficacy will approach their work shift and its unpredictability with tenacity. Nurses who are confident in their abilities are more likely to successfully perform the skills necessary to care for patients with complex conditions. Cohesive teams with high levels of self-efficacy can withstand organizational volatility, leading to improved patient outcomes and nurse retention, increased work engagement, and reduced turnover.

Resilience and optimism were found to have a positive relationship with nurse engagement. The American

Psychological Association (2012) defines resilience as the ability to adapt well when facing adversity such as trauma, tragedy, and a significant source of stress. Optimism is the attitude that good things will happen through serendipity or perseverance (American Psychological Association, 2020). However, the strength of the correlation of resilience and optimism with work engagement was not known. Additionally, the strength of the findings could have been affected by the different tools used to measure outcome. An emerging middle-range theory, psychological capital, can explain the holistic approach of measuring subscales such as resilience and optimism. Psychological capital integrated the concepts of efficacy, optimism, hope, and resilience to promote positive psychology to strengthen employees' ability to navigate the challenges of the everyday work environment (Avey et al., 2009). Psychological capital has been reported to positively affect work engagement by influencing employees' well-being and attitude toward their work (Harty et al., 2015).

Meaning, mattering, and social worth were demonstrated to be related to nursing engagement. According to Malloy et al. (2015), nurses who found meaning in their work had the strength to endure challenging environments. The nurses therefore understood the significance of their practice and desired to be engaged.

Hardiness and grit were combined as a theme because of the similarities in their definitions. Hardiness was defined as a personality characteristic of individuals who believed they had complete control of their lives, were committed to their daily activities, and viewed challenges as exciting growth opportunities (Kobasa, 1979). Grit was defined as perseverance and passion for long-term goals where an individual was working persistently toward confronting challenges and maintaining a level of persistent interest despite roadblocks (Duckworth et al., 2007). The studies by Garossa et al. (2011) and Suzuki et al. (2015) measured hardiness and grit using different tools and in different samples. Both studies found that hardiness and grit were positively correlated with engagement. Individuals who possess hardiness and grit can overcome challenges they face in their work with their persistence and belief in their control, thereby maintaining a level of work engagement.

Limitations

This review had several limitations. First, it excluded unpublished literature, literature reviews, and qualitative studies. Second, most of the studies were cross-sectional and thus did not allow assessment of causal relationships. Third, most of the studies used self-report questionnaires to measure personal resources and work engagement. Finally, because only two databases were used for the search, other potential personal resources affecting work engagement could have been overlooked.

Implications for NPD Practice, Education, and Research

NPD practitioners have many roles in staff development, and their work is invaluable. Harper and Maloney (2016), in a nonexperimental, descriptive, cross-sectional study, revealed that organizations with a greater number of full-time equivalent NPD practitioners per bed had higher Hospital Consumer Assessment of Healthcare Providers and Systems scores for patient satisfaction with nurses' communication and discharge instructions. Similar to frontline clinicians, NPD practitioners experience rapid-fire changes to practice and increased job demands that could affect job satisfaction and work engagement. Research has yet to illuminate the importance of work engagement for NPD practitioners and their role in fostering work engagement for others.

The findings of this review are not meant to minimize the challenges related to job resources (i.e., workload, work environment, work demands, and colleague and leadership support) that nurses face in their workplaces, but rather to aid in the design of interventions to promote personal resources for NPD practitioners and the individuals they serve to improve work engagement. NPD practitioners must possess awareness of their own level of work engagement to be role models to the nurses they serve. Addressing the personal resources of the NPD practitioner, in addition to those of frontline staff, must be a priority. NPD practitioners should consider implementing the identified strategies for their teams and the staff they serve to promote work engagement.

Future nursing research should focus on the gaps in the literature surrounding hardiness and grit in relation to work engagement. The development of a tool to specifically measure grit in nursing should be explored. Research focused on NPD practitioner engagement and its effects on NPD outcomes should be considered. Also, longitudinal studies, studies using objective measurement tools, and interventional studies should be performed to further explore the effects of personal resources on nurse work engagement.

CONCLUSION

This review identified several personal resources related to nurse work engagement. According to the JD-R theory, personal resources and job resources are essential to improving work engagement. Specific personal resources having positive associations with nurse work engagement, gaps in the literature, suggestions for interventions by NPD practitioners, and recommendations for further nursing research have been presented.

REFERENCES

Albott, C. S., Wozniak, J. R., McGlinch, B. P., Wall, M. H., Gold, B. S., & Vinogradov, S. (2020). Battle buddies: Rapid deployment of a psychological resilience intervention for health care workers during the COVID-19 pandemic. *Anesthesia and Analgesia, 131*(1), 43–54. https://doi.org/10.1213/ANE.0000000000004912 PMID:32345861

American Association of Critical Care Nurses. (2016). *AACN standards for establishing and sustaining healthy work environments: A journey to excellence, 2nd edition.* https://www.aacn.org/-/media/aacn-website/nursing-excellence/standards/hwestandards.pdf

American Nurses Foundation & Greater Good Science Center. (2021). *Gratitude practice for nurses: Toolkit for well-being.* https://ggsc.berkeley.edu/images/uploads/Gratitude_Nurses_Toolkit.pdf

American Psychological Association. (2012). *Building your resilience.* https://www.apa.org/topics/resilience

American Psychological Association. (2020). *Optimism.* https://dictionary.apa.org/optimism

Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management, 48*(5), 677–693. https://doi.org/10.1002/hrm.20294

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209–223. https://doi.org/10.1108/13620430810870476

Bargagliotti, L. A. (2012). Work engagement in nursing: A concept analysis. *Journal of Advanced Nursing, 68*(6), 1414–1428. https://doi.org/10.1111/j.1365-2648.2011.05859.x PMID:22044047

Bonner, L. (2016). A survey of work engagement and psychological capital levels. *British Journal of Nursing (Mark Allen Publishing), 25*(15), 865–871. https://doi.org/10.12968/bjon.2016.25.15.865 PMID:27523760

Brooks Carthon, J. M., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., Sanders, A. M., Visco, F., Holland, S., Ballinghoff, J., Del Guidice, M., & Aiken, L. H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of Nursing Care Quality, 34*(1), 40–46. https://doi.org/10.1097/NCQ.0000000000000334 PMID:29889724

Brunt, B. A., & Morris, M. M. (2022). *Nursing professional development.* StatPearls. https://pubmed.ncbi.nlm.nih.gov/30285377

Cao, X., & Chen, L. (2019). Relationships among social support, empathy, resilience and work engagement in haemodialysis nurses. *International Nursing Review, 66*(3), 366–373. https://doi.org/10.1111/inr.12516 PMID:31016716

Day, H. (2014). Engaging staff to deliver compassionate care and reduce harm. *British Journal of Nursing (Mark Allen Publishing), 23*(18), 974–980. https://doi.org/10.12968/bjon.2014.23.18.974 PMID:25302836

Dempsey, C., & Assi, M. J. (2018). The impact of nurse engagement on quality, safety, and the experience of care: What nurse leaders should know. *Nursing Administration Quarterly, 42*(3), 278–283. https://doi.org/10.1097/NAQ.0000000000000305 PMID:29870494

Dempsey, C., & Reilly, B. A. (2016). Nurse engagement: What are the contributing factors for success? *Online Journal of Issues in Nursing, 21*(1), 2. https://doi.org/10.3912/OJIN.Vol21No01Man02 PMID:27853182

De Simone, S., Planta, A., & Cicotto, G. (2018). The role of job satisfaction, work engagement, self-efficacy and agentic capacities on nurses' turnover intention and patient satisfaction. *Applied Nursing Research, 39,* 130–140. https://doi.org/10.1016/j.apnr.2017.11.004 PMID:29422148

Dimino, K., Horan, K. M., & Stephenson, C. (2020). Leading our frontline HEROES through times of crisis with a sense of hope, efficacy, resilience, and optimism. *Nurse Leader, 18*(6), 592–596. https://doi.org/10.1016/j.mnl.2020.05.011 PMID:33024421

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 92*(6), 1087–1101. https://doi.org/10.1037/0022-3514.92.6.1087 PMID:17547490

Garrosa, E., Moreno-Jiménez, B., Rodríguez-Muñoz, A., & Rodríguez-Carvajal, R. (2011). Role stress and personal resources in nursing: A cross-sectional study of burnout and engagement. *International Journal of Nursing Studies, 48*(4), 479–489. https://doi.org/10.1016/j.ijnurstu.2010.08.004 PMID:20828694

Haddad, L. M., Annamaraju, P., & Toney-Butler, T. J. (2020). *Nursing shortage.* StatPearls. http://www.ncbi.nlm.nih.gov/books/NBK493175

Haizlip, J., McCluney, C., Hernandez, M., Quatrara, B., & Brashers, V. (2020). Mattering: How organizations, patients, and peers can affect nurse burnout and engagement. *The Journal of Nursing Administration, 50*(5), 267–273. https://doi.org/10.1097/NNA.0000000000000882 PMID:34292917

Harper, M. G., & Maloney, P. L. (Eds.). (2016). *Nursing professional development: Scope and standards of practice.* Association for Nursing Professional Development. https://doi.org/10.1097/NND.0000000000000255

Harty, B., Gustafsson, J. A., Björkdahl, A., & Möller, A. (2015). Group intervention: A way to improve working teams' positive psychological capital. *Work (Reading, Mass.), 53,* 387–398. https://doi.org/10.3233/WOR-152227 PMID:26835855

Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology, 37*(1), 1–11. https://doi.org/10.1037/0022-3514.37.1.1 PMID:458548

Malagon-Aguilera, M. C., Suñer-Soler, R., Bonmatí-Tomas, A., Bosch-Farré, C., Gelabert-Vilella, S., & Juvinyà-Canal, D. (2019). Relationship between sense of coherence, health and work engagement among nurses. *Journal of Nursing Management, 27*(8), 1620–1630. https://doi.org/10.1111/jonm.12848 PMID:31444895

Malloy, D. C., Fahey-McCarthy, E., Murakami, M., Lee, Y., Choi, E., Hirose, E., & Hadjistavropoulos, T. (2015). Finding meaning in the work of nursing: An international study. *Online Journal of Issues in Nursing, 20*(3), 7. https://doi.org/10.3912/OJIN.Vol20No03PPT02 PMID:26882516

Meyers, M. C., Adams, B. G., Sekaja, L., Buzea, C., Cazan, M., Gotea, M., Stefenel, D., & van Woerkom, M. (2019). Perceived organizational support for the use of employees' strengths and employee well-being: A cross-country comparison. *Journal of Happiness Studies, 20,* 1825–1841. https://doi-org.ezproxy.uta.edu/10.1007/s10902-018-0026-8

Meyers, M. C., & van Woerkom, M. (2017). Effects of a strengths intervention on general and work-related well-being: The mediating role of positive affect. *Journal of Happiness Studies, 18,* 671–689. https://doi.org/10.1007/s10902-016-9745-x

National Academies of Sciences, Engineering, and Medicine. (2021). *The future of nursing 2020-2030: Charting a path to achieve health equity.* The National Academies Press.

National Council of State Boards of Nursing. (2020). NCSBN's environmental scan a portrait of nursing and healthcare in 2020 and beyond. *Journal of Nursing Regulation, 10*(4), S1–S35. https://doi.org/10.1016/S2155-8256(20)30022-3

Nursing Solutions, Inc. (2020). *2020 NSI National health care retention & RN staffing report.* https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf

Orgambídez, A., Borrego, Y., & Vázquez-Aguado, O. (2020). Linking self-efficacy to quality of working life: The role of work engagement. *Western Journal of Nursing Research, 42*(10), 821–828. https://doi.org/10.1177/0193945919897637 PMID:31941420

Santos, A., Chambel, M. J., & Castanheira, F. (2016). Relational job characteristics and nurses' affective organizational commitment: The mediating role of work engagement. *Journal of Advanced Nursing, 72*(2), 294–305. https://doi.org/10.1111/jan.12834 PMID:26467032

Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A confirmative analytic approach. *Journal of Happiness Studies, 3,* 71–92. https://doi.org/10.1023/A:1015630930326

Shahpouri, S., Namdari, K., & Abedi, A. (2016). Mediating role of work engagement in the relationship between job resources and personal resources with turnover intention among female nurses. *Applied Nursing Research, 30,* 216–221. https://doi.org/10.1016/j.apnr.2015.10.008 PMID:27091281

Stajkovic, D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Going beyond traditional motivational and behavioral approaches. *Organizational Dynamics, 26*(4), 62–74. https://doi.org/10.1016/S0090-2616(98)90006-7

Suzuki, Y., Tamesue, D., Asahi, K., & Ishikawa, Y. (2015). Grit and work engagement: A cross-sectional study. *PLoS One, 10*(9), e0137501. https://doi.org/10.1371/journal.pone.0137501 PMID:26335001

The Joint Commission. (2019). *Quick safety: Developing resilience to combat nurse burnout.* https://www.jointcommission.org/-/media/tjc/newsletters/quick_safety_nurse_resilience_final_7_19_19pdf.pdf

U.S. Bureau of Labor Statistics. (2020). *Occupational outlook handbook.* https://www.bls.gov/ooh/healthcare/registered-nurses.htm

van Woerkom, M., & Meyers, M. C. (2019). Strengthening personal growth: The effects of a strengths intervention on personal growth initiative. *Journal of Occupational and Organizational Psychology, 92,* 98–121. https://doi.org/10.1111/joop.12240

Winslow, C. J., Kaplan, S. A., Bradley-Geist, J. C., Lindsey, A. P., Ahmad, A. S., & Hargrove, A. K. (2017). An examination of two positive organizational interventions: For whom do these interventions work? *Journal of Occupational Health Psychology, 22*(2), 129–137. https://doi.org/10.1037/ocp0000035 PMID:27101341

World Health Organizations. (2020). *WHO and partners call for urgent investment in nurses.* https://www.who.int/news/item/07-04-2020-who-and-partners-call-for-urgent-investment-in-nurses

Table A. Summary of included studies

Author (year)	Research Questions or Aims	Sampling method and Sample size (n=)	Research design	Outcome Measures	Major findings
Bonner (2016)	Investigate the relationship between work engagement and psychological capital levels in registered nurses.	Convenience sample of N=137 registered nurses in a London teaching hospital.	Quantitative cross-sectional survey design	Work Engagement: measured by the Utrecht Work Engagement Scale Psychological Capital: measured by the PsyCap scale.	1) Work engagement and psychological capital levels were positively correlated ($r=0.633$, $p<0.01$). 2) There was a similarity in the effects of five demographic characteristics (age, gender, job band, years practicing as a qualified nurse, and Highest academic level achieved) on work engagement and psychological capital levels.
Cao, & Chen (2019)	Describe the levels of work engagement and analyze the reciprocal relationships among social support, empathy, resilience, and work engagement experienced by hemodialysis nurses in China	Convenience sample of N=345 hemodialysis nurses from 17 hospitals in Chengdu, China	Cross-sectional quantitative study	Social Support: measured by the perceived social support scale evaluates an individual's perception of support from others. Empathy: measured by the Jefferson Scale of Empathy assesses empathic qualities in inpatient care. Resilience: measured by the resilience Scale -. Work Engagement: measured by the Utrecht Work Engagement Scale-.	1) The level of work engagement was higher among male and married nurses and those with more occupational tenure. 2) Each domain of social support, empathy, and resilience was found to have a significant positive association with work engagement.
De Simone et al. (2018)	Analyze the associations between nurses' voluntary turnover and four factors, including self-efficacy, agentic capacities, job satisfaction, and work engagement, and their relationships with patient satisfaction.	Convenience sample of n=194 nurses and n=182 patients from 22 inpatient wards from two hospitals in southern Italy.	Descriptive Cross-Sectional	Job Satisfaction: measured by the Italian version of brief overall job satisfaction measure II. Work Engagement: measured by the Italian version of the Utrecht Work Engagement Scale. Self-efficacy: measured by the Nurse's self-efficacy scale, Agentic Capacities: measured by the Agent Test. Hospital Turnover Intention: Italian adaptation scale with the item: "I am going to seek a job in another hospital next year". Patient Satisfaction: Italian version of NSNS	1) There were positive correlations between the four nurse factors (self-efficacy, agentic capacities, job satisfaction, and work engagement). These factors each had direct or indirect effects on turnover intention and were positively correlated with patient satisfaction. 2) Patient satisfaction was negatively correlated with nurses' turnover intention.

Garrosa, Moreno-Jiménez, Rodríguez-Muñoz, & Rodríguez-Carvajal (2011).	Examine effects of role stress and three personal resources (optimism, hardy personality, and emotional competence) on nursing burnout and engagement dimensions	Convenience sample of N=508 nurses from four general hospitals in Madrid, Spain.	Cross-sectional Study	Role Stress and burnout: measured by the Nursing Burnout Scale was utilized to measure role stress and burnout Engagement: measured by the Utrecht Work Engagement Scale Optimism: measured by the Revised Life Orientation scale Hardy personality: measured by the Hardy Personality Scale Emotional Competence: measured by the Emotional Competence Scale	1) Role stress was positively related to nursing burnout and negatively related to nursing engagement after adjusting for socio-demographics (for hypothesis 1). 2) Personal resources are negatively related to nursing burnout and positively related to nursing engagement after adjusting for socio-demographics and role stress (for hypothesis 2). 3) Personal resources were significant predictors for nursing burnout and nursing engagement; in particular, personal resources were associated with less nursing burnout and more nursing engagement (for hypotheses 3 &4). 4) Personal resources moderated the relationships between role stress and burnout and engagement (for hypothesis 5)
Haizlip, McCluney, Hernandez, Quatrara & Brashers (2020)	Explore the relationships between professional mattering and five nursing factors, including burnout, nursing practice, the meaning of work, perceived support, and engagement in nurses.	Convenience sample of N=324 RNs recruited through a research platform	Cross-sectional survey design	Mattering at Work: measured using Mattering at Work Scale Meaning of work: measured by the Work and Meaning Inventory and two open-ended questions. Social Support: measured by the adapted Eisenberger Social Support Scale. Burnout: measured by the Professional Quality of Life Scale. Engagement: measured by the Job Engagementscale	Mattering was positively associated with meaning, social support, and engagement.
Malagon-Aguilera, Suñer-Soler, Bonmatí-Tomas, Bosch-Farré, Gelabert-Vilella & Juvinyà-Canal (2019)	Assess registered nurses' sense of coherence (SOC) and the relationship between SOC, self-reported health status, and work engagement.	A population-based sampling of all N=109 registered nurses working with older adults in long-term care facilities in Girona in north-eastern Spain.	Cross-sectional survey design.	Sense of Coherence: measured by the SOC-13 questionnaire Work engagement: measured by the Utrecht Work Engagement Scale- 17 translated into Spanish General Health Status: measured by the EQ-5D-5L scale	Nurses with a high SOC in all three dimensions (comprehensibility, manageability, and meaningfulness) reported no work-related family conflicts, better health, and received social support than nurses with a lower SOC.
Orgambidez et al. (2020)	Explore the mediating effect of work engagement on the relationship between self-efficacy, job satisfaction, and affective organizational commitment.	Convenience sample of N= 321 Registered nurses, nursing assistants, members of a national nursing union	Descriptive-correlational study with surveys.	Self-efficacy: measured by the General Self- Efficacy Scale Work Engagement: measured by the Utrecht Work Engagement Scale- Job Satisfaction: measured by the job satisfaction scale Affective Organizational Commitment: measured by the Spanish version of the organizational commitment scale	Work engagement mediated the effects of self-efficacy on job satisfaction and affective organizational commitment.

Santos et al. (2016)	Study the mediating effect of work engagement on the associations between relational job characteristics and nurses' affective commitment to the hospital.	Convenience sample of N=335 Nurses from Portuguese hospitals.	Correlational survey design	Relational job characteristics: measured by the Portuguese version of relational job characteristics inventory Engagement: measured by the Portuguese version of the Utrecht Work Engagement Scale. Affective organizational commitment: measured by a Portuguese instrument created by Meyer.	Work engagement medicated the effect of job characteristics on affective commitment to the hospital.
Shahpouri et al. (2016)	Investigate the mediating effect of work engagement on the relationship between job resources and personal resources and turnover intention among female nurses at Isfahan Alzahara Hospital.	A convenience sample of N=208 female nurses at Isfahan Alzahara Hospital	A non-experimental and structural equation modeling study.	Work engagement: measured by the Utrecht Work Engagement Scale. Personal resources: measured by the Personal resource inventory Job resources: measured by the Job Resources inventory Turnover intention: measured by the Turnover intention inventory	1) Personal resources had direct and positive effects on work engagement. 2) Work engagement had negative and direct effects on turnover intention. 3) Work engagement did not mediate the effect of personal and job resources on turnover intention.
Suzuki et al. (2015)	Explore the effects of grit on work engagement, orientations towards happiness, conscientiousness, and self-control.	A population-based sampling of all N= 1,134 adults who voluntarily completed self-report questionnaires.	A population-based cross-sectional survey.	Grit: measured by The Japanese Grit Scale Happiness: measured by the Orientation to Happiness scale Personality: measured by Big Five personality scale Self-Control: measured by Self-control scale Work engagement: measured by the Utrecht Work Engagement Scale	1) Orientations towards happiness, conscientiousness, and self-control were significant predictors for grit. 2) Grit, orientations towards happiness, conscientiousness, and self-control were significant predictors for work engagement.

CHAPTER 3

WORK ENGAGEMENT, BURNOUT, AND WELL-BEING IN NURSING PROFESSIONAL DEVELOPMENT PRACTITIONERS

INTRODUCTION

Manuscript two was submitted to the *Journal for Nursing Professional Development* for peer review on February 9, 2023. Manuscript two was assigned number JNPD-D-23-00012. Chapter three of this article-based dissertation includes an abstract and a copy of the submitted manuscript. Submission confirmation can be found in Appendix B.

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Criteria	Author Initials
Made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;	MP, RU
Involved in drafting the manuscript or revising it critically for important intellectual content;	MP, RU
Given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content;	MP, RU
Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.	MP

Abstract

Work engagement, burnout, and well-being in nursing professional development practitioners during the second year of COVID-19 were explored. Increased levels of work engagement were associated with decreased burnout and higher levels of well-being. Significant differences were noted in work engagement and burnout among those with more than one year of experience. Examining the health of the specialty highlights current concerns and provides insight into developing interventions to address the consequences of the pandemic.

Work Engagement, Burnout, and Well-being in Nursing Professional Development Practitioners

The educational and professional development needs of nurses do not cease upon graduation from a nursing program. The knowledge and skills of a registered nurse (RN) in the practice setting are maintained through ongoing education provided by nursing professional development (NPD) practitioners. The Association for Nursing Professional Development

(ANPD, 2021b), with over 6,200 members, is the professional nursing organization that supports NPD practitioners in the United States. Unfortunately, not all NPD practitioners are members of this professional organization. Therefore, the number of practicing NPD practitioners in the United States is unknown.

With 6,090 hospitals in the United States, it is difficult to estimate the number of NPD practitioners who support the 4.3 million RNs actively working in the United States (American Hospital Association, 2021; National Council of State Boards of Nursing, 2021). A survey conducted by ANPD revealed that 97.2% of the respondents (*n*=2,317) supported healthcare professionals, including registered nurses, unlicensed personnel, and ancillary staff (ANPD, 2021a). Additionally, almost half of the respondents (52%, *n*=2,317) supported more than 140 individuals illustrating the imbalance of NPD practitioners to the large number of nurses they serve (ANPD, 2021a).

Review of Literature

The NPD practitioner is an experienced RN committed to promoting lifelong learning, role development, and professional growth in the learners of the interprofessional environment with the desired outcome of improving population health (Harper & Maloney, 2022). The role of NPD practitioners has evolved since the inception of staff development, from coordinating and delivering inservices to a much more encompassing role that supports the dynamic environment of healthcare. The NPD practitioner is a stakeholder in assisting organizations as they develop action plans to meet the recommendations put forth by the Future of Nursing Report 2020-2030 (National Academies of Science, Engineering & Medicine[NASEM], 2021) and regulatory bodies such as the Joint Commission and Centers for Medicare Medicaid Services.

Although not on the frontlines of the pandemic, the NPD practitioner was not immune to the demands caused by the pandemic. The effects of COVID-19 on healthcare illuminated the NPD practitioner's ability to pivot rapidly to meet the educational needs of the nursing staff. For example, during the COVID-19 pandemic, NPDs were charged with ensuring nursing staff had the knowledge and skill to properly wear their personal protective equipment and assist the staff in adapting to the fluid situation of the crisis (Schivinski & McNulty, 2021). Strategies adopted to respond to the pandemic included virtual onboarding, just-in-time education, and unit-based orientation (Weiss et al., 2020), cross-training of staff (Breaux, 2021), collaborating with infection prevention (Edwards et al., 2021), and implementing virtual nurse residency programs (Malone et al., 2021). In addition, NPD practitioners are instrumental in identifying nurses' learning needs and providing support for the mental health of nurses, including the development of Peer Advisor Programs and Resilience Training Programs (Cook et al., 2021; Irwin et al., 2021). However, little is known about adapting to a changing environment has disrupted the work of NPD practitioners, affecting their well-being, work engagement, and contributing to burnout.

Work engagement is a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli & Bakker, 2004). Work engagement is positively associated with patient safety (Carton et al., 2019) and can be predicted by nurse-related factors such as the adaptability to change, level of burnout, perception of self-worth, and the age of the nurse (Pericak et al., 2020). High levels of work engagement were found in nurse leaders with doctorate level education (Remegio et al., 2021; Shaughnessy et al., 2018). The nurse leader's role in fostering a healthy work environment promotes work engagement

(O'Rourke, 2021). However, research has yet to illuminate what is known about work engagement and NPD practitioners.

Burnout is a state that occurs when job demands are high, and job resources are low, and is characterized by exhaustion and disengagement (Demerouti et al., 2001). The prevalence of burnout and work engagement in direct patient care and nursing leadership has been the subject of recent global studies. Perez-Fuentes et al. (2019) examined the characteristics of burnout in a sample of nurses and found that burnout correlated negatively with the three dimensions of work engagement and negatively correlated with personality factors such as agreeableness, openness, and extraversion. Furthermore, Kelly et al.(2019) found that nurse leaders with less experience were more likely to report symptoms of burnout. Jun et al. (2021) reported that organizational outcomes such as patient safety, quality care, nurses' organizational commitment, and patient satisfaction were associated with nurse burnout. Burnout in NPD practitioners has not been explored in recent research.

Finally, well-being is a state of overall good physical and mental health, suitable quality of life characterized by happiness, and low levels of distress (American Psychological Association, 2020). The NASEM (2019) released the “Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-being” report calling for immediate action to address burnout, highlighting the importance of healthcare workers’ well-being. Bakker and Demerouti (2018) reported that occupational well-being determines employees' functioning and job performance. Additionally, Munn et al. (2021) revealed that the decrease in the well-being of healthcare workers was caused by a deficit of personal and job resources and increased job demands. Moreover, nurse leaders are responsible for creating and maintaining culture by

building the team members' well-being and resilience (Bernard, 2019). However, NPD practitioners have not been the focus of research on professional well-being.

Theoretical Framework

The theoretical framework guiding this study is the Job Demands Resource (JD-R) Theory. In this theory, Bakker and Demerouti (2008) postulate that job resources and personal resources, either independently or combined, can influence work engagement. Additionally, the theory suggests that the presence of job resources and personal resources have a buffering effect on job demands, preventing burnout. Job resources are aspects of the job that start the motivational process, such as social support from peers and supervisors, performance feedback, skills variety, and autonomy (Bakker & Demerouti, 2008). In the JD-R theory, personal resources can be any resources ultimately contributing to one's sense of well-being, such as self-efficacy, optimism, hope, and self-esteem (Xanthopoulou et al., 2007). Therefore, the JD-R theory can be utilized to evaluate the state of work engagement, burnout, and well-being in the NPD practitioner.

Conclusion, problem, and purpose statements for the study

Work engagement, burnout, and well-being in the NPD practitioner have not been the focus of recent research efforts. Yet, the support of NPD practitioners for the professional development of nurses plays an important role in providing safe and timely patient care. Therefore, the purpose of this study is to accomplish the following research objectives: (1) to describe the phenomenon of work engagement, burnout, and well-being in NPD practitioners; (2) to explore the relationships between work engagement, burnout, and well-being among NPD practitioners; (3) to compare the differences between work engagement, burnout, and

well-being in NPD practitioners with less than one year of experience with those with greater than one year of experience; and (4) and to compare the differences between work engagement, burnout, and well-being in NPD practitioners who were deployed to direct patient care with those NPD practitioners who did not deploy during COVID-19**.**

Methods

Research Design and Sample

This study utilized a cross-sectional, descriptive, associational, comparative design. Approval for the study was provided by the university's Institutional Review Board (IRB # 2022-0319). Using convenience sampling, participants were invited to participate in the web-based survey using emails from the ANPD active membership list. Participants were also recruited using an IRB -approved announcement on ANPD's social media platforms, such as Facebook, Twitter, and LinkedIn. Informed consent was obtained from the participants at the beginning of the survey. The inclusion criteria for participation in the study included individuals aged 18 and older and actively working full-time or part-time as staff development, nursing professional development, or clinical educator in the practice setting. Based on the ANPD membership list, over 6,000 members were contacted via email with an invitation to participate. However, the number of individuals who viewed the ANPD social media study announcement and decided to respond is unknown.

Measures

An online survey was created using QuestionPro, an online data collection program approved by the IRB for collecting human subjects research data. There were seven sections of the survey: (1) informed consent and inclusion/exclusion questions, (2) demographics, (3)

academic and employment characteristics, (4) work engagement, (5) burnout, and (6) and well-being.

The demographics section included questions about the participant's age, gender, ethnicity, partner status, and caregiving for children. The academic and employment characteristic section asked the participants questions about their highest earned nursing degree and their previous experience working in healthcare.

Work engagement. Participants' level of work engagement was measured using the 9-item Short Version of the Utrecht Work Engagement Scale (UWES). The UWES measures three domains: 1) Vigor, 2) Dedication, and 3) Absorption. The Short Version of the UWES uses a 6-point Likert scale, and the mean scale scores range from 0- 6, with higher scores indicating higher work engagement (Schaufeli et al., 2006). The UWES has established factorial validity and has demonstrated acceptable internal consistency reliability with Cronbach alpha values greater than 0.70 each for the individual subscales and a total Cronbach alpha of 0.92 (Schaufeli et al., 2006). The Cronbach alpha for the current study was 0.92.

Burnout. Participants' level of burnout was measured using the 16-item Oldenburg Burnout Inventory (OLBI). The OLBI measures two core dimensions of burnout: 1) Exhaustion and 2) Disengagement with four reverse scoring questions in each domain to a total of eight reverse scoring questions. The OLBI uses a 4-point Likert scale, with sub-scales typically used for reporting results rather than total scores. Higher subscale scores indicate higher levels of burnout (Demerouti et al., 2010; Demerouti et al., 2019; & Peterson et al., 2008). The OLBI subscales are evaluated individually. The cutoff mean scores for the two subscales were based on the cutoff mean scores utilized by Peterson et al. (2008) study on healthcare burnout. The

inventory tool has demonstrated acceptable internal consistency reliability with Cronbach alpha values greater than 0.70, and factorial and construct validity were found to be appropriate (Demerouti et al., 2010). The Cronbach alpha for the current study was 0.91.

Well-being. Participants' level of well-being was measured using the 9-item Nurse Well-being Index. The Nurse Well-being Index measures six concepts: 1) Burnout, 2) Depression, 3) Emotional exhaustion, 4) Fatigue, 5) Stress, and 6) Quality of life. The measurement tool uses seven 'yes or no' questions and two questions using a 7-point Likert Scale. The total score for the Nurse Well-being Index ranges from -2 (lower risk) to 9 (highest risk), with a score of greater than 2 is considered an at-risk score (Drybe et al., 2010). The tool has demonstrated acceptable internal consistency reliability with Cronbach alpha values greater than 0.70, and 74% sensitivity and specificity ranged from 63% -100% for detecting distress. Convergent and content validity were found to be appropriate greater than 0.90 (Drybe et al., 2010). The Cronbach alpha for the current study was 0.72.

Data Collection

The study data were collected over five weeks during April-May 2022 using an initial email invitation and one follow-up reminder email. Participants completed the survey in a place and at a time of their choosing with their preferred electronic device, including a cellular phone, laptop, or tablet. Once the survey closed, the study data were imported from QuestionPro to a password protected shared drive accessible only by the study investigators.

Over 6,000 nurses were contacted via email and invited to participate in the study. Out of these, 666 participants responded to the survey. Of these, 87 did not meet the inclusion criteria for participation, and 37 provided incomplete survey responses. The incomplete

responses were removed from the survey database. The final sample for analysis consisted of data from 542 participants. An a priori power analysis was calculated using G*Power 3.1 for Mac. A minimum of 84 participants was required to test our primary study hypothesis of an anticipated association between work engagement, burnout, and well-being in NPD practitioners. Taking a conservative approach, the sample size estimations were based on a moderate effect size (Pearson correlation coefficient), with an alpha of 0.05 and a beta of 0.20 (Grove & Cipher, 2020).

Data Analysis

SPSS version 27 was utilized to conduct the data analyses. The data were first reviewed for completeness. The characteristics of the sample are summarized using descriptive statistics. Continuous parameters are reported as means ± standard deviations. Categorical variables are presented as frequencies and percentages.

The items from the UWES, OLBI, and the Well-being Index were analyzed for missing data. A Little's Test was performed to evaluate if the missing data were completely missing at random. The Little's Test resulted in nonsignificant findings, $X^2(22.68)= 28$, $p= 0.75$, indicating the missing data were likely missing completely at random. Missing data imputation was addressed with the Expectation Maximization algorithm (Emmanual et al., 2021). Shapiro-Wilk test was computed on the UWES, OLBI, and Well-being Index to assess normality. A Spearman rank-order coefficient test were computed to identify associations between continuous variables.

Participants were grouped by those with less than one year of experience with, those with greater than one year of experience, and grouped by those who deployed to direct patient

care, and those who did not deploy during COVID-19 for analysis**.** Inspired by Patricia Benner's Novice to Expert model of skill acquisition, years of experience were dichotomized. A Mann Whitney U test were computed to identify the differences between NPD practitioners with less than one year of experience with those with greater than one year of experience on the UWES, OLBI, and Well-being Index. Additionally, a Mann Whitney U test were computed to identify the differences between NPD practitioners who deployed to direct patient care and those who did not deploy during COVID-19 on the UWES, OLBI, and Well-being Index. All tests were two-tailed with a study alpha of 0.05.

Results

The majority of the participants were female (95.8%, n=519) and Caucasian (86.7%, n=470). The mean age of the participants was 46.5 years (*SD*=10.9). Participants reported being in a married/ long-term committed relationship (78%, n= 423), and 43.4% (n=235) reported providing care for children under the age of 18. Over half reported having a master's degree (64.6%, n= 350) with an average NPD experience of 7.2 years (*SD*=6.7). A large portion of the sample reported not being redeployed to the bedside during COVID-19 (64.4%, n=349), and most reported taking on additional duties (79.9%, n= 433). For additional information about the sample's demographic and employment characteristics, see Supplemental Digital Table 1.

Supplemental Digital Table 1

Demographic and Employment Characteristics of the Sample

	N, %	**(m, SD, range)**
Age n= 533	Continuous in years	*x* = 46.5, *SD*= 10.9, *range*=24-78
Sex/Gender n=540	Male (20) 3.7% Female (519) 95.8% Other (1) 0.2%	

Ethnicity n=541	Caucasian, (470) 86.7% Black/ African, (21) 3.9% Hispanic/ Latinx, (10) 1.8% Asian/ Pacific Islander, (16) 3% Other (24) 4.5%	
Partner n=541	Single / never married, (51) 9.4% Married/long-term committed relationship, (423) 78% Separated/Divorced/Widowed, (59) 10.9% Other (8) 1.5%	
Children (Providing care for children under 18) n=542	No; (307) 56.6% Yes (235) 43.4%	
Degree n=542	Associates, (8) 1.5% Bachelors, (119) 22% Masters, (350) 64.6% Doctorate, (64) 11.8% Other (1) 0.2%	
Previous area of Clinical Experience n=542	Intensive Care, (111) 20.5% Telemetry / Progressive Care, (61) 11.3% Medical-Surgical, (95) 17.5% Peri-operative Services (Pre-Op, OR, PACU, Day surgery), (51) 9.4% Emergency Department / Urgent Care, (57) 10.5% Women's Services / Neonatal Intensive Care, (55) 10.1% Other (112) 20.7%	
Years of nursing experience n= 542	Continuous in Years	*x* = 14.3, *SD*= 8.9, *range*=1-50
NPD setting n=542	Acute care hospital, (469) 86.5% Long-term acute care hospital/rehab hospital, (0) Nursing home, (3) 0.6% Outpatient or clinic setting, (24) 4.4% 4=Other (46) 8.5%	
Hospital type n=536	County Hospital / Public Hospital / Critical Access Hospital, (187) 34.5% Large private hospital (325+ beds), (221) 40.8% Medium private hospital (76 – 325 beds), (116) 21.6% Small private hospital (less than 75 beds) (12) 2.2%	
Years of NPD experience n=465	Continuous in Years	*x* =7.2, *SD*= 6.7, *range*= 0.2-42
# Staff responsible n=540	Less than 50, (58) 10.7% 51-100, (86) 15.9% Greater than 100 (396) 73.1%	
Board Certified n=540	Yes, (136) 25.1% No (404)74.5%	

Certification Type	NPD-BC, (258) NPDA-BC, (7) CNE, (14) Other _____	
Training n=542	No (244) 45% Yes, (298) 55%	
Department organization n=542	Centralized, (329) 60.7% Decentralized, (128) 23.6% Other (85) 15.7%	
Redeployed to direct patient care n=542	No (349) 64.4% Yes, (193) 35.6%	
Length of redeployment (months) n= 149	Continuous variable	*x* = 5.5, *SD= 5.8, range*= 0.1-26
NPD assumed additional duties n=542	No (109) 20.1% Yes, (433) 79.9%	
How made aware of study n=541	Email (ANPD), (458) 84.5% Social Media (Facebook, Twitter, LinkedIn), (25) 4.6% From a friend or colleague (58) 10.7%	

Study Aim #1: To describe the phenomenon of work engagement, burnout, and well-being in NPD practitioners

The prevalence of work engagement, burnout, and well-being for the sample is illustrated by mean scores or total scores and subscales in Supplemental Digital Table 2. The total mean score for the UWES was 4.07 (*SD*= 0.96), with scores between 2.89- 4.66 considered average levels of work engagement (Schaufeli & Bakker, 2004). An overall 59.9% of study participants reported average levels of work engagement. The mean score for subscale UWES Vigor was 3.59(*SD*=1.19), where scores between 3.26- 4.80 are considered average levels of vigor (Schaufeli & Bakker, 2004). Over half (54.8%, n=542) of the participants reported an average level of vigor. The mean score for subscale UWES Absorption was 4.27(*SD*=0.94), with scores between 4.21-5.33 considered high absorption levels (Schaufeli & Bakker, 2004). More than half (58.7%, n=542) of the participants reported high absorption levels. Lastly, the mean score for subscale UWES Dedication was 4.32(*SD*=1.08), with a score between 2.91- 4.70 considered

an average level of dedication (Schaufeli & Bakker, 2004). A little over half (53.3%, n=542) reported average levels of dedication.

The mean score for the OLBI subscale of disengagement was 2.34 (*SD*=0.55), with a cutoff score of 2.1 illustrating a high level of disengagement (Peterson et al., 2008), and 70.8% of the participants self-reported high levels of disengagement. The mean score for OBI exhaustion was 2.55 (*SD*=0.54), with a cutoff score of 2.25 indicating high levels of exhaustion in study participants (Peterson et al., 2008). A large majority of the participants, 73.4%, reported high levels of exhaustion. Lastly, the total score for WBI was 2.44 (*SD*=2.57) above the cutoff of 2, indicating low well-being and a high-risk score for distress (Dyrbe et al., 2018). Over half of the participants (63.1%, *n*= 542) reported low well-being.

Study Aim #2: To explore the relationships between work engagement, burnout, and well-being among NPD practitioners

Spearman correlations were computed among the sub-scales and mean or total scores for work engagement, burnout, and well-being. The correlation coefficients of all study variables were significant ($p<0.001$). Increased levels of work engagement were observed to be inversely related to the subscales of burnout, disengagement and exhaustion ($p<0.001$) and positively related to higher levels of well-being ($p<0.001$). Additionally, increased levels of disengagement and exhaustion were noted to be inversely related to well-being ($p<0.001$). See Supplemental Digital Table 2.

Supplemental Digital Table 2

Means, Standard Deviations, and Bivariate Correlations

	Mean	*SD*	1	2	3	4	5	6	7
1.UWES_Vigor	3.59	1.19	_						

2. UWES_ Dedication	4.33	1.08	0.799**	_					
3.UWES_Absorption	4.28	0.94	0.632**	0.680**	_				
4.UWES_Total	4.07	0.96	0.92**	0.926**	0.831**	_			
5.OBI_Disengagement	2.34	0.55	-0.683**	-0.749**	-0.521**	-0.733**	--		
6.OBI_Exhaustion	2.56	0.54	-0.662**	-0.592**	-0.393**	-0.624**	0.716**	--	
7.WBI_Total	2.44	2.57	-0.563**	-0.540**	-0.345**	-0.545**	0.668**	0.778**	--

** Correlation is significant at the 0.01 level (2-tailed)

UWES- Utrecht Work Engagement
OBI- Oldenburg Burnout Inventory
WBI- Well-being Index

Study Aim #3: To compare the differences between work engagement, burnout, and well-being in NPD practitioners with less than one year of experience with those with greater than one year of experience.

A Mann Whitney U test was computed to identify the differences between NPD practitioners with less than one year of experience (*n*=60) with those with greater than one year of experience (*n*=394) on the UWES and OLBI subscales, and Well-being Index. NPD practitioners with less than one year of NPD experience reported significantly higher levels of vigor, $z = -2.39$; $p = 0.02$, and work engagement overall, $z = -2.12$; $p=0.03$ than their counterparts with greater than one year of experience. Those with more than one year of NPD experience reported significantly higher levels of disengagement, $z = -2.65$; $p=0.01$, and higher levels of exhaustion, $z= -4.43$; $p < 0.001$. No significant differences were noted in UWES absorption, UWES dedication, and WBI total.

Study Aim #4: To compare the differences between work engagement, burnout, and well-being in NPD practitioners who were deployed to direct patient care with those NPD practitioners who did not deploy during COVID-19.

A Mann Whitney U test was computed to identify the differences between NPD practitioners who reported being deployed to direct patient care (*n*=193) and those who did not deploy during COVID-19 (*n*=394) on the UWES, OLBI, and Well-being Index. No significant difference between all study variables was noted between those who deployed and those who did not.

Discussion

This study was the first to explore NPD practitioners' perceptions of work engagement, burnout, and well-being. The research objectives were to describe and explore the associations of work engagement, burnout, and well-being in NPD practitioners. Additionally, the study aimed to compare the differences between work engagement, burnout, and well-being in NPD practitioners with less than one year of experience with those with greater than one year of experience and NPD practitioners who were deployed to direct patient care with those NPD practitioners who did not deploy during COVID-19**.**

Work Engagement

Levels of work engagement among study participants showed that even 2.5 years after the start of the pandemic, NPD practitioners were able to maintain an average level of work engagement and high levels of absorption. It is important to note the strong association between work engagement and disengagement and exhaustion, as work engagement increases, disengagement and exhaustion decrease. Characteristics of absorption are

demonstrated by an employee's full concentration and complete immersion in their work (Schaufeli et al., 2006). This novel finding underscores the commitment of NPD practitioners to their profession, even during the COVID-19 pandemic.

Burnout

High levels of exhaustion and disengagement, representing burnout, were noted among all study participants. Additionally, study results demonstrated as exhaustion and disengagement increased, there was an increased risk for distress and a decrease in overall work engagement. These results are seminal findings for the specialty of NPD. The current study produced burnout results similar to the state of well-being report (Well-being Index, 2021). Study findings aligned with Perez-Fuentes et al. (2019) pre-pandemic results that found direct patient nurses' burnout levels were associated with decreased work engagement.

Additionally, study findings revealed that NPD practitioners with more than one year of NPD experience had higher levels of disengagement and exhaustion. The two core components of burnout, exhaustion, and disengagement, are the symptoms and characteristics of individuals experiencing burnout. This finding contradicts the findings of pre pandemic literature reporting that nurse leaders with less than one year of experience encountered more burnout symptoms than their more tenured colleagues (Kelly et al., 2019). However, the current study results are consistent with a study conducted during the pandemic revealed that nurses both in direct patient care and nurse leaders with more than 11 years of experience had a greater negative impact from COVID-19 (Raso et al., 2021). It is likely with the constant pressure to adapt to the ever-changing environment during the height of the pandemic, such as adopting technological strategies to meet the learning needs of healthcare workers, NPD

practitioners with more than one year of experience may have to quickly adopt virtual platforms that they were not accustomed to using.

Lastly, the current study yielded surprising findings. Compared to the NPD practitioners who did not return to the bedside, those who deployed to the bedside experienced no significant difference in work engagement, burnout, and well-being. This finding coincides with pre pandemic studies of healthcare workers in direct and nondirect patient care roles, exemplifying that role itself did not predict burnout; however, higher hours worked (Dyrbe et al., 2021) and lack of sleep contributed to burnout (Lin et al., 2021). Findings indicate nurses in nondirect patient care roles, whether deployed to direct patient care roles or not, were also vulnerable to the stressors of the pandemic.

Well-being

Study participants reported low levels of well-being and a high risk for distress. The present findings are consistent with the comprehensive report of the state of well-being of healthcare workers (Well-being Index, 2021), revealing 58.1% (n=28,796) of nurses reported high levels of distress, similar to our study findings of 63.1%. These results support study outcomes conducted during the pandemic of direct patient facing healthcare workers who experience pervasive stress levels (Arnetz et al., 2020) and nondirect patient-facing nurses who experienced stress, frustration, and exhaustion (American Nurses Foundation, 2022). Additionally, the current study findings corroborate the pandemic findings of Munn et al. (2021), who uncovered that there was no difference between healthcare worker roles and the risk for distress.

Implications for NPD Practice

NPD practitioners are typically not the focus of nursing research. However, examining the health of the specialty can highlight the current state, raise awareness of the organizational value of NPD practitioners, and provide insight to develop interventions to address the consequences of the pandemic. NPD practitioners are instrumental in improving newly licensed nurse retention rates, lower turnover rates, and increasing patient experience (Harper et al., 2022). Advocating for the specialty includes advocating for the health of those who work in NPD.

NPD practitioners are role models and have the ability and the platform to influence those they serve. A level of self-awareness of the NPD practitioners' personal resources and the willingness to nurture self-efficacy, resilience, optimism, meaning and mattering, and hardiness and grit in self and others may promote work engagement, prevent burnout, and enhance well-being (Porter & Wang, 2022). Therefore, awareness of self and how it emits to others is the first step in developing strategies to promote well-being.

Limitations

This study used convenience sampling from the ANPD active member list and social media announcements, which may limit generalizability. Not all NPD practitioners are ANPD members or have social media accounts. Additionally, the study utilized a cross-sectional correlational design which limits the causation of study findings. The length of the survey may have caused respondents to exit the survey prematurely, resulting in missing data.

Future Research

Future research should examine the impact of NPD practitioners' work engagement, burnout, and well-being on those they serve and on organizational outcomes. Qualitative

studies are needed to explore how professional well-being is exemplified in NPD practitioners, what promotes or is a barrier to well-being, and what would enhance their work engagement. Additionally, evidence-based interventions that prevent burnout and promote resilience and well-being in NPD practitioners are needed.

Conclusion

NPD practitioners, along with direct patient care nurses, were impacted by the challenges of the pandemic. However, until now, work engagement, burnout, and well-being in NPD practitioners have not been explored. Understanding how NPD practitioners may experience burnout, work engagement, and well-being is a first step to inform actions to advocate for the professional well-being of the specialty.

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References

American Hospital Association (2021). *Fast facts on U.S. hospitals, 2021.* https://www.aha.org/statistics/fast-facts-us-hospitals

American Nurses Foundation. (2022). *Pulse on the nation's nurses COVID-19 survey series: COVID-19 impact assessment survey- The second year.* https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/what-you-need-to-know/covid-19-impact-assessment-survey---the-second-year/

American Psychological Association. (2020). *Well-being.* https://dictionary.apa.org/well-being

Arnetz, J. E., Goetz, C. M., Arnetz, B. B., & Arble, E. (2020). Nurse reports of stressful situations during the COVID-19 pandemic: Qualitative analysis of survey responses. *International Journal of Environmental Research and Public Health*, *17*(21), 8126. https://doi.org/10.3390/ijerph17218126

Association for Nursing Professional Development. (2021a). *2021 nursing professional development salary survey.* https://www.anpd.org/d/do/2796

Association for Nursing Professional Development. (2021b). *ANPD mission and goals.* https://www.anpd.org/page/about

Bakker, A.B & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209-223. https://doi.org/10.1108/13620430810870476

Bakker, A.B, & Demerouti, E. (2018). Multiple levels in job demands-resources theory:

Implications for employee well-being and performance. In E. Deiner, S. Oishi, and L.Tay (Eds). *Handbook of well-being.* DEF Publishers.

Bernard, N. (2019). Resilience and professional joy: A toolkit for nurse leaders. *Nurse Leader*, *17*(1), 43–48. https://doi.org/10.1016/j.mnl.2018.09.007

Breaux, A. (2021). Nurse extender orientation program: Transitioning displaced staff to support acute care nurses in response to COVID-19. *Journal for Nurses in Professional Development, 37*(5), 315-316. https://doi.org/10.1097/NND.0000000000000711

Carthon, M.M., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., Sanders, A.M., Visco, F., Holland, S., Ballinghoff, J., Guidice, M.D.,& Aiken, L.H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of Nursing Care Quality, 34*(1), 40-46. https://doi.org/10.1097/NCQ.0000000000000334

Cook, M., Gehrich, P., & Price, A. M. (2021). Enhancing support for new graduate nurses: Implementation of a peer advisor program. *Journal for Nurses in Professional Development*, *37*(2), 114–116. https://doi.org/10.1097/NND.0000000000000677

Demerouti, E., Schaufeli, W., & Nachreiner, F. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512. https://psycnet.apa.org/doi/10.1037/0021-9010.86.3.499

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology*, *15*(3), 209–222. https://doi.org/10.1037/a0019408

Demerouti, E., Veldhuis, W., Coombes, C., & Hunter, R. (2019). Burnout among pilots: Psychosocial factors related to happiness and performance at simulator training. *Ergonomics*, *62*(2), 233–245. https://doi.org/10.1080/00140139.2018.1464667

Dyrbye LN., Johnson PO, Johnson LM, Satele DV, & Shanafelt TD. (2018). Efficacy of the well-being index to identify distress and well-being in U.S. nurses. *Nurs Res., 67*(6):447-455. https://doi.org/10.1097/NNR.0000000000000313.

Dyrbye, L. N., Major-Elechi, B., Thapa, P., Hays, J. T., Fraser, C. H., Buskirk, S. J., & West, C. P. (2021). Characterization of nonphysician health care workers' burnout and subsequent changes in work effort. *JAMA Network Open*, *4*(8), e2121435. https://doi.org/10.1001/jamanetworkopen.2021.21435

Edwards, P., Green, K., & Sturdivant, M. (2021). Collaboration between infection prevention and clinical education in response to COVID-19. *Journal for Nurses in Professional Development, 37*(1), 66-68. https://doi.org/10.1097/NND.0000000000000684

Emmanuel, T., Maupong, T., Mpoeleng, D., Semong, T., Mphago, B., & Tabona, O. (2021). A survey on missing data in machine learning. *Journal of Big Data*, *8*(1), 140. https://doi.org/10.1186/s40537-021-00516-9

Grove, S. & Cipher, D. (2020). *Statistics for nursing research: A workbook for evidence-based practice(3rd ed.).*Elsevier.

Harper, M. G., & Maloney, P. (Eds.) (2022). *Nursing professional development: Scope and standard of practice (4th ed.).* Association for Nursing Professional Development.

Harper, M. G., Maloney, P., Aucoin, J., & MacDonald, R. (2022). Findings from the 2021 organizational value of nursing professional development practice study, part 2: Relationships between nursing professional development staffing and organizational outcomes. *Journal for Nurses in Professional Development, 38(*5), 265–272. https://doi.org/10.1097/NND.0000000000000919

Irwin, K. M., Saathoff, A., Janz, D. A., & Long, C. (2021). Resiliency program for new graduate nurses. *Journal for Nurses in Professional Development, 37(*1), 35–39.https://doi.org/10.1097/NND.0000000000000678

Jun, J., Ojemeni, M.M., Kalamani, R., Tong, J., & Crecelius, M.L. (2021). Relationship between nurse burnout, patient and organizational outcomes: Systematic review. *International Journal of Nursing Studies, 119.* https://doi.org/10.1016.j.ijnurstu.2021.103933

Kelly, L.A., Lefton, C., & Fischer, S.A.(2019). Nurse leader burnout, satisfaction, and work-life balance. *Journal of Nursing Administration, 49*(9), 404-410. https://doi.org/10.1097/NNA.0000000000000784

Lin, R., Lin, Y., Hsia, Y., & Kuo, C. (2021). Long working hours and burnout in health care workers: Non-linear dose-response relationship and the effect mediated by sleeping hours—A cross-sectional study. *Journal of Occupational Health*, *63*(1), e12228. https://doi.org/10.1002/1348-9585.12228

Malone, M., Elsa, J., & Ridgeway, P. (2021). Rapid deployment of a virtual nurse residency Program: Virtually no idea where to start. *Journal for Nurses in Professional Development, 37*(2), 87-92. https://doi.org/10.1097/NND.0000000000000683

Munn, L., Liu, T., Swick, M., Rose, R., Broyhill, B., New, L., & Gibbs, M. (2021). Well-being and

resilience among health care workers during the COVID- 19 pandemic: A cross-sectional study. *American Journal of Nursing, 121*, (8), 24-34. https://doi.org/10.1097/01.NAJ.0000767352.47699.0c

National Council of State Boards of Nursing. (2021). *Active RN licenses*. https://www.ncsbn.org/NND/Statistics/Archive/Aggregate-RNActiveLicensesTable2021.pdf

National Academies of Sciences, Engineering, and Medicine 2019. *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*. The National Academies Press. https://doi.org/10.17226/25521.

National Academies of Sciences, Engineering, and Medicine. (2021). *The future of nursing 2020-2030: Charting a path to achieve health equity*. The National Academies Press. https://doi.org/10.17226/25982

O'Rourke, M. W. (2021). Work engagement: Passion- Role clarity connection in a turbulent time. *Nurse Leader,* 204- 209. https://doi.org/10.1016/j.mnl.2020.11.006

Perez-Fuentes, M., Jurado, M., Martinez, A., & Linares, J.J. (2019). Burnout and engagement: Personality profiles in nursing professionals. *Journal of Clinical Medicine, 8*, 286. https://doi.org/10.3390/jcm8030286

Pericak, A., Hogg, C.W., Skalsky, K., & Bourdeanu, L. (2020). What influences work engagement among registered nurses: Implications for evidence-based action. *Worldviews on Evidence-Based Nursing,* 1-10. https://doi.org/10.1111/wvn.12469

Peterson, U., Demerouti, E., Bergström, G., Samuelsson, M., Åsberg, M., & Nygren, Å. (2008). Burnout and physical and mental health among Swedish healthcare workers. *Journal of*

Advanced Nursing, *62*(1), 84–95. https://doi.org/10.1111/j.1365-2648.2007.04580.x

Porter, M. & Wang, J. (2022). Personal resources and work engagement: A literature review. *The Journal of Continuing Education in Nursing, 53*(3), 115-121. https://doi.org/10.3928/00220124-20220210-06

Raso, R., Fitzpatrick, J. J., & Masick, K. (2021). Nurses' intent to leave their position and the profession during the COVID-19 pandemic. *JONA: The Journal of Nursing Administration*, *51*(10), 488–494. https://doi.org/10.1097/NNA.0000000000001052

Remegio, W., Rivera, R. R., Griffin, M. Q., & Fitzpatrick, J. J. (2021). The professional quality of life and work engagement of nurse leaders. *Nurse Leader*, *19*(1), 95–100. https://doi.org/10.1016/j.mnl.2020.08.001

Schaufeli, W. & Bakker, A. (2004). Utrecht engagement scale: Preliminary manual. https://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_English.pdf

Schaufeli, W., Bakker, A., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Education and Psychological Measurement, 66*(4), 701-716. https://doi.org/10.1177/0013164405282471

Schivinski, E., & McNulty, D. (2021). COVID-19: A new reality for nursing professional development practitioners and newly licensed nurses. *Journal for Nurses in Professional Development*, *37*(1), 50–53. https://doi.org/10.1097/NND.0000000000000686

Shaughnessy, M., Griffin, M.T., Bhattacharya, A., & Fitzpatrick, J.J. (2018). Transformational leadership practices and work engagement among nurse leaders. *Journal of Nursing*

Administration, 48(11), 574-579. https://doi.org/10.1097/NNA.0000000000000682

Warren, J. I., & Harper, M. G. (2017). Transforming roles of nursing professional development practitioners. *Journal for Nurses in Professional Development*, *33*(1), 2–12. https://doi.org/10.1097/NND.0000000000000320

Weiss, R., Kennel, J., Lakdawala, L., Anzio, N., Klamut, K., Lucas, W., Antinori-Lent, K., and Mininni, N. (2021). Nursing professional development specialist's role in adapting education, onboarding, and just-in-time education during the COVID-19 pandemic. *Journal for Nurses in Professional Development, 37*(3), 143-146. https://doi.org/10.1097/NND.0000000000000700

Well-being Index. (2021). *State of well-being 2021-2022 report*. https://www.mywellbeingindex.org/state-of-well-being-2021-2022-report

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, *14*(2), 121–141. https://doi.org/10.1037/1072-5245.14.2.121

Work Engagement, Burnout, and Well-being in Nursing Professional Development Practitioners

CHAPTER 4

Chapter four of this article-based dissertation includes a summary of the results of manuscript one (Porter & Wang, 2022) and manuscript two (Porter & Urban, under review). Additionally, the implications for NPD practitioners and the limitations of both manuscripts are described. Finally, directions for future research regarding NPD practitioners' work engagement, burnout, and well-being are provided.

Summary of Results

Work engagement, burnout, and well-being continue to be a point of discussion among nursing leaders and researchers. The effects of low work engagement, high burnout, and lack of well-being in nurses in direct patient care and leadership positions impact the nursing workforce and the patients they serve. The two manuscripts presented in this dissertation were the first to explore and evaluate work engagement, burnout, and well-being in nursing professional development (NPD) practitioners.

The two manuscripts presented in this dissertation contribute to the body of knowledge regarding the current state of the NPD specialty with regard to work engagement, burnout, and well-being. Utilizing the job demands resource (JD-R) theory, Porter & Wang (2022) focused on the construct of personal resources that influenced work engagement. Gaps were revealed in the literature related to work engagement and personal resources in NPD practitioners (Porter & Wang, 2022). Therefore, the literature reviewed for manuscript one included studies exploring work engagement in direct patient care nurses and nurse leaders, exemplifying the

need to explore further work engagement, burnout, and well-being in NPD practitioners (Porter & Wang, 2022). The second manuscript by Porter and Urban (under review) was the first observational study that focused on the health of the NPD specialty and aimed to describe, examine the relationships, and compare the differences in work engagement, burnout, and well-being in NPD practitioners. Study outcomes shed light that even two years into the pandemic, NPD practitioners were able to maintain an average level of work engagement. However, burnout levels were high and well-being levels were low.

Implications for NPD Practitioners

Manuscript One

The purpose of manuscript one was to review the current literature to identify the personal resources that influence work engagement, to identify strategies to improve work engagement, and to share implications for NPD practitioners. Although the literature reviewed was not explicitly related to NPD practitioners, this illuminated a gap in what is known about work engagement, specifically in NPD practitioners. Seven personal resources were identified as repeated themes supporting work engagement in direct patient care nurses and nurse leaders: self-efficacy, resilience and optimism, meaning and mattering, and hardiness and grit. The strategies for improving work engagement uncovered in the literature review were: developing organizational policies to support healthy work environments and employee personal resources, developing self-awareness programs, providing resilience and strengths training, and facilitating gratitude exercises. The findings of the literature review unveiled the lack of literature investigating the experiences of NPD practitioners with work engagement and provided direction on potential strategies to foster NPD work engagement.

Limitations

Manuscript one by Porter & Wang (2022) had several limitations. First, the literature review only included quantitative studies and excluded qualitative studies and other secondary sources. Due to the lack of quantitative research on work engagement, the studies included in the review examined personal resources in direct patient care nurses or nurse leaders utilizing the cross-sectional correlational study design, which cannot be used to infer causality. Lastly, the studies included in the literature review utilized self-report questionnaires, and various tools were used to measure the same variables, limiting the comparison of scores.

Manuscript Two

Because NPD practitioners have not been the focus of nursing research on work engagement, burnout and well-being, manuscript two highlighted the NPD specialty and provided insight on the consequences of COVID-19 in this population. The study objectives were to 1.) describe the study variables in NPD practitioners, 2.) explore the relationships between the study variables, 3.) determine if there were differences in NPD practitioners with less than one year of experience compared to those with greater than one year of experience, and 4.) determine if there were differences in NPD practitioners who were deployed to direct patient care during the pandemic with those who were not deployed (Porter & Urban, under review).

The study results indicated that two years into the pandemic, NPD practitioners maintained an average level of work engagement with high levels of absorption during COVID-19. Although NPD practitioners were engaged, study participants also reported high levels of burnout and low levels of well-being. The relationships between work engagement, burnout,

and well-being were all statistically significant. Work engagement levels were inversely related to burnout and positively related to well-being. Additionally, increased levels of burnout were inversely related to well-being.

Statistically significant differences were noted between NPD practitioners with less than one year of experience to those with greater than one year of experience. NPD practitioners with less than one year reported significantly higher levels of work engagement, and NPD practitioners with greater than one year of experience reported significantly higher levels of burnout. Lastly, no significant differences were found among NPD practitioners who deployed to direct patient care during the pandemic compared to those individuals who did not deploy.

Limitations

Manuscript two had several limitations. First, this study used convenience sampling from the ANPD active member list, potentially limiting the generalizability of study results. Using a probability sampling method, such as simple random sampling of the ANPD active member list may have decreased this limitation. Extraneous variables such as generational differences, fulltime and part time status of employment, work engagement, burnout, and well-being levels preceding the pandemic, history of mental health issues, or current treatment of mental health issues were not examined nor controlled for during statistical analysis. Therefore, the effect of extraneous variables on study results is unknown. Racial distribution of study participants was not representative of racial demographics of the nursing profession or society, limiting generalizability. The study utilized a cross-sectional correlational design which cannot be used to establish cause and effect in the study findings. Lastly, the attrition of survey respondents may have been caused by the length of the survey, resulting in missing data.

Future Research

Future research should continue to examine work engagement, burnout, and wellbeing in NPD practitioners. Research utilizing predictive models is needed to further investigate the influence of NPD or specialty board certification attainment and working at a Magnet or Pathway designated facility on work engagement, burnout, and well-being. Qualitative research could focus on describing the lived experiences of NPD practitioners during COVID 19 and to unveil what has been beneficial to maintain or improve their well-being. Additionally, qualitative research on exploring the experiences of underrepresented NPD practitioners' nursing journey to their current role and obtain insight on how organizations can increase representation in their NPD departments.

Future research should include interventional studies inspired by the constructs of the JD-R theory. Implementing programs to foster personal resources uncovered by Porter & Wang (2022), including effective ways to foster a sense of meaning and optimism in NPD practitioners should be considered. Additionally, interventional studies that promote work engagement and reduced or prevents burnout such as employing strengths assessment and strengths training from leaders should be taken into consideration.

Conclusion

The purpose of chapter four was to provide a summary of results of this article-based dissertation. Implications for NPD practitioners and limitations for both manuscripts were provided. Finally, directions for future research regarding work engagement, burnout, and well-being in NPD practitioners were discussed.

References

American Hospital Association (2021). *Fast facts on U.S. hospitals, 2021.* https://www.aha.org/statistics/fast-facts-us-hospitals

American Nurses Foundation. (2022). *Pulse on the nation's nurses COVID-19 survey series: COVID-19 impact assessment survey- The second year*. https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/what-you-need-to-know/covid-19-impact-assessment-survey---the-second-year/

American Psychological Association. (2020). *Well-being.* https://dictionary.apa.org/well-being

Arnetz, J. E., Goetz, C. M., Arnetz, B. B., & Arble, E. (2020). Nurse reports of stressful situations during the COVID-19 pandemic: Qualitative analysis of survey responses. *International Journal of Environmental Research and Public Health*, *17*(21), 8126. https://doi.org/10.3390/ijerph17218126

Association for Nursing Professional Development. (2021a). *2021 nursing professional development salary survey.* https://www.anpd.org/d/do/2796

Association for Nursing Professional Development. (2021b). *ANPD mission and goals.* https://www.anpd.org/page/about

Bakker, A.B and Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209-223. https://doi.org/10.1108/13620430810870476

Bakker, A.B, & Demerouti, E. (2018). Multiple levels in job demands-resources theory:

Implications for employee well-being and performance. In E. Deiner, S. Oishi, and L.Tay (Eds). *Handbook of well-being.* DEF Publishers.

Bernard, N. (2019). Resilience and professional joy: A toolkit for nurse leaders. *Nurse Leader*, *17*(1), 43–48. https://doi.org/10.1016/j.mnl.2018.09.007

Breaux, A. (2021). Nurse extender orientation program: Transitioning displaced staff to support acute care nurses in response to COVID-19. *Journal for Nurses in Professional Development, 37*(5), 315-316. https://doi.org/10.1097/NND.0000000000000711

Carthon, M.M., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., Sanders, A.M., Visco, F., Holland, S., Ballinghoff, J., Guidice, M.D.,& Aiken, L.H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of Nursing Care Quality, 34*(1), 40-46. https://doi.org/10.1097/NCQ.0000000000000334

Cook, M., Gehrich, P., & Price, A. M. (2021). Enhancing support for new graduate nurses: Implementation of a peer advisor program. *Journal for Nurses in Professional Development*, *37*(2), 114–116. https://doi.org/10.1097/NND.0000000000000677

Demerouti, E., Schaufeli, W., and Nachreiner, F. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*(3), 499-512. https://psycnet.apa.org/doi/10.1037/0021-9010.86.3.499

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology*, *15*(3), 209–222. https://doi.org/10.1037/a0019408

Demerouti, E., Veldhuis, W., Coombes, C., & Hunter, R. (2019). Burnout among pilots: Psychosocial factors related to happiness and performance at simulator training. *Ergonomics*, *62*(2), 233–245. https://doi.org/10.1080/00140139.2018.1464667

Dyrbye LN., Johnson PO, Johnson LM, Satele DV, & Shanafelt TD. (2018). Efficacy of the well-being ndex to identify distress and well-being in U.S. nurses. *Nurs Res. 67*(6):447-455. https://doi.org/10.1097/NNR.0000000000000313.

Dyrbye, L. N., Major-Elechi, B., Thapa, P., Hays, J. T., Fraser, C. H., Buskirk, S. J., & West, C. P. (2021). Characterization of nonphysician health care workers' burnout and subsequent changes in work effort. *JAMA Network Open*, *4*(8), e2121435. https://doi.org/10.1001/jamanetworkopen.2021.21435

Edwards, P., Green, K., & Sturdivant, M. (2021). Collaboration between infection prevention and clinical education in response to COVID-19. *Journal for Nurses in Professional Development, 37*(1), 66-68. https://doi.org/10.1097/NND.0000000000000684

Grove, S. & Cipher, D. (2020). *Statistics for nursing research: A workbook for evidence-based practice(3rd ed.).*Elsevier.

Harper, M. G., & Maloney, P. (Eds.) (2022). *Nursing professional development: Scope and standard of practice (4th ed.).* Association for Nursing Professional Development.

Harper, M. G., Maloney, P., Aucoin, J., & MacDonald, R. (2022). Findings from the 2021 organizational value of nursing professional development practice study, part 2: Relationships between nursing professional development staffing and organizational outcomes. *Journal for Nurses in Professional Development, 38(*5), 265–272.

https://doi.org/10.1097/NND.0000000000000919

Irwin, K. M., Saathoff, A., Janz, D. A., & Long, C. (2021). Resiliency program for new graduate nurses. *Journal for Nurses in Professional Development, 37(*1), 35–39.https://doi.org/10.1097/NND.0000000000000678

Jun, J., Ojemeni, M.M., Kalamani, R., Tong, J., & Crecelius, M.L. (2021). Relationship between nurse burnout, patient and organizational outcomes: Systematic review. *International Journal of Nursing Studies, 119,*103933 https://doi.org/10.1016.j.ijnurstu.2021.103933

Kelly, L.A., Lefton, C., & Fischer, S.A. (2019). Nurse leader burnout, satisfaction, and work-life balance. *Journal of Nursing Administration, 49*(9), 404-410. https://doi.org/10.1097/NNA.0000000000000784

Lin, R., Lin, Y., Hsia, Y., & Kuo, C. (2021). Long working hours and burnout in health care workers: Non-linear dose-response relationship and the effect mediated by sleeping hours—A cross-sectional study. *Journal of Occupational Health*, *63*(1), e12228. https://doi.org/10.1002/1348-9585.12228

Malone, M., Elsa, J., & Ridgeway, P. (2021). Rapid deployment of a virtual nurse residency program: Virtually no idea where to start. *Journal for Nurses in Professional Development, 37*(2), 87-92. https://doi.org/10.1097/NND.0000000000000683

Munn, L., Liu, T., Swick, M., Rose, R., Broyhill, B., New, L., & Gibbs, M. (2021). Well-being and resilience among health care workers during the COVID- 19 pandemic: A cross-sectional study. *American Journal of Nursing, 121*, (8), 24-34. https://doi.org/10.1097/01.NAJ.0000767352.47699.0c

National Council of State Boards of Nursing. (2021). *Active RN licenses*.

https://www.ncsbn.org/NND/Statistics/Archive/Aggregate-RNActiveLicensesTable2021.pdf

National Academies of Sciences, Engineering, and Medicine 2019. *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*. The National Academies Press. https://doi.org/10.17226/25521.

National Academies of Sciences, Engineering, and Medicine. (2021). *The future of nursing 2020-2030: Charting a path to achieve health equity*. The National Academies Press. https://doi.org/10.17226/25982

O'Rourke, M. W. (2021). Work engagement: Passion- Role clarity connection in a turbulent time. *Nurse Leader,* 204- 209. https://doi.org/10.1016/j.mnl.2020.11.006

Perez-Fuentes, M., Jurado, M., Martinez, A., & Linares, J.J. (2019). Burnout and engagement: Personality profiles in nursing professionals. *Journal of Clinical Medicine, 8*, 286. https://doi.org/10.3390/jcm8030286

Pericak, A., Hogg, C.W., Skalsky, K., & Bourdeanu, L. (2020). What influences work engagement among registered nurses: Implications for evidence-based action. *Worldviews on Evidence-Based Nursing, 17*(5) 356-365. https://doi.org/10.1111/wvn.12469

Peterson, U., Demerouti, E., Bergström, G., Samuelsson, M., Åsberg, M., & Nygren, Å. (2008). Burnout and physical and mental health among Swedish healthcare workers. *Journal of Advanced Nursing*, *62*(1), 84–95. https://doi.org/10.1111/j.1365-2648.2007.04580.x

Porter, M. & Wang, J. (2022). Personal resources and work engagement: A literature review. *The Journal of Continuing Education in Nursing, 53*(3), 115-121.

https://doi.org/10.3928/00220124-20220210-06

Raso, R., Fitzpatrick, J. J., & Masick, K. (2021). Nurses' intent to leave their position and the profession during the COVID-19 pandemic. *The Journal of Nursing Administration*, *51*(10), 488–494. https://doi.org/10.1097/NNA.0000000000001052

Remegio, W., Rivera, R. R., Griffin, M. Q., & Fitzpatrick, J. J. (2021). The professional quality of life and work engagement of nurse leaders. *Nurse Leader*, *19*(1), 95–100. https://doi.org/10.1016/j.mnl.2020.08.001

Schaufeli, W. & Bakker, A. (2004). Utrecht engagement scale: Preliminary manual. https://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_English.pdf

Schaufeli, W., Bakker, A., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Education and Psychological Measurement, 66*(4), 701-716. https://doi.org/10.1177/0013164405282471

Schivinski, E., & McNulty, D. (2021). COVID-19: A new reality for nursing professional development practitioners and newly licensed nurses. *Journal for Nurses in Professional Development*, *37*(1), 50–53. https://doi.org/10.1097/NND.0000000000000686

Shaughnessy, M., Griffin, M.T., Bhattacharya, A., & Fitzpatrick, J.J. (2018). Transformational leadership practices and work engagement among nurse leaders. *Journal of Nursing Administration, 48*(11), 574-579. https://doi.org/10.1097/NNA.0000000000000682

Warren, J. I., & Harper, M. G. (2017). Transforming roles of nursing professional development practitioners. *Journal for Nurses in Professional Development*, *33*(1), 2–12.

https://doi.org/10.1097/NND.0000000000000320

Weiss, R., Kennel, J., Lakdawala, L., Anzio, N., Klamut, K., Lucas, W., Antinori-Lent, K., & Mininni, N. (2021). Nursing professional development specialist's role in adapting education, onboarding, and just-in-time education during the COVID-19 pandemic. Journal for Nurses in Professional Development, 37(3), 143-146. https://doi.org/10.1097/NND.0000000000000700

Well-being Index. (2021). *State of well-being 2021-2022 report.* https://www.mywellbeingindex.org/state-of-well-being-2021-2022-report

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, *14*(2), 121–141. https://doi.org/10.1037/1072-5245.14.2.121

APPENDIX A

IRB Letter

Office of Regulatory Services
DIVISION OF RESEARCH ADMINISTRATION

4/5/2022

IRB Approval of Minimal Risk (MR) Protocol

PI: Marlene Porter
Faculty Advisor: Regina Urban
Department: Social Work
IRB Protocol #: 2022-0319
Study Title: *Understanding work engagement, burnout, and well-being in NPD practitioners*

Effective Approval: 4/1/2022

The IRB has approved the above referenced submission in accordance with applicable regulations and/or UTA's IRB Standard Operating Procedures.

Principal Investigator and Faculty Advisor Responsibilities

All personnel conducting human subject research must comply with UTA's IRB Standard Operating Procedures and RA-PO4, Statement of Principles and Policies Regarding Human Subjects in Research. Important items for PIs and Faculty Advisors are as follows:

- **Notify Regulatory Services of proposed, new, or changing funding source**
- Fulfill research oversight responsibilities, IV.F and IV.G.
- Obtain approval prior to initiating changes in research or personnel, IX.B.
- Report Serious Adverse Events (SAEs) and Unanticipated Problems (UPs), IX.C.
- Fulfill Continuing Review requirements, if applicable, IX.A.
- Protect human subject data (XV.) and maintain records (XXI.C.).
- Maintain HSP (3 years), GCP (3 years), and RCR (4 years) training as applicable.

APPENDIX B

Manuscript Submission Letter- The Journal for Nursing Professional Development

Porter, Marlene T

From:	em.jnpd.0.8140df.6957f791@editorialmanager.com on behalf of Journal for Nurses in Professional Development <em@editorialmanager.com>
Sent:	Wednesday, February 8, 2023 7:42 PM
To:	Porter, Marlene T
Subject:	{EXTERNAL} JNPD Submission Confirmation for Work Engagement, Burnout, and Well-being in Nursing Professional Development Practitioners

CAUTION: This email originated outside of BSWH. The actual sender is (em.jnpd.0.8140df.6957f791@editorialmanager.com) which may be different from the display address in the From: field. Avoid action unless you know the content is safe. Report suspicious emails using the PhishAlarm button located in your Outlook ribbon.

Feb 08 2023 08:41PM

Dear Mrs. Porter,

This is to acknowledge receipt of your manuscript, "Work Engagement, Burnout, and Well-being in Nursing Professional Development Practitioners." The manuscript will be sent to members of the Editorial Board for review.

You will be able to check on the progress of your manuscript by logging on to Editorial Manager as an author.

Additionally, you may view the Additional Information questions to obtain the copyright information by clicking here: Additional Information

1. Marlene Torres Porter, PhD candidate

Question: RETAINED RIGHTS: Except for copyright, other proprietary rights related to the Work (e.g., patent or other rights to any process or procedure) shall be retained by the author. To reproduce any text, figures, tables, or illustrations from this Work in future works of their own, the author must obtain written permission from Wolters Kluwer Health, Inc. ("WKH").

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TRADE COMPLIANCE: Each author warrants that if the author, any of the author's coauthors or any other individual whose content is included in the Work resides in Iran, Cuba, Syria, North Korea, Crimea, the Donetsk People's Republic (DNR) or the Luhansk People's Republic (LNR) regions of the Ukraine, the Work has been prepared in a personal, academic, or research capacity and not as an official representative or otherwise on behalf of the relevant government.

DISCLOSURES/CONFLICT OF INTEREST
Each author must identify any financial interests or affiliations with institutions, organizations, or companies relevant to the manuscript by completing the form below. Additionally, any financial associations involving a spouse, partner or children must be disclosed as well.

Note: Some sections below come from the ICMJE Uniform Disclosure Form for Potential Conflicts of Interest at http://www.icmje.org/downloads/coi_disclosure.pdf (dated July 2010).
Response: I agree

Question: Did you or your institution at any time receive payment or support in kind for any aspect of the submitted work (including but not limited to grants, consulting fee or honorarium, support for travel to meetings for the study or other purposes, fees for participation in review activities such as data monitoring boards, statistical analysis, end point committees, and the like, payment for writing or reviewing the manuscript, provision of writing assistance, medicines, equipment, or administrative support, etc...)?
Response: No

Question: Other: Did you or your institution at any time receive additional payments or support in kind for any aspect of the submitted work?
Response: No additional payments or support was received.

Question: Please indicate whether you have financial relationships (regardless of amount of compensation) with entities. You should report relationships that were present during the 36 months prior to submission including board membership, consultancy, employment, expert testimony, grants/grants pending, payment for lectures including service on speakers bureaus, payment for manuscript preparation, patents (planned, pending or issued), royalties, payment for development of educational presentations, stock/stock options, travel/accommodations/meeting expenses unrelated to activities listed (for example, if you report a consultancy above there is no need to report travel related to that consultancy), etc.
Response: No

Question: Other (err on the side of full disclosure): Please indicate whether you have any additional financial relationships (regardless of amount of compensation) with entities. You should report relationships that were present during the 36 months prior to submission.
Response: There are no additional financial relationships with entities.

Question: Other Relationships
Are there other relationships or activities that readers could perceive to have influenced, or that give the appearance of potentially influencing, what you wrote in the submitted work?
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