

Using the Job Demands-Resources Model to Underpin the Pandemic Nurses' Turnover Intention Model to Examine Nurse Turnover Intentions in The Bahamas During the COVID-19 Pandemic: A Theory Paper

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Abstract

Nurse turnover can affect the accessibility of healthcare services, quality of patient care, and nurse well-being. Various individual and contextual factors have been found to predict nurse turnover. A growing body of evidence now suggests the emergence of another potential predictor—fear related to the novel coronavirus, SARS-CoV-2 also known as COVID-19. To limit consequences, stakeholders must collaboratively develop empirically supported interventions to reduce nurse turnover. The purpose of this paper is to explain the novel use of the Job Demands-Resources (JD-R) model as a theoretical underpinning of the empirically supported Pandemic Nurses' Turnover Intention (PNTI) model which is used to examine factors influencing nurses' turnover intentions in The Bahamas during the COVID-19 pandemic.

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Introduction

Nurse turnover is complex. Nurses leave their positions within organizations, leave organizations, or leave the profession altogether (Halter et al., 2017; Hayes et al., 2012). Nurse turnover is often associated with nursing shortages which remain a global concern, particularly with the protracted COVID-19 pandemic (Buchan et al., 2022). The ongoing nursing shortage continues to strain nurses on the frontline of the COVID-19 crisis. This bleak situation is exacerbated by the number of COVID-19 patients still requiring hospitalization, along with the

absence of isolated or quarantined colleagues (Pan American Health Organization, 2020; World Health Organization, 2021).

In the small island developing state of The Bahamas, the Nurses' Association of the Commonwealth of The Bahamas and Bahamas Nurses' Union are sounding the alarm regarding grave concerns about nurses' work conditions including the levels of unrelenting mental and physical stress to which nurses are continuously subjected (Rolle, 2020; Scott, 2021). Nurses in The Bahamas are reportedly experiencing high levels of stress, anxiety, fatigue, and burnout

(Johnson, 2020; Scott, 2021). Many are leaving or planning to leave their positions, primarily from public acute care settings (Johnson, 2020; Scott, 2021). Work conditions characterized by increasing job demands (i.e., heavier workloads) and inadequate job resources (i.e., human and material resources) accompanied by the ongoing COVID-19 pandemic place additional strain on already limited resources (Buchan et al., 2022; Pan American Health Organization, 2020). These work conditions potentially increase psychological stress, anxiety, and burnout among nurses. A work environment where nurses experience high psychological stress and burnout creates ideal conditions for nurse turnover (Dall'Ora et al., 2020) resulting in loss of nursing human capital (Covell, 2008). Loss of nursing human capital combined with increased job demands and decreased job resources potentially reduces accessibility and delivery of quality healthcare and positions the attainment of universal health coverage at risk in some countries (Buchan et al., 2022, World Health Organization, 2021).

Anecdotal evidence suggests that the psychological well-being of nurses in The Bahamas is impacted negatively by work environments characterized by imbalances between job demands and job resources that are exacerbated by the COVID-19 pandemic. Considering the lack of contextual empirical evidence, it is imperative to increase understanding of the prevalence of these factors and their roles to ensure that The Bahamas continues to build and maintain a healthy, robust nursing workforce. The purpose of this paper is to present the novel application of the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti et al., 2001) as a theoretical underpinning for the empirically supported Pandemic Nurses' Turnover Intentions (PNTI) model (see Figure 2). The PNTI model was developed to examine factors

influencing nurses' turnover intentions in The Bahamas during the COVID-19 pandemic.

Application of the JD-R Model

A critique of health services research is that it is often atheoretical (Rolle Sands et al., 2020). Yet theories are useful for several reasons. First, theories provide a framework through which constructs are systematically and logically defined. Second, theories propose and clarify relationships among constructs, thus enabling researchers to predict and explain a phenomenon within certain assumptions and boundary conditions (Meleis, 2012). This is particularly useful when examining complex phenomena. Third, theories can be re-evaluated, extended, used to bridge gaps between other theories, and provide guidance for future research. Fourth, using theories facilitates better synthesis and understanding of research findings (Meleis, 2012). Therefore, the JD-R model has been proposed as a suitable theoretical framework to underpin research to understand more thoroughly the influence of job demands, job resources, and well-being on nurses' turnover intention in the Bahamian context.

The JD-R model (Figure 1) is an open, heuristic model capable of describing associations among various job demands, job resources, psychological states (e.g., burnout) and outcomes (e.g., turnover) in numerous contexts (Lesener et al., 2019). As such it demonstrates the potential to provide evidence to support the development of practical interventions (i.e., policies, programs, and practices) to improve employee well-being and organizational effectiveness in a wide variety of work settings (Bakker & Demerouti, 2017).

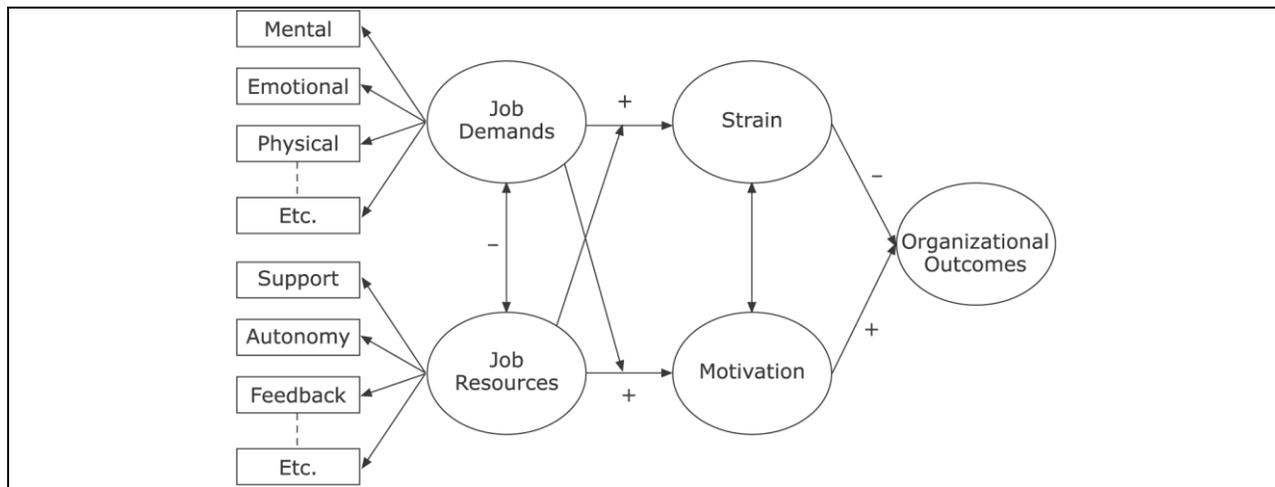
Use of the JD-R model in nursing research is well documented. Broetje et al. (2020) recently identified three main job demands (including work overload) and six main job resources (including supervisor support,

interpersonal relations, and professional resources). The review by Broetje et al. (2020) validates the findings from previous reviews while demonstrating the importance of leadership in nursing. Not surprisingly, job demands (such as heavy workload) and job resources (such as managerial support, interpersonal relationships, and professional

resources) also figure prominently in the emerging COVID-19 literature (Manzano García, & Ayala Calvo, 2021; Shanafelt et al., 2020). Interestingly, no representation of Caribbean countries was found in a review of this literature.

Figure 1

JD-R Model



Note: Bakker & Demerouti, 2007, Demerouti et al., 2001. Used with permission.

The COVID-19 pandemic has brought unprecedented challenges as well as numerous opportunities for innovation and creativity. For instance, some healthcare organizations' retention strategies now include considering more flexible staffing options for nurses such as reciprocal employment agreements. Such agreements offer nurses flexibility and travel opportunities within the network of participating organizations while meeting staffing needs at a given facility (Gaffney, 2022). It is within this historical context that nursing, nurse turnover, and the expanding COVID-19 literature were used in the application of the JD-R model to conceptualize the primary reasons which motivated nurses in The Bahamas to leave their jobs during the COVID-19 pandemic. To our knowledge, this conceptualization of

the JD-R model has never been used in this context. However, its use provides a unique method to examine nurse turnover intentions and will lay the foundation to explore evidence concerning nurses' decisions to stay or leave their jobs during a global pandemic. Elucidating key predictors of nurses' turnover intentions during disasters provides empirical evidence that decision-makers could use to develop interventions to better protect and maintain a robust nursing workforce amidst unusually high levels of stress and anxiety-provoking events.

The Pandemic Nurses' Turnover Intentions (PNTI) Model

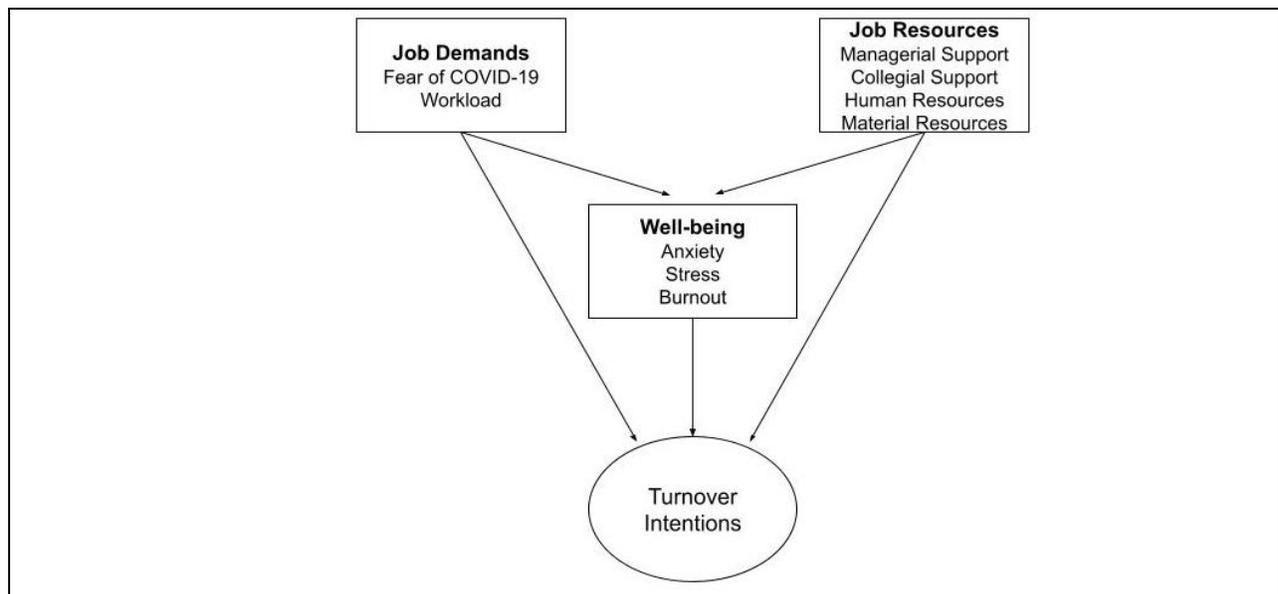
Figure 2 depicts the empirically supported PNTI model developed following a review of the JD-R model, turnover and COVID-19 literature. It is composed of job demands, job

resources, well-being and turnover intention. Similar to the JD-R model, the PNTI model assumes that high job demands and low availability of job resources are directly associated with turnover intentions (Dall’Ora et al., 2020). The PNTI model also assumes

that job demands and job resources influence emotional and psychological well-being, which in turn influences turnover intentions (Labrague & De los Santos, 2020)

Figure 2

Pandemic Nurses’ Turnover Intentions (PNTI) Model



Job Demands

The construct of job demands is the first of two independent constructs in the PNTI model comprising fear of COVID-19 and workload. According to the JD-R model, job demands are “those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs” (Demerouti et al., 2001, p. 501). During the pandemic, nurses have continued to experience numerous changes in their work content and work context with job demands characterized by fear of COVID-19, and increased volume and intensity of their

work as they adjusted to a very “new normal” (González-Gil et al., 2021). Fear of COVID-19 might be associated with the contraction or transmission of the virus that causes COVID-19 and is measured as emotional and/or physiological responses such as palpitations, anxiety, nervousness, and sleeplessness (Ahorsu et al., 2020). Workload (i.e., the amount of work in a job) is measured in many ways and is consistently identified in the literature as one of the primary job demands causing stress (Bruk-Lee & Spector, 2012; Bowling et al., 2015). Job demands such as high levels of fear of COVID-19 and workload are directly and positively associated with negative outcomes such as turnover intentions and are also

indirectly associated with turnover intentions through impaired emotional and psychological well-being among nurses (Dall'Ora et al., 2020). Nurses' job demands are reflected in their work environment and are increased during a pandemic (Pan American Health Organization, 2020). In the PNTI model, job demands are operationally defined as the nurse's fear of COVID-19, and the workload causing strain during the COVID-19 pandemic.

Job Resources

Job resources constitute the second independent construct comprising the PNTI model. These include management and collegial support, human capital, and material resources. Job resources are "those physical, psychological, social, or organizational aspects of the job that are functional in achieving work goals, reduce job demands and the associated physiological and psychological costs" (Demerouti, 2001, p. 501). Job resources may potentiate or attenuate psychological and physiological effects (i.e., strain) inherent in the job (Demerouti et al., 2001; Mauno et al., 2010). For nurses, job resources are important because they influence healthcare quality, safety, and patient and nurse well-being (Lake et al., 2019). Job resources are also stressed during a pandemic as job demands increase (Catania et al., 2020; Shanafelt et al., 2020). This negatively impacts emotional and psychological well-being and promotes turnover intentions and turnover among nurses (Pedrosa et al., 2019). In the PNTI model, job resources are operationally defined as the availability of managerial and collegial support and the material and human resources available to provide quality care.

Well-being

Well-being is the mediating construct in the PNTI model, (i.e., well-being links the independent variables of job demands and job resources to the dependent variable

turnover intentions). Well-being takes many forms and therefore is described or defined in many ways. Well-being is described as the degree to which an individual experiences more positive than negative emotions and moods; happiness; life satisfaction; or the ability to achieve goals (Dodge et al., 2012). Well-being is also defined as one's quality of life or the absence of distress and dysfunction, and the balance between an individual's psychosocial, and physical resources and their psycho-social, and physical demands. (Dodge et al., 2012). Well-being is compromised whenever job demands increase and job resources are threatened or lost. That is, employees cope better with their job demands when sufficient job resources are available (Bakker et al., 2014; Bakker & Demerouti, 2017). For this study, well-being is conceptualized as nurses' ability to cope with the demands of the psychological challenges faced during a pandemic, and it is operationalized as nurses' levels of stress, anxiety and burnout.

Stress

Stress is commonly referred to as occupational stress, work stress, or workplace stress (Burman & Goswami, 2018). Early conceptual definitions of employee stress have changed in focus over time from external or environmental situations to internalized perceptions of stress (Burman & Goswami, 2018). Currently, widely accepted definitions of employee stress combine previous conceptual definitions, referring to employee stress as an employee's reaction to one or more situations or environmental factors (Burman & Goswami, 2018). An employee's reaction to stress might be behavioural, physical and/or emotional (Burman & Goswami, 2018). For this study, stress is operationalized as the level of a nurse's emotional and/or psychological reaction to situations or environmental factors (i.e., job resources, job demands) present in the workplace.

Anxiety

Conceptual definitions for anxiety have undergone numerous changes over time. For example, anxiety is defined as an emotion characterized by continuously intrusive thoughts and physical changes, or a feeling of constant worry which undermines an individual's ability to cope with daily life (Xi, 2020). Anxiety is also defined as a feeling of anticipation of an actual or impending threat or event (Xi, 2020). Anxiety is operationalized as the level of feeling of uneasiness characterized by non-adaptive physical and mental reactions in response to intrusive thoughts about future uncertainty during the pandemic.

Burnout

Burnout, the third variable of the well-being construct, has been inconsistently conceptualized, defined, and measured. However, researchers generally agree that burnout is a group of psychological symptoms developing from a prolonged response to persistent interpersonal stressors on the job (Maslach & Leiter, 2016). Burnout is defined as severe exhaustion, or a combination of feelings of energy depletion, mental distancing from one's job, feelings of reduced professional effectiveness, and job-related cynicism. Burnout is often categorized into one or more of three main dimensions: emotional exhaustion (considered the core dimension of burnout), depersonalization, and personal accomplishment (Maslach & Leiter, 2016; Woo et al., 2020). The PNTI model operationalized burnout as the level of emotional exhaustion, in other words: the extent to which a nurse feels exhausted and emotionally overextended by their work during the pandemic.

High job demands increase strain which bolsters the threat to emotional and psychological well-being (Bowling et al., 2015). This may lead to turnover intentions

(Pedrosa et al., 2020). Scarce job resources also increase strain, which can reinforce the threat to emotional and psychological well-being and exacerbate turnover intentions. However, job resources (such as adequate personnel, supplies, and equipment) can also buffer the impact of high job demands on well-being (Bakker & Demerouti, 2017; Hirschle & Gondim, 2020).

Turnover Intentions

The PNTI model contains one dependent variable: turnover intentions. Turnover intention is defined as an individual's behavioural intention to leave their current position to transfer to another job within their current organization or leave the employ of an organization (Hayes et al., 2012). We operationalized turnover intentions as the level of nurses' conscious and deliberate wilfulness to leave their current organization.

It is important to acknowledge that the variables comprising the constructs in the PNTI model—job demands, job resources, and well-being—are only a few of the potential variables that could be used to examine nurse turnover intentions. Further, the various, and often changing definitions of the variables, and the constructs themselves is also a noteworthy limitation. In this study it was not feasible or necessary to examine every possible variable that might be considered in each construct. However, key facets of the nursing literature and emerging evidence from the rapidly growing body of COVID-19 literature were used to develop a model of empirically supported antecedents of nurse turnover and turnover intentions during the COVID-19 pandemic. To support the clarity regarding our findings, we defined the constructs and their comprising variables to reinforce our argument.

Conclusion

The JD-R model represents a theoretically sound lens through which relationships between predictive antecedents (i.e., job

demands, job resources, well-being), and nurse turnover intentions could be examined. The purpose of this paper was to explain the novel use of the JD-R model as a theoretical underpinning of the empirically supported PNTI model. The PNTI model is used to examine factors influencing nurses' turnover intentions in The Bahamas during the COVID-19 pandemic. The JD-R model is a widely empirically-tested model commonly used in nursing research. It has consistently demonstrated its utility in examining workplace characteristics and will prove useful in the examination and explanation of the influence of job demands, job resources, and well-being on nurses' organizational turnover intentions in The Bahamas during the COVID-19 pandemic. The emergence of the ongoing COVID-19 pandemic places an additional strain on already limited material and human resources, potentially producing negative impacts on the psychological and physical well-being of frontline healthcare workers, including nurses. Negative impacts such as increased stress, anxiety, fatigue, and burnout (Hu et. al., 2020) could potentially enhance turnover (Lee & Juang, 2020).

Application of the JD-R model contributes to the extant body of nursing and nursing turnover literature by providing a unique perspective on the ramifications of the

COVID-19 pandemic on nurses' well-being and propensity to leave workplaces and the profession. We conclude that the JD-R model has yet to be applied in COVID-19 research generally, or in nursing research specifically in the Bahamian context. It is anticipated that the use of a theoretical framework will help stakeholders to better understand the findings from an ongoing study. This would also position them as sensitive to the need for the development and implementation of context-specific, culturally acceptable, and empirically-supported interventions to mitigate the effects of these factors. More broadly, these strategies would help to identify key reasons why nurses leave their workplaces and organizations, thereby reducing turnover.

Future research might include extending the PNTI model to examine factors that influence turnover intention among other groups of healthcare professionals in The Bahamas, and how the effects might change over time. Comparing the results between the groups would also bolster the extant literature in the healthcare profession and lead to enhanced well-being for broader groups of healthcare professionals.

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