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Job Satisfaction, Work Environment, and Successful Aging: Determinants to Remain in Older Acute Care Nurses

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Job Satisfaction, Work Environment, and Successful Aging: Determinants to Remain in Older

Acute Care Nurses

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Nursing

By

Michele Wargo-Sugleris

2015

ABSTRACT OF THE DISSERTATION

Job Satisfaction, Work Environment, and Successful Aging: Determinants to Remain in Older
Acute Care Nurses

By

Michele Wargo-Sugleris

Doctor of Philosophy in Nursing

University of California, Los Angeles, 2015

Professor Linda R. Phillips, Chair

This study investigated the determinants of job satisfaction, work environment, and successful aging in association with retire among older registered nurses (RNs). In addition, this study was designed to further understand what motivates nurses to remain employed in their current positions by investigating the relationship among these determinants and their predictive value in the retirement of older RNs. Job satisfaction has long been correlated with retention of RNs and the work environment has more recently emerged as an important factor in retention of RNs. Positive work ability, perceived health and psychological work-related factors, including reward incentives, work environment, job autonomy, and job satisfaction are significantly associated with nurse intentions to continue working, instead of seeking alternative employment or retiring but these factors have not been studied among older RNs. Successful aging has been influential in the retention of workers in the business arena. The combination of these three concepts, job satisfaction, work environment, and successful aging, and how they relate to retirement is particularly significant in face of the current and continued nursing shortage in the United States and around the world.

As nurses age there is a suggested difference between older and younger nurses' ability to work and this difference could affect decisions made to remain on the job. Common stereotypes specific to older workers may lead to an overall disinterest about retaining older workers by human resource personnel and possible discrimination when hiring, workplace education and layoffs of older nurses. One clear priority towards older nurses is to redress employer attitudes on the subject of older workers and their ability to work. This research sought to find ways that change rather than entrench seemingly inappropriate stereotypes of older workers. Understanding older RN's decisions on retirement in terms of the multi-faceted topics of job satisfaction, work environment, and successful aging contributes to the development of strategies important to the decision to stay or delay retirement of older nurses for human resource departments.

The dissertation of Michele Wargo-Sugleris is approved.

Wendie A. Robbins

Linda Searle Leach

Paul R. Torrens

Linda R. Phillips, Committee Chair

Dedication Page

I dedicate this work to my family who have unfailingly supported me through the years of my education-Michael my amazing husband who fed me and took care of me while I wrote and worked as an RN and always knew I could finish this journey, even when I thought I couldn't; to my incredibly smart and beautiful daughter who started this journey right by my side as a fellow PhD student (Graduate of Sam Houston University-PhD in Psychology, 2015), who listened to all my trials and tribulations of graduate school and always supporting me. And last but not least to my two awesome sons-Matthew and Nicholas who were with me all the way, Matthew for drying my tears after some news that was unexpected and crushing, adding stories to make me smile and adding encouragement every step of the way. To Nicholas who has taught me the importance of seeing every 'student' as an individual who seeks his own way. Also to Nicholas, thank you for all the computer help, for 'finding' all my lost papers and answering my questions on the cursed Microsoft Word. All three of my children have helped me conquer the new technologies needed to write this paper.

My family has listened to me quit more times than I can remember and never believed it and loved me through it all! This is for you guys first and always!

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Acknowledgements

<h1>Biographical Sketch</h1>

Education

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Wargo-Sugleris, M., & Phillips, L.R. (2012). Older Workers: The Final Frontier? Successful Aging, Work Environment, and Job Satisfaction. (Podium) *65th Annual Scientific Meeting of the Gerontological Society of America,* San Diego, CA

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Introduction to Dissertation

Driven by three trends the retention of older workers has recently become an important research topic. The first trend influencing research on retention or delaying retirement is that the United States and the world are in the midst of an unprecedented growth of the aging workforce with the Bureau of Labor Statistics (BLS) reporting employees aged 55 and older has increased to an all-time high of 40.4% (BLS, 2010). The BLS suggests that by 2016, one-third of the workforce will be over 50 years old and by 2020 the number of these workers will increase to 115 million (BLS, 2010). In the United States, for example, between 1998 and 2008, the number of employees 55 to 64 years old increased by 64%, 65 to 74 year olds by 57%, and those older than 75 increased by 88% (Toossi, 2009). Workers over the age of 75 comprise the fastest growing group in the workforce increasing by 147% (OECD, 2010). The average age of American workers is expected to increase from 37.1 in 1992, to 42.6 by 2022, and projected to reach 163.5 million in 2022 (Toossi, 2013).

The second trend is that countries competing in the world market with developing economies and advancing technologies are experiencing an increase in older workers with a simultaneous reduction in the number of new workforce entrants (Calo, 2005: Toossi, 2012), suggesting severe workforce shortages in the future. Although the number of workers over age 55 will increase from 13% in 2000 and to 20% in 2020 representing one in five workers, during this same period, the number of workers between the ages of 25 to 39 is expected to decrease (BLS, 2012; Hatcher, Bleich, Connolly, Davis, Hewlett, & Hill, 2006). The BLS forecasts that there will be 54.8 million employment openings from 2010-2020, with 61.6%; well over half from 'replacement needs'. This refers to jobs lost to retirement or permanently leaving the job. In

four out of five occupations, the number of replacement needs will exceed the due to growth (U.S. Census Bureau, 2011).

The third trend is that with the increasing older workforce, governments and businesses are having difficulty adequately sustaining welfare provisions such as social security, retirement benefits and health plans for current and future retirees. For many organizations and businesses, the threat of an ever increasing number of retirements is a harbinger of future economic crises (Calo, 2005). This makes retention of older workers very important, but retaining older workers presents certain challenges for businesses including assuring the capacity of the workforce to produce services and goods that are competitive on the global market, finding ways to maintain workplace skills and competencies and deploying these across workers' lives (van Dalen, Henkens, & Schippers, 2009). Nevertheless, continued employment of older workers is generally viewed by corporations and healthcare systems today as an economic and social necessity.

Retention of older workers in nursing is also important, largely because of current and anticipated nursing shortages. "Although there are recurring reports of manpower shortages in many other professional fields, nursing seems to enjoy the dubious distinction of continually suffering from this condition" (Spohn, 1954, p. 865). This quote could easily be applied to contemporary nursing dialog and yet was written 60 years ago. The nursing shortage is a well-researched topic and articles are abundant from experts on the future of nursing (Auerbach, Buerhaus, & Staiger, 2011; Buerhaus, 2008; Hayes et al., 2006; Letvak & Buck, 2008; Tourangeau, Cummings, Cranley, Ferron, & Harvey, 2009). Multiple factors influence the shortage of the supply of nurses including demographics, technology, nursing education, work environment, job satisfaction, and nurse salaries.

Regardless of the causes, the nursing shortage is occurring at a time when the demand for nurses is increasing. A supply shortage is exacerbated when the demand for nurses increases. Aging Baby Boomers are just now beginning to place demands on healthcare systems from increases in patient census, multisystem medical needs, and the function-based care needed within this aging population. The Affordable Care Act is projected to add approximately 32 million insured patients to the healthcare system by 2019 (Elmendorf, 2010). These needs create increased pressure to supply an adequate number of RNs within the acute care settings as demand increases. At the same time, however, nurses are aging. A large percentage of nurses are themselves Baby Boomers who will be reaching retirement age soon and are likely to leave the profession. Like other older workers, nurses experience the complications of normal aging, injuries, and chronic illness. Therefore devising ways to retain these individuals in the workforce is extremely important given current trends. This study is designed to explore factors that influence the delay of retirement and therefore the retention of older acute care nurses in the workforce in an effort to meet societal demands.

Statement of the Problem

Research into nurse retention and turnover of nurses has been recurring for the past five decades in the United States. In the late 1950s turnover of nurses was attributed to women leaving the profession to marry and raise families (Bloom, Alexander, & Nuchols, 1992; Diamond & Fox, 1989). In the 1970s, after the sexual revolution of the 60s, researchers noted widespread and dramatic changes in traditional gender roles among working women, coinciding with an increase in career options available to women and a growing demand for nurses (Aiken & Mulllinix, 1987; Baber & Monaghan, 1988; Bloom et al., 1992; Searle, 1988). Introduction of the Medicare prospective payment system (PPS) in the 1980s added layoffs to the factors

associated with turnovers as hospitals adjusted to the financial changes created by diagnosis-related groups (DRGs) (Aiken, 2008; Feder, Hadley, & Zuckerman, 1987; Manton, Woodbury, Vertrees, & Stallard, 1993). The PPS regulated reimbursement for inpatient hospital stays, and sought to improve efficiency by paying fixed amounts for DRGs with the expectation that hospital lengths of stay would be reduced (Manton et al., 1993). One of the unanticipated consequences was the disproportional distribution of nurses within specialty areas and geographic locations throughout the 1990s (Aiken, 2008; Lum, Kervin, Clark, Reid, & Sirola, 1998) and a reduction of in the number of bedside nurses in underserved locations.

Nurse turnover continues as one of the most expensive and disruptive problems facing health care systems and organizations and continues to challenge employers in the 21st century (Jones, 2008; Tourangeau et al., 2009; Spetz, Rickles, Chapman, & Ong, 2008). Turnover rates for RNs are estimated at >11% (NSI, 2012) and replacement and training of new nurses is expensive to healthcare organizations. Costs of turnover are estimated at $82,000 and upwards of $125,000 for specialty nurses (Jones & Gates, 2007) or up to $8,449,000 annually (Jones, 2008). Turnover of RNs is a recurring problem and focusing on prevention of nurse turnover and the retention of nurses is a strategy many organizations are using (Jones, 2008).

While nurse retention has been a problem since the 1950's, two factors in the current climate environment are making this problem very complicated. The first factor is that the Registered Nurse (RN) workforce is aging. The median age of nurses is 47 years old (HRSA, 2010). RNs over the age of 50 are the largest cohort of the nursing workforce, accounting for between 25%-40% of the RN population (AACN, 2012; Wray, et al 2009) and 56.4% of nurses 65 years or older report working as staff nurses (HRSA, 2010). Between the years of 2010-2020,

over 40% of the RN workforce will be over age 50 (HRSA, 2008). The Bureau of Labor Statistics (BLS) calculations indicate the average nurse will be 52 in 2020.

These facts raise important concerns for human resource departments, managers, and health care corporations for several reasons. According to the Bureau of Labor Statistics (BLS) nursing is the number one profession in job growth with a reported increase in demand from 2.74 million in 2010 to 3.45 million in 2020, an increase of 26% or 712,000 nurses (Bureau of Labor, 2012). Future shortages are still predicted (AACN, 2012; Buerhaus, 2008; Fox & Abrahamson, 2009). Projections predict a shortage of 495,500 nurses by 2020, increasing the total number of job openings to 1.2 million (BLS, 2012). Large numbers of RNs plan to retire within the next 10-15 years (AACN, 2012; Blakeley & Rubeiro, 2008; Kooker & Kamikawa, 2010) which will further intensify the shortage of RNs. In a survey of 1000 nurses, conducted about ten years ago, more than half of RNs (55.3%) were planning to retire between 2011-2012. This trend is anticipated to continue with 25.5% planning to retire after 2020 (Hader, Saver, & Steltzer, 2006). However, retention of older nurses or nurses delaying retirement by an average of 4 years would increase the full-time equivalents (FTE) RN supply by nearly 158,000 (9%), in 2020 (Jones, 2008).

The second complicating factor is that retirement and early retirement affects the quantity and quality of nurses on the job as well as the level of skill available for patient care. These experienced nurses are critically important to the RN workforce because they have years of experience in patient care and institutional culture and they are fitting mentors for the next generation of nurses. As a result of demographic trends, the nursing profession is about to lose an enormous amount of collective education and wisdom to retirement. Retirement results in a nursing 'brain drain' that occurs as we lose this highly educated and skilled cohort of nurses.

With nursing already having shortages and the loss of qualified nurses, the current wave of retirement has profound implications as this mass exodus may lead to a lack of depth of knowledge and experience at the bedside, in education, and within management (Jackson, 2008). The lack of qualified nurses has been shown to increase the risk of poor patient outcomes which increases hospital costs to patients and insurers (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; Coetzee, Klopper, Ellis, & Aiken, 2013; You et al., 2013). A shortage of qualified nurses has been linked to increased mortality; nosocomial infections, adverse post-operative events, interpersonal staff violence, and work injuries (Litvak & Bisognano, 2011; Oulton, 2006). As the nursing workforce ages and with record numbers of nurses reaching retirement age, it is important to identify strategies to stanch the "brain drain" by determining the factors that may be predictive of retaining older nurses.

Aging Workforce

Retaining older RNs is critically important because there are challenges facing the aging nurse in a mentally, physically, and emotionally taxing profession and little research has been done on the effect this has on the older RN. The natural aging process combined with the extraordinary physical demands of nursing can be difficult for older nurses. Most people today enter middle age in relatively good health; however this time period also marks the possible onset of health problems (Bohle, Pitts, & Quinlan, 2010). These health problems include chronic illnesses, mood disorders, and insomnia relating to peri-menopause/menopause and hormone imbalances in many female nurses. The risk of chronic disease increases with age and females are susceptible to diabetes, weight gain, cardiovascular disease, obesity, cancer, and hypertension (Bohle et al., 2010; Gabrielle, Jackson, & Mannix, 2008). Thus, the normal aging process affects how well older nurses provide care and how long they can remain on the job.

There is good scientific research that indicates an association between lower RN workloads and improved patient outcomes including lower infection rates and hospital mortality (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; Needleman, Buerhaus, Pankratz, Leibson, Stevens, & Harris, 2011). Cimiotti and colleagues (2012) reported that increasing the RNs load by one patient is associated with increases in both surgery site infections and urinary tract infections (Cimiotti, Aiken, Sloane, & Wu, 2012). Evidence suggests that improved organizational work environments and an increased proportion of baccalaureate level RNs (Aiken et al., 2014) are associated with decreased mortality and lower RN workloads (Needleman et al., 2008). Improved work environments are viewed as nurses and doctors that have good working relationships, nurses actively involved in hospital affairs, continued learning for RNs, and management that listens and responds to identified problems of bedside RNs. As a result there is an increased risk of injury, poor overall health, and stress on the job (Gabrielle et al., 2008). Rates of musculoskeletal injuries in healthcare occupations has been shown to be the highest of all industries in the U.S., with patient handling suffering the most lost-time cases for musculoskeletal pain (11,960) and back pain (4,700) ("Bureau of Labor," 2010; 2011). The BLS reports total recordable nonfatal occupational injuries among hospital nursing staff in general and surgical hospitals to be 7.3 per 100 equivalent full-time workers whereas construction workers report 3.9 cases per 100 equivalent full-time workers (BLS, 2010; Restuccia, 2007). The physical demands required in providing nursing care have been reported to aggravate chronic pain (Gabrielle et al., 2008), and the demand of heavy physical work can take a toll on all nurses over time and is exacerbated in older nurses.

Third, as RNs age they can experience increased physical, cognitive, and emotional challenges on the job (Oulton, 2006). Nurses are currently working in situations where they are

expected, due to the introduction of new technologies and electronic charting, "to assume additional, unplanned responsibilities while simultaneously conducting multiple responsibilities in a condensed time frame" (Collins-McNeil, Sharpe, & Benbow, 2012, p. 51). Aging nurses identified three health and safety concerns; coping, stress, and strain which negatively affected their care of patients, with studies showing higher levels of stress and heavy physical work in older nurses (Cohen, Stuenkel, & Nguyen, 2009; Santos et al., 2003). As the nursing workforce is aging, it is important to better understand the physical, cognitive and emotional factors that encourage retirement and those that impede retirement in this group. Little research has been done on these factors among older nurses.

Fourth, personal, financial, and organizational themes have been identified in the literature as impacting the retirement of RNs. Studies have indicated nurse retirement is influenced by personal factors such as stress and exhaustion (Andrews, Manthorpe, & Watson, 2005), physical disability or health of self or concerns of a dependent person, and anticipation of retirement benefits (Blakeley et al., 2008; Cyr, 2005; Camerino et al., 2006; Higgs P., Ferrie J., & Nazroo J, 2003; Toossi, 2004). Spousal retirement and marital status have also been reported as factors predictive of early retirement and studies have reported that overall marital satisfaction and having a non-working spouse were influential in decision making to retire early (Cyr, 2005; Fauteux, 2009; Reitzes D. & Fernandez M, 1998). It is reported that among women, having a retired spouse, a spouse with postretirement benefits or a family member with poor health contributed to early retirement (Blakeley et al., 2008).

Financial interests predict both normal retirement age (NRA) and early retirement. Among financial concerns is the current structure of the U.S. pension system, including incentives to remain or retire depending on the person and movement within the profession of

nurses for higher salaries, financial security, and early retirement packages which appear designed to induce retirement (Cyr, 2005; Fitzgerald, 2007; Higg, et al., 2003; Tabone, 2006). The U.S. pension system's lack of retirement plan options and the need for health insurance all act as motivators /detractors for retirement of nursing staff.

Fifth, factors related to the work environment have also been identified as having implications for the retention of older nurses. For example, Meadows (2002) observed several barriers that interfere with retention of older nurses including the failure of organizations to implement initiatives for older workers, failure of management to acknowledge the complexities of supporting older workers, organizational inflexibility, and lack of invested interest from human resource departments. Lack of recognition, and physically and technologically demanding work environments have also been seen to influence retention in older nurses (Moseley, Jefferson, & Paterson, 2008). In addition, evidence suggests that compared to other professionals reaching retirement age, nurses tend to decrease work hours and/or retire earlier (Kimball & O'Neil, 2002; Morrow, 2009) which underscores the unique problems of older nurses. Organizations factors affecting the work environment also include distribution of time and resources within the workplace. Demands on nurses include the need to learn new and a seemingly ever-changing list of procedures, and the adaptation to turnover, not only in staff but management, administrators and ownership. This means that nurses are spending much less time in actual patient care at a time when healthcare facilities are continually looking at ways to cut costs, all of which contribute to poor work environments. Organizational factors related specifically to early retirement of hospital nurses are excessive job demands, increased patient loads, unit designation, and lack of autonomy (Andrews et al., 2005; Collins-McNeil et al., 2012; Storey, Cheater, Ford, & Leese, 2009; Wray, Aspland, Gibson, Stimpson, & Watson, 2009).

While multiple factors have been identified in the literature as relevant to retention of older nurses and nurses' decisions to retire, in general, little attention has been paid to understanding the perceived needs of older nurses, particularly with regard to job satisfaction, which has been identified as the number one factor contributing to intent to stay in nurses (Duffield, Roche, Blay, & Stasa, 2010; Fitzgerald, 2007; Laschinger et al., 2009). Work environment as a determinant of job satisfaction has been reported to strongly affect the retention of nurses. Nurses have been reported to be more likely to remain in their current positions if they view themselves as having control over the environment such as autonomy, nurse-physician communication, and adequate staffing (Larrabee, Janney, Lynne, Withrow, Hobbs, & Burant, 2005). However, little research has focused on the role job satisfaction plays in intent to retire. Similarly, little research attention has been paid to the perception of older nurses in relationship to continued employment as a facet of successful aging. Successful aging has been associated with physical attributes, developmental tasks and needs, motivational factors, age perception, and work ability of older workers. These changes and determinants may well influence decisions made to remain versus leaving the workplace for older nurses. There is significant research on successful aging and effects on life satisfaction and/or job satisfaction but very little examining work environment and the relationship of these factors to the retention of older nurses. Findings from this research will contribute to a better understanding of factors influencing the retention of older RNs.

Previous studies have not explored the relationships of job satisfaction, work environment, and successful aging as predictors of retention intentions of older nurses. This dissertation was designed to partially respond to this need. Recognizing retention predictors associated with job satisfaction, work environment, and successful aging could help

hospitals/organizations re-design work and human resource practices in order to keep nurses working longer and/or delay retirement. The world-wide nursing shortage and the current economic situation have raised the question of how to retain all nurses more effectively, including older nurses. The aim of this dissertation was to explore relationships among job satisfaction as a global concept, work environment, and successful aging as antecedents and predictors of retention of older nurses in the workforce. Finally, a fuller understanding of the concepts of job satisfaction and work environment and their relationship to successful aging may be critical to the recognition of the best methods to promote retention of older nurses.

Statement of Purpose

This study was designed to examine job satisfaction, work environment, and successful aging and the relationship of these factors to the intent to stay of older nurses in the workforce. The following hypotheses were tested:

Hypothesis 1 Age, gender, financial responsibilities, and family obligations influence job satisfaction among older RNs currently working in acute care hospitals.

Hypothesis 2 Successful aging and work environment positively influence job satisfaction among older RNs currently working in acute care hospitals.

Hypothesis 3 Age, gender, financial responsibilities, and family obligations influence intent to stay/delay retirement among older RNs currently working in acute care hospitals.

Hypothesis 4 Job satisfaction, work environment, and successful aging positively influence retention and/or intent to delay retirement of older nurses among older RNs currently working in acute care hospitals.

Significance of the Study

Patients continue to age, so too are the nurses taking care of them with many of these nurses retiring early or leaving the profession due to poor job satisfaction, negative work environments, and increased workloads. These circumstances indicate a dire situation in healthcare delivery, necessitating different solutions to this shortage from previous cyclical shortages. It has become increasingly important for healthcare facilities to develop and initiate methods to retain nurses in the workforce longer. The perceived needs of this experienced, aging workforce and retention solutions needed to prolong RNs' working years were the subject of this study. Findings from this study will have implications for the development of strategies perceived as meaningful to nurses, by human resource personnel and managers, aimed at retention of older nurses in the acute care setting.

It is imperative to recognize the importance of continued research into the retention of nurses and particularly older nurses, so often underrepresented in research. Research has shown that employers are ill-prepared to deal with an aging nurse workforce and few employers have implemented strategies that explicitly focus on the needs of older nurses. This study contributes to health and human resource services in three ways: (1) increased understanding of perceived needs of older nurses; (2) improved understanding of the multifaceted topic of job satisfaction and older nurses; and (3) identification of factors relating to the retention of older nurses to assist in the development and initiation of new human resource strategies to retain older nurses.

Theoretical Framework Overview

This study used Ellenbecker's (2004) Job Retention Model (JRM), as a theoretical framework. Ellenbecker's Model was formulated as a theoretical model to explain job retention for home health care nurses. Ellenbecker developed this model based on previous models of

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nurse retention proposed by Alexander, Lichtenstein, Oh, and Ullman (1998) and Tauton, Boyle, Woods, Hansen and Bott (1997), components of Neal's theory of home health-care nursing (Ellenbecker, 2004), and empirical research related to retention and job satisfaction.

This model (Figure 1-1) proposes that job satisfaction is highly correlated with retention and both intrinsic and extrinsic characteristics contribute to overall job satisfaction. The theory points to a direct relationship between job satisfaction and retention and when combined with individual characteristics, job satisfaction is indirectly related to retention through intent to stay. Individual characteristics such as age, gender, and tenure (number of years in current position) are indirectly related to retention through autonomy, categorized as an intrinsic characteristic of job satisfaction, and intent to stay, with a direct relationship to retention.

Older workers have been identified as a rapidly expanding group with especially diverse ideologies on work and success. This diversity may be the result of potential generational differences, lifelong changes in health status, and a shifting of goals and aspirations as they begin the latter part of their careers. The differentiation between intrinsic and extrinsic factors is important when discussing older workers as they pursue a variety of goals and value different outcomes as not all workers view traditional extrinsic factors as a way to evaluate their professional success (Korman, Wittig-Berman, & Lang, 1981; Schulz & Heckhausen, 1996). Intrinsic factors of work such as collegial relationships with managers and coworkers, autonomy, job satisfaction, and the perception of participation in meaningful work becomes more important as employees age (Cowin, Johnson, Craven, & Marsh, 2008; McIntosh, 2004; Sterns & Huyck, 2001).

Literature and existing instruments to measure job satisfaction indicate that both intrinsic and extrinsic characteristics are parts of this multidimensional variable (Camerino et al., 2006;

Ellenbecker, 2004; Iliopuolou & While, 2010; Liu et al., 2012; Lu, Barribal, X., & While, 2012; (Scarpello & Campbell, 1983; van Saane, Sluiter, Verbeek, & Fringes-Dresen, 2003). In psychology, intrinsic characteristics refer to the non-material aspects of the job which allow for self-expression such as job variety and autonomy and extrinsic characteristics refer to material aspects such as opportunity for promotion or salary (Hegney, Plank, & Parker, 2006; Taris & Feij, 2001).   For the model, Ellenbecker categorizes autonomy in the intrinsic (immaterial) section relating to patient and peer relationships, cohesive physician relationships, and organizational characteristics and in the extrinsic (material) section relating to control of work schedules and work activities, and salary and benefits.

The intrinsic characteristics included in this model are autonomy in the profession, autonomy and independence in patient relationships, interpersonal relationships with peers and physicians, and organizational characteristics. Intrinsic characteristics have been widely studied in nursing, including job satisfaction and autonomy (Cajulis & Fitzpatrick, 2007; Penz & Stewart, 2008), relationships with peers and physicians (Baggs & Ryan, 1990; Kovner, Brewer, Wu, Cheng, & Suzuki, 2006; Utriainen & Kyngas, 2009), and environmental or organizational characteristics (Duffield et al., 2011; Kramer & Schmalenberg, 2008; Heath, Johanson & Blake, 2004). These variables whether measured in combination or individually have been shown to be directly related to intent to stay and retention.

The extrinsic characteristics of the model are stress and workload, autonomy and control of work hours and work activities, salary and benefits, and a positive perception of opportunities within/without current employment. Extrinsic characteristics are derived from the environment and are not inherent of the job. Compared to intrinsic characteristics, extrinsic characteristics are less studied and the inclusion of these characteristics in recent literature may be viewed as a

change in the way job satisfaction is studied (Ellenbecker, 2004; Tovey & Adams, 1999).

Studies on extrinsic characteristics focus on stress (Healy & McKay, 2008; Ernst, Messmer,

Franco, & Gonzalez, 2004), workload (Hayes, Bonner, & Pryor, 2010; Healy & McKay, 2008),

autonomy concerning work hours and activities (Buffington, Zwink, Fink, DeVine, &

Sanders,2012; Wilson, Squires, Widger, Cranley, & Tourangeau, 2008), salary and benefits

(Buffington at el., 2012; Hallberg at el., 2011; Utrianinen at el., 2009), and opportunities

within/without current employment (Hayes at el., 2010; Wilson at el., 2008).

 This model has been used almost exclusively with home healthcare nurses (Ellenbecker,

2004; Ellenbecker, Boylan, & Samia, 2006; Ellenbecker, Samia, Cushman, & Porell, 2007;

(Ellenbecker, Porell, Samia, Byleckie, & Milburn, 2008), and was used to develop the Home

Healthcare Nurse' Satisfaction Scale, which was designed to measure job satisfaction in home

healthcare nurses (Ellenbecker & Byleckie, 2005; Ellenbecker, Byleckie, & Samia, 2007).

Although this model focuses on home healthcare nurses, based on research by Ellenbecke (2004)

the model lends itself well to be used with the different types of nursing including those working

in acute care. McCarthy, Tyrrell, and Lehane (2007) used this model to investigate acute care

nurses' intentions to leave or stay in nursing and reported that job satisfaction should be

considered as a mediating variable of intent to stay and not one with a direct effect on turnover.

Model Modifications

Modifications of Ellenbecker's Model were made to make it more relevant to the needs and

concerns of older nurses working in acute care settings as they consider retention versus

retirement. Figure 1-2 shows the adaptations of the Ellenbecker Model to be used in this study.

The identified variables are years to retirement, (dependent variable) and the independent

variables job satisfaction; individual characteristics and work environment (intrinsic and extrinsic factors), and successful aging (intrinsic factor).

Definition of Terms

Intent to Stay/Delay Retirement Turnover has been referred to as a workers intention to leave their current organization and this concept has been considered interchangeable with turnover; however it is important to note that intention to leave is distinctly different that actually leaving (Cho, Johanson, & Guchait, 2009). Specifically, intention to leave refers to an individual's subjective estimation of leaving an organization and is considered a conscious and deliberate desire to leave in a specified time period (Mowday, Porter, & Steers, 1982; Mobley, Horner, & Hollingsworth, 1978; Price & Mueller, 1981). Empirical and conceptual research has consistently found that job related factors such as job satisfaction and organizational commitment are negatively related to intention to leave and that intention to leave is the strongest predictor of actual turnover (McCarthy, Tyrrell, & Lehane, 2007; Tourangeau et al., 2009; Zurmehly, Martin, & Fitzpatrick, 2009). When nurses leave an organization, either voluntarily or involuntarily, the impact is substantial. Nurse turnover is a complex and multifaceted issue challenging researchers and healthcare leaders, and affecting every area of health care (Jones, 2008; LeVasseur, Wang, Mathews, & Boland, 2009). Researchers have attempted to identify key reasons for nurse turnover studying closely aligned issues such as general employment and workforce stability, and the concept of retention (Hayes, Bonner, & Pryor, 2010).

The aging workforce and the exceptionally large number of older workers planning retirement before reaching full retirement age has left companies struggling to retain and hire competent employees (Hedge, Borman, & Lammlein, 2006). Work can be a negative factor

leading to ill-health and burn out or a significant positive source of engagement throughout nurses' lives (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008) and studies on early retirement have consistently shown that environmental and personal factors are associated with retirement intentions and decisions.   Retirement of employees is important to society, employing organizations, and the employees themselves. Wang and Shultz (2009) reported that the last comprehensive review of retirement practices was published almost 30 years ago in 1986 (Beehr, 1986). Other reviews and studies have focused on aging and work issues including retirement (Blakeley et al., 2008; Hedge et al., 2006; Kanfer & Ackerman, 2004) however, few have examined the specific phenomenon of turnover-intent to retire and the need for retention strategies of nurses.

The loss of experienced nurses from bedside nursing can lead to staffing issues requiring increased use of agency staff and mandatory overtime, decreased productivity, performance and quality of patient care (Murrells, Robinson, & Griffiths, 2008). The loss of nurses exacerbates the well documented nursing shortage currently occurring in the U.S. and around the world.

Job Satisfaction A description of the factors contributing to job satisfaction in the workplace can be found in current literature, however finding a concise definition of job satisfaction relating specifically to nursing is difficult (Hayes, Bonner, & Pryor, 2010). The definition of job satisfaction is dependent on many factors and changes from person to person and within that person from time to time. Locke's definition of job satisfaction was an evaluation of the job and the environment surrounding the job made by the employee (Locke, 1969). Stamps and Piedmont (1986) and Price and Mueller (1981) defined job satisfaction as the degree or extent to which employees like their jobs. Pilkington and Wood (1986) described job satisfaction as the degree of positive emotional sentiment nurses reported. Geiger and Davit

(1988) defined job satisfaction as the nurse's expression of fulfillment, of their individual needs, by the job. In this study the Geiger and Davit's (1988) definition of job satisfaction was used which is: extend that nurses feel their needs are fulfilled by the job. Job satisfaction was operationally defined using the Mueller McCloskey Satisfaction Scale (MMSS).

Work Environment Extrinsic Characteristics: Work environment is often thought of as simply the environment where people work. Defined this way the concept is very broad encompassing the physical setting; such as heating, lighting and equipment, the characteristics of the job; workload, staffing, work complexity, organizational aspects, leadership, salary, and policy and administration. The focus of work environmental studies has evolved over time from a singular psychological aspect (Herzberg, 1966) to the multiple aspect of both psychological and physical factors (Karasek, 1985), and progressing to the more recent organizational and practice factors in nursing (Lake, 2002). The nursing practice environment on different hospital units is a complex construct involving the organization of nurses professionally and the areas in which they practice and work (Lake, 2002). Work environment specific to nursing has been widely studied, examining organizational factors such as patient outcomes, nurse staffing, leadership, salary, benefits, and physical work areas, (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; Duffield et al., 2010; Force, 2005; Kramer & Schmalenberg, 2012 ; Rochefort & Clarke, 2010; Vischer, 2007). The nursing practice environment also includes peer, managerial, and medical professional relationships, status of nurses, nurse participation, and quality of patient care (Duffield et al., 2011; Meraviglia et al., 2008).

The nursing environment has been defined as characteristics of the "work setting that facilitate or constrain professional nursing practice" (Lake, 2002, p. 178), and as "a system that supports registered nurse control over the delivery of nursing care and the environment in which

care is delivered" (Hoffart & Woods, 1996, p. 354). Zelauskas and Howes (1992) conceptualized the work environment as one that "empowers nurses by providing them with increased opportunities for autonomy, accountability, and control over the environment in which they deliver care" (p. 18). In this study work environment was defined according to Kramer and Schmalenberg (2012) as "the totality of all factors that influence satisfaction and performance" (pg 59). This definition focuses on the work environment as being healthy both physically and psychologically, and enhancing quality of work conditions for nurse professionals and quality patient care. Work environment was operationally defined using the Practice Environment Scale of the Nursing Work Index (PES-NWI).

Successful Aging Intrinsic Characteristic: Successful aging was included in the framework because of the relationship between work and self-esteem that has been defined by biomedical theories, psychosocial theories and the layman's view. It was defined by Rowe and Kahn (1998) as growing old with strength, vitality, and in good health. Fisher and Specht (1999) defined it as having a sense of purpose, social interactions, personal growth, life satisfaction, autonomy, and good health. These definitions convey the understanding that successful aging can only occur when a person is physically healthy. It is understood, however that elderly or older people are more susceptible to mental and physical ailments and the requirement of physical health is discriminatory to any person with chronic health problems. Wong (2000) defined successful aging as possessing a positive meaning and purpose in life even in the face of failing health. Bonner and Dieppe (2005) and Bowling (2007) defined successful aging as a multidimensional state to aim for, with the concept placed on a continuum of achievement rather than viewing successful aging in the simplistic manner of success or failure.

From the perspective of retaining older workers, organizational theorists (e.g., Booziaer, Ficker, and Rust, 2001) have long recognized the internal needs of employees for personal accomplishment, continued education, and the development of themselves beyond where they are presently. This view is consistent with what gerontologists term "generativity" which is Erik Erikson's conceptualization of the lifecycle (Erikson, 1950) proposing the psychosocial development continuum over an entire lifespan. Erikson's seventh stage is described as "generativity versus stagnation" and occurs during the midlife period when humans have a strong desire to expand interests beyond the self and guide and contribute to future generations. Erikson (1997) cited generativity as a pivotal psychosocial task in older adults and described it as the process of passing on traditions, knowledge, and values to the younger generations thus leaving a living legacy and promoting continuity for future generations (McAdams & de St. Aubin, 1992).

Therefore, for this study successful aging was conceptualized as an intrinsic characteristic within the JRM. In this study, successful aging was defined according to Fisher (1995) as the ability of continued growth and the need to learn from past experiences, coping with present circumstances and setting goals for the future with an emphasis on adaptability. Successful aging was operationally defined by the Work Ability Index (WAI). The definition of successful aging has many of the factors addressed in the WAI; a questionnaire developed by the Finnish Institute of Occupational Health to assess perceived work ability (Tuomi, Ilmarinen, Martikainen, Aalto, & Klockars, 1997). Work ability as perceived by workers is multifaceted and depends on training and education, status and work history, commitment to the employer, peer relationships and managerial support (Ilmarinen, 1999). The WAI is based on assumptions that work ability can be measured by a worker's perception of the demand of the existing work

environment and the ability to cope with environmental issues (Tuomi et al., 1997), including psychological and physical requirements of work, managerial and colleague support, and other organizational factors. The worker's perceived ability to cope with these demands is influenced by the worker's health, values, attitudes, and competence and functional capacity (physical, mental and social resources) (Imarinen, 2004). The WAI does not focus on human resource policies but on the employees' assessment of their ability to continue working and whether possible restrictions to work ability are imminent and actions are needed to promote health over their working lives.

The WAI has been utilized in studies to determine relationships between perceived work ability and retirement (Feldt, Hyvönen, Mäkikangas, Kinnunen, & Kokko, 2009; Tuomi, Huuhtanen, Nykyri, & Ilmarinen, 2001). Work ability was found to be related to age of retirement, with better work ability indexes increasing age of retirement by a difference of six years and work ability was associated with higher quality of work and enjoyment at work (Feldt et al., 2009 Tuomi et al., 2001). The ability to remain well and function until retirement has also been predicted by good work ability (Tuomi et al., 2001). The WAI assessment tool has been used to study age, job satisfaction and successful aging in the promotion of well-being in acute care nurses (Müller, Weigl, Heiden, Glaser, & Angerer, 2012).

Today many older workers chose to stay on the job because working often defines who we are in the world affecting self-esteem and life-satisfaction (Kammeyer-Mueller & Judge, 2008; Lee & Peccei, 2007). Work is a central source of identity in contemporary society. The job is "the most important social and economic role held by most adults outside their immediate family or household" (Hauser & Warren, 1997, p. 179). Our status in society is often viewed through the lens of the occupation we hold and the respect given that occupation (Kammeyer-

Mueller & Judge, 2008).   Many articles have been written concerning aging workers and the construct of successful aging however very few studies were found specific to these two topics and retention of older workers. Research has viewed successful aging as additional stage in life as older workers approach retirement; this research approached successful aging as a continuum of working as we age.

Defining the Older Nurse/Worker Older workers have been defined in literature using several methods, including chronological, psychosocial, organizational, functional, and the life – span approach (Sterns & Doverspike, 1989). Although each definition has advantages and disadvantages, for this study older nurses or workers will be defined using chronological age. The Age Discrimination Act states that older workers are to be classified as workers over the age of 40. This study defined older workers/nurses as over the age of 40, inclusive of new graduates or seasoned veterans.

This chapter introduced the background, the statement of the problem, the statement of purpose and the significance of the study. The Job Retention Model as a theoretical framework for the study was discussed and illustrated. Use of the Job Retention Model was utilized to devise four research hypotheses, to guide the study.

Figure 1-1 Ellenbecker's theoretical model of job retention for home health care nurses 2004.
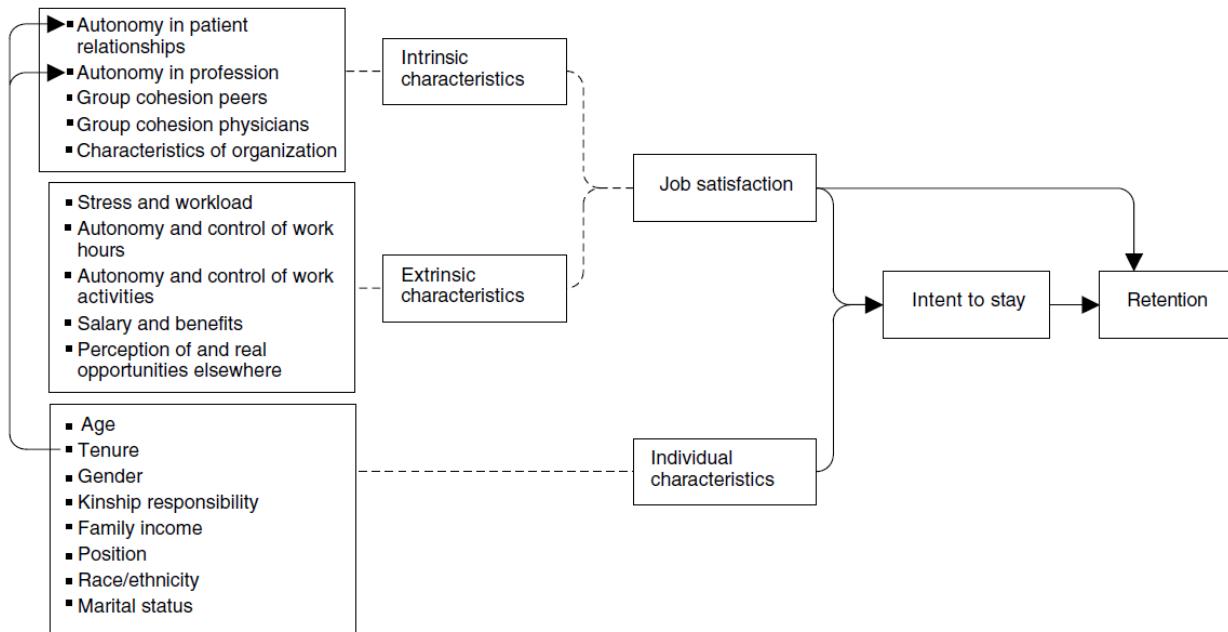
Figure 1-2 Modified Ellenbecker's Model and hypotheses (H) of work environment, job satisfaction and successful aging.
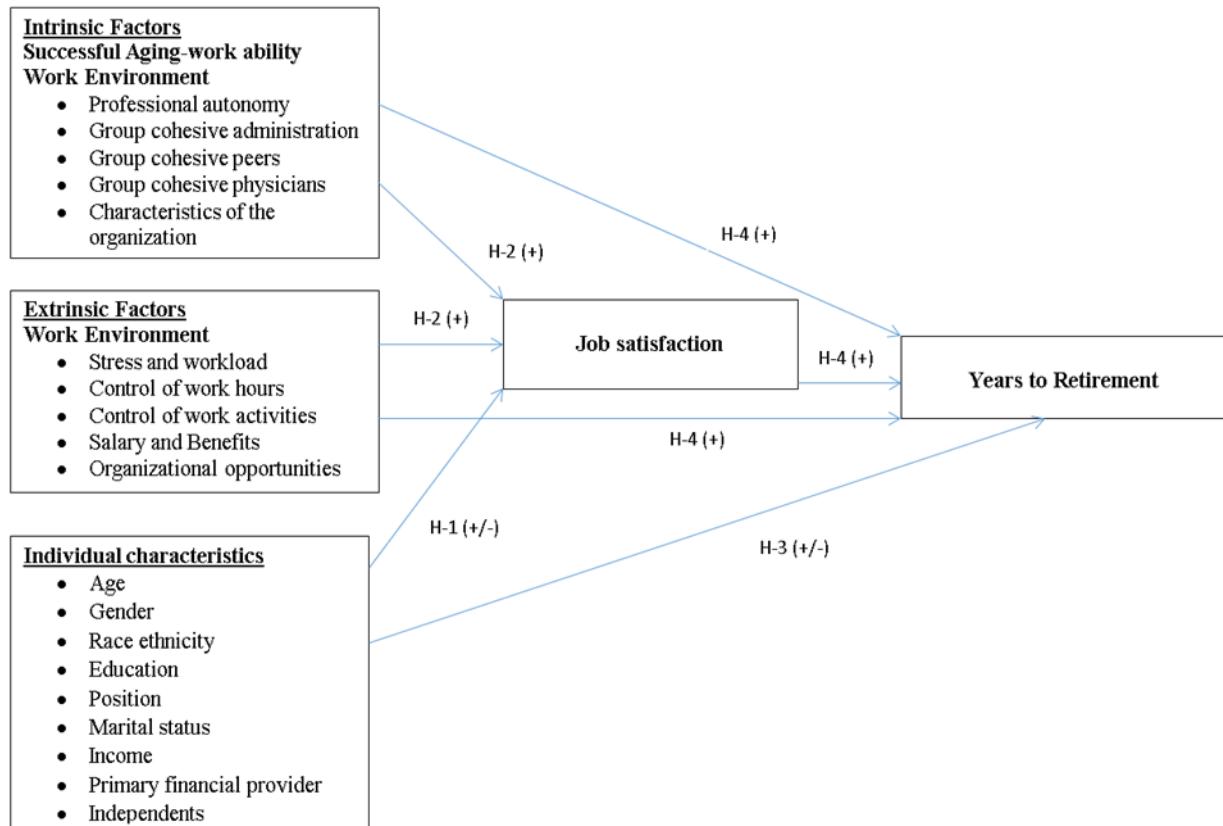
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Successful Aging in the Workplace: A Concept Analysis

Abstract

Around the world growth in the number of older people combined with the trend to continue working into older chronological ages has created a shift in workforce demographics. The demographic shift suggests the need to re-consider ways in which successful aging, a gold standard for the evaluation of aging, is conceptualized in literature and research. In literature, successful aging is usually applied to individuals post-retirement and often to individuals who are >70 years. The application of successful aging to older individuals in the workplace is currently not well defined or delineated. The aim of this concept analysis was to examine the concept of successful aging as it applies to older individuals in the workplace and to propose a definition for this group rarely considered in successful aging research using the evolutionary method. The model was constructed from a systemic, comprehensive literature review and analysis. To completely understand the concept of successful aging it was important to research this concept as viewed by other disciplines. This paper systematically analyses successful aging's historical perspectives, attributes, antecedents and consequences relating those concepts to the workplace.

Key Words: successful aging or successful ageing, work, workplace, workers and older workers

In the U.S., the Bureau of Labor Statistics (BLS) (2010) reports that employment of people 55 and over has increased to an all-time high. U.S. Census Bureau data shows that by 2016 one-third of the U.S. workforce will be age 50 or older and increasing to 115 million by 2020 (U.S. Census Bureau, 2010). Between 1977-2007 employment of all workers (over age 16) increased to 59 percent, compared with the larger increase of workers over age 65 of 101 percent (BLS, 2008). The BLS projects that by 2018; there will be 40 million workers in the 55-and-older group in the U.S., an increase of nearly 43 percent. This group will compose approximately a quarter of the labor force (Toossi, 2009). The growth in the number of older people combined with the trend to continue working into older chronological ages has created a shift in workforce demographics. Continued employment into the 70's has been shown to be positively correlated with longevity, self-sufficiency and improved health (Hammerman-Rozenberg, Maaraci, Cohen, & Stessman, 2005). The demographic shift suggests the need to re-consider ways in which aging is conceptualized in the U.S.

Successful aging is a popular concept used to denote a gold standard for attainment of developmental milestones in later life. It is utilized in most every area of academia from sociology to medicine, psychology, neurology, nursing, and business and it serves as a guide for how aging is conceptualized in industrialized countries. However, the concept is usually studied among individuals post-retirement and individuals who are >70 years of age. Research into successful aging among older workers is a relatively recent application of the concept (Cheung & Wu, 2013; Robson, Hansson, Abalos, & Booth, 2006; Müller, Weigl, Heiden, Glaser, & Angerer, 2012). How this concept applies to older individuals in the workplace is not well defined or delineated. The aim of this concept analysis was to examine the concept of successful aging as it applies to older individuals in the workplace.

Description of Rogers' evolutionary content analysis method

This article is outlined using Rogers' (1989) evolutionary concept analysis. The evolutionary method of concept analysis was developed in opposition to earlier accepted classical analysis methods. Concept analyses aim to represent concepts appearing in scientific literature by yielding an informative set of attributes to clarify the concept (Rodgers, 1989; Walker & Avant, 2011) and synthesize existing views that characterize the concept (Knafl & Deatrick, 1993). The concept analysis described in this current manuscript was performed to understand successful aging in the workplace from a multidimensional perspective consistent within occupational, nursing and gerontological research. Rodgers' evolutionary approach to concept analysis (Rodgers B. & Knafl K.A., 2000) was used.

Rodgers' (1989) approach examines attributes, antecedents, and consequences of the concept, as well as changes over time and concept characteristics within different contexts. Rogers & Knafl (2000) assert that the evolutionary method allows for analysis that is inductive and non-linear and not sequential, providing great analytic rigor. With attention to context it permits detection of the dynamics of and the changing nature of the concept. According to Rodgers (1989), to develop conceptual meaning it is necessary to identify characteristics common to the concept, assign a means of expression by abstracting and clustering characteristics and deriving a definition for the concept. In Rodgers' cycle of concept development (1989, 2000), the analysis progresses in three phases: significance, use and application. Examining the significance of the concept provides an incentive to a particular discipline, such as nursing, to focus on the concept's development within a specific domain, for example, within the workplace. The significance of a concept impacts the frequency of its use and increasing emphasis and study, thereby enhancing usefulness and clarity. Common use of a

concept identifies clusters of defining attributes. By understanding how the concept is used in a particular area of research and how it is incorporated into the research, the concept can be applied to new situations illuminating the strengths, limitations, and scope of use in distinct situations (Rodgers 1989, Rodgers B. & Knafl K.A., 2000). Using this focused methodological technique lays the foundation for further scientific development.

When applied to a particular context, concept development continues over time. Context may include a specific discipline, cultural group or use in a particular theory. Rodgers' evolutionary approach does not employ specific steps rather it employs iterative processes designed to direct the examination. Consistent with Rogers & Knafl, under Methods, this paper will describe: 1) the concept of interest, including surrogate terms and uses of the concept based on analysis of the literature, 2) the settings and sample for data collection that directed the literature review; and 3) strategies for collecting, managing and analyzing data to identify relevant attributes, antecedents and consequential occurrences. Under findings, this paper will present: 1) the context of successful aging and definitions; 2) evolution of the concept; 3) concept attributes and antecedents; and 4) proposed theoretical and operational definitions include implications for further research (Rodgers B. & Knafl K.A., 2000).

Methods

Identify the concept of interest

An evolutionary concept analysis begins with identifying the concept of interest which is successful aging in the workplace, and providing a theoretical guidance in developing strategies for successful aging within older employees. Successful aging has been associated with multiple terms including healthy aging, harmonious aging, productive aging, optimal aging, and positive aging. Successful aging is usually used globally to assess how the oldest old have aged. The

context in the analysis for this present paper is older workers and examines the concept of successful aging in the workplace with a young-old population. In this context, successful aging is viewed not as an outcome but as a process which allows for adaptation to changing conditions (Villar, 2012) related to both the physical body and situations within the workplace.

Identify the setting and sample of data sources

Setting, according to Rogers (2000), refers to the time period and the type of literature or discipline included in the analysis. The time period of 1987-2014 was chosen because it reflects sufficient time to detect changes in the conceptualization of successful aging and to account for the introduction of successful aging in the context of workplace. The study sample was drawn from the disciplines that have studied successful aging including sociology, medicine, psychology, nursing, and business. These comprised the study sample. Computerized searching of MEDLINE, PsychINFO, Web of Science, and CINAHL databases was completed. The search was limited to the keywords "successful aging" or "successful ageing", "work", "workplace", and "older workers" in peer-reviewed English language periodicals. To obtain a broadest scope of information, no age or specific population was specified. Fourteen articles were included: quantitative (11) and qualitative (2) studies and one review article. Research described in the 14 publications were from studies conducted in the U.S. (5), Germany (5), China (3) and Japan (1) using a variety of models of successful aging. Included articles were published between the years 1995-2013 with the majority published after 2000.

Collection and managing the data

After completion of the sample selection, retrieved papers were organized by discipline and reviewed. The review provided an overview of the papers and then the papers were

organized into categories according to Rodgers B. & Knafl K.A. (2000): context, attributes, antecedents, and implications for further research.

Analysis

Understanding the concept of successful aging in other disciplines is important in the analysis of successful aging in the nursing domain. The papers were reviewed to identify major themes. A relevant, cohesive and comprehensive system of descriptives was identified and examined for areas of agreement and disagreement within and across disciplines, and emerging trends and changes over time in the concept.

Findings

After an Overview of the papers, the context of successful aging will be presented, followed by attributes, antecedents, consequences and hypotheses and implications for further research. Essential characteristics of successful aging should be applicable in situations in which the concept is present (Morse, 1995).

Overview of Papers

Historically, successful aging studies have focused on quantitative, physiological outcome measures of aging. Combining the concepts of successful aging and work has been recent. A shift from the formulation criteria towards the processes involved in successful aging is represented in several well-known models which describe maintaining or increasing well-being in the aging process;(Kahana & Kahana, 2001), continued achievement of goals (Baltes & Baltes, 1990), and promotion of subjective well-being (Brunstein, 1993; Rapkin & Fisher, 1992). The life-span model of Selective Optimization with Compensation (SOC model) by P. Baltes and M. Baltes (1990) is a popular model of successful aging which has been used in the workplace (Abraham, 1993; Robson et al., 2006; Muller et al., 2012; Muller et al., 2012; Muller et al., 2013;

Weigl et al., 2012). This model characterizes aging as a heterogeneous process with different pathways and successful outcomes. Baltes and Baltes (1990) were among the first to describe processes of successful aging instead of the sole definition of the end points.

Context of Successful Aging

The majority of studies on successful aging pertain to the 'older' old (>70) (Garfein & Herzog, 1995; Suzman, Willis, & Manton, 1992) and do not include working individuals. Decades of research continues to yield a variety of definitions of successful aging. Two observations were made by Phelan and Larson (2008) on the definitions. First, to date no uniform or single definition has been adopted although many definitions emphasize maintenance of functional capacity as an element of success. Included in many studies as a predictor of success is freedom from chronic illness as operationalized by physical activity and social engagement, while other researchers utilize these same factors as *outcomes* to define success (Britton, Shipley, Singh-Manoux, & Marmont, 2008; Tate, Lah, & Cuddy, 2003). Second, little work has been done to ascertain or 'self-report' the meaning of successful aging from the perspective of the individuals involved (Phelan & Larson, 2002). What follows are definitions that have been derived from the biological, psychological and occupational contexts.

Biological definitions of successful aging are illustrated by the MacArthur study which focuses primarily on maintenance of cognitive and physical abilities (Berkman et al., 1993). The three criteria developed by Rowe and Kahn can also be seen as biological. They are absence of disease, disabilities and risk factors; maintaining physical and cognitive function; and active engagement in life (Rowe & Kahn, 1997). Other studies have defined successful aging as the ability to complete all basic physical activities with minimal difficulty as operationalized as "high-function" by use of performance-based measures (Strawbridge, Cohen, Shema, & Kaplan,

1996). Genetics (Glatt, Chayacichitslip, Depp, Schork, & Jeste, 2007), human immunodeficiency virus (Vance & Robinson, 2004), and use of prosthetic therapy in stroke patients (Budtz-Jorgensen, Chung, & Mojon, 2000) are examples of medical biological studies that have measured successful aging.

Psychological definitions of successful aging focus on cognitive function, life satisfaction, creativity, and autonomy. The Selection, Optimization and Compensation (SOC) model has provided the theoretical underpinning for some of these studies. Schaie (1990) argued that a measure of successful aging is the optimization of cognitive function attained in earlier life as indicative of maintaining high levels of function later in life. Albert et al. (1995) examined maintenance of cognition and cognitive changes over time in community dwelling people as indicative of successful aging. Creativity has been associated with successful aging in studies reporting that creativity contributes to successful aging by facilitating a sense of purpose, growth, and competence in older adults (Fisher & Specht, 1999). Havighurst (1961) was one of the first to recommend use of life satisfaction as a measure of successful aging and Palmore (1979) in longitudinal studies used a combination of life satisfaction and physical-function. Autonomy as a measure of successful aging was used by Williams and Wirths (1965) who defined successful aging as a combination of autonomy (as opposed to dependency) and persistent (as opposed to precarious) lifestyle. In another study of autonomy, successful aging was defined as sustained independence (Ford, Haug, Stange, Gaines, Noelker, & Jones, 2000).

Studies of successful aging in the workplace are few, but successful aging has been studied in workers/workplaces with use of the concept of "work ability," as measured by the Work Ability Index (WAI), and the emotional labor scale (Cheung & Wu, 2013). The SOC model has been used in studies at work to examine the relationship between successful aging and

health, emotional and social status (Oh, 2012). Robson, Hansson, Abalos, & Booth (2006) suggested that successful aging be defined within a specific domain (e.g. employment or the work domain) in terms of adjustment and performance, and as a multi-faceted construct rather than from the general definition or perspective. Viewing successful aging in a specific context (e.g. employment or work) may provide useful information related to older workers' adjustment and performance as they age.

Complicating this issue is that numerous studies utilize similar measures as predictors or outcome variables. Many of these studies target the oldest old and include measures of cognitive function and activities of daily living (ADLs). These findings would not be helpful when researching older actively functioning workers in highly physical occupations such as nursing or construction. Dillaway and Byrnes (2009) point out that recent critics of the successful aging paradigm challenge mainstream biomedicine and gerontology to avoid currently defined successful aging terminology and to reconceptualize it on their own (Estes & Binney, 1989; Holstein & Minkler, 2003; Minkler & Fadem, 2002; Rudman, 2006; Svihula & Estes, 2008).

In spite of wide-ranging definitions for successful aging, authors have been able to begin examining the attributes most frequently seen and to arrive at a better understanding of the concept of successful aging in the workplace.

Evolution of Successful Aging

In the late 1980s, the term successful aging was popularized in response to the growing aging population and the need to understand the unique challenges facing this population with the thought of predicting healthy aging strategies (Guralnik & Kaplan, 1989). Studies included medical, psychological, and developmental approaches to successful aging (Guralnik, Branch, Cummings, & Curb, 1989; Ryff, 1982; Nelson & Franzi, 1989; Vaillant & Vaillant, 1990). These

studies contributed important research about the elderly population yet added little to understanding successful aging in the younger working age groups. In the 1990s an increasing number of researchers began to examine the medical predictors of successful aging in some longitudinal studies that continued to add significant findings to the topic (Berkman et al., 1993; Roos & Havens, 1991). More recently researchers began to differentiate successful aging into different dimensions of aging or trajectories (Hsu & Jones, 2012) even distinguishing between groups as the young-old, old-old, and oldest old (Baltes & Smith, 2003; Chou & Chi, 2002; Depp & Dilip, 2006; Garfein & Herzog, 1995).

In the 2000-2010s, studies were published with younger subjects looking at successful aging in adults 45 years and older (Prucho, Wilson-Genderson, Rose, & Cartwright, 2010; Wang & Lin, 2012). Though these studies examined younger subjects, the trend continued to reflect unsuccessful aging as disability and/or impaired physical function, cognitive function and psychosocial function. For example, to measure successful aging, Wang and Lin (2012) used a questionnaire to ascertain physical, social and economic insecurity and used the standardized Center for Epidemiological Studies Depression Scale to assess depression. Prucho et al. (2010) studied people 50-74 to examine objective and subjective components of successful aging using questions on ADLs, pain and chronic illness for the objective components and three questions on the subjective component. Britton, et al. (2008) conducted a longitudinal study to assess the contributions of early-life and midlife risk factors to successful aging, classifying participants as 'aging successfully' if they were free of major disease and maintained levels of function. Despite the popularity of the topic and the inclusion of many components of successful aging such as life satisfaction/ well-being (Havighurst, 1961; Vaillant & Mukamal, 2001), absence of physical disease and disability (Fries, 1980; Rowe & Kahn, 1987), independent living (Roos & Havens,

1991) and active social engagement (Rowe & Kahn, 1987), physical functioning and disease/disability remain the defining features in most operational definitions of successful aging (Depp & Dilip, 2006). The concept analysis described in the current manuscript approaches successful aging as defined by terms of adjustment and performance within the specific domain of the workplace (Robson et al., 2006).

Attributes of successful aging

Defining attributes are the characteristics most frequently associated with a concept and allows a broader insight for the analysis of the concept (Rodgers B. & Knafl K.A., 2000; Walker & Avant, 2011). True definitions of a concept are the attributes identified with it, identifying possible situations in which the concept can be used and characterization of the concept of interest (Rodgers, 1989). Although authors used terms interchangeably, the term *successful aging* was used in the majority of reviewed publications and several important attributes of successful aging immerged: ability, adaptability, positive relationships and social identity.

Ability

In gerontological research directed at successful aging, most studies examine disability as opposed to ability. The measurements used often focus on what can no longer be done versus the ability to continue working. The term "work ability" best describes the ability of individuals to perform their jobs with respect to specific work demands (Ilmarinen & Rantanen, 1999). This concept has attracted considerable attention in European countries among researchers addressing issues pertinent to the well-being of aging workers (Ilmarinen, 2009; Paullin & Whetzel, 2012). Work ability is defined as the mental and physical capability exhibited by employees to perform their work (Ilmarinene, 2009; Tuomi et al, 1997). Work ability examines the balance between the job's demands and personal resources of the employee including physical and cognitive abilities

(Ilmarinen, 2009). If demands of the job exceed the employee's resources, work ability decreases. This differs from conventional work performance measures and concepts (Griffin, Neal, & Parker, 2007) as the concept of work ability targets personal resources relating to physical and mental demands (Maertens et al., 2012). Work ability has been shown to be an important determinant for perceived enjoyment and staying at the job, well-being on the job and productivity (Ahlstrom, Grimby-Ekman, Hagberg, & Dellve, 2010; Feldt, Hyvonen, Makikangas, Kinnunen, & Kokko, 2009; van den Berg, Elders, de Zwart, & Burdorf, 2009).

Adaptability

Robson (2006) proposed a model of successful aging in the workplace which included five dimensions: adaptability and health, positive relationships, occupational growth, personal security and achievement of personal career goals. Adaptability and health as proposed by Robson et al. (2006) refers to the ability of older employees to adapt to changes on the job and to physical changes that might affect work performance. Adaptability in the work place has been studied by examining work-family conflict, a situation where work and family roles are incompatible placing pressure on an employee (Cheung & Wu, 2012). Continued conflict between work and family factors increases the strain older workers experience and is believed to adversely affect work performance, job satisfaction, and successful aging in the workplace (Cheung & Wu, 2012).

Positive relationships

Positive relationships with colleagues can fulfill socioemotional needs for aging workers (Robson et al., 2006). Coping resources and social support have been reported to have a positive effect on successful aging (Seeman et al., 2001). Of interest is that social support is related to increased physiological functioning of older people (Seeman & McEwen, 1996) which may

protect workers from cognitive decline (Seeman et al., 1997). Robson et al., (2006) reported

similar findings about social relationships and work, indicating that, consistent with Carstensen,

Gross, and Fung (1998), social participation and size of the employees' social network tended to

decrease in later life yet there was no association with decline in well-being. Carstensen argued

that social network reductions are selective and adaptive visualizing later life as a time to change

the composition of relationships by conserving, refocusing and reducing peripheral relationships

yet maintaining emotionally close core relationships (Ryan, Csikszentmihalyi, Rathunde, Harter,

Eccles, & Carstensen, 1993). This would change the focus and function of relationships from

instrumental to relationships that enhance emotional well-being for older workers (Robson et al.,

2006).

Social Identity

Social identity is the theory behind how and why we as adults develop a sense of

belonging and membership as affirmation of positive self-control (Tajfel & Turner, 1979).

Identity at work has been defined as rooted in our psychosocial core including the expression of

self to ourselves and others. This benefits the people we work with and the worker by increasing

enjoyment on the job and the workers love of the job (Josselson, 1994). Social identity is the

method by which we define ourselves and how we guide our behaviors and allot resources

(Deaux, 2001). Cheung and Wu (2013) theorized that workers who identify themselves as

"aging workers" may engage more coping strategies and participate more in work-learning

classes; thus increasing coping skills relating to age-related challenges in the workplace. Social

identity has been reported as beneficial when examining motivation and work (Ellemers, De

Gilder, & Haslam, 2004), self-esteem within work organizations (Ashford & Mael, 1989;

Bergami & Bagozzi, 2000), supervisory support and work-life integration (Hopkins, 2005),

relationships at work (Ely, 1994), health and well-being (Haslam, Jetten, Postmes, & Haslam, 2009) and retirement and work in older workers (Desmett & Gaillard, 2008).

Antecedents

Antecedents are criteria that must happen or be present before the concept, in order for it to occur (Rodgers, 1989; Walker & Avant, 2011). Antecedents found to be requirements for successful aging in the workplace were age and work.

Age

The importance of age to successful aging was first identified by Rowe and Kahn (1987) when they pointed out the relationship of progressive age to impairments such as osteoporosis, cognitive function, health and disease, autonomy and control. They differentiated between usual and successful aging with usual aging being associated with extrinsic factors which heightened the negative effects of aging and successful aging being associated with extrinsic factors considered to have neutral or positive effects. This model incorporated three principles of successful aging: maintaining high levels of mental and physical function, absence of risk related to disease and disease-related disability; and active engagement with life. These principles are usually equated with older individuals. For successful aging to occur one must attain the necessary years to fit the definition and be experiencing the changes of age. Advanced age is often viewed as an adverse event in life but when discussing this with elders in qualitative studies responses on self-acceptance and self-appraisal are usually positive.

The importance of age is also identified in Baltes' and Baltes' (1990) SOC model. This model has been used in several studies examining successful aging and work (Abraham, 1993; Robson et al., 2006; Muller et al., 2012; Muller et al., 2012; Muller et al., 2013; Weigl et al., 2012). SOC has been conceptualized as a developmental process that is life-long and proves

most useful when developmental losses outweigh gains (Baltes, Smith, & Staudinger, 1992).

Within the work arena, SOC is described as an adaptive strategy involving three related concepts (selection, optimization, and compensation) that workers can utilize to successfully adapt to situations where developmental changes or losses predominate (Baltes, 1993; Baltes & Baltes, 1990; Baltes et al., 1992). SOC has been useful in studies explaining successful aging strategies in maintenance of job skills, opportunities and competencies (Abraham & Hansson, 1995; Zacher & Freses, 2011), perception of organizational support (Cheung & Wu, 2012) and social identification on the job (Cheung & Wu, 2013).

Work

Work is defined as exertion or effort directed to accomplish or produce something; toil; labor, employment, within an industry directed at a means of earning income or one's place of employment ('Dictionary.com', 2014). This definition is well-rounded encompassing all ages however do older workers perceive work differently? Because age plays an instrumental role in successful aging the roles and views of different cohorts is an important concept as well as older workers' perceptions of work. Chang and Wu (2013) examined associations among job satisfaction, successful aging on the job, perceived organizational support, and the intent to stay among older workers in Hong Kong. This study reported that perceived organizational support as well as five other dimensions of successful aging was significantly related to intent to stay. The authors concluded that attitude on the job may contribute to increased job satisfaction and enhancement of intentions to remain employed. No significant relationship was found between age and successful aging indicating that age may not be the best indicator of successful aging in the workplace, stating other factors such as functional age (declining health and change in

cognitive abilities) (Kooij et al., 2008) or perceived time left to work (Carstensen, 1992) may affect successful aging in the workplace.

The Kooij et al. (2008) review indicated age-related factors can negatively impact the motivation of older workers to remain employed suggesting that these factors were important to understanding older workers and their motivation to continue work and as well as to research on successful aging in the workplace. Social perceptions of age and managers with stereotypical views of older workers have been reported as affecting the perception workers have of their job and work (Kooij, de Lange, Jansen, & Dikkers, 2008). Research has shown that the need to actively engage in work is related to the workers physical and psychological well-being (Wilcock, 1993) and may directly affect all aspects of the worker's life accounting for overall aging well (Swaab, 1991). The concept of aging well has been positively correlated with the idea of productivity among workers (Herzog & House, 1991; Palmore, 1979).

Bambrick and Bonder (2005) completed a qualitative study of older adults' characterizing or defining their perceptions of work. The criteria for this study was age 60 or older, living in a community setting, self-defined as overall well, and no identified cognitive limitations. Three themes were identified in this group of older workers: productivity, which was linked to identity and demonstrated value and worth to workers; a need to give back to the community; and staying engaged. Reported was the possibility that productive activities or work may make transitioning into older adulthood an enjoyable journey to another phase of life.

Theoretical Definition

The theoretical definition of successful aging is multidimensional. It can be viewed as the ideal state to aim for and as a continuum of achievement best described without using simplistic

assessments such as success or failure (Bowling et al., 2005). The dimensions include: ability; adaptability, positive relationships and social identity.

In the case of older workers, successful aging is the ability to perform in their chosen profession to their own satisfaction while maintaining the love of the profession and a balance of job and outside life. Ability is also reflected in the mental and physical capabilities of the aging employee. Examining both mental and physical demands of workers is important to perceived enjoyment on the job and staying employed, well-being and productivity of older workers (Ahlstrom, et al., 2010; Feldt et al., 2009; van den Berg et al., 2009). Successful aging involves the use of self-regulatory strategies that help individuals achieve positive balance between age-related work changes in resources, capabilities, and preferences within the opportunities at work (Zacher & Frese, 2011) and the constraints or possibilities provided at work (Robson & Hansson, 2007).

Adaptability when applied to older workers involves accommodating to changes at work and the physical changes affecting workers performance on the job (Robson et al., 2006). Aging has been seen as a change in perceptions about conflict among work, family and social interactions (Cheung et al., 2012; Super, 1980) noting that this conflict can adversely affect performance, job satisfaction, and successful aging at work (Cheung et al., 2012). Older workers adapt to changes on the job as well aging (Robson, et al., 2006; Cheung & Wu, 2012).

Positive relationships fulfill socio-emotional needs for older workers and as reported to increase physiological functioning in older adults, offer protection from cognitive decline (Seeman et al., 1997) and have a positive effect on emotional well-being (Robson et al., 2006).

Social identity provides a "means for the integration and orchestration of work" (Karreman & Alvesson, 2004, p. 151). It has been theorized that older workers use increased

coping strategies and participate in employer offered classes therefore increasing skills pertinent to age-related challenges in the workplace (Cheung et al., 2013). Social identity has also been reported as significant to motivation (Ellmers et al., 2004), self-esteem on the job (Ashford et al., 1989) and health and well-being at work (Haslam et al., 2009).

Operational Definition

A theorist introduces the reader to critical defining attributes with the use of theoretical definitions that are usually abstract and may not be measurable (Walker et al., 2005). Many researchers state that there is no currently accepted definition of successful aging singularly or in combination with work; however the need remains to seek out some resemblance of conformity within research. In our review of the literature there are numerous methods of measuring successful aging in the workplace though a definition remains elusive. While use of customary measures such as ADLs, IADLs, and Mini-mental exams have helped measure successful aging more accurately and appropriately in the oldest-old, they may not be helpful for active older workers.

As the concept successful aging in the workplace emerges in occupation health the Work Ability Index (WAI) can measure a workers *ability* to continue working, adding to the definition of successful aging in the workplace. The WAI has been used in numerous studies to evaluate work ability including bus drivers (Kloimuller I., R., H., I., & Haupt, 2000), college educators (Marqueze, Voltz, Flavio, & Moreno, 2008), teachers and office workers (Seibt, Lutzkendorf, & Thinschmidt, 2005) and nurses (Camarino, Conway, van der Heijden, Estyn-Behr, Costa, & Hasselhorn, 2008; Chui, Wang, Lu, Pan, Kumashiro, & Ilmarinen, 2007; Rotenberg, et al., 2008). In health care an important criteria for maintaining individual employee's capabilities is personal work ability on the job. An abbreviated version of the WAI was used to assess

perceived work ability and physical and psychological job demands (Alavinia, van

Duivenbooden, & Burdorf, 2007) among Dutch construction workers. A positive correlation

between job control and successful aging at work was reported suggesting the use of successful

aging strategies as conducive to maintaining or enhancing work ability in employees (Müller,

Weigl, Heiden, Glaser, & Angerer, 2012; Weigl, Muller, Hornung, Zacher, & Angerer, 2012).

Adaptability includes dimensions in life such as health, relationships, growth on the job,

economic security and life goal achievements. Several prominent researchers in the field of

successful aging at work have developed instruments for evaluating adaptability (Hanson et al.,

2006; Robson et al., 2006). Other methods have been utilized to evaluate adaptability relating to

conflict between work and family, job satisfaction and organizational support. The 10-item

work-family conflict scale developed by Netemeyer et al., 1996 has been used to analyze conflict

between work and the family. Continued conflict at work has been reported to affect job

satisfaction, age perception and organizational support on the job. Numerous tools have been

used to measure job satisfaction, generally and specifically. General job satisfaction instruments

include the Index of Work Satisfaction (Taunton et al., 2004; Stamps, Piedmont, E.B., Slavitt,

D.B., & Haase, A.M., 1978), Measure of Job Satisfaction (Traynor & Wade, 1993; Yaktin,

Azoury, & Doumit, 2003), and the Minnesota Job Satisfaction Questionnaire (Ahmadi &

Alireza, 2007; Arvey, Bouchart, Segal, & Abraham, 1989). An example of job specific

satisfaction instruments can be seen in nursing instruments such as the Mueller McCloskey

Satisfaction Scale (Price, 2005; Tourangeau, McGillis Hall, Doran, & Petch, 2006), the Index of

Work, Satisfaction (Taunton et al., 2004; Stamps et al., 1978) and the Ward Organizational

Features Scales (Adams & Bond, 2000; Kelly, Simpson, & Brown, 2002). Organizational

support has been measured with the Perceived Organizational Support Scale (Armstrong-Stassen

& Ursel, 2009; Self, Holt, & Schaninger, 2005) and Allen's 14-item Organizational Support Scale (Grandey, Cordeiro, & Michael, 2007; O'Driscoll, et al., 2003).

Positive relationships have been measured with the Social Desirability Scale (Crost, Pauls, & Wacker, 2008; Plante, Yancey, Sherman, & Guertin, 2000), the Positive Relations with Others subscale (Lopes, Salovey, & Straus, 2003; September, McCarrey, Baranowsky, Parent, & Schindler, 2001), Scales of Psychological Well-Being (Carmody, & Baer, 2008; Hart, Fonareva, Merluzzi, & Mohr, 2005), and the Network of Relationship Inventory (Huinink & Merz, 2013; Han & Jun, 2010) have been used to evaluate social interaction and relationships on the job and in society in general.

Social identity has been measured using instruments such as the Mini-Mental State Exam (Cameron, Worrall-Carter, Page, Stewart, & Ski, 2013; Toglia, Fitzgerald, O'Dell, Mastrogiovanni, & Lin, 2011) , Montgomery-Asberg Depression Rating Scales (Leentjens, Verhey, Lousberg, Spitsbergen, & Wimink, 2000; Zimmerman, M., Chelminsi, I., Posternak, M., 2004), and the Beck Depression Inventory, (Beck, Guth, Steer, & Bali, 1997; Lopez, Pierce, Gardner, & Hanson, 2013) and other depression instruments. Social Identity has been measured using concepts such as self-esteem and self-categorization, using such scales as the Rosenberg Self-Esteem Scale (Westaway, Jordann, & Tsai, 2013; Supple & Plunkett, 2011), Work Preference Inventory (Steger, Dik, & Duffy, 2012; Stuhlfaut, 2010) and the Quality of Life Interview (Adogwa, Parker, Bydon, Cheng, & McGirt, 2011; Saxena, Ayers, Maidment, Vapnik, Wetherell, & Bystritsky, 2011) have been used in both working and non-working individuals.

Conclusion and Implications

Successful aging in the workplace will continue to be a relevant concept in research, literature and in practical application to increase understanding of the growing and complex population of older workers within the occupational area as well as specific work areas such as nursing. In fact, nurses have a vested interest in advancing use of the concept for two reasons. First, nurses in all settings serve many older workers and are charged with a responsibility for advancing health among the group and for supporting older adults as they seek to continue their employment status. Second, nurses are increasingly numbered among older workers (HRSA, 2008; HRSA, 2010). Understanding how the concept, successful aging in the workplace, can support the continued employment of older nurses has very important implications for the profession (Gabrielle, Jackson, & Mannix, 2008).

This is an important concept with both concrete and intangible components. Physical and mental health is readily measurable using an array of valid and reliable tools to measure the physical (concrete), psychological, and social (intangible) aspects of this concept. Due to the complexity and subjective elements of this concept it is individualized for each adult but successful aging in the workplace is perceived by this author as ability and not disability as perceived by other authors and has the capacity to be measured in older workers. For researchers the definition for successful aging in the workplace can be described as individuals' abilities to be physically able, cognitively functioning, and socially active while maintaining a healthy perspective of their abilities given their age and employment goals.

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Job Satisfaction, Work Environment, and Successful Aging: Determinants of Delaying Retirement among Acute Care Nurses

Aim. Based on a modified version of Ellenbecker's (2004) Job Retention Model (JRM), the aim of this study was to determine the relationships among job satisfaction, work environment and successful aging, and how these factors relate to registered nurses' (RNs) intent to retire.

Background. Although little studied, retention of older nurses through delayed retirement is an important topic for research. Qualitative and quantitative studies have indicated that job satisfaction, work environment and successful aging are key motivators in acute care RN retention, recruitment and/or delaying retirement. This study was designed to provide information to administrators and policy makers about retaining older, experienced RNs longer and more productively.

Methods. Using a correlational, descriptive cross sectional design, an on-line survey of acute care RNs (N=2,789) aged 40+ working in Florida was conducted. Participants completed items related to job satisfaction, work environment, successful aging and individual characteristics. Hypotheses derived from the modified JRM were tested using regression analysis.

Results. Job satisfaction scores were high. Subscale scores showed highest satisfaction with scheduling issues and co-workers; lowest with advancement opportunities. Successful aging scores were also high with most (42.7%) reporting excellent or good health (38.1%). Work environment explained 55% of the variance in job satisfaction. Years to retirement were significantly predicted by age, successful aging, and job satisfaction.

Conclusions. This study provides further quantitative evidence that work environment and successful aging are important areas that impact job satisfaction and delaying retirement in older nurses. Keywords: job satisfaction, work environment, successful aging, delayed retirement, older acute care RNs.

Driven by three trends worldwide, older workers and delayed retirement have become important topics of research. The first trend is the unprecedented growth of the aging workforce in the United States and internationally (Toossi, 2013). In the U.S., for example, between 2006 and 2008 the number of employees 55-64 years old increased by 64% (Toossi, 2009) with the number of workers over age 75 increasing by 147% (OECD, 2010). The BLS has projected an increase in the average age of American workers from 37.1 (1992) to 42.6 by 2020, reaching 163.5 million by 2022 (Toossi, 2013) The second trend is the reduction of new workforce entrants (Calo, 2005; Toossi, 2012) due to the decreased birthrates occurring after the "Boomer" generation (BLS, 2012; Hatcher, Bleich, Connolly, Davis, Hewlett, & Hill, 2006). While the number of workers over 55 will increase to 20% of the workforce, the number of workers between the ages of 25-39 is expected to decrease (Toossi, 2012). The third trend is the concern of governments and businesses about sustaining welfare provisions such as social security and retirement benefits for current and future retirees, especially those retiring early given the increasing life expectancy. Some believe this problem is a harbinger of future economic crises (Calo, 2005).

In many ways nursing mirrors problems in the general workforce and the need for delaying retirement of older bedside RNs in acute care settings is increasingly apparent. Nursing is currently in the midst of a well-documented shortage (Auerbach, Buerhaus, & Staiger, 2011; Buerhaus, 2008; Letvak & Buck, 2008; Tourangeau, Cummings, Cranley, Ferron, & Harvey, 2009) at a time when demand has never been higher. As aging Baby-Boomers are beginning to place demands on healthcare systems with increases in patient census and multisystem medical needs, the Affordable Care Act is projected to add approximately 32 million insured patients to the healthcare system by 2019 (Elmendorf, 2010). In addition, nurses are among the "Boomers"

who are aging. In fact, the average age of nurses in the U.S. is 46 and 23% of nurses over 55 anticipate work changes including retirement or changing jobs (AMN Healthcare, 2013). Retirement and early retirement of nurses affect the economics of healthcare and quality of care costs. Nurse turnover is one of most expensive and disruptive problems faced by health care systems (Jones, 2008; Lum, Kervin, Clark, Reid, & Sirola, 1998; Spetz, 2008). Turnover for RNs costs an estimated $82,000-$125,000 per RN (Jones & Gates, 2007). Turnover is strongly linked to care quality in terms of patient mortality, nosocomial infections and work injuries (Litvak & Bisognano, 2011; Oulton, 2006). Mass exodus of experienced well trained nurses due to retirement will not only cause a "brain drain" in the profession and jeopardize patient safety; it will increase the patient load for remaining RNs and exacerbate an already existing shortage. With 56.4% of nurses >65 working as staff RNs (AACN, 2012), Jones (2008) asserts that delaying retirement in RNs by 4 years could increase full-time equivalents by 158,000 (9%) by 2020.

While nursing has similar problems, unlike in the general workforce, very little research has focused on older nurses or on delaying their retirements. As a consequence, many questions remain about factors that motivate older nurses to remain working and what strategies might be used to promote delayed retirement. To assist administrators and policy makers to create incentives that will promote delayed retirement and assist older nurses to remain at the bedside, this research was designed to identify the factors that best predict anticipated years to retirement among older RNs nurses working in acute care.

Background

Delayed retirement and retention. Although very little research is available on older nurses and factors that would influence decisions to delay retirement, studies of retention of older nurses do shed light on the subject. Common factors identified as influencing older nurses' decisions to leave the job were technological advances, perceived poor health, marital status, workload and stress (Andrews, Manthorpe & Watson, 2005; Boumans, de Jong, & Vanderlinden, 2008; Cyr, 2005). Factors to stay were flexible schedules, financial independence, workload and part-time work (Andrews, et al., 2005; Cyr, 2005). Letvak (2002, 2003) and Buck (2008) explored reasons to remain on the job for nurses >50. Letvak's 2002 study reported increased educational opportunities, recognition and benefit packages tailored toward older nurses as important to retention. Letvak reported in 2003 that older nurse's commitment to the job, ability to carry their own load on the job and relationships within the organization were important to retention of older nurses. Studies of delaying retirement, report improved work environments, reduced stress, income and perceived health may also delay retirement of older RNs (Camerino et al., 2006; Letvak, 2003; Letvak and Buck, 2008; Walker & Clendon, 2013). These studies provide some, but not all answers to questions about incentivizing older nurses to delay retirement.

Job satisfaction. Job satisfaction, defined as how people feel about their jobs or simply the extent to which they like or dislike their jobs (Spector, 2006) has been cited as the number one predictor of intent to stay among nurses (Duffield, Roche, Blay, & Stasa, 2010; Fitzgerald, 2007; Laschinger, Leiter, Day, & Gilin, 2009). Mixed findings have been reported about job satisfaction among older nurses. Some studies report higher degrees of job satisfaction among older nurses (Blythe et al., 2008; Irvine & Evans, 1995; Wieck, Dols, & Landrum, 2010), while

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other studies have shown no difference in job satisfaction between younger and older nurses (Cummings et al., 2008; Delobelle et al., 2010; Sparks, 2012). Factors relating to job satisfaction specific to older nurses include respect, recognition (AbiAlRub, Omari, & Al-Zaru, 2009; Armstrong-Stassen, 2005; Burtson & Stichler, 2010; Spiva, Hart, & McVay, 2011), empowerment and autonomy (Laschinger et al., 2009; Iliopuolou & While, 2010; Ning, Zhong, Libo, & Quijie, 2009) and managerial characteristics (Delobelle, et al., 2010; Duffield, Roche, Blay, & Stasa, 2010; Hayes, Bonner, & Pryor, 2010). Whether job satisfaction provides an incentive for older nurses to delay retirement is unknown.

Work Environment. Work environment is "the totality of all factors that influence satisfaction and performance" (Kramer & Schmalenber, 2012 pg. 59) encompassing factors that make an environment physically and psychologically healthy. A healthy environment has been positively linked both to job satisfaction and retention among acute care nurses (Aiken & Patrician, 2000; Cho, Ketefian, Barkauskas, & Smith, 2003; Cohen, Stuenkel, & Nguyen, 2009). Work environment is influenced by staff relationships (Letvak & Buck, 2208), nurse to patient ratio (Aiken, Clarke, Sloane, Lake, & Cheney, 2008), unit geography (Christmas, 2008), job stress, job injury, and existing health problems (Letvak, 2003; Letvak & Buck, 2008). The relationship of work environment and delayed retirement is unknown.

Successful aging. Successful aging is the ability for continued growth and the need to learn from past experiences, coping with present circumstances and setting goals for the future with an emphasis on adaptability (Fisher, 1995). Ability and adaptability has been studied extensively, examining perceptions of workers about education, coping ability, environmental issues, commitment to employer, peer relationship, and managerial support (Ilmarinen J, 1999; Tuomi et al., 1997). Factors relating to successful aging include social life, family relationships,

economic security (Chou, 2012; Robson, Hansson, Abalos, & Booth, 2006) job control (Müller, Weigl, Heiden, Glaser, & Angerer, 2012), focus and achievement of goals and occupational growth (Robson et al., 2006) and personal growth (Sanders & McCready, 2010). Successful aging and its relationship to delayed retirement has been studied in the general work force (Ilmarinen, 2006), but not in nursing. However, continued work for pay has been shown to be important to older workers (Kautonen, Down, & Minniti, 2013).

Theoretical framework

The design for this study was guided by an adaptation of Ellenbecker's (2004) Job Retention Model (JRM) which proposes a direct relationship between job satisfaction and retention. In literature and existing measurement instruments, job satisfaction is conceptualized as being multidimensional and influenced by both intrinsic and extrinsic factors (Camerino et al., 2008; Ellenbecker, 2004; Iliopuolou & White, 2010; Liu et al., 2012). Hence, job satisfaction is a mediator in the model between the intrinsic factors of autonomy in the profession, autonomy and independence in patient relationships, interpersonal relationships with peers and physicians, and organizational characteristics and the extrinsic factors of stress and workload, autonomy in control over work hours and work activities, salary and benefits, and a positive perception of opportunities within/without current employment. In addition certain individual characteristics such as age, gender and tenure are directly related to retention. Older workers have especially diverse ideologies on work and success, possibly the result of generational differences, changes in health, and shifting goals. As older workers pursue different goals than younger workers intrinsic and extrinsic factors become more important when evaluating professional success (Korman, Wittig-Berman, & Lang, 1981; Schulz & Heckhausen, 1996). Modifications of Ellenbecker's JRM were made to increase its relevance to the needs and concerns of older nurses

working in acute care settings as they consider years to retirement. Figure 2-1 illustrates the modified Ellenbecker JRM used in this study.

The study

Aim

Based on the modified JRM, the aims of this study were to (1) examine the influence of the personal characteristics of age, gender, financial responsibilities and family obligations on years to anticipated retirement and (2) determine the relationships among, work environment, successful aging and job satisfaction and the power of these factors to predict years to anticipated retirement. The following hypotheses were tested, among acute care nurses over age 40 years of age:

Hypothesis 1 Age, gender, financial responsibilities, and family obligations influence job satisfaction among older RNs currently working in acute care hospitals.

Hypothesis 2 Successful aging and work environment positively influence job satisfaction among older RNs currently working in acute care hospitals.

Hypothesis 3 Age, gender, financial responsibilities, and family obligations influence intent to stay/delay retirement among older RNs currently working in acute care hospitals.

Hypothesis 4 Job satisfaction, work environment, and successful aging positively influence retention and/or intent to delay retirement of older nurses among older RNs currently working in acute care hospitals.

Design

A correlational, descriptive cross sectional design was used. A one-time survey was administered online to RNs in Florida. This population was selected because the Florida Board of Registered Nurses agreed to provide email addresses to contact potential participants. The study sample size was 2,789.

Sample

Inclusion criteria targeted RNs who were working in acute-care, 40 years of age or older, English speaking, and willing to participate. Exclusion criteria were nurses younger than 40 and currently not working in acute care. The accessible population and sampling frame was nurses with registered emails in the state of Florida. The Florida Board of Registered Nursing (FL BRN) provided e-mail addresses for approximately 180,000 RNs. Initially 7117 RNs agreed to participate (0.04% response rate) however 4328 respondents were either too young and/or did not work in acute care with an actual sample size of 2789.

Data collection

Data were collected over 4 months in 2013. An invitation to participate was sent via email. The survey was conducted using Survey Monkey, and included an introductory letter about the study, demographic form and research instruments measuring the constructs of job satisfaction, work environment and successful aging. One item was used to measure years to intended retirement which stated: "If you are currently planning retirement, in how many years do you plan to retire?" Consent was implied after respondents read the introduction letter and clicked yes to complete the survey. Reminders were not sent. Two screening questions were used "Are you currently employed as an acute care nurse in a hospital or other acute care facility?" and "current age group". An incentive was offered for each completed survey received. Two iPads were

raffled and awarded using randomly selected email addresses of all completed surveys. Also an incentive of a $5.00 Starbucks e-card was given to 500 randomly selected participants. The survey was administered through Survey Monkey and anonymity was protected as only de-identified data were sent to the researchers.

Instruments

The three variables of interest were operationalized using three valid and reliable research instruments: (1) the Mueller McCloskey Satisfaction Scale (MMSS), (2) the Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002) and (3) the Work Ability Index (WIA) (Mueller & McCloskey, 1990; Aiken & Patrician, 2000; Tuomi, Ilmarinen, Jahkola, Katajarinne, & Tulkki, 1998).

Six subscales of the MMSS operationalized job satisfaction: (1) satisfaction with extrinsic rewards (3-items), (2) satisfaction with scheduling (5-items), (3) satisfaction with family and work (1-item), (4) satisfaction with co-workers (2-items), (5) satisfaction with praise and recognition (3-items) and (6) satisfaction with control (5 items) (Mueller & McCloskey, 1990). The 31-item instrument was reduced to 19 items to prevent subject fatigue and reduce duplication of similar question topics between the MMSS and PSE-NW. The MMSS was originally developed using theoretical work of Maslow and is a nurse-specific scale. A 5-point Likert scale is used ranging from 1 'very dissatisfied' to 5 'very satisfied'. Cronbach's alpha for the global scale was reported at .89 (Mueller & McCloskey, 1990). For subscales utilized in this study, alpha was .91

Five subscales of the PES-NWI operationalized work environment (Lake, 2002): nurse participation (9-items), nursing foundations (1-item), leadership and support (4-items), staffing and resources (1-item) and nurse-physician relations (3-items). The 31-item instrument was

reduced to 19 items to reduce subject fatigue and overlap of subject topics. It uses a 4-point Likert ranging from 1 'strongly agree' to 4 'strongly disagree'. The PES-NW is also a nurse-specific scale. Cronbach's alpha for the global score was reported at .80 (Lake, 2002). For subscales used in this study alpha = .94.

Successful aging was operationalized with the WAI. This study focused on actively working acute-care RNS. Therefore physical and mental demands of the job and workers overall health status and resources were important to examine. The WAI is widely used in epidemiological studies and has been translated into 25 languages (Ilmarinen & Tuomi, 2004). The WAI contains 7 items (1) comparison of current work ability-optimal (0-10 points), (2) work ability related to job demands (2-10 points), (3) number of current medically diagnosed diseases (1-7 points), (4) estimated work impairment relating to diseases (1-6 points), (5) sick leave over the past year (1-5 points), (6) effect of impairment in two years (1-6 points) and (7) mental resources (0-4 points). Ratings are categorized as: poor (7-27 points), moderate (28-36 points), good (37-43 points) and excellent (44-49 points).

Ethical considerations

Institutional Review Board approval was obtained from the University of California Los Angeles. A waiver of written consent was approved and consent to participate was implied by completion of the two screening questions (which asked about current employment as an acute care nurse and age group) and the survey.

Statistical Analysis

Univariate descriptive analyses were performed for all variables. Summary scores for each instrument were computed. Continuous variables are reported as M+SD, and categorical outcomes are reported as N (%). The normality of continuous outcomes was assessed. All

variables were within acceptable ranges of skewness and kurtosis, and given the large sample size, parametric modeling was performed using untransformed scores for further analyses. Pearson correlations were performed to test the bivariate association of the subscales with age and years to retirement.

Hypotheses were tested using a series of exploratory regression analyses. The dependent variables were job satisfaction, measured by the mean of all MMSS items and anticipated years to retirement. For the statistical models, income was coded as <$50k, $50-75k, $75-100k, and >$100k and the item about types of dependents was collapsed into a dichotomous variable of having any dependents. For the step predicting job satisfaction, the *a priori* covariates of age and gender were added in step 1; personal characteristic measures (family income, being a primary financial provider in the household, and having any dependents) were added in step 2; total WAI score and composite scores from the PES-NWI were added in step 3. In addition to p-value, amount of variance explained by each adjusted predictor was reported demonstrating the relative strength of each predictor within the model. For the step predicting anticipated years to retirement, the same strategy was used with the addition of job satisfaction at step 4. Residuals were examined to insure that model assumptions were met.

Results

Participant characteristics

Characteristics of sample are presented in Table 2-1. Respondents included RNs age 40 to 79 with a mean age of 54.4 (SD 7.7). Over half (59.4%) reported Bachelor degrees or higher. The sample was primarily female 87.4%, Caucasian 85.9% and non-Hispanic 91.8%. Most participants were married (65.3%) or divorced (23.5%). Over half of participants reported having at least one dependent (53%), which included children <6 years 8.0%, 6-18 years 31.5, adult

dependents 32.7% and other 24.1%. Household income of >$50,000 was reported by 92.5% and 69.8% classified themselves as primary financial providers. Most participants worked in medical/surgical/neurological and critical care (n=434, 15.9% and n=433, 15.8%, respectively). Participants were most likely to work full-time (81%), during the day shift (70.3) and 83.3% were involved in direct patient care. Overall, scores were generally on the high side for each scale. It was interesting to note that the overall mean on the MMSS (Table 2-2) was 3.6 (SD 0.7) and mean was 2.7 (SD 0.6) on the NWI-PES (Table 2-3) with little difference for those 40-49, 50-59 of >60 years old. Similar findings were noted on the WAI (Table 2-4) with mean at 41.2 (SD 6.7).

Bivariate associations. Job satisfaction was strongly correlated with work environment (r = 0.76), moderately with successful aging (r = 0.31), and there were very low correlations with age (r = 0.11) and years to retirement (r=-0.05). Job satisfaction was higher in older RNs who were the primary financial providers, had higher incomes and those without dependents. Job satisfaction was associated with higher income. Years to retirement was strongly correlated with age (-0.78), but only had a low correlation with successful aging (r = 0.08). Anticipated years to retirement was also significantly longer for RNs with dependents. While there was a significant difference in years to retirement across income categories, the trend was not monotonic (Table 2-5).

Predictors of job satisfaction

Using exploratory regression analysis the four hypotheses were tested and are presented in Table 2-6A and 2-6B. Given the large sample size (n=2789) a significance level of <0.01was acceptable. These results examined relationships between the dependent variable-job satisfaction and the independent variables-age, dependents, successful aging and work environment. In step

one, independent variables female, gender, and age were examined against job satisfaction. It was noted that only age was a significant predictor of job satisfaction (p=0.00). The second step included income, financial provider and dependents. The income variable is categorical and is comprised of four intervals that ranged from <$50k, $50-$75k, $75K-$100k and >$100k. In this regression, the reference category used was the >$100k group. In terms of job satisfaction, the nurses in the other income groups were all significantly different than those in the >$100k bracket. Additionally, after controlling for the other variables in the model, the presence of dependents was a significant predictor of job satisfaction (p=0.01). Also, since age was such a strong predictor in the simpler model, which only considered age and gender, it is unsurprising that after controlling for the other predictors in the model, that age significantly explains more variation in job satisfaction on top of that.

In the last step in table 2-6A, this model examines the relationship between the dependent variable job satisfaction and the independent variables of female gender, age, successful aging, and work environment. The model indicates that all the predictors are significant, except for female, with the p values all being <0.001. On top of the variance in job satisfaction that is explained by age, successful aging, and work environment are also key factors in explaining job satisfaction. While statistically significant age and successful aging accounted for a very small amount of the variance (4.2%), while work environment accounted for the majority of the variance in job satisfaction (55%). On average, after adjusting for age, gender and successful aging, job satisfaction increased by 0.9 points for every point increase in work environment of acute care nurses.

Predictors of years to retirement

Table 6-B presents the findings with the relationship examined between years to retirement and the independent variables female gender, age, successful aging, work environment and job satisfaction. In step one independent variables female gender and age were examined to look at

any relationship to years to retirement. It was noted that only age (p=.000), was a significant predictor of job satisfaction in acute care nurses. In the second step female gender, age, primary financial provider, dependents and income, in four groups with the comparison group being the largest group (>$1000K), were included. After adjusting for other predictors, there was a monotonic trend in income (p = 0.005), with the mid- income bracket being associated with fewest anticipated years to retirement. Only age (p=.000) and income at the mid-income level ($50-$75k-p=0.01) were found to be significant variables as a predictor of years to retirement.

The last step in Table 2-6B examines the relationship of years to retirement and the independent variables female gender, age, successful aging, work environment and job satisfaction. The model indicates female gender (p=.01), age (p=.000), successful aging (p=.000) and job satisfaction (p=.000) as predictive of years to retirement in acute care nurses. While statistically significant female gender and age accounted for a very small amount of the variance (1%) whereas age for all three models remains the strongest predictor of years to retirement (60%).

Discussion

Predictors of job satisfaction

Understanding the effect that work environment, successful aging and job satisfaction have on anticipated years to retirement among older nurses, provides opportunities for researchers to expand knowledge for managers, health administrators and human resource personnel relating to retention of older nurses. Individually these topics have been studied extensively but combined and examined among older acute nurses they take on new meaning. Although little research is specific to older nurses, the job satisfaction scores found here were consistent with earlier studies (Kovner, Brewer, Wu, Cheng, & Suzuki, 2006; Wilson et al., 2008). These findings are also

consistent with previous studies on job satisfaction and work environment (Cohen et al., 2009; Duffield et al., 2011), and job satisfaction and successful aging (Cheung, 2012; Cheung & Wu, 2013). Job satisfaction in this study was found to be significantly predicted by four factors - age, income, dependents and work environment. These research findings indicate that age is the best predictor of job satisfaction since it remains significant across the various models, regardless of any of the other characteristics being included in the model.

While all four were significant, it is noteworthy that environment alone explained 55% of the variance in job satisfaction. This finding supports the theoretical premise, based on the modified Ellenbecker JRM, that extrinsic factors such as physical and organizational environment are important to job satisfaction in RNs. This expands existing knowledge gained from research showing a positive correlation between physical (Hall, Doran, & Pink, 2008; Stone, Du, & Gershon, 2007) and organizational environment (Duffield et al., 2011; Choi, Flynn, & Aiken, 2011) and job satisfaction. In meta-analyses reported by Blegen (1993) and Irvine and Evans (1995), work environment had the strongest correlation to job satisfaction. The findings from the MMSS in this study- nurses' valued clinically competent nurse colleagues (mean 3.1, SD 0.7), nurse-physician relationships (mean 2.9, SD 0.7) and the support and leadership abilities of the nurse manager (mean 2.7, SD 0.8) (intrinsic factors of work environment) suggests that organizations can have an impact on job satisfaction.

The WAI was used in this study to measure successful aging in older nurses and findings corresponded with earlier studies noting that successful aging was positively correlated with job satisfaction (Camarino et al., 2008; Weigl, Muller, Hornung, Zacher, & Angerer, 2012). These models indicate that age is the best predictor of job satisfaction since it remains significant across the various models, regardless of any of the other characteristics being included in the model.

These models indicate that age is the best predictor of job satisfaction since it remains significant across the various models, regardless of any of the other characteristics being included in the model.

Predictors of year to retirement

This study found that successful aging was highly predictive of years to retirement, confirming earlier studies on this topic (Camerino et al., 2006; Hasselhorn et al., 2003). As reported in other studies age predicted years to retirement with younger ages being associated with longer anticipated years to retirement. In this study age and gender were significant predictors of years to retirement.   There was initially no statistical significance of income, being a primary financial provider, and dependents associated with years to retirement. When controlling for gender and age changed the effect of the predictors and these factors were noted to be significant predictors. This finding is consistent with studies reporting salary and income as incentives to delay retirement (Andrews, et al., 2005; Cyr, 2005; Palumbo, McIntosh, Rambur, & Naud, 2009). This provides an avenue for future research as findings included all three factors and not income alone. In addition, poor WAI scores were predictive of poor retention among older RNs (Camerino et al., 2006; Hasselhorn, Tackenberg, & Muller, 2003). These findings suggest that creating work environments that support physical and mental abilities to complete their jobs may help delay retirement in older RNs.

Job satisfaction is an important topic and has long been reported as a strong and consistent predictor of retention in nursing with older nurses reporting higher levels of satisfaction and lower intent to leave (Faller, Gates, Georges, & Connelly, 2011; Roberts, Jones, & Lynn, 2004; Wang, Tao, Ellenbecker, & Liu, 2012). Ellenbecker's original model indicted that job satisfaction was directly related to retention, however when exploring delayed retirement in

this study with the modified model, this was not found to be the case. Job satisfaction was not predictive of delaying retirement. This may be due to the wording used in this study relating directly to "retirement" and not inclusive of the much broader terms-retention (Blake, Leach, Robbins, Pike, & Needleman, 2013), intent to stay , intent to leave (McGilton, Tourangeau, Kavcic, & Wodchris, 2013) and nurse turnover (Currie & Carr Hill, 2012). This may also indicate that job satisfaction is not as important when studying delayed retirement as opposed to retention. While systematic research on perceptions and factors affecting retirement in the general work population was found, intentions on delaying retirement have not been studied extensively in nursing. Few studies are directed toward retirement of nurses specifically (Blakeley & Rubeiro, 2008; Boumans, de Jong, & Vanderlinden, 2008; Cyr, 2005; Friis, Ekholm, Hundrup, Obel, & n Grønbaek, 2007). This illustrates the importance of research directed at decisions made by older nurses relating to retirement and possible environmental changes that could increase job satisfaction.

Study limitations

A limitation of this study was the use of a cross-sectional design and the purposive sampling strategy. The sample was limited to acute care nurses working within the hospital setting in the state of Florida. Therefore the sample may not be representative of acute care nurses of the U.S. population overall which may limit the validity and generalizability across all other states. That said, however, the findings are not completely dissimilar to the NSSRN description of RNs in the U.S. In this study, when compared with the NSSRN, the average age was higher at 54.4 years old, but this study only looked at nurses >40 years old, and all responding RNs worked in the acute care setting. This study had more responding males at 12.6% vs 9.6% and the NSSRN reports only 7.1% of male nurses' work in acute care. Percentage of White or non-Whites was

similar with this study reporting slightly more diverse with 77.7% vs 83.2% White and 22.3% vs 15.8% non-white (HRSA, 2010). In addition, the large sample size in this study (N=2789) limits the influence of extreme observations or outliers. Both of these increase the study's generalizabilty. Another limitation was missing data. For this study missing data was calculated at 1.3%-6.1% on all scales and fall-off was noted to be random with higher percentages associated with questions in the later part of the survey, possibly due to subject fatigue. Relating to the findings about job satisfaction, variability for job satisfaction was low and as a result it may be the relationship couldn't be detected. A limitation of this study, common to occupational health studies, is the 'healthy worker effect". This limitation refers to the discrepancy of morbidity and mortality when actively employed workers are compared with the general public (Porta, 2014) or when actively employees report more favorable morbidity or mortality experiences than the general public (McMichael, 1976). This limitation is usually applied when studying mortality, which does not apply in this study and the workers in this study where compared within age groups and not the general public. This could be a selection bias. Finally, no planned retirement age was requested in this study and this information may be significant in continued research on delaying retirement.

Conclusion

As the average age of nurses' continues to increase and a need for well-trained experienced nurses is observed, it is vital to understand and explain factors influencing retention and/or delaying retirement. Organizations continue to focus more attention on recruiting and much less, if any, on retaining older experienced nurses. Research has not focused on older acute care nurses, despite statistics clarifying the need to do exactly that. The median age of nurses in the latest National Sample Survey of Registered Nurses (NSSRN) (HRSA, 2010) was 46 years old

and even more importantly, 85% of nurses report working at the bedside. There is a lack of human resource and management policies and initiatives relating to retention and/or delaying retirement in this important segment of nurses. This has been reported in the U.S. and around the world including the UK, China and Japan.

Retention and/or delaying retirement in older nurses is more important today as nurses leave the job due to different factors. Research into these factors and understanding the interplay of these within organizations and human resource offices may provide important insight necessary to retain older nurses.

Conflict of interest

No conflict of interest has been declared by the authors.

Author contributions

All authors have agreed on the final version. MWS was responsible for the study conception and survey design and acquisition of data. CJL provided statistical expertise. MWS and CJL performed the data analysis and interpretation of the data. MWS was responsible for the drafting of the manuscript and LRP, WR, and LSL made critical revisions to the paper for important intellectual content.

Tables

Table 2-1. Characteristics

		Age group							
		40-49 (N = 806)		50-59 (N = 1242)		60+ (N = 741)		Total (N = 2789)	
		N	Column N %	N	Column N %	N	Column N %	N	Column N %
What is your gender?	Female	672	83.8%	1084	87.9%	669	91.0%	2425	87.5%
	Male	130	16.2%	149	12.1%	66	9.0%	345	12.5%
What is your race? Mark one or more.	White	617	77.7%	1081	87.7%	678	91.9%	2376	85.9%
	Black or African American	78	9.8%	63	5.1%	28	3.8%	169	6.1%
	Asian	50	6.3%	39	3.2%	8	1.1%	97	3.5%
	Native Hawaiian or Other Pacific Islander	1	.1%	5	.4%	1	.1%	7	.3%
	American Indian or Alaska Native	4	.5%	6	.5%	8	1.1%	18	.7%
	Other (please specify)	44	5.5%	39	3.2%	15	2.0%	98	3.5%
Are you of Hispanic or Latino origin or descent?	Yes, Hispanic or Latino	99	12.5%	98	8.1%	28	3.9%	225	8.2%
	No, not Hispanic or Latino	693	87.5%	1113	91.9%	698	96.1%	2504	91.8%
Please indicate your highest level of education at this time.	Diploma Program	29	3.6%	86	6.9%	114	15.4%	229	8.2%
	Associate Degree	262	32.5%	440	35.4%	212	28.6%	914	32.8%

Table 2-1. Characteristics

		Age group								
		40-49 (N = 806)		50-59 (N = 1242)		60+ (N = 741)		Total (N = 2789)	
		N	Column N %	N	Column N %	N	Column N %	N	Column N %
	Bachelor's Degree	378	46.9%	451	36.3%	254	34.3%	1083	38.8%
	Master's Degree	116	14.4%	222	17.9%	124	16.7%	462	16.6%
	Doctorate	7	.9%	24	1.9%	11	1.5%	42	1.5%
	Other (please specify)	14	1.7%	19	1.5%	26	3.5%	59	2.1%
Which best describes your current marital status?	Married or in domestic partnership	548	68.3%	820	66.6%	440	59.8%	1808	65.3%
	Widowed	7	.9%	40	3.2%	73	9.9%	120	4.3%
	Divorced /Separated	184	22.9%	277	22.5%	191	26.0%	652	23.5%
	Never married	63	7.9%	94	7.6%	32	4.3%	189	6.8%
Dependents who either live at home with you or for whom you provide a significant amount of care.	None	217	100.0%	612	100.0%	499	100.0%	1328	100.0%
	Children < 6 yrs	79	26.7%	25	3.9%	11	2.2%	115	8.0%
	Children 6 -18 yrs	412	65.5%	183	23.0%	17	3.3%	612	31.5%
	Adult	176	45.0%	335	35.4%	132	21.0%	643	32.7%
	Other	93	30.2%	211	25.9%	111	18.4%	415	24.1%
Number of dependents reported	1	83	10.6%	213	17.4%	191	26.2%	487	17.8%
	2	210	26.8%	603	49.3%	414	56.8%	1227	44.9%

Table 2-1. Characteristics

		Age group									
		40-49 (N = 806)		50-59 (N = 1242)		60+ (N = 741)		Total (N = 2789)	
		N	Column N %	N	Column N %	N	Column N %	N	Column N %
	3	174	22.2%	205	16.8%	76	10.4%	455	16.6%
	4	181	23.1%	128	10.5%	20	2.7%	329	12.0%
	5+	37	17.3%	21	6.0%	10	3.8%	68	8.7%
Household income	$25,000 or less	4	.5%	7	.6%	6	.8%	17	.6%
	$25,001 to $35,000	5	.6%	10	.8%	19	2.6%	34	1.2%
	$35,001 to $50,000	49	6.2%	51	4.2%	54	7.4%	154	5.6%
	$50,001 to $75,000	232	29.2%	337	27.7%	208	28.7%	777	28.4%
	$75,001 to $100,000	228	28.7%	353	29.1%	233	32.1%	814	29.8%
	More than $100,000	276	34.8%	457	37.6%	205	28.3%	938	34.3%
Primary financial provider	Yes	552	68.7%	855	69.1%	530	72.2%	1937	69.8%
	No	252	31.3%	382	30.9%	204	27.8%	838	30.2%
Percent time worked	Full-time	702	87.5%	1047	84.6%	508	69.1%	2257	81.4%
	Part-time	38	4.7%	102	8.2%	117	15.9%	257	9.3%
	Per Diem	62	7.7%	88	7.1%	110	15.0%	260	9.4%
Shift	Day shift	524	65.2%	875	71.1%	548	74.6%	1947	70.3%
	Evening Shift	33	4.1%	54	4.4%	25	3.4%	112	4.0%

Table 2-1. Characteristics

| | | Age group | | | | | | | |
| | | 40-49 (N = 806) | | 50-59 (N = 1242) | | 60+ (N = 741) | | Total (N = 2789) | |
		N	Column N %	N	Column N %	N	Column N %	N	Column N %
	Night Shift	204	25.4%	245	19.9%	128	17.4%	577	20.8%
	Rotating Shifts	43	5.3%	57	4.6%	34	4.6%	134	4.8%
Job title	Staff RN	491	61.2%	695	56.4%	395	53.6%	1581	57.1%
	Charge Nurse	94	11.7%	123	10.0%	73	9.9%	290	10.5%
	Educator	32	4.0%	48	3.9%	32	4.3%	112	4.0%
	Researcher	2	.2%	6	.5%	3	.4%	11	.4%
	Management	90	11.2%	165	13.4%	87	11.8%	342	12.3%
	Other (please specify)	93	11.6%	195	15.8%	147	19.9%	435	15.7%

Table 2-1. Characteristics

		Age group							
		40-49 (N = 806)		50-59 (N = 1242)		60+ (N = 741)		Total (N = 2789)	
		N	Column N %	N	Column N %	N	Column N %	N	Column N %
Clinical specialty	Anesthesia	20	100.0%	34	100.0%	15	100.0%	69	100.0%
	Critical care	160	100.0%	191	100.0%	82	100.0%	433	100.0%
	Cardiac or cardiovascular care	133	100.0%	155	100.0%	68	100.0%	356	100.0%
	Emergency or trauma care	130	100.0%	156	100.0%	78	100.0%	364	100.0%
	Gynecology (women's health)	15	100.0%	21	100.0%	15	100.0%	51	100.0%
	Hospice	13	100.0%	25	100.0%	33	100.0%	71	100.0%
	ICU/CCU	105	100.0%	113	100.0%	43	100.0%	261	100.0%
	Infectious/communicable disease	12	100.0%	27	100.0%	16	100.0%	55	100.0%
	Labor and delivery / Obstetrics	34	100.0%	66	100.0%	47	100.0%	147	100.0%
	Medical/Surgical/ Neurological	149	100.0%	174	100.0%	111	100.0%	434	100.0%
	Neonatal Intensive Care Unit	25	100.0%	34	100.0%	21	100.0%	80	100.0%
	Occupational health	6	100.0%	4	100.0%	7	100.0%	17	100.0%
	Oncology	38	100.0%	69	100.0%	35	100.0%	142	100.0%
	Pediatrics	29	100.0%	49	100.0%	26	100.0%	104	100.0%
	Primary care	23	100.0%	41	100.0%	21	100.0%	85	100.0%
	Psychiatric	23	100.0%	45	100.0%	50	100.0%	118	100.0%
	Renal/dialysis	23	100.0%	31	100.0%	18	100.0%	72	100.0%
	Other specialty for a majority of my time	214	100.0%	447	100.0%	298	100.0%	959	100.0%

Table 2-2. Job Satisfaction-Mueller McCloskey Satisfaction Scale (MMSS)

Subscales	40-49 (N=806)		50-59 (N+1242)		60+ (N=741)		Total (N=2789)		Missing
	M	SD	M	SD	M	SD	M	SD	%
Satisfaction with Extrinsic Rewards	3.4	0.9	3.5	1.0	3.5	1.0	3.5	1.0	1.2%
Satisfaction with Scheduling	3.8	0.8	3.8	0.8	3.9	0.8	3.8	0.8	1.2%
Opportunity for part-time work	2.7	1.1	2.7	1.1	2.4	1.3	2.6	1.2	3.2%
Satisfaction with Coworkers	3.9	0.8	4.0	0.8	4.1	0.8	4.0	0.8	1.3%
Satisfaction with Praise and recognition	3.5	0.9	3.6	1.0	3.7	1.0	3.6	1.0	1.3%
Satisfaction with control and responsibility	3.1	1.0	3.2	1.0	3.3	1.0	3.2	1.0	1.2%
Mean of all items	3.5	0.7	3.6	0.7	3.7	0.7	3.6	0.7	1.2%

Table 2-3. Work Environment-Practice Environment Scale of the Nursing Work Index (PES-NWI)

	Strongly Disagree		Disagree		Agree		Strongly Agree		Missing
	N	%	N	%	N	%	N	%	%
Physicians & nurses have good working relationships.	65	2.5%	355	13.4%	1514	57.2%	711	26.9%	5.2%
A supervisory staff that is supportive of the nurses.	225	8.5%	603	22.8%	1232	46.6%	585	22.1%	5.2%
Career development/clinical ladder opportunity.	238	9.0%	771	29.3%	1210	46.0%	414	15.7%	5.6%
Opportunity for staff nurses to participate in policy decisions.	412	15.7%	961	36.5%	994	37.8%	265	10.1%	5.6%
Supervisors use mistakes as learning opportunities, not criticism.	255	9.7%	672	25.6%	1238	47.2%	460	17.5%	5.9%
A nurse manager who is a good manager and leader.	312	11.9%	556	21.2%	1064	40.6%	690	26.3%	6.0%
A chief nursing officer who is highly visible and accessible to staff.	525	20.0%	785	29.9%	841	32.1%	473	18.0%	5.9%
Enough staff to get the work done.	534	20.3%	809	30.7%	999	38.0%	289	11.0%	5.7%
Praise and recognition for a job well done.	326	12.5%	779	29.8%	1133	43.3%	379	14.5%	6.2%
A chief nursing officer equal in power and authority to other top-	248	9.5%	632	24.3%	1231	47.4%	488	18.8%	6.8%

level hospital executives.

A lot of team work between nurses and physicians.	117	4.4%	632	24.0%	1379	52.4%	503	19.1%	5.7%
Opportunities for advancement.	268	10.2%	889	33.9%	1195	45.5%	273	10.4%	5.9%
Working with nurses who are clinically competent.	60	2.3%	317	12.1%	1533	58.5%	709	27.1%	6.1%
A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.	272	10.4%	682	26.1%	1112	42.5%	549	21.0%	6.2%
Administration that listens and responds to employee concerns.	440	16.8%	860	32.8%	1036	39.6%	282	10.8%	6.1%
Staff nurses are involved in the internal governance of the hospital.	351	13.4%	872	33.4%	1064	40.8%	323	12.4%	6.4%
Collaboration (joint practice) between nurses and physicians.	138	5.3%	698	26.6%	1402	53.5%	383	14.6%	6.0%
Staff nurses have the opportunity to serve on hospital and nursing committees.	139	5.3%	477	18.3%	1424	54.6%	568	21.8%	6.5%
Nursing administrators consult with staff on daily problems and procedures.	433	16.6%	1007	38.6%	919	35.2%	249	9.5%	6.5%

Table 2-4. Successful Aging-Work Ability Index (WAI)

	40-49 (N=806)		50-59 (N=1242)		60+ (N=741)		Total (N=2789)	
	M	SD	M	SD	M	SD	M	SD
Successful Aging Scores	41.6%	6.9	41.2%	6.7	40.9%	6.7	41.2%	6.7
Successful Aging Categories	N	%	N	%	N	%	N	%
Poor	42	5.2	63	5.1	32	4.3	137	4.9
Moderate	95	11.8	167	13.4	126	17.0	388	13.9
Good	274	34.0	486	39.1	284	38.3	1044	37.4
Excellent	372	46.2	508	40.9	291	39.3	1171	42.0
Missing	23	2.9	18	1.4	8	1.1	49	1.8

Table 2-5 Bivariate Correlations

		Job satisfaction	Successful Aging	Work Environment	Age	Years to retirement
Job satisfaction	*r*	1				
	p					
	N	2756				
Successful Aging	*r*	.309	1			
	p	<.001				
	N	2737	2740			
Work Environment	*r*	.763	.289	1		
	p	<.001	<.001			
	N	2649	2650	2650		
Age	*r*	.114	-.041	.035	1	
	p	<.001	.038	.079		
	N	2558	2543	2460	2587	
Years to retirement	*r*	-.049	.082	.013	-.776	1
	p	.017	<.001	.521	<.001	
	N	2365	2352	2276	2221	2394

Tables 2-6 A & B. Final Regression Equations

Table 2-6 A: Regressions with Job Satisfaction as the DV

DV: Job Satisfaction		β	SE	p Value	Partial Eta2adj
	Intercept	3.014	0.099	<.001	
	Female	-0.020	0.043	.636	0.000
Step 1	Age in Years	0.010	0.002	<.001*	0.013
	Intercept	3.082	0.103	30.050	
	Female	-0.037	0.043	.392	0.000
	Age in Years	0.011	0.002	<.001*	0.018
	Income			<.001*	0.021
	<$50k	-0.350	0.058	<.000*	
	$50k-$75k	-.0218	0.038	<.001	
Step 2	$75k-$100k	-0.106	0.037	.004	
Hypothesis 1	Financial Provider	0.021	0.034	<.001*	0.000
	Any Dependents	-0.079	0.032	.002	0.002
	Female	0.006	0.028	.829	0.000
	Age	0.008	0.001	<.001*	0.018
Step 3	Successful Aging	0.011	0.002	<.001*	0.024
Hypothesis 2	Work Environment	0.878	0.016	<.001*	0.553

Table 2-6 B: Regressions with Years to Retirement as the DV

DV: Years to Retirement		β	SE	p Value	Partial Eta2adj
	Intercept	48.683	0.685	<.001	
	Female	0.679	0.290	.019	0.002
Step 1	Age	-0.704	0.012	<.001	0.600
	Intercept	48.767	0.708	<.001	
	Female	0.680	0.291	.020	0.003
	Age	-.0709	-57.026	<.001*	0.601
	Income			.066	
	<$50K	0.485	1.241	.215	
	$50k-$75k	0.667	2.574	0.010	
Step 2	$75k-$100k	0.216	0.862	.389	
Hypothesis 3	Financial Provider	-0.435	0.228	.057	0.002
	Any Dependents	0.090	0.426	.670	0.000
	Intercept	45.450	1.042	<.001	
	Female	0.741	0.295	0.012	0.003
	Age	-0.715	0.013	<.001*	0.602
Step 3	Successful Aging	0.067	0.017	<.000*	0.008
Hypothesis 4	Work Environment	0.234	0.250	0.349	0.000
	Job Satisfaction	0.050	0.212	0.815	0.000

Figures

Figure2-1. Modified Ellenbecker's Job Retention Model

Intrinsic Factors
Successful Aging-work ability
Work Environment
- Professional autonomy
- Group cohesive administration
- Group cohesive peers
- Group cohesive physicians
- Characteristics of the organization

Extrinsic Factors
Work Environment
- Stress and workload
- Control of work hours
- Control of work activities
- Salary and Benefits
- Organizational opportunities

Individual characteristics
- Age
- Gender
- Race ethnicity
- Education
- Position
- Marital status
- Income
- Primary financial provider
- Independents

Job satisfaction

Years to Retirement

H-2 (+)
H-2 (+)
H-4 (+)
H-4 (+)
H-4 (+)
H-1 (+/-)
H-3 (+/-)

Figure 2-1: The Modified Ellenbecker's Job Retention Model and hypotheses (H) of work environment, job satisfaction and successful aging.

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Gender, Work Environment, Job Satisfaction, and Successful Aging in Acute Care Nurses

Abstract

Objective: To compare and contrast the relationship among work environment, job satisfaction, successful aging, and anticipated retirement among male and female nurses to determine gender differences in attitudes relating to these factors. **Methods:** This study is based on cross-sectional survey data on older acute care registered nurses in Florida, collected in 2013 (n=2,789). Data were analyzed with univariate descriptive statistics and gender comparisons were made using t-test or non-parametric corollaries. **Results:** Between the three scales significant differences were noted between males and females in successful aging measured by work ability; however no differences were noted in work environment or job satisfaction. After adjusting for the initial age difference between males and females, very little difference was found in correlations with years to retirement. **Conclusion:** Age was strongly correlated to years to retirement, however this study also found that successful aging was strongly correlated to years to retirement. Little evidence was found to support previous research that male nurses are more dissatisfied than females. Further research is needed to determine if the differences in successful aging could result in longer retention for males in acute care nursing. Intent to leave and early retirement is counterproductive to all aspects of healthcare.

Introduction

Delaying retirement of registered nurses (RNs) in the United States has become a demographic imperative. At a time when the demand for nurses has never been higher, the average age of RNs in the United States is 46 with 55% of the RN workforce >50 years old (HRSA, 2008) and nurses over 50 comprising the largest age group in the workforce (Buerhaus, 2008). Fifty-four percent of nurses over age 50 work at the bedside (HRSA, 2008). Research shows work environment is positively associated with retention and job satisfaction in nurses (Aiken & Patrician, 2000; Cho, Ketefian, Barkauskas, & Smith, 2003; Cohen, Stuenkel, & Nguyen, 2009) and job satisfaction is the number one predictor of nurses remaining employed (Duffield, Roche, Blay, & Stasa, 2010; Fitzgerald, 2007; Laschinger, Leiter, Day, & Gilin, 2009). In the general population, successful aging which consists of an ability to grow, the need to learn, coping with life, setting goals and adaptability (Fisher, 1995) also affects retention (van den Berg, Elders, & Burdoff, 2010). Despite these findings the role of job satisfaction, successful aging and work environment in delaying retirement among older nurses, particularly men, is largely unknown. Most research on nurse retention has been conducted with female RNs, but male RNs currently make-up close to 10% of acute care RNs (HRSA, 2008). In the general population, research shows that men and women have different motivations for delaying retirement (Dentinger & Clarkberg, 2002; DeViney & O'Rand, 1988; van der Berg, Elders, & Burdoff, 2010), whether men and women in nursing are similarly motivated to delay retirement is largely unknown. Since men represent a significant and understudied segment of the nursing workforce, the purpose of this study was to examine whether perceptions of work environment, successful aging, and work job satisfaction differ among male and female RNs and to explore whether these three factors have a similar influence on male and female RNs intention to retire.

In 2004, Ellenbecker developed the Job Retention Model (JRM) which posits factors that strongly predict intent to stay on the job and job retention. Factors from the modified JRM considered in this study were: individual characteristics, job satisfaction, successful aging and work environment (Figure 3-1). In the JRM, work environment is considered an extrinsic factor linked to job satisfaction and retention. Work environment consists of all the factors influencing performance and satisfaction which encompass factors that produce a physically and psychologically healthy workplace (Kramer & Schmalenber, 2012). Work environment factors identified as important are control within the environment, professional autonomy and effective communication among all aspect of healthcare-nurses, physicians, and managers. These factors contribute to lower stress on the job, higher nurse satisfaction and safer working habits (Aiken et al., 2001; Budge, Carrher, & Wood, 2002). Work environment is influenced by nurse to patient ratios (Aiken, Clarke, Sloane, Lake, & Cheney, 2008), unit geography (Christmas, 2008), staff relationships (Letvak & Buck, 2008), job injury, and stress (Letvak, 2003; Letvak & Buck, 2008). Work environment has been positively correlated with retention in hospital nurses (Burtson & Stichler, 2010; Ritter, 2011) in predominantly female populations, but little is known concerning older male nurses or the relationship of work environment to retirement plans.

Job satisfaction is simply the extent to which people enjoy their job or how they feel about the job (Spector, 2006). In nursing research job satisfaction is cited as the number one reason to remain employed (Duffield et al., 2010; Fitzgerald, 2007; Laschinger et al., 2009) and the JRM suggests that job satisfaction is linked to both intrinsic and extrinsic factors leading to intent to stay and retention. Studies of job satisfaction among older nurses have produced mixed findings. Some studies have reported no difference in job satisfaction between younger and older age groups (Cummings et al., 2008; Delobelle et al., 2010; Sparks, 2012) while others have

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reported higher job satisfaction among older nurses (Blythe et al., 2008; Irvine & Evans, 1995; Wieck, Dols, & Landrum, 2010). Zawacki and Shahan (1995) reported no statistically significant difference in job satisfaction between male and female RNs and Minai (2013) reported lower job satisfaction among male nurses within a male dominated nursing environment. Little research has dealt with the relationship of job satisfaction to retirement plans among men in nursing.

Successful aging is ability and adaptability. Successful aging is included in intrinsic factors and individual characteristics in the JRM (Ellenbecker, 2004) and is linked to job satisfaction, intent to stay and retention. Decline in work ability in older workers has been associated with the loss of vital physical, mental, and social resources (Ilmarinen, 2009; Ilmarinen, 2006; Alavinia, De Boer, Van Duivenbooden, Frings-Dresen, & Burdorf A, 2009). Poor work ability has been associated with early-retirement intentions in the general public (von Bonsdorff, Vanhala, Seitsamo, Janhonen, & Husman, 2010). The strongest predictors of work ability based on previous research are individual factors such as health, fitness, work demands, and age (Alavinia et al., 2009; lmarinen & Rantanen, 1999; van den Berg, Elders, de Zwart, & Burdorf, 2009). Factors relating to successful aging include job control (Müller, Weigl, Heiden, Glaser, & Angerer, 2012), family relationships, economic security, social life (Chou, 2012; Robson, Hansson, Abalos, & Booth, 2006), goal achievement, and occupational growth (Robson et al., 2006). Delayed retirement and successful aging has been studied in the work force in general, however little is known about the association of successful aging and delayed retirement among older male nurses.

There is no single strategy shown effective in retention or delaying retirement of nurses (Buykx, Humphreys, Wakerman, & Pashen, 2010; Hirschkorn, West, Hill, Cleary & Hewlett, 2010), yet promoting nurse retention has been undertaken by multiple organizations and is

believed to require a multifaceted approach. Use of certain strategies for retention of men, such as increased attention to retention of men in nursing, ensuring equal opportunities, and reduction of gender stereotypes may be appropriate (Hsu, Chen, Yu, & Lou, 2010). Understanding this complex topic requires continued research especially among male RNs. As part of a larger study (not yet published) designed to examine the associations of job satisfaction, successful aging and work environment among older RNs, we surveyed RNs employed in the acute care setting. To inform future research and assist in the development of strategies to influence decisions on retirement, the aim of the analyses presented here is to determine if job satisfaction, successful aging and work environment is significantly different between genders and if these are differentially correlated to intent to retire.

Methods

Sample

Data for this study were collected in 2013 over 4 months with an invitation sent via email. Survey Monkey was the survey vehicle and included an introductory letter, demographic form, and research tools formulated to measure the constructs of job satisfaction, successful aging, and work environment. An incentive of $5.00 Starbucks e-cards was offered to 500 randomly selected nurses and two iPads were awarded using random selection of email addresses of all completed surveys. All participants were RNs working in acute care, 40 years or older, English speaking, working within the state of Florida and willing to participate. All nurses with registered emails with the Florida Board of Nurses were invited to participate. A total of 180 thousand emails were sent out with 2789 qualified questionnaires returned (male 12.6%, mean age 54.4, range 40-79). This study adhered to ethical principles and standards for conducting

human research and institutional review board approval was granted by the Office of Human Research Protection of Program of University of California Los Angeles.

Measures

Work Environment

The Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002) was used to assess work environment. The 31-item instrument (five subscales) was reduced to 19 items to reduce overlap of subject topics and subject fatigue.   The PES-NWI was developed specifically for RNs. All questions were rated from (1) strongly agree to (4) strongly disagree. All questions in the Nurse Participation in Hospital Affairs Subscale were included. These questions related to having career and advancement opportunities, a highly visible chief nursing officer, responsive administration, involvement in internal governance and committees, a nursing administration that consulted with staff, and opportunities to participate in policy decisions. Only one question from the Nursing Foundations for Quality of Care Subscale was included which asked if working with clinically competent nurses was important. All questions from the Nurse Manager Ability, Leadership, and Support of Nurses Subscale were included and questions related to supportive supervisors, supervisors using mistakes as learning opportunities and not criticizing, supervisors being good managers and leaders, and having a nurse manager that backed up staff. Only one question from Staffing and Resource Adequacy Subscale was included which asked if enough staff was provided to get the job done. All questions in the Collegial Nurse-Physician Relations Subscale were included and referred to good relationships, teamwork and collaboration between doctors and nurses. Scoring was completed with an overall PES-NWI "composite" score, with the mean of the subscale scores giving equal weight to subscales, rather than individual items.

Each item was scored (from 1 to 4) so higher numbers indicated greater agreement. Lake (2002) reported a Cronbach's alpha of .80, in this study the subscales utilized is =.94.

Job Satisfaction

To measure job satisfaction, the Mueller McCloskey Satisfaction Scale (MMSS) (Mueller & McCloskey, 1990), which was developed specifically for nurses, was used. All questions were scored from (1) very dissatisfied to (5) very satisfied and six of the 8 subscales were used. All questions from the Satisfaction with Extrinsic Rewards Subscale, which pertained to salary, vacation, and benefits package, were used. Five of the six items in the Satisfaction with Scheduling Subscale were used asking questions about hours worked, schedule flexibility, opportunity to work straight days and have weekend days off, and receiving compensation for working weekends. Only one question from the Satisfaction with Balance of Work and Family Subscale, which concerned the ability to work part-time, was asked. Three questions were included from the Satisfaction with Praise and Recognition Subscale which focused on recognition for work from peers and supervisors. All questions from the Satisfaction with Control and Responsibility Subscale were used. Questions focused on control over work conditions and work setting, career advancement, amount of responsibility on the job and participation of organizational decisions. Both questions from the Satisfaction with Co-workers Subscale were used relating to satisfaction with nursing peers and physicians. The Satisfaction with Interaction Opportunities and Satisfaction with Professional Opportunities Subscales were not included to avoid subject fatigue and duplication of questions. Items were scored from 1 to 5 with 5 indicating the highest level of satisfaction. Each subscale was then summed and divided by the number of items to attain a mean. Mueller & McCLoskey (1990) reported a .91 alpha on the global scale and for the subscales in this study the alpha was .91.

Successful Aging

To operationalize successful aging the Work Ability Index was used (Tuomi, Huuhtanen, Nykyri, & Ilmarinen, 2001; Ilmarinen J, 2004) which included seven questions. (A) The question "Assume that your work ability at its best has a value of 10 points. How many points would you give your current work ability? (0 means that you cannot currently work at all)?" (Tuomi et al., 2001) was asked to provide a subjective evaluation of lifetime best compared to current ability to work. (B) Respondents were asked their work ability related to mental and physical job demands on a scale of (1) extremely poor to (5) extremely good. (C) An extensive list of diseases was presented and respondents were asked to evaluate the number of self and/or physician diagnosed diseases. (D) Respondents were asked to evaluate the degree of estimated work impairment relating to diseases on a scale of (1) unable to work to (5) no impairment at all. (E) Respondents were asked during the last year how much absence they reported on a scale of (1) 100-365 days to (6) none. The final two questions related to the possibility of the respondent continuing to work for the next two years in terms of (F) self-rated work ability and (G) psychological resources on a scale of (0) unable to say as they have already left employment to (3) most likely will continue to work and (1) extremely poor to (5) extremely good. Based on the seven scales a total score ranged from 7 to 49, with 7-27 equal to poor, 28-36 equal to good, and 44-49 equal to excellent work ability. In the survey the WAI was positioned between the two other instruments due to the different scoring systems for the PES-NWI and the MMSS.

Demographics

Participants were asked about their age, gender, and level of education (diploma, associate's degree, bachelor's degree, master's degree, and doctorate). Household income was requested and whether the participant was responsible for dependent care at home. Marital status was asked

(married or domestic partner, widowed, divorced/separated, and never married). Questions about the employment setting (type of unit, level of work, full or part-time, and shift worked) were also asked. Years to retirement was measured by a single question "If you are currently planning retirement, in how many years do you plan to retire?"

Statistical Analyses

Univariate descriptive statistics were used for participant characteristics, successful aging (Work Ability Index), work environment (PES-NWI), and job satisfaction (MMSS) for men and women. Comparisons between genders were made using t-test or non-parametric corollaries for continuous outcomes for normally distributed and non-normally distributed outcomes, respectively. Categorical outcomes were compared using χ^2 tests (Kendall's Tau C For ordinal or Pearson for nominal). Gender differences in job satisfaction, work environment, and successful aging were further adjusted for age. Effect sizes (Cohen's D) were computed to further characterize the size of the gender effects in these outcomes. Pearson correlations, stratified by gender, were performed to assess whether there were different bivariate associations of WAI, PES-NWI, MMSS, and age to years to retirement for men and women. Analyses were performed using SPSS (v.21); $\alpha = 0.05$.

Results

Table 3-1 reports the characteristic of the male vs female nurses. While there were statistically significant differences in age, income, having dependents, and job titles, these differences were very small. The mean age for the study was 54.5 (SD=7.7). Male nurses tended to be younger, but the mean difference was only 2.2 years. Thirty-eight percent of male nurses were in their 40s vs 28% of female nurses; a much higher proportion of female nurses were 60+ years (28% vs 19% in males). Male nurses were more likely to have dependents, though the difference was

small (77% vs 71%). Ninety-two percent of nurses reported household incomes greater than $50,000. Job categories were staff RN, charge nurse, educator, researcher, management and other, with only the management category reporting more males. Male nurses were more likely to be in management, though this was a small difference (13.7% vs 12.2%). This finding could attribute to more male nurses reporting an annual salary of $100k or more, whereas 33% of female nurses reported that salary.

Table 3-2 reports the mean years to retirement differences and differences in successful aging (Work Ability Index), work environment (PES-NWI), and job satisfaction (MMSS). There was a significant difference in WAI between men and women, even after adjusting for age differences, however the effect size was very small (Cohen's d = 0.16). Males reported higher work ability with 42.14 (SD 6.02) and females 41.11 (SD 6.81) (p=0.007). There was no difference in the composite PES-NWI or MMSS, though there was a difference in the scheduling subscale of the MMSS with males 3.75 (SD 0.83) and females 3.85 (SD 0.78) (p = 0.03). When adjusted for age, this effect decreased (p = 0.05). This effect was quite small (Cohen's d = 0.13). There was also a difference in age to retirement (p < 0.001) (Cohen's d = 0.29), which decreased when adjusted for age (p= 0.02). It is notable that the ~2 year mean age difference between men and women is reflected in ~close to 2 year difference in years to intended retirement. Table 3-3 reports the Pearson correlations stratified by gender. Only age was highly associated with years to retirement in both men (r = -0.73) and women (r = -.0.78), indicating that older participants anticipated shorter times to retirement. All other correlations with years to retirement were very small (|r's| = 0.01 – 0.10).

Discussion

Kramer and Schmalenber described work environment as "the totality of all factors that influence satisfaction and performance" (2012 pg. 59) including factors making an environment psychologically and physically healthy. These factors have been positively linked to work environment, job satisfaction and retention among acute care nurses (Aiken & Patrician, 2000; Cho et al., 2003; Cohen et al., 2009). Estryn-Behar et al. (2007) studied the impact of social work environment and personal factors relating to intent leave among European nurses reporting that male nurses indicated a higher intent to leave. Tourangeau and Ranley (2006) examined nurse intentions to remain employed reporting higher intentions of leaving the job related to organizational commitment and stress. Lou et al. (2007) reported increased intent to leave by male nurses in Taiwan when examining similar factors. Almalki, FiztGerald and Clark (2012) reported higher intent to leave while studying quality of work life in a study comprised of 32.7% male respondents. In this study no difference was noted between work environment and intent to leave and male and female nurses.

Studies have shown that job satisfaction is the number one factor in retaining nurses (Duffield et al., 2010; Fitzgerald, 2007; Laschinger et al., 2009). Studies have also confirmed that factors such as work environment, and management characteristics contribute to job satisfaction of nurses. Unlike other studies, this study found no differences in job satisfaction between male and female nurses. Numerous studies have reported lower job satisfaction for male nurses including Minai's (2013) which studied job satisfaction in acute care nurses; Dockery (2004) who studied retention and job satisfaction of nurses in Australia; and Shields and Ward (2001). Lower job satisfaction among male nurses was also reported by Almalki, Fitzgeral, & Clark (2012); An & Kyung (2011) and Kalisch, Tschanen, & Lee (2011). The sample in this

study was nurses older than age 40, therefore the possibility needs to be explored that older nurses rate the importance of factors, such as job satisfaction and work environment differently than nurses who are younger.

Successful aging was described by Fisher (1995) as an ability of continued growth, coping with present circumstances, fixed goals for the future with the application of past lessons learned incorporating adaptability at all times. Factors important to successful aging on the job include economic security, social life, family relationships (Chou, 2012; Robson et al., 2006), control on the job (Müller, Weigl, Heiden, Glaser, & Angerer, 2012), occupational development, achievement of goals (Robson, Hansson, Abalos, & Booth, 2006), and personal growth (Sanders & McCready, 2010).   Mixed findings were found in the literature between males and females with several studies reporting no difference in WAI between males and females in different occupations (Bugajska & Lastowiecka, 2005; Camarino et al., 2008; Ilmarinen, Tuomi, & Seitsamo, 2005). Lower levels of WAI were reported by French health care workers (Estryn-Behar et al., 2005). However, the samples in the cited studies were comprised of all ages and were not restricted to older workers, which indicate the need for more research directed at older nurses both male and female. Findings in this study showed a significant statistical difference in WAI between males and females, even after adjusting for age differences, with males reporting higher levels of WAI. This is consistent earlier studies relating to health care workers (Costa et al., 2005; Nachiappan & Harrison, 2005).

It has been reported in earlier studies that younger employees report longer anticipated years to planned retirement. Age is an important factor when discussing prediction of years to retirement in nurses. An earlier study (Michele Wargo-Sugleris, not yet published) found no statistically significant relationship between planned retirements, and income, primary financial

providers, or dependents, however when controlling for gender and age the effects of the predictors changed. This study explored the data more closely and found that successful aging was strongly correlated to years to retirement, as confirmed by earlier studies (Camarino et al., 2008; Hasselhorn, Tackenberg, & Muller, 2003). This study provides opportunities for continued research on the effect of work environment, job satisfaction, and successful aging on planned retirement of nurses, particularly male nurses.

There are a number of potential limitations to this study. The cross-sectional design and the purposive sampling strategy is a limitation. This study was limited to one geographic region, Florida, and represents acute care nurses only; therefore the findings may not be generalizable to other regions or nurses working outside of acute care. However, with regards to male/female statistical breakdown, similar findings compared to the National Sample Survey of Registered Nurses (NSSRN) (HRSA, 2008) (the NSSRN reported 9.6% male nurses and this study reported 12.6%) provides some support for generalizability. Another limitation, noted most frequently in occupational health studies, is the "healthy worker effect". This is when actively employed workers report more favorable morbidity or mortality compared to the general public (McMichael, 1976) or when referring to morbidity or mortality in employees compared with the general public (Porta, 2014).

Conclusions

As nurses born in the Boomer Generation age they will retire in much larger numbers than any other group in history, creating a gap between the experienced older nurse and the new graduates, which could produce the "brain drain" of experience. Men represent 9.6% of RNs in the United States (HRSA, 2008), which illustrates a significantly unbalanced number of males in nursing, despite a survey which reported 91% of male nurses encouraged other males to consider

nursing as a viable career option (Burnett, 2007). Men therefore represent an untapped and elusive resource to the healthcare system. Previously very little difference was reported in the intentions of males and females when considering leaving nursing (Borkowski, Amann, Song, & Weiss, 2007). However, with men reporting a higher likelihood of leaving nursing than their female counterparts (Curtis, Robinson, & Netten, 2009: Rajapaksa & Rothstein, 2009), it becomes increasingly important to delay retirement of all older nurses and to examine determinants specific to male nurses to better understand this growing subset of nurses.

In this study successful aging was found to be an important correlate of years to retirement among male nurses; however age had the strongest correlation to years to retirement as reported by an earlier study (Michele Wargo-Sugleris, not yet published). The results of this study will be useful to hospital administrators, policy makers, and occupational health practitioners with the intent of improving hospital work environment for both patients and nurses, both male and female, contemplating retirement (Institute of Medicine, 2004). This is important as the nation faces demographic changes, increased complexity of patient care, and the projection of an ever increasing nurse shortage (Juraschek, Zhang, Ranganathan, & Lin, 2012). The continued study of nursing work environment and job satisfaction and their effect on the work ability of nurses could improve retention by delaying retirement of all nurses, and the quality of work provided by those nurses.

Tables

Table 3-1. Characteristics of Male vs Female Nurses

		Male		Female	
		M	**SD**	**M**	**SD**
Age (years)***		52.4	7.7	54.6	7.9
		N	**%**	**N**	**%**
Age categories***	40s	130	37.7%	672	27.7%
	50s	149	43.2%	1084	44.7%
	60s & 70s	66	19.1%	669	27.6%
Income***	$25,000 or less	0	0.0%	0	0.0%
	$25,001 to $35,000	0	0.0%	0	0.0%
	< $50,000	16	4.7%	188	7.9%
	$50,001 to $75,000	82	24.1%	692	29.1%
	$75,001 to $100,000	102	30.0%	707	29.7%
	More than $100,000	140	41.2%	791	33.3%
Any dependents*	No	79	22.9%	694	28.6%
	Yes	266	77.1%	1731	71.4%
Current job title*	Staff RN	211	61.3%	1363	56.6%
	Charge Nurse	34	9.9%	254	10.5%
	Educator	8	2.3%	103	4.3%
	Researcher	4	1.2%	7	.3%
	Management	47	13.7%	293	12.2%
	Other	40	11.6%	390	16.2%

*** P < 0.001; **P < 0.01; *P < 0.05

Table 3-2. Gender differences in WAI, MMSS and PES-NWI

	N	M	SD	N	M	SD	P	P$_{ADJ}$
Work Ability Index	341	42.15	6.02	2382	41.11	6.81	0.007	0.006
PES-NWI composite score	333	2.65	0.63	2301	2.7	0.59	0.16	0.18
MMSS mean of all items	343	3.53	0.73	2397	3.57	0.71	0.29	0.64
Subscales								
Scheduling	343	3.75	0.83	2396	3.85	0.78	0.03	0.05
Co-workers	343	3.99	0.84	2394	3.98	0.8	0.85	0.43
Control and responsibility	343	3.17	1.01	2396	3.18	0.99	0.81	0.91
Praise & Recognition	343	3.61	0.99	2395	3.6	0.99	0.96	0.62
Extrinsic Rewards	343	3.45	0.98	2397	3.47	0.97	0.63	0.98
Years to retirement	293	11.86	7.41	2087	9.83	6.86	<.001	0.02

Note. P$_{ADJ}$ includes age as a covariate.

Figure 3-1 Modified Ellenbecker's JRM Model

Intrinsic Factors
Successful Aging-work ability
Work Environment
- Professional autonomy
- Group cohesive administration
- Group cohesive peers
- Group cohesive physicians
- Characteristics of the organization

Extrinsic Factors
Work Environment
- Stress and workload
- Control of work hours
- Control of work activities
- Salary and Benefits
- Organizational opportunities

Individual characteristics
- Age
- Gender
- Race ethnicity
- Education
- Position
- Marital status
- Income
- Primary financial provider
- Independents

Job satisfaction

Years to Retirement

(+) (+) (+) (+) (+) (+/-) (+/-)

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Conclusion to Dissertation

The aging and increasing acuity of patients (Elmendorf, 2010), the need for skilled experienced nurses at the bedside (Jackson, 2008), and the current nursing shortage (AACN, 2012; Buerhaus, 2008; Fox & Abrahamson, 2009) continue to be global problems. The aging of the nursing workforce (AACN, 2012; HRSA, 2008; Wray, Aspland, Gibson, Stimpson, & Watson, 2009) and large number of nurses approaching retirement (AACN, 2012; Blakeley & Rubeiro, 2008; Kooker & Kamikawa, 2010) increases the complexities and the need to identify strategies for delaying retirements. Findings from this project provide significant insights into the issues related to delaying retirement and the opportunity for healthcare to initiate organizational changes which may yield continued availability of experienced nurses at the bedside (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; Laschinger, Leiter, Day, & Gilin, 2009; Schmalenberg & Kramer, 2008).

Study Overview

The proposed study aims were to examine the relationships among work environment, job satisfaction and successful aging and how these factors related to RNs intent to retire. The first paper was a concept analysis of successful aging and the aim was to examine the concept as it applies to older workers. To date, most research on successful aging involves individuals who are 70 years and older and post-retirement. The application of the term "successful aging" to older workers is relatively recent (Cheung & Wu, 2013; Robson, Hansson, Abalos, & Booth, 2006; (Müller, Weigl, Heiden, Glaser, & Angerer, 2012). This author found "successful aging" to be a complex, highly individual concept with concrete and tangible components. Among aging workers, the concept is best defined as 'ability' and not 'disability'. For this author, successful aging in the workplace was defined as cognitive, physical and social ability, and as the capacity

to maintain a healthy perspective on aging and employment goals. The outcomes of the concept analysis was verification that when applied to older workers, successful aging can be considered to be synonymous with work ability.

The study conducted and reported in the second paper was guided by a modified version of the Job Retention Model (JRM) (Ellenbecker, 2004) under the assumption that retention of older nurses by delaying retirement was an important and relevant topic of research. Ellenbecker's JRM was developed to explore retention of home healthcare nurses. Ellenbecker proposed a direct relationship of job satisfaction to retention and that job satisfaction and individual characteristics were indirectly related to retention through intent to stay. For Ellenbecker, retention was defined as the extent to which nurses remain in their present jobs. Ellenbecker (2004) measured intrinsic and extrinsic factors using the Home Healthcare Nurses' Job Satisfaction Scale (Ellenbecker, 2001). The theoretical modified model is an integration of Ellenbeckers 2004 model and research related to work environment, successful aging, job satisfaction and retirement. In this model, retirement, a form of retention, was defined as the act of leaving one's job and ceasing to work. The modified model utilized instruments developed for nurses and delved into more depth to acquire information to better understand what affects RNs decisions to delay retirement. Intrinsic factors included successful aging and intrinsic factors related to work environment. The modified model proposed that job satisfaction is directly related to years to retirement and intrinsic, extrinsic and individual characteristics are related to years to retirement indirectly through job satisfaction. This model also proposes that intrinsic, extrinsic and individual characteristics directly influence years to retirement.

For this study, included in the intrinsic factors were job satisfaction components measured by the Mueller and McCloskey Satisfaction Scale (MMSS), work environment factors

measured by the Practice Environment Scale of the Nursing Work Index (PES-NWI) and the Work Ability Index (WAI). The MMSS was utilized because it is an easy to use, valid and reliable instrument that was developed to measure nurses' job satisfaction and included intrinsic factors such as ability to work, autonomy, family and work balance, peer/physician relationships, and praise and recognition. The PES-NWI was used to increase information concerning the environment that nurses currently work in and operationalize measurable components including intrinsic factors such as autonomy, family, and work balance, job relationships, and praise and recognition. Some cross-over was noted between the two instruments when looking at intrinsic factors such as relationships with peers and physicians and characteristics of the organization which was limited by using subsets of each instrument. The WAI operationalized successful aging for this actively working population of older acute care nurses. This instrument has been used within healthcare to study retirement and successful aging (Chou, 2012), successful aging strategies and job satisfaction (Müller, Weigl, Heiden, Glaser, & Angerer, 2012) and the general work population for identification of workers views on successful aging at work (Robson, Hansson, Abalos, & Booth, 2006).

The intrinsic and extrinsic factors in the modified model were included as proposed relationships to job satisfaction and years to retirement, as a group and individually. This is important because in the original model job satisfaction was a mediator and in the modified each category is examined directly relating to both job satisfaction and years to retirement. This study explored individual characteristics with a direct relationship examining the effects of such characteristics as age, gender and number of dependents to years to retirement. Previous studies have reported that individually work environment, job satisfaction and successful aging are significant motivators in the recruitment and retention in acute care RNs. The supposition was

that these would also apply to retirement. The goal in using this model was to produce information that would benefit in delaying retirement in older RNs through use of the information to develop human resource and organizational practices which would affect retirement decisions of currently employed RNs.

As described in the second paper three trends worldwide direct research on older workers and early retirement of nurses. The first trend is the unprecedented growth of older workers both internationally and in the United States (Posthumas & Campion, 2008; Selden, 2008); the second is the decreasing workforce entrants (Calo, 2005; Toossi, 2012), and third is the sustaining of welfare provisions, including social security and retirement benefits, for current and future retirees. Determinants of delaying retirement examined were work environment, job satisfaction and successful aging. Four hypotheses based on the modified JRM were tested utilizing the MMSS (job satisfaction), PES-NWI (work environment), and WAI (successful aging). Of interest while examining scores of these three instrument it was noted that very little difference in means was seen between those 40-49 years old, 50-59 years old and the greater than 60 years old group.

Hypothesis 1: Age, gender, financial responsibilities, and family obligations influence job satisfaction. The intent of this hypothesis was to examine the direct relationship between individual characteristics of age, gender, financial responsibilities, and having dependents and job satisfaction. Significant predictors were age, income and having at least one dependent. Though statistically significant these findings accounted for a small amount of variance in job satisfaction, accounting for only 2.5% of the variability in MMSS total score. Job satisfaction had a low correlation with age (r=0.11), adding to previous research reporting low or no difference in job satisfaction between younger and older nurses (Cummings et al., 2008;

Delobelle, Rawlinson, Ntuli, Malatsi, Decock, & Depoorter, 2010; Sparks, 2012). Gender was not a significant predictor of job satisfaction. In this study, job satisfaction was higher in older RNs who had higher incomes, were primary providers and had no dependents. This finding supports the theoretical premise based on the modified JRM that age, financial responsibilities and family obligations, as combined variables, are predictive of job satisfaction. This adds and expands upon previous research reporting age, income and dependents as important factors relating in job satisfaction.

Hypothesis 2: Controlling for individual characteristics, successful aging and work environment positively influence job satisfaction. The intent of this hypothesis was to determine how much variance in job satisfaction, after controlling for individual characteristics, was explained by successful aging and work environment. Job satisfaction was positively influenced by older age, higher income, and being the primary financial provider. After accounting for these three variables, both work environment and successful aging ($p<0.05$) predicted job satisfaction. Work environment alone explained 55% of the variance in job satisfaction, contributing new information about job satisfaction. For every point increase in work environment there was an average increase in job satisfaction of 0.9 points. Work environment was by far, the strongest predictor of job satisfaction. This finding supports the theoretical premise, based on the modified JRM, that work environment strongly influences job satisfaction among nurses. This expands knowledge gained from existing research showing a positive correlation between work environment and job satisfaction, particularly related to increased patient loads and excessive job demands, lack of autonomy, and adequate staffing (Andrews et al., 2005; Collins-McNeil et al., 2012; Larrabee et al., 2005; Storey, Cheater, Ford, & Leese, 2009; Wray, Aspland, Gibson, Stimpson, & Watson, 2009).

Hypothesis 3: Age, gender, financial responsibilities, and having dependents influence years to retirement. The intent of this hypothesis was to examine the direct relationship between individual characteristics of age, gender, financial responsibilities, and having dependents and years to retirement. Age and gender were significant predictors of years to retirement. Age was the strongest predictor of years to retirement ($p<0.001$) accounting for 60% of the variance. Years to retirement was strongly correlated with age (-0.78). This supports previous research that age continues to drive decisions to retire as retirement age approaches (Lusardi & Mitchell, 2011A; Lusardi & Micthell, 2011B). Preliminary findings did not show significant relationships of income, primary financial provider or dependents to retirement. This supports and expands upon previous research reporting salary/income as incentives to delaying retirement in older RNs (Andrews, et al., 2005; Cyr, 2005; Palumbo, McIntosh, Rambur, & Naud, 2009).

Hypothesis 4: Controlling for individual characteristics, job satisfaction, work environment, and successful aging positively influence years to retirement of older nurses. The intent of this hypothesis was to examine the direct relationship between job satisfaction, work environment and successful aging relating to years to retirement after controlling for individual characteristics. Significant to this study was that successful aging was the significant predictor, with higher WAI scores associated with more anticipated years to retirement. This expands knowledge gained from existing research showing a positive correlation between successful aging and years to retirement in the retention and delaying of retirement in older workers. This supports previous research reporting poor WAI scores were predictive of decreased retention of older RNs (Camerino et al., 2006; Hasselhorn, Tackenberg, & Muller, 2003).

Based on the modified JRM job satisfaction was included and data analyzed pertinent to hypothesis four to examine the relationship between job satisfaction and delaying retirement. Job

satisfaction has been reported as a strong and consistent predictor of retention in nursing (Palumbo, McIntosh, Rambur, & Naud, 2009; (Roberts, Jones, & Lynn, 2004; Wang, Tao, Ellenbecker, & Liu, 2012), however when exploring delayed retirement this was not found to be consistent with previous research and job satisfaction was not predicative of delayed retirement. This may be due to the wording used in this study relating directly to "retirement" and not inclusive of the broader terms-retention (Blake, Leach, Robbins, Pike, & Needleman, 2013), intent to stay and intent to leave (McGilton, Tourangeau, Kavcic, & Wodchris, 2013) and nurse turnover (Currie & Carr Hill, 2012). This may also indicate that job satisfaction is not as important when studying delayed retirement as opposed to retention in nursing. Contrary to what was hypothesized, neither work environment nor job satisfaction were significant predictors of years to retirement.

The third paper was written in recognition of the growing presence of men in nursing and the research which shows that men and women report different motivators of delaying retirement (Dentinger & Clarkberg, 2002; DeViney & O'Rand, 1988). The third paper focused on differences between men and women in relationship to years to retirement. Findings showed male and female nurses had some statistically significant different characteristics but the differences were very small. Male nurses were approximately 2 years younger with 38% of male nurses in their 40s versus 28% of females. A much higher percentage of female nurses were 60 years of age or older (28% females versus 19% males) and males were more likely to be in management (13.7% for men versus 12.2% for women). This may account for the male nurses reporting higher annual salaries (41.2% versus 33%). A higher percentage of men also reported having dependents than women (77% versus 71%). Successful aging (work ability) was the only variable that was statistically different for men and women, but the effect size was small

(Cohen's d=0.16). Pearson correlations stratified by gender showed that only age was highly associated with years to retirement in males (r=-0.73) and females (r=-0.78). While these findings showed small effect sizes, the differences encourage future research on whether the higher percentage of men in management accounts for the salary discrepancy and what factors account for the higher percentage of male nurses in management positions.

This project was novel because it examined three distinct and different variables relating to older acute care nurses in the U.S. today, work environment, job satisfaction and successful aging. This study was an opportunity to examine these relationships among aging nurses faced with retirement decisions and whether they offered viable solutions to healthcare systems and organizations in delaying retirement. In this study the focus was specifically on retirement within a sample of older nurses as they approach an age where decisions relating to retirement achieve greater importance. This study also studied the concept of successful aging among older male actively working acute care nurses; this concept has been widely studied among the general population and recently among nurses (Müller, Weigl, Heiden, Glaser, & Angerer, 2012; Robson, Hansson, Abalos, & Booth, 2006). Very little research in the past has focused on older acute care nurses.

This study used a modification of Ellenbecker's JRM, which was developed as a theoretical explanation for job retention among home health care nurses. It predicted retention based on job satisfaction alone. Modifications included the expansion of intrinsic and extrinsic factors to include additional variables measured with instruments used in this study (MMSS, PES-NWI and WAI). The modified JRM predicted positive correlations between the expanded intrinsic and extrinsic factors and job satisfaction related to years to retirement. This use of the model confirmed that retirement among older acute nurses is in some ways similar to retention

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and in some ways different. It was similar because of the strong relationship between work environment and job satisfaction. It was different since job satisfaction was not related to years to retirement. Delaying retirement, simply defined, is a form of retention. Of importance to this definition is the fact that most workers or acute care nurses considering retirement are older therefore adding the older worker into the definition utilized in this study. Retention singularly is inclusive of all acute care nurses such as new graduates, younger nurses with less time on the job and nurses under 40 that have 15-20 years on the job. The use of the modified JRM in this study is inclusive of acute care nurses above the age of 40 only.

Implications

The application of these findings provide opportunity to researchers to study, develop and institute new and improved policies for managers, human resource and healthcare administrators, relating to older nurses and factors that might delay their retirement. As the nursing shortage continues and healthcare demands increase, patients and healthcare employers retaining older nurses has increasing importance. Aging nurses provide invaluable knowledge and experience yet face the risk of higher job-related health problems and increased risks of serious injuries on the job (Collins-McNeil, Sharpe, & Benbow, 2012; Letvak, 2003; Letvak, 2009). Hospitals are buildings were care is provided by physicians and nurses. Understanding the physical and organizational environment and how it enriches and improves working conditions translates research into clinical practice and increases implementation of evidence based strategies used to optimize the experience for RNs and patients (Applebaum, Fowler, Fiedler, Osinubi, & Robson, 2010; Mroczek, Mikitarian, Vieira, & Rotarius, 2005). Findings from this study can be used to inform nursing administrators and human resource personnel concerning policy and procedures to decrease attrition of older employees. Use of nursing input to develop these policies is critical

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to guide changes and assessment in healthcare systems. Recognition of nurses input may decrease staff stress and increase job satisfaction which is an example of how small improvements to the organizational environment may lead to improved successful aging for older nurses.

Organizations need to face the fact that for the first time ever there may be three to five different generations of nurses working together and older nurses may experience intergenerational competition and tension on the job. Nursing administrators and human resource individuals will need to address these issues with clear messages that all nurses regardless of age are valued and needed at the bedside. Nurse Managers will also be required to provide support and assistance to make intergenerational respect the norm in healthcare as research suggests that these generational differences may affect individual nurses' perceptions of the work environment (Kuhar, Miller, Spear, Ulreich, & Mion, 2004; Kupperschmidt, 1998; Kupperschmidt, 2006). Work environment was found to strongly influence job satisfaction in this study.

Managers also need to understand the advantage they have with an aging workforce. In the last ten years research has seen a growing recognition that much of an organization's ability to make a profit and maintain an edge in industry resides within intellectual capital (Carson, Ranzijn, Winefield, & Marsden, 2004). The term 'intellectual capital' is defined as the organization's potential for profit-making, utilizing the collective knowledge of individuals in society or an organization ("Web Finance, Inc." 2015) and includes such things as firm-specific knowledge, occupational competencies, and innovativeness and creativity (Carson et al., 2004). Many older nurses possess these attributes. In addition, nursing is a knowledge based occupation with the continued need to improve competency, as directed by the Joint Commission on Accreditation of Healthcare Organizations. Within the context of the increasing age of workers,

possibly to ages above age 70, older nurses also have certain obligations to continually improve their competencies. Strong incentives for doing that are provided by knowledge that intellectual capital rarely shows significant signs of decline prior to seventy years old (Patrickson & Ransijn, 2004) and age and expertise are a distinct benefit. The knowledge that older nurses can be a valued and appreciated employee may influence decisions to retire.

Human resource departments also need to understand that diversity is a crucial consideration when viewing occupational experience of acute care nurses. Implementation of systems to provide work environments that are more conductive to nurse safety and the minimization of errors, staffing practices accounting for patient acuity and volume, and limiting work hours and shifts worked are several factors that could delay retirement. Successful aging is a concept recently applied to younger workers and to RNs. This research explored this concept with the WAI allowing an accurate measurement of how RNs view their ability to complete their jobs while assessing for illness and days of reported absences. This research also expands and adds to the knowledge of previous studies that illustrate the importance of variables such as peer support, nurse/physician relationships and the ability of the nurse to do her/his job. These variables can lead to the identification of evidenced based strategies to effectively delay retirement (Cyr, 2005). This might involve the introduction of specific career paths that are developed for older acute care nurses thus maintaining or increasing the number of nurses at the bedside involved with active patient care.

A substantial growth of research on successful aging at work in the past decade has been noted, partly attributable to the momentum of growth of demographic changes within industrialized Western countries (Baltes & Finkelstein, 2011; Hedge, Borman, & Lammlein, 2006; Kanfer & Ackerman, 2004). This research has several practical implications for healthcare

organization faced with the challenge of managing older nurses who chose to remain in acute care. We think that the findings of this research can substantially contribute to development of policies and measures that can increase years to retirement in this important group of employees and promote the health of older nurses physically and mentally and their capabilities as they perform their daily care of patients.

This research demonstrates for the first time that the Ellenbecker Model can be applied in a meaningful way to a more defined form of retention-retirement. It also includes an important aspect of acute care nursing-successful aging (Ahlstrom, Grimby-Ekman, Hagberg, & Dellve, 2010; Müller, Weigl, Heiden, Glaser, & Angerer, 2012; Müller, Weigl, Heiden, Glaser, & Angerer, 2013). Implications related to use of the modified Ellenbecker Model in this study have shown that modifications made to the model enhanced the use of the model for use in retirement research of acute nurses. However noting the lack of research acknowledging a relationship between job satisfaction and years to retirement, this research reports positive correlations with the addition of various factors that were measurable to the extrinsic and intrinsic factors.

Limitations

Limitations of this study were the use of a cross-sectional design and the purposive sampling which limited responding acute care RNs to one geographic location, Florida, therefore limiting generalizability to nurses in other states in the U.S. or other locations in the world. Another limitation was the handling of missing data with fall-off noted to be random but higher in the later part of the survey, possibly due to subject fatigue. Also no planned retirement date or retirement age was requested, which may be important when understanding the significance of continued research on delaying retirement in acute care RNs. In regard to the third paper the

limitations were found to be similar, however it was noted that our sample had more males than usually reported nationally (this study reported 12.6% male nurses and the NSSRN, 2008 reported 9.6%), providing increased support for generalizability. A final limitation is 'healthy worker effect' common to occupational health studies. Porta (2014) described this as a discrepancy of morbidity and mortality when comparing a study group of actively employed people to the general public and McMichael (1976) defined it as actively employed people reporting more favorable experiences of morbidly and mortality than the general public. Usually applied to studies with an association with mortality, which is not applicable in this study. For this study the comparison was between age groups, not relating to the general public. This may be viewed as a selection bias in both papers.

Recommendations for Future Research on Retirement and Nursing

In the general working population three characteristics appear prominently in decision making about retirement, those are older age, accrued wealth, and health issues (Barnes-Ferrall, 2003; Kim & Feldman, 1998; 2000; Shultz & Wang, 2011). Greater wealth increases the feasibility of retiring and with greater wealth older employees may find it more socially acceptable to retire (Beehr, 1986; Levinson, 1986). Financial well-being is also closely related to the potential retirees' anticipated quality of life impacting such areas as choice of leisure activities, living conditions and housing, nutritional intake, and health care quality (Taylor & Geldhauser, 2007). This research confirmed that while age and income are important predictors of retirement in acute care RNs, the continued study of organizational work environment and successful aging is warranted. This study measured income as a predictor of years to retirement, but consideration of the effect of accumulated wealth on nurses' retirement is also needed. The reported findings that nurses >60 years did not rate themselves any differently, on the WAI

relating to successful aging, than 40 year old nurses suggests the need to study the older nurses in greater depth to identify the aspects of work environment and successful aging that are particularly relevant to assisting nurses to delay retirement of among nurses.

A difference in how males and females view retirement in the general public is important when studying retirement in nursing. Literature typically presents retirement as an event occurring to an individual who is de-gendered 'adult worker' (Lewis, 2007). However, in 2010 only 28% of men and 22% of women were classified single; 63% of men and 59% of women were classified as married, cohabiting or in a civil partnership (ONS, 2012). Retirement decision making is both an individual and family decision (Gustman & Steinmeier, 2009). In general, retirement is not a solitary decision. When looking at retirement the influence of the spouses and whether or not the household is supported by a single-wage-earner versus a dual earning couple are important. There is a wide range of factors which influence decisions of both single and dual earning couples to retire, within all levels, such as personal, organizational, financial and household factors. These too need to be considered in future research.

Previous studies have shown that retirement is a joint decision made by both partners in the relationship (Gustman & Steinmeier, 2000; (Ho & Raymo, 2009). Today's contemporary workers are usually part of dual-earner couples. It has been reported that partners often co-ordinate retirement decisions because many workers choose to withdraw from the workforce about the same time as their partner (Jouhnson & Favreault, 2001). The man's decision to retire usually takes priority in dual-earner households however male partners can be influenced by retirement plans of the female partner (Moen, Huang, Plassmann, & Dentinger, 2006). The influence of being part of a dual earning couple has not been studied in nursing and should be included in future research of retirement among acute care nurses.

In addition, men and women make retirement decisions differently depending on their circumstances. For example the number of dependents still at home increases the odds of females being retired yet decreases it in males (Loretto & Vickerstaff, 2012; Talaga & Beehr, 1995). A number of studies suggest that the husband is more influential than the wife in retirement decisions, because women may be more involved domestically than men (Henretta, O'Rand, & Chan, 1993; Pienta & Hayward, 2002; Price & Nesteruk, 2008). In examining the prospect of returning from retirement (or unretiring) gender differences have also been found with women reportedly returning to the workforce approximately 28% less than their male counterparts (Pleau, 2010). These differences indicate importance of further exploring gender differences among old nurses in relationship to future retirement research.

Successful aging is increasing as a research topic applied to older employees in physically and mentally taxing professions (Robson, Hansson, Abalos, & Booth, 2006; Robson & Hansson, 2007) and recently within nursing (Müller, et al., 2012; Müller, et al., 2013). Physical health before retirement has been found to be predictive of physical well-being in retirement (Zhan, Wang, Liu, & Shultz, 2009). Successful aging, when applied to actively working older adults, increases the need to explore in depth retirement decisions with the goal to increase years to retirement in this vital group of nurses.

Finally, in this research the dependent variable was measured as "years to retirement" which was appropriate for this preliminary investigation. However, retirement is a process not a single event that is complex involving shifting organizational and societal contexts (Shultz & Wang, 2011). Future research on the retirement process among older acute care nurses is warranted. More information is needed about how these decisions are made and how the process evolves over time.

Conclusion

This research demonstrates the importance of work environment, job satisfaction and successful aging on decisions made by acute care nurses to retire. While the importance of job satisfaction remains forefront in literature this study points out that retirement is also influenced by other factors including age, work environment and successful aging.

This study described the unique relationship among three significant variables associated with retention that were applied to retirement decisions among older acute care RNs. Successful aging and work environment were shown to positively affect job satisfaction and retirement. The overall contribution of this research is to provide evidence that organizational work environment and successful aging are important topics for research in relationship to delaying retirement in RNs and can help in the development of practices effective for delaying retirement.

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