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“Nurse Job Satisfaction in the Midst of a Pandemic”

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“Nurse Job Satisfaction
In the Midst of a Pandemic”

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Abstract

Registered nurses (RNs) are crucial in the delivery of safe, high quality, accessible, and cost-effective care in the US health care system (Snavey, 2016). Strategies and intervention for nursing recruitment and retention are critical needs at the hospital unit management level especially during this time of coronavirus disease of 2019 (COVID-19) pandemic. Job satisfaction is a critical issue in healthcare as it has been associated with turnover and quality of nursing care.

Research Question: What are the unit-levels of nurse job satisfaction among eight satisfaction dimensions (i.e., satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility) in an acute medical-surgical unit?

Objectives The objective of this project is to systematically obtain unit-level input to explore nurses' views and experiences as it relates to job satisfaction.

Methodology: This is a descriptive cross-sectional convenience study measuring job satisfaction among Registered Nurses in general acute medical-surgical units in a general acute care hospital in the Southwestern United States. This study is based on the analysis and synthesis of survey data using the McCloskey/Mueller Satisfaction Scale (MMSS) instrument at the unit-level which was designed to assess the satisfaction of hospital staff nurses (Mueller & McCloskey, 1990). The scale has 31 items capturing eight dimensions of satisfaction: satisfaction with extrinsic rewards (e.g., salary), scheduling (e.g., hours that they work), family/work balance (e.g., child care facilities), co-workers (e.g., their nursing peers), interaction (e.g., opportunities for social contact at work), professional opportunities (e.g., opportunities to belong to department and institutional committees), praise/recognition (e.g., recognition for their work from superiors), and control/responsibility (e.g., their participation in organizational decision making). Each item is rated on a five-point Likert scale.

This study on nurse job satisfaction at the unit-level reduces gaps from many evidence-based studies on nurse outcomes using data from large national data bases. This unit level study provides focused data on one specific type of unit, acute medical-surgical units; because the study is focused on this one specific type of unit interventions it can be tailored to these specific units rather than a general hospital wide study resulting in hospital wide interventions.

Intervention: Report of overall and individual unit results were provided to the nursing staff and management of the hospital. Ideas for potential interventions and recommendations on identified areas of greatest concern were solicited from them via zoom conference and/or in writing. Having the results, literature review was done to search for past interventions for specific identified areas with low satisfaction results.

Keywords: job satisfaction, turnover, intent to leave, registered nurse, staffing, job stress, burnout, instrument, patient outcome.

Dedication

I dedicate this scholarly paper to all the nurses around the world who are the frontrunners and heroes in this COVID-19 pandemic for their selfless dedication to their patients and the nursing profession. Nurses have the critical roles and responsibilities in patient care not only in the hospitals but in the community as well ensuring the delivery of safe, high quality, accessible, and cost-effective care irrespective of their conditions.

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CHAPTER 1. INTRODUCTION AND BACKGROUND

Nurses are integral part of the healthcare system. They are well esteemed for their trust and ethics in providing care throughout the world (Bell & Brysiewicz 2020). In the United States (U. S.), United Kingdom, and Australia, nurses are ranked in polls as the most trusted profession (Mohdin, 2016). In the U. S., Americans rate the honesty and ethics of nurses highest among a list of professions for 20 years (National Nurses United, 2022, Reinhart, 2020; Saad, 2020). Nurses are very much in demand throughout the United States and around the world (International Council of Nurses, 2020). The cyclic nursing shortage is once again on the rise, powerful, and projected now until 2030 to be a national health crisis (American Association of Colleges of Nursing, 2019). This worldwide nursing shortage is aggravated by the recent coronavirus disease of 2019 (COVID-19) pandemic (*Coronavirus Highlights*, 2020). Registered nurses (RNs) are crucial in the delivery of safe, high quality, accessible, and cost-effective care in the US health care system (Snaveley, 2016). Hence, strategies and intervention for nursing recruitment and retention are critical needs at the hospital unit management level especially during this time of COVID-19 pandemic.

For the past two decades, there have been many evidence-based studies that correlate nurse staffing factors and patient outcomes. These studies have shown that adequate staffing is associated with better nurse and patient outcomes such as decreases in nurses' burnout, increases in job satisfaction; and for patients, lower mortality rate and shorter stays. Adequate nurse staffing in the right work environment will decrease turnover rates (Aiken et al., 2014; Halm, 2019; He et al., 2016; Hill, 2017; Leigh et al., 2015; McHugh et al., 2016; Wynendaele et al.,

2019). Studies have shown that one key variable related to nurse staffing and turnover is job satisfaction (Baum & Kagan, 2015; Han, et al., 2015; Nowrouzi-Kia & Fox, 2020; Semachew et al., 2017). Job satisfaction factors are predictive of better nurse retention (Rupp, 2017).

Paulsen (2018) found limitations in translating findings on nursing evidence-based studies that correlate patient outcomes into practice at the unit-level. She explored the gaps in the literature to explain why translation of these studies into clinical practice has been difficult and suggested ways to overcome these limitations. Nurse characteristics such as education, experience, and skills vary the impacts of individual and overall unit workload such as nursing time spent in direct patient care and other work, competency, physical exertion, and complexity of care. There is a need to develop such research focused on unit-level research. One way of looking at the unit-level data is by assessing the job satisfaction of nurses in their practice environment.

Low levels of job satisfaction and high turnover of nurses are major problems of healthcare. To improve nurse retention, work related factors associated with job satisfaction should be investigated (Han et al., 2015). Studies show that job satisfaction of the nurse is one of the key determinants of the intention to leave work (Baysal & Yildiz, 2019). Low job satisfaction may lead to undesired outcomes such as absenteeism, burnout, and increase nurse turnover rate.

Problem Statement

Job satisfaction is a critical issue in the healthcare system as it has been associated with turnover and quality of nursing care. Nursing is a highly stressful profession which affects the quality of their patient care, job satisfaction and intention to leave (Baum & Kagan., 2015; Han,

et al., 2015; Nowrouzi-Kia & Fox, 2020). The reasons nurses decide to leave their job (i.e., turnover) include job satisfaction and factors related to job satisfaction including working conditions, job stress, role conflict and ambiguity, and professional and organizational commitment (Sherman, 2015). Reducing the intent to leave of nursing staff can impact organizational costs and quality of care in a positive way (Hines, 2019) while increasing job satisfaction can help retain nursing staff.

Registered Nurse (RN) Turnover

Staff turnover consists of personnel change due to reorganization, dismissal, or resignation. It can be involuntary or voluntary. Involuntary separation is when job separation is initiated by the employer as in being fired where employees have no control. Voluntary turnover is when the employee freely decided to leave a job for whatever reason (Do Nascimento et al., 2019). Nursing turnover has an impact on the quality of care, patient safety, and hospital productivity. This is a global concern because nurses are expensive to train and hard to replace. Turnover in health services maybe due to individual factors (such as gender, age, marital status, job satisfaction); work-related factors (such as workload, working conditions, role ambiguity, promotional opportunities); interpersonal factors (such as supervisor support, management style, praise and recognition, confidence); and organizational factors (such as work environment, organizational climate, financial determinants (Galleta et al., 2016). Nursing staff turnover is affected by several factors and should be managed whenever possible. Evidence-based studies have shown that job satisfaction maybe the most important factor associated with intention to leave (Do Nascimento et al., 2016); hence more attention should be given on job satisfaction.

Recognition about the importance of RN turnover and job satisfaction have led to interventions to reduce RN turnover and improve RN job satisfaction. One such intervention is the Global Health Workforce Alliance (2020) which has initiated the Positive Practice Environment Campaign, a worldwide campaign, to generate public awareness and political will to introduce and maintain improved working conditions and environments within health systems. This is a country and facility-centered initiative focusing on all health care settings. The campaign aims to improve the quality of health services by raising awareness, identifying good practice, and developing tools for managers and health professionals in the field. Organizations should ensure the health, safety, personal well-being, and motivation of workers, as well as the quality of healthcare provided to patients. Positive changes in the work environment such as those that characterize magnet hospitals lead to professional satisfaction, resulting in lower turnover rates. These key characteristics include participatory and supportive management style, “adequate” nurse staffing, flexible working schedules, clinical career opportunities, professional autonomy and responsibility, and emphasis on in-service/continuing education (Buchan et al., 2018).

The goal set by US hospitals was to reduce turnover by 4.7% on average for 2021. During the past year, hospital turnover increased by 1.7% and currently stands at 19.5% in the 2021 NSI National Health Care Retention & RN Staffing Report. The average cost of turnover for a bedside RN is \$40,038 and ranges from \$28,400 to \$51,700 which results in an average loss of \$3.6 million – \$6.5 million per annum for most hospitals. Each percent change in RN turnover

will cost/save the average hospital an additional \$270,800/year (Nursing Solutions, Inc., 2021). This shows that the cost of turnover can have a profound financial impact on the hospitals.

Nurse Retention

High turnover rates and lack of retention of nurses are great concerns. Retaining nurses both within an organization and within the nursing profession should be addressed. Studies have shown that leaders who focus on satisfaction, motivation and the general well-being of their team members and ensure quality workplace environments are more likely to retain their staff. It was reported that team work and individually targeted interventions such as mentoring, leadership interest and in-depth orientation increased job satisfaction and produced higher retention results (Buchan et al, 2018).

Rupp (2017) made a study to explore the relationship between medical-surgical RN job satisfaction and nurse retention. They examined the mediating effect of caring leadership practices on intention to stay on job. Rupp's study and other studies (Baum & Kagan, 2015; Han, et al., 2015; Nowrouzi-Kia & Fox, 2020; Semachew et al., 2017) showed that there is a positive correlation between job satisfaction and nurse retention. This could assist nursing administration in developing standards for caring leadership practice that are supportive of nurses and increase nurse retention through improved nurse job satisfaction.

To increase nurse retention, improved schedules, autonomy, and supportive work environments should be promoted. A variety of work-related factors namely: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility are significantly related to job

satisfaction and nurse retention (Mueller & McCloskey, 1990). Interventions should be developed to mitigate these factors (e.g., by improving work schedules, increasing autonomy and/or nurse support); since the demands and requirements of nurses vary widely by unit, unit-based research on job satisfaction would enable nursing administrators to tailor these interventions to that specific unit.

Job Satisfaction

Job satisfaction has been defined as “the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job values” (Locke, 1969, p. 309). Job satisfaction represents the degree to which employees like or enjoy their jobs (Mueller & McCloskey, 1990). It is the extent to which an employee feels self-motivated, content and satisfied with their job. Job satisfaction happens when an employee feels having job stability, career growth, and a comfortable work life balance as the work meets their expectations (MBASkool, 2020). Job satisfaction is negatively associated with turnover intentions (Mahoney, et al., 2020); i.e., higher job satisfaction is related to lower turnover of nurses. It is important to investigate nurses’ level of satisfaction because it affects the quality of their work and intention to leave. With the widespread nursing shortage and high turnover rate of nurses becoming a global issue, there is a need for evidence-based studies on job satisfaction. Retaining nurses should be the main focus in the strategic plans of nursing administrators.

Study Purpose/Research Question***Purpose Statement***

The goal of this scholarly project is to assess the levels of job satisfaction among registered nurses in acute medical-surgical units on eight dimensions: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility.

Research Question

What are the unit-levels of nurse job satisfaction among eight satisfaction dimensions (i.e., satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility) in an acute medical-surgical unit?

Objectives

The objective of this project is to systematically obtain unit-level input to explore nurses' views and experiences as it relates to job satisfaction using a validated McCloskey/Mueller Satisfaction Scale (MMSS), a 31-item MMSS instrument that measures the said eight dimensions on job satisfaction scale (Mueller & McCloskey, 1990).

Scope of the Study

This will be a descriptive cross-sectional convenience study measuring job satisfaction among core staff Registered Nurses in general acute medical-surgical units in a 60-bed general acute care hospital in the Southwestern United States. RNs from the hospital float pool, nursing registries, and travel nurses were excluded from the study. Nurses in higher levels of care such as

intensive care units, telemetry, pediatrics and labor and delivery are excluded from this project. Licensed Vocational Nurses (also called Licensed Practical Nurses) are also not considered in the study because they have different job description, wants and needs. Advanced practice nurses such as clinical nurse specialist, nurse anesthetist, nurse midwife, and nurse practitioners belong to different categories and are excluded from this study. Nurse managers, nursing supervisors, nursing aides, and allied healthcare staff were also excluded. All participants are expected to read English.

This study will be based on the analysis and synthesis of survey data using the MMSS instrument at the unit-level which was designed to assess the satisfaction of hospital staff nurses (Mueller & McCloskey, 1990). The scale has 31 items capturing eight dimensions of satisfaction: satisfaction with extrinsic rewards (e.g., salary), scheduling (e.g., hours that they work), family/work balance (e.g., child care facilities), co-workers (e.g., their nursing peers), interaction (e.g., opportunities for social contact at work), professional opportunities (e.g., opportunities to belong to department and institutional committees), praise/recognition (e.g., recognition for their work from superiors), and control/responsibility (e.g., their participation in organizational decision making). Each item is rated on a five-point Likert scale (5 = very satisfied, 4 = moderately satisfied, 3 = neither satisfied nor dissatisfied, 2 = moderately dissatisfied, and 1 = very dissatisfied).

Assumptions

Assumptions of this study include that respondents are all current acute medical-surgical RNs, and that respondents answered the survey questions as accurately and honestly as possible to provide reliable data.

Significance of the Study

The increasing trend in the numbers of patients requiring nursing care plus the nursing shortage which affects quality and costs of care demonstrate the potential significance of this study which aims to identify different dimensions on job satisfaction. Past research has shown that higher job satisfaction has a positive correlation with nurse retention (Baum & Kagan., 2015; Han, et al., 2015; Nowrouzi-Kia & Fox, 2020; Semachew et al., 2017).

Reduction of Gaps

Many of the evidence-based studies on nurse outcomes used data from large national databases such as U. S. Centers for Medicare & Medicaid Services (CMS) and National Database of Nursing Quality Indicators (NDNQI) which have limitations such as inability to draw cause and effect from these correlational studies and there is a lack of real-time data at the unit-level (Paulsen, 2018). This study on nurse job satisfaction at the unit-level will reduce these gaps and provide focused data on one specific type of unit, acute medical-surgical units; because the study is focused on this one specific type of unit interventions can be tailored to these specific units rather than a general hospital wide study resulting in hospital wide interventions.

Implication for Social Change

As noted above results from this study can help nursing administration concentrate resources on specific areas where there is job satisfaction among general acute medical-surgical nurses. If the voices of the nursing staff, related to job satisfaction concerns, are heard then better patient and nurse outcomes may be achieved by improving working conditions where some job

satisfaction dimensions are low for these nurses and achieve optimal patient outcomes. An increase in job satisfaction may also lead to increased nurse retention.

In addition, nursing staffing shortages have a negative effect on the quality of care provided and are associated with higher costs. This could help nursing administrators in designing strategies to address nurse recruitment and retention.

Summary

The nursing shortage is once again on the rise and projected to be a national health crisis, given current trends now that last until 2030 (American Association of Colleges of Nursing, 2019); this shortage is aggravated by the recent COVID-19 pandemic (*Coronavirus Highlights*, 2020). One way of ameliorating this shortage is by promoting nurse retention and this can be done by looking at the different dimensions that affect their job satisfaction at the unit-level using a validated McCloskey/Mueller Satisfaction Scale (Mueller & McCloskey, 1990). The goal of this scholarly project is to assess the levels of job satisfaction of registered nurses in acute medical-surgical units on eight dimensions: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility in the midst of the COVID-19 pandemic.

CHAPTER 2. REVIEW OF THE LITERATURE

Chapter one focused on the shortage of nurses providing the background and relevance of this scholarly project as it relates to job satisfaction levels among Registered Nurses (RNs) in acute medica-surgical units. Chapter two presents a detailed review of the literature with its systematic search strategy. Synthesis of the evidence-based studies include the purpose of the study (main PICOT or research question), key findings, and implications.

Keywords used in searching the database are job satisfaction, turnover, intent to leave, registered nurse, staffing, job stress, burnout, instrument, patient outcome, or a combination of these words. The strategy involved searching on the following reputable resources: CINAHL, PubMed, Medline, Cochrane, PsychInfo, and Google Scholar for original research.

To guide the review of literature, several questions were emphasized based on the PICOT in Chapter one as follows:

1. What are the unit-level aggregate job satisfaction scores of RNs in an acute medical-surgical ward during this COVID-19 pandemic?
2. What instrument can we use to assess the level of nurse job satisfaction?
3. How would the result of this survey compare with published studies using this instrument for similar populations?
4. There are eight dimensions as conceptualized in this study and measured by McCloskey/Mueller_Satisfaction Scale (MMSS) including: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional

opportunities, praise/recognition, and control/responsibility. What does the results of MMSS show about the level of job satisfaction within the RN medical-surgical ward working environment at an urban general acute care hospital?

Articles included in the review of literature had to meet the following criteria: the articles had to be peer-reviewed, published studies in English within the last five years (with few exceptions, e.g., seminal works) with a focus on nurses working in acute care healthcare settings. Previous studies were evaluated to make sure they have been subjected to a rigorous scientific validation approach.

Predictors of Job Satisfaction

Semachew et al., (2017) conducted a study on predictors of job satisfaction among nurses working in Ethiopian public hospitals. The purpose of the study is to assess job satisfaction and factors influencing it. It is a cross-sectional-survey using MMSS with its eight dimensions. The study showed that one third of nurses had a low level of job satisfaction. Level of job satisfaction was positively associated with mutual understanding at work and professional commitment, whereas it was found to be negatively associated with working at the inpatient unit and increased workload. This study demonstrated that career development, long-term learning, and training activities in nursing promote job satisfaction, increase retention of nurses, and enable continued provision of quality care. This study showed that fostering and maintaining a higher level of job satisfaction among nurses is vital to limit turnover and ensure the delivery of quality care.

Mahoney et al. (2020) implemented a study to identify the determinants of job satisfaction, employee burnout, and turnover among Certified Registered Nurse Anesthetists in

the U. S. They explored the role of job characteristics (autonomy, skill variety, task significance, and feedback) and personality (extraversion, conscientiousness, agreeableness, stability, and openness). They looked into job satisfaction as a function of job characteristics and personality factors. Work context was measured using the 12-item Job Diagnostic Survey. Job satisfaction was positively associated with the job characteristic autonomy and the personality factor agreeableness. Employee burnout was negatively associated with the job characteristic autonomy and skill variety, and with the personality factors agreeableness, stability, and openness; it was positively associated with hours worked per week. Turnover intentions were negatively associated with job satisfaction and positively associated with burnout. This study suggested that CRNA jobs should have greater skill variety and greater autonomy to achieve higher job satisfaction, less burnout, and lower turnover intentions.

A study was conducted to assess the relationship between demographic factors (age, gender, race, ethnicity, work status, and experience), the professional practice environment and work satisfaction among inpatient and outpatient millennial nurses (born between 1981 and 1997) in the U. S. (O'Hara et al., 2019). Work satisfaction was measured using one-item question, "Overall, how satisfied or dissatisfied are you working in your primary unit/department?" and was ranked on a six-point Likert scale. This study demonstrated that autonomy, teamwork, and work motivation in a professional practice environment were correlated with overall satisfaction among these nurses. Demographics accounted for only 2.6% of the variance in work satisfaction, whereas, supportive leadership accounted for nearly 63% and thus, the primary factor contributing millennial nurses' work satisfaction. Effective leaders

are those who earn the trust of millennials, are good at their jobs, care about the millennials as a person, and support the millennials' career development (Faller & Gogek, 2019). This suggests that focus should be on developing supportive leaders to improve RN retention, decrease turnover costs, and significantly improve patient outcomes.

Moneke and Umeh (2013) implemented a study on the factors influencing critical care nurses' perception of their overall job satisfaction in New York City. The variables for the study were perceived leadership practices, organizational commitment, and job satisfaction. They measured nurses' overall job satisfaction using the Job in General scale, an 18-item question with responses of yes, no or "?" (cannot decide). They found that perceived leadership practices and organizational commitment have statistically significant relationships with job satisfaction. The study showed that nurses were more likely to remain in their jobs when there was a relationship with and support from their managers. They found that higher job satisfaction with leadership, work settings, and interpersonal relationships among nurses increases overall nurse job satisfaction. This study also suggested that demographic variables were not related to job satisfaction for critical care nurses.

Factors Associated with Job Satisfaction

Staffing Level. Job satisfaction is a critical issue in the healthcare system as it has been associated with turnover and quality of nursing care. Kalisch and Lee (2014) conducted a cross-sectional study to examine the relationship between staffing and job satisfaction of RNs and Nursing Assistants (NAs) in patient care units in hospitals in Michigan and California including medical-surgical, intensive care, rehabilitation, pediatrics and maternity, and mental health. They

measured job satisfaction with one-item question: “How satisfied are you in your current position?” on a five-point Likert scale which had a test-retest reliability coefficient of 0.84. The study showed that providing adequate staffing is critical to maintain RN job satisfaction. Hours per patient day (HPPD) was a significant positive predictor for RN job satisfaction. There is a need to balance cost of staffing and job satisfaction. Inadequate staffing can lead to higher costs due to high cost of turnover and lower quality of care. This is similar to other studies that demonstrated that lower patient to nurse ratio is associated with better nurse and patient outcomes such as decreases in nurse’s burnout, increases in job satisfaction, and lower patient mortality (Aiken et al., 2014; Halm, 2019; He et al., 2016; Hill, 2017; Kalish & Lee, 2014; Leigh et al., 2015; McHugh et al., 2016; Wynendaele et al., 2019).

Health Promoting Behaviors. These include health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management that promote healthy lifestyles. To explore the relationships between nurse-reported health promoting behaviors (HPBs), job stress, and job satisfaction, Williams et al. (2018) conducted a study using Health Promotion Model (HPM) as their theoretical framework. The concept is that personal (age, race, education, physical activity, nutrition, and stress management), interpersonal (emotional support, team respect, and interpersonal relations), and situational factors (work environment, staffing, and competence) influence HPB which leads to decreased job stress, and job satisfaction. Job satisfaction was measured using the MMSS. The study showed that higher levels of HPB were associated with lower job stress and higher job satisfaction. The strongest HPB correlation with job satisfaction was interpersonal relations which was also a predictor of lower job stress. Total

HPB was associated with competence subscale of job stress. Lower job stress was significantly associated with HPB subscales: spiritual growth, interpersonal relations, and stress management. Promotions of healthy behaviors in nurses were noted to lead to positive outcomes such as nurse retention, reduced stress, and improved health. Nursing management can implement interventions that support HPB for nurses to reduce job stress and improve satisfaction.

Caring leadership. Rupp (2017) conducted a study to examine the mediating effect of caring leadership practices on intention to stay and job satisfaction (using the MMSS) in medical-surgical RNs. Caring leadership is demonstrated through supportive leader-follower relationships and includes behaviors that embody kindness, compassion, equality, hope, trust, reflection, caring, and mutual respect (Williams et al., 2011). Overall caring leadership behaviors had a strong positive correlation with RN job satisfaction ($.58, p \leq .05$) and a moderate positive correlation with intention to stay in nursing ($.30, p \leq .05$). This study showed that there is a positive correlation between job satisfaction & intention to stay. The study results could assist the nursing profession in developing standards for caring leadership practice that are supportive of nurses and increase RN intention to stay in nursing through improved nurse job satisfaction.

Nursing Hostility. Hickson (2015) reported a study investigating the perceptions of nursing hostility (NH) and job satisfaction of new RNs comparing the work settings of Magnet and non-Magnet hospitals in the U. S. Job satisfaction was measured using the MMSS. Their findings indicated that RNs of Magnet and non-Magnet hospitals experienced similar hostility and job satisfaction results. This study demonstrated that NH which includes covert and overt behavior, varying from verbal, emotional, and physical is present among newly graduated RNs

and affected their levels of job satisfaction. This study indicated that the new RNs are not receiving the support necessary to develop their comfort and confidence at work at the commencement of their nursing career.

NH such as bullying is a common experience among new RNs and this leads to decreased morale, employee dissatisfaction, decreased staff retention, decreased feelings of empowerment, and, ultimately, loss of professional obligation and commitment toward patients. Prevalence of NH was reported by the new graduates across all settings through covert interpersonal conflicts of blocked learning, feelings of being undervalued, emotional neglect, lack of support, lack of supervision, threat of repercussion, for speaking out, and rumors or lies being spoken about the new graduate (McKenna et al., 2003).

Relational Coordination. Havens et al. (2018) published a study that explored how relational coordination impacts direct care nurse outcomes such as burnouts, work engagement, and job satisfaction. Relational coordination which is communicating and relating for the purpose of task integration is known to improve quality, safety, and efficiency under these conditions. Job satisfaction was measured using a one-item question: “On the whole, how satisfied are you with your present job?” on a four-point Likert scale. The study showed that relational coordination was significantly related to increased job satisfaction, increased work engagement, and reduced burnout. Relational coordination contributes to the well-being of direct care nurses, addressing the Quadruple Aim by improving the experience of providing care.

Compassion Satisfaction, Compassion Fatigue. Balinbin et al. (2020) conducted a cross-sectional study to determine the prevalence and to identify the occupational determinants

of compassion satisfaction and compassion fatigue among general medical–surgical Filipino registered nurses. Compassion Satisfaction (CS) refers to the pleasure one derives from being able to do their work well. Compassion fatigue (CF) is defined as a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant emotional pain and physical distress. CF has two components, burnout and secondary stress. Job satisfaction was measured using the MMSS. The result showed that the prevalence of moderate to high levels of compassion satisfaction was 90.09% while burnout and secondary stress, the facets of compassion fatigue, had a prevalence of 74.38% and 83.47%, respectively. Data showed that job satisfaction and nurse colleague relationship positively influenced compassion satisfaction. Among the occupational determinants of compassion fatigue and compassion satisfaction, nurse colleague relationship had the strongest influence. This highlights the importance of positive nurse colleague relationships; institutional policies and individualized programs should be developed towards building rapport and communication among RNs assigned in general medical–surgical units.

Change Fatigue and Resilience. There are frequent and vast changes in acute care hospitals which can take a toll on nurses and cause change fatigue. Brown et al. (2018) conducted a descriptive correlational study to examine the relationships between change fatigue, resilience, and job satisfaction among novice and seasoned hospital staff nurses in a midwestern state. Job satisfaction was measured using the MMSS. They defined change fatigue as the overwhelming feeling of stress, exhaustion, and burnout associated with rapid and continuous change in the workplace. Resilience is an individual trait that enables one to thrive in the face of

adversity (Connor & Davidson, 2003) and in the workplace, resilience can help one withstand significant disruption and change (Jackson et al., 2007). The study of Brown et al., (2018) showed that job satisfaction was negatively influenced by change fatigue and positively influenced by resilience. Change fatigue may be increased by larger hospital size (number of beds) and resilience may be increased by higher educational level of hospital staff nurses. Management strategies should be aimed in preventing change fatigue in nursing staff to enhance workplace environments, job satisfaction, and retention of nurses.

Work Environment. Work environment can affect physical, psychological, and social health because of the negative effects, accidents, and risks that may occur. The study of Gurdogan & Uslusoy (2019) demonstrated a positive significant the relationship between quality of work life and happiness among nurses in Turkey. Happiness which is an important factor for job satisfaction was measured using the Oxford Happiness Questionnaire-Short Form. A positive significant relationship was found between quality of work life and happiness. Their study suggested to revise and reorganize work environments and to make the necessary regulations for increasing both the job satisfaction and general life satisfaction among employees. A high-quality work environment increases the performance and job satisfaction of employees (Swammy et al., 2015).

Intent to Leave

Han, K., et al. (2015) conducted a study to examine the relationships of work-related factors (e.g., autonomy, work schedule, supervisory, and peer support) to nurses' job satisfaction and intent to leave their current position. The study variables were job demands (physical and

psychological), autonomy at work, support (supervisor and peer), and work schedule (long work hours, weekly burden, required on-call/overtime, and lack of breaks). Each of the two outcome variables were measured using a single four-point Likert item: job satisfaction, “I am very satisfied with my workplace” and intent to leave the current job, “I plan on staying for the next year”. The study showed that nurses who were dissatisfied with their job reported significantly higher psychological demands and lower autonomy than nurses who were satisfied. Nurses were significantly less satisfied with their jobs when they worked longer hours with inadequate breaks or sick days. Lack of support from peers and supervisors was also related to significantly lower odds of job satisfaction. For intention to leave, nurses who said they planned to leave their current job reported significantly lower autonomy and less support from their peers than nurses who intended to stay. This study is similar to other studies (Baum & Kagan., 2015; Han, et al., 2015; Nowrouzi-Kia & Fox, 2020; Semachew et al., 2017) that showed that job dissatisfaction and intention to leave are the most direct predictors of actual turnover (i.e., actually leaving the job). To increase nurse retention, improved schedules, autonomy, and supportive work environments should be promoted. A variety of work-related factors were significantly related to job satisfaction and intention to leave. Interventions should be developed to mitigate these factors (e.g., by improving work schedules, increasing autonomy and/or nurse support).

Nowrouzi-Kia and Fox (2020) conducted a cross-sectional study on factors associated with intent to leave. The purpose was to examine the relationship between work environment factors (job satisfaction, interpersonal collaboration, hospital teaching status, hospital region, and resource availability) and intent to leave among RNs working in acute care hospitals in Ontario,

Canada. Job satisfaction was measured using the Job Satisfaction Scale. Respondents were asked to respond to three items using a seven-point Likert scale: “All in all, I am satisfied with my job”, “In general, I don’t like my job”, and “In general, I like working here.” The result showed that nurses who reported greater job satisfaction, flexible interprofessional relationships, and resource availability were less likely to express an intent to leave their hospital workplaces. Retention of nurses can be promoted by advocating for the importance of job satisfaction, flexible interprofessional relationships, and resources.

Baum and Kagan (2015) conducted a cross-sectional quantitative study on job satisfaction and intent to leave among psychiatric nurses. The study was to investigate: (a) the association between socio-demographic variables, job satisfaction and intent to leave among hospital psychiatric nurses, and (b) the differences in the above between psychiatric nurses working on closed and open wards. Job satisfaction was measured using the Toren, Kerzman, and Kagan instrument which is composed of nine statements that respondents have to state their level of agreement/disagreement with on a five-point Likert scale. Sample statements are: “I am happy in my work as a nurse”; “I would recommend my children to take up the same sort of nursing as me”; “I feel that my work is meaningful and important”; “I am satisfied with the level of my wages”. The study showed that job satisfaction is negatively correlated with intent to leave. Nurses under 35 reported a significantly higher intent to leave psychiatric nursing than nurses over 35. Job satisfaction was significantly higher among full-time nurses than part-time. Job satisfaction is also a significant predictor of intent to leave, both psychiatric nursing and the profession of nursing itself. Psychiatric hospitals need to pay attention to all factors associated

with workers' readiness to leave. It is especially important that they address the relatively low job satisfaction of both younger and part-time nurses.

McCloskey/Mueller_Satisfaction Scale (MMSS)

Mueller and McCloskey (1990) developed the McCloskey/Mueller_Satisfaction Scale (MMSS) in 1990 to meet a need for a user-friendly, reliable, and valid measurement to assess the satisfaction of hospital staff nurses. Applying this instrument, Liu et al., (2011) made a descriptive cross-sectional survey to explore nurses' views and experiences regarding job satisfaction and their intention to leave in Shanghai. The survey was used to establish RN job satisfaction levels in eight dimensions: extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility. The overall job satisfaction of the study showed, 50.2% nurses were dissatisfied and 40.4% nurses reported that they had intention to leave the current employment. This showed that respondents' characteristics had an impact on job satisfaction and their intention to leave. The results showed that age, marital status, work experience, overall job satisfaction, job satisfaction: extrinsic rewards, interaction, praise/recognition and control/responsibility were significant factors contributing to nurses' intention to leave. This study showed that MMSS is a reliable and valid measure of nurses' job satisfaction. The eight dimensions have internal consistency, test-retest reliability, factorial, criterion-related, and construct validity. Innovative and adaptable managerial interventions needed to improve nurses' job satisfaction & to strengthen their intention to stay.

A cross-sectional descriptive study was done by Helbing et al. (2017) to examine the current job satisfaction of nurses in the emergency department (ED) using the MMSS instrument. The theoretical framework was that of Herzberg's Theory of Motivation-Hygiene Factors. It identified elements within a work place environment that led to satisfaction or dissatisfaction. Intrinsic factors are motivating factors (satisfiers), which include achievement, recognition, the work-itself, responsibility and advancement. Extrinsic factors are hygiene factors that include company policy, supervision, salary, benefits, job security, working conditions, interpersonal relationships, and administrative policy. Motivating factors deal with the job that is being performed and the tasks associated with that job, while hygiene factors deal with the environment and situation in which the job is performed. Knowledge of the motivating and hygiene factors from Herzberg's theory helped to identify which aspects of the job should be addressed and helped make the decision to use the MMSS as a guide to create the Satisfaction Survey, as it has questions related to both the motivation and hygiene factors identified by Herzberg.

The study of Helbing et al. (2017) showed that satisfaction was found to decrease with working conditions, company policies and work relationships as the number of years of nursing and ED nursing experience increases. Finding suggest that 72% of ED nurses were satisfied with their current ED job. Level of education was found to affect overall job satisfaction, specifically nurses with lower education reported higher job satisfaction. Younger and middle-aged ED nurses reported higher levels of overall job satisfaction. Job satisfaction factors were ranked in order of most satisfied to least satisfied: work relationships, the work Satisfaction was found to decrease with working conditions, company policies and work relationships -itself, salary/benefits,

company policies, achievement/ recognition, and working conditions. as the number of years of nursing and ED nursing experience increases.

Correlating job satisfaction among ED nurses with intent to leave and/or intent to stay, will assist hospitals and administrative teams in combating the increasing turnover among ED nurses. Identifying and understanding job satisfaction factors create a strong foundation for successful ED nursing retention programs.

Unit-Level Evidence-Based Study

Paulsen (2018) found gaps in the literature on nursing research which make translation of many of these studies into clinical practice difficult. Nurse characteristics such as experience, skills/competencies, and education vary which affects individual and overall unit workload. These studies showed that nurses with higher levels of experience, education, and certification are correlated with safer patient care but is silent on what is the right amount nor provide causal conclusions. There are several confounding variables that affect patient acuity and which are used to assess patient care needs and complexity of care. A better method that would measure nursing workload should include individual patient characteristics, nursing unit environmental factors, and unit workflow which includes patient turnover (admissions, discharges, and transfers) causing shift by shift variability. These call for a unit-level evidence-based data for a better nurse and patient outcomes.

Summary

Synthesis of the evidence-based studies identified different dimensions on job satisfaction so as to promote nurse retention. If the voices of the nursing staff are heard on these better

patient and nurse outcomes are hoped to be achieved. This will address to improve working conditions for nurses and achieve optimal patient outcomes. Increase in job satisfaction leads to increase nurse retention, hence, ameliorate nursing shortage. Nursing shortages have a negative effect on the quality of care provided and are associated with high costs. Nurse turnover as shown above is linked to job satisfaction. This could help nursing administrators in designing strategies to address nurse recruitment and retention. A variety of work-related dimensions namely: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility are significantly related to job satisfaction and nurse retention.

The review of literature provided a good synthesis on how job satisfaction has been approached in the past and how future research can be improved so as to fill the gaps that have been identified. Job satisfaction and intent to leave usually have negative correlation and being able to identify the different dimensions on job satisfaction at the unit-level will surely help nursing administration improve their strategies to promote nurse retention.

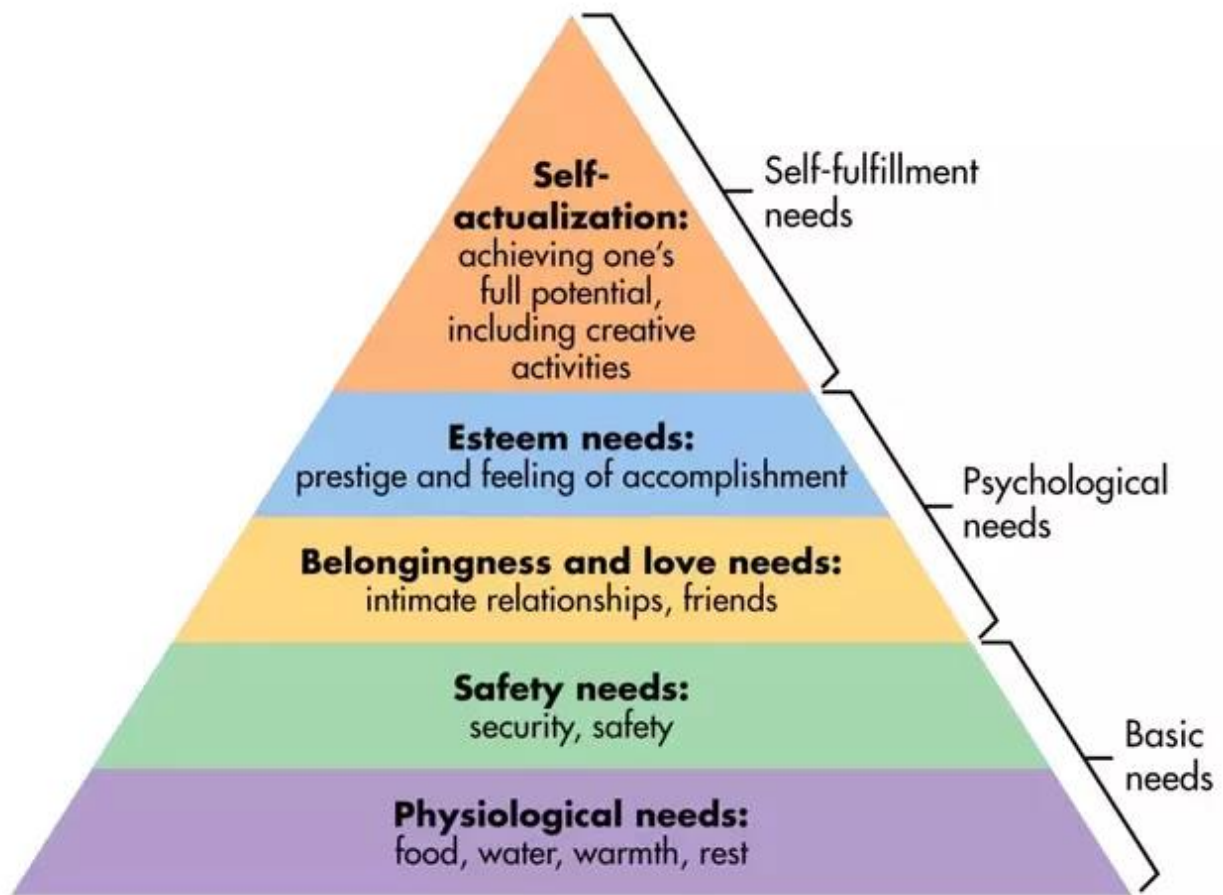
CHAPTER 3. THEORETICAL MODELS AND METHODOLOGY

Theoretical Models

Several personal and organizational factors affect nurses' work motivation. Personal factors include age, years of experience, autonomy, educational level, clinical specialty and administrative positions. Organizational factors include nurses' empowerment, work engagement, pay and financial benefits, supervision, promotion, contingent rewards, supportive relationship (co-workers), communication and nature of work (Baljoon & Bankhar, 2018).

A. Maslow's Hierarchy of Needs Model

The primary theoretical framework of this study is the Maslow's Hierarchy of Needs Model upon which the MMSS was based. It is a motivational theory in psychology comprising a five-tier model of human needs, often depicted as hierarchical levels within a pyramid. Maslow (1943) conceptualized human needs as a pyramid with five levels in ascending order, ranging from physiologic needs at the base, through safety, belonging, and esteem, to self-actualization at the apex of the pyramid. Maslow postulated that people are innately motivated toward psychological growth and self-development. He pointed out that people work to achieve unmet needs at the lower levels before attending to those at the higher levels. As each lower-level need is satisfied, the next higher need occupies one's main attention until it is satisfied. The highest-level need, self-actualization, is that of "becoming all that one is capable of becoming in terms of talents, skills and abilities." In nursing this model suggests that when nurses do not feel that their basic practice environment needs are being met, they will be less motivated and less likely to progress to the higher-level functions (Paris & Terhaar, 2011).

Figure 1. Maslow's Hierarchy of Needs, Five Stage Model (McLeod, 2020)

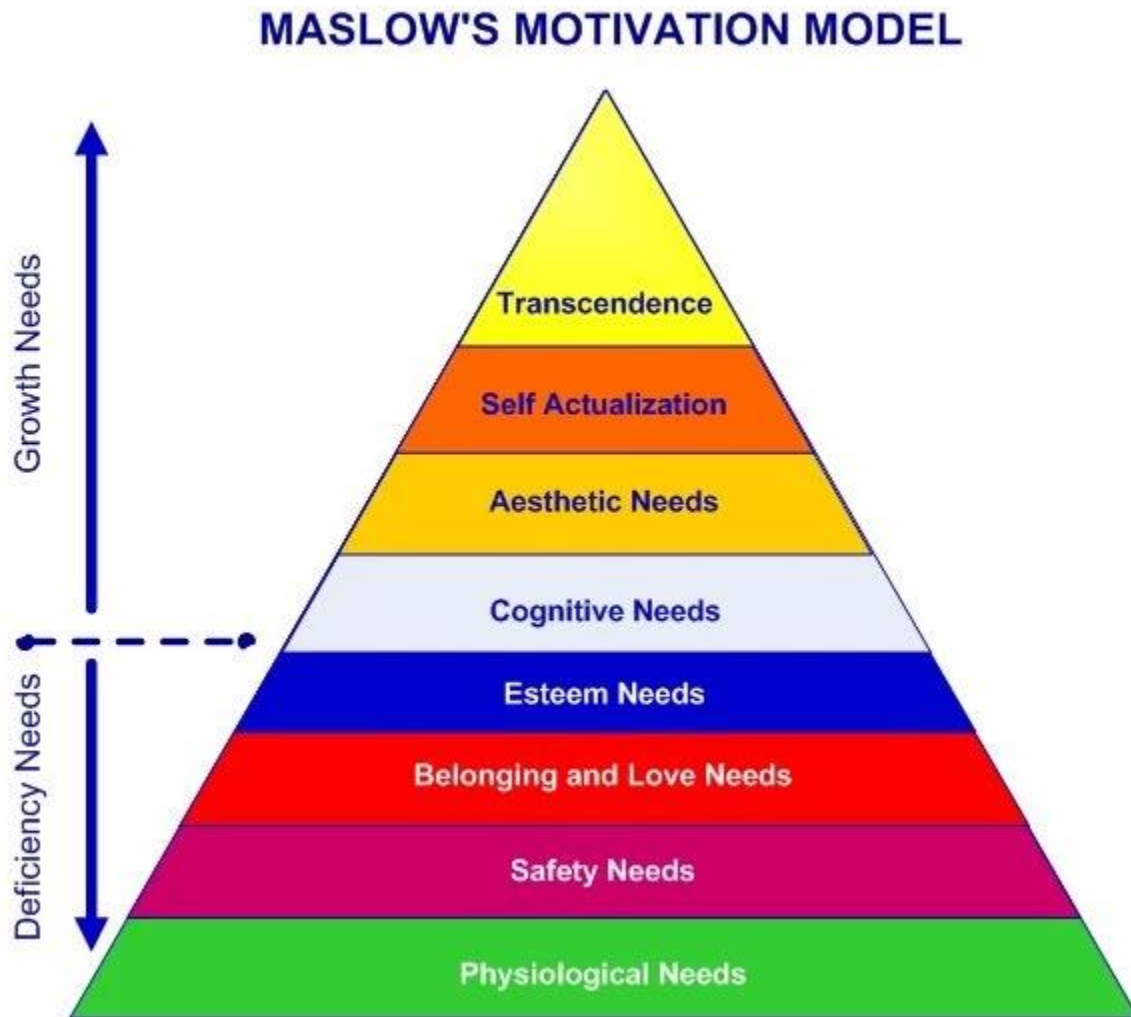
Maslow continued to refine his theory over several decades (Maslow, 1943; Maslow, 1987). Regarding the structure of his hierarchy, Maslow in 1987 proposed that the order in the hierarchy is not nearly as rigid as he implied in his earlier description. He said that the order of needs might be flexible based on external circumstances or individual differences. For example, he notes that for some individuals, the need for self-esteem is more important than the need for love. For others, the need for creative fulfillment may supersede even the most basic needs. He also pointed out that most behavior is multi-motivated and noted that any behavior tends to be determined by several or all of the basic needs simultaneously rather than by only one of them.

The Hierarchy of Needs Model can be summarized as follows: (a) human beings are motivated by a hierarchy of needs. (b) needs are organized in a hierarchy of prepotency in which more basic needs must be more or less met (rather than all or none) prior to higher needs. (c) the order of needs is not rigid but instead may be flexible based on external circumstances or individual differences. (d) most behavior is multi-motivated, that is, simultaneously determined by more than one basic need (Maslow, 1987).

The expanded hierarchy of needs. The five stages of Maslow's Hierarchy of Needs (Maslow, 1943) have been expanded to include cognitive, aesthetic, and later transcendence needs (McLeod, 2020). Changes to the original five-stage model are as follows: (1) Biological and physiological needs - air, food, drink, shelter, warmth, sex, sleep, etc.; (2) Safety needs - protection from elements, security, order, law, stability, freedom from fear; (3) Love and belongingness needs - friendship, intimacy, trust, and acceptance, receiving and giving affection and love. Affiliating, being part of a group (family, friends, work); (4) Esteem needs - which Maslow classified into two categories: (i) esteem for oneself (dignity, achievement, mastery, independence) and (ii) the desire for reputation or respect from others (e.g., status, prestige); (5) Cognitive needs - knowledge and understanding, curiosity, exploration, need for meaning and predictability; (6) Aesthetic needs - appreciation and search for beauty, balance, form, etc.; (7) Self-actualization needs - realizing personal potential, self-fulfillment, seeking personal growth and peak experiences; and (8) Transcendence needs - A person is motivated by values which transcend beyond the personal self (e.g., mystical experiences and certain experiences

with nature, aesthetic experiences, sexual experiences, service to others, the pursuit of science, religious faith, etc.).

Figure 2, Maslow's Expanded Hierarchy of Needs, Eight Stage Model (McLeod, 2020)



B. Frederick Herzberg's Motivation-Hygiene Theory

The secondary frameworks for this study is the Frederick Herzberg's Motivation-Hygiene Theory which is about variables that are perceived to be desirable to achieve goals and the

undesirable conditions to avoid. Also known as the Two-Theory of job satisfaction the two sets of factors are the Motivation and Hygiene Factors (Expert Program Management, 2018; Management Study Guides, 2020, Maniksaly, n.d.; Nidhisingh, n.d.). The Motivation factors are the one that generate job satisfaction arising from intrinsic conditions of the job itself such as recognition, achievement, responsibility, promotion, and personal growth. They primarily operate to bring strong motivation and high job satisfaction, but their absence does not result in strong dissatisfaction. Motivation factors will not necessarily lower motivation, but can be responsible for increasing motivation. On the other hand, the Hygiene Factors are those that lead to dissatisfaction (salary, work conditions, fringe benefits, job security, status, insurance, and vacations). The term hygiene is used because they are maintenance factors; they are extrinsic to the work itself such as supervisory practices, company policies, and salary. Hygiene Factor needs to be eliminated in order to dismiss dissatisfaction among employees at the workplace. There are various ways to do so and the most important ones are by paying a good salary, assuring job security, and a positive work culture. While dismissing dissatisfaction is just one half of the job, the other half is to improve satisfaction at the workplace, which can be accomplished by concentrating on motivational factors. The factors causing satisfaction are different from those causing dissatisfaction and these should not be treated as opposites of one another. The opposite of satisfaction is not dissatisfaction, but rather, no satisfaction. Likewise, the opposite of dissatisfaction is no dissatisfaction.

Hygiene Factors. Hygiene factors are not intrinsic parts of a job but are related to the condition in which the job has to be performed such as company policy and administration,

technical supervision, job security, working conditions, interpersonal relationship with peers, subordinates and supervisors, salary, job security, personal life, etc. (Expert Program Management, 2018; Management Study Guides, 2020, Maniksaly, n.d.; Nidhisingh, n.d.). An organization's policies can be a great source of frustration for employees if the policies are unclear or unnecessary or if not, everyone is required to follow them. To decrease dissatisfaction in this area, supervision must be fair and appropriate. The supervisor must have leadership skills and the ability to treat all employees fairly. Salary should be appropriate and reasonable; there should be clear policies related to salaries, raises and bonuses. There should be appropriate and acceptable relationship of the employees with his peers, superiors and subordinates. The working conditions should be safe, clean and hygienic. The environment in which people work has a tremendous effect on their performance and psychological well-being

Motivator Factors. These build strong motivation and high job satisfaction, but their absence does not result in strong dissatisfaction. These have a positive effect on the functioning of the employees in the organization. Motivator Factors which arise from intrinsic conditions of the job itself are as follows: Work-itself, Achievement, Recognition, Responsibility, and Advancement. An increase in these factors increase satisfaction of the employees but the decrease in these will not affect the level of dissatisfaction (Expert Program Management, 2018; Management Study Guides, 2020, Maniksaly, n.d.; Nidhisingh, n.d.). The work itself should be meaningful, interesting and challenging for the employee to perform and to get motivated. The nurses must have a sense of achievement. There should be clear, achievable goals and standards for each position and that the nurses know these goals and its standards. Nurses should be

praised and recognized by their superiors and peers for their achievements on the job and should be sincere. Nurses will be more motivated if they have ownership of their work. They must hold themselves accountable for their job. They should be given challenging and meaningful work with greater freedom and authority. There must be growth and advancement opportunities to motivate the nurses to perform well. Loyalty and performance should be rewarded with advancement. They should be allowed and encouraged to pursue further education and be a more valuable asset in the hospital with a sense of fulfillment.

Job satisfaction and retention are important issues not only in nursing but in the healthcare profession as a whole because the lack of it can cause high levels of absenteeism and turnover rates. Satisfied nurses tend to be more productive and committed to their job; they will increase patient satisfaction and overall productivity. Nursing administrators who can create work environments that attract, motivate, and retain their nurses will be in a better position to succeed in health care which demand for high quality, cost-effective and accessible healthcare.

A key difference between Maslow's Hierarchy of Needs Model and Herzberg's Motivation-Hygiene Theory, is that Maslow focuses on the individual. On the other hand, Herzberg emphasis is on organizational strategies and actions that support nurse satisfaction. That would be the key point for including Herzberg as a secondary theoretical framework as it may help guide interventions after the survey is analyzed.

Development of the McCloskey/Mueller Satisfaction Scale

The McCloskey/Mueller Satisfaction Scale (MMSS) was developed to have a readily available, easy-to-use, reliable and validated measure specifically designed to assess job

satisfaction of nurses (McCloskey, 1974; Mueller & McCloskey, 1990). Based on the theory of Maslow, it was designed to measure safety rewards (potential against dangerous threat), social and appreciation). The development of this instrument involved: (a) confirmatory factor analysis to test the factor structure originally proposed by McCloskey, (b) exploratory factor analysis to further identify the dimensions underlying the scale, (c) formation of subscales suggested by this analysis, and (d) application of conventional validity and reliability checks to the subscales (Norbeck, 1985).

The MMSS has 31 items capturing eight dimensions of satisfaction: satisfaction with extrinsic rewards (e.g., salary), scheduling (e.g., hours that they work), family/work balance (e.g., child care facilities), co-workers (e.g., their nursing peers), interaction (e.g., opportunities for social contact at work), professional opportunities (e.g., opportunities to belong to department and institutional committees), praise/recognition (e.g., recognition for their work from superiors), and control/responsibility (e.g., their participation in organizational decision making). Each item is rated on a five-point Likert scale (5 = very satisfied, 4 = moderately satisfied, 3 = neither satisfied nor dissatisfied, 2 = moderately dissatisfied, and 1 = very dissatisfied) (Mueller and McCloskey, 1990).

Reliability and Validity. Paraphrasing Mueller and McCloskey, based on the clusters of 31 items, eight dimensions or subscales were formed and used in the reliability and validity analysis. Cronbach's alphas for each of the eight subscales as well as the test-retest correlation coefficients based on the smaller number of nurses who responded to the same item 6 months later were reported by Mueller and McClosky (1990, p. 115). Mueller and McCloskey (1990, p.

115) stated that four of the subscales had alphas of .70 or higher. The three subscales with fewer than four items had lower reliabilities typically found with a smaller number of items. The global scale, which combined all 31 items from the eight subscales, had an alpha of .89. The test-retest correlations were consistently at the same level or lower than the alphas. Because several established satisfaction scales were also used in the study, it was possible to use these as concurrent criteria against which to assess the validity of the eight subscales.

Construct validities of the subscales were assessed by examining the correlations of the MMSS results with characteristics from the Job Characteristics Inventory (JCI) and with intent to stay on the job. The JCI is a well-known, often-used instrument. Reliability coefficients for the subscales were Task Variety (.82), Autonomy (.84), Feedback (.86), Friendship Opportunities (.84), and Task Identity (.83). The JCI Autonomy scale correlated .31 with the MMSS Control/Responsibility satisfaction measure. The JCI Friendship scale correlated .55 with the MMSS Interaction scale and .31 with the MMSS Co-Worker scale. The JCI Feedback scale correlated .68 with the MMSS Praise/Recognition dimension. The Control/Responsibility dimension correlated .32 with JCI Task Identity and .37 with JCI Variety. Task identity is high when the nurse is involved in a work activity from the beginning to the end; this implies more control and responsibility over those activities. Similarly, any job followed from the beginning to the end would offer greater variety than an activity centering on the same duties repeated over a number of jobs. Two other moderate magnitude correlations were for MMSS Interaction with JCI Feedback (.37) and with JCI Task Identity (.32). Because feedback necessarily involves some form of communication, it is understandable that nurses who perceived high levels of

feedback were more satisfied with social interaction. The positive relationship between interaction satisfaction and task identity is explainable given that the item about type of care (functional, team, primary) is included in this satisfaction dimension—total involvement in the task is what primary care is all about (Mueller & McCloskey, 1990, pp. 115-116).

Construct validity was also examined by checking on the correlation of the eight MMSS scales with intent to stay on the job ($\alpha = .82$). With the exception of satisfaction with Family/Work Balance, the other seven scales related positively and significantly with intent to stay (Mueller & McCloskey, 1990, p. 116).

Methodology

This is a descriptive cross-sectional convenience study measuring job satisfaction among Registered Nurses in general acute medical-surgical units at a general acute care hospital in the United States.

This unit-level study is based on the analysis and synthesis of survey data using the MMSS instrument; an instrument which was designed to assess the satisfaction of hospital staff nurses (Mueller & McCloskey, 1990). The MMSS has been used in a wide variety of nursing job satisfaction studies including caring leadership practices (Rupp, 2017), Perception of nursing hostility (Hickson, 2016), compassion satisfaction and compassion fatigue (Balinbin et al., 2020), change fatigue and resilience (Brown et al., 2018), and intention to leave (Liu et al., 2012). The MMSS instrument was also used to examine the current job satisfaction of nurses with the Herzberg's Theory of Motivation-Hygiene Factors as its theoretical framework. Knowledge of the motivating and hygiene factors from Herzberg's theory helped to identify which aspects of

the job should be addressed and helped make the decision to use the MMSS as a guide to create the Satisfaction Survey, as it has questions related to both the motivation and hygiene factors identified by Herzberg.

Demographic Data

Demographic data were collected using a questionnaire designed by the researcher to identify the research sample characteristics. The demographic data included the participants' gender, age, years of nursing experience, and level of nursing education in categories.

Ethical Issues

Ethical considerations for this study included the participants' right to privacy and confidentiality, right to freedom from harm and exploitation, right to withdraw from the study, right to full disclosure, and right to fair and equitable treatment. Study participants were treated with dignity and respect; their identities and survey responses were kept confidential. Informed consents will be signed by all participants. The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this paper. Participants could choose to ignore any question that was a cause for personal concern.

Setting

The setting for the study involves the medical-surgical units in a general acute care hospital in the southwestern region of the United States.

Table 1. Eight job satisfaction subscales and potential range of study participant subscale scores

Subscale	Number of items	Potential Range of Study Participant Subscale Scores	
		Very Dissatisfied	Very Satisfied
Extrinsic Rewards	3	3	15
Scheduling	6	6	30
Balance of Family and Work	3	3	15
Co-workers	2	2	10
Interaction Opportunities	4	4	20
Professional Opportunities	4	4	20
Praise and Recognition	4	4	20
Controls and Responsibility	5	5	25
Combined Overall Satisfaction Score	31	31	155

Study Population

The population for this study included a convenience sampling of Registered Nurses employed in medical-surgical units in a 60-bed, general acute care hospital in the southwestern region of the United States. The target population was a representative of the core staff medical-

surgical RNs in the hospital. Medical-surgical RNs who work more than 24 hours per week on these units were included. Participation in the study was voluntary and was determined by the RN responding to the recruitment e-mail sent via REDCaps. Clicking the link signifies implied consent to the study.

Inclusion and Exclusion Criteria. Participants included in the study were day, evening, and night shift medical-surgical RNs who worked at the hospital at least 24 hours per week and have at least 6 months tenure on the selected medical-surgical nursing units. Exclusion criteria included RNs with less than six months of experience on the nursing unit and RNs who work fewer than 24 hours per week. RNs from the hospital float pool, nursing registries, and travel nurses were also excluded from the study. Nurses in higher levels of care such as intensive care units, telemetry, pediatrics and labor and delivery were excluded from this project. Licensed Vocational Nurses (also called Licensed Practical Nurses) were also not considered in the study because they have different job description, wants and needs. Advanced practice nurses such as clinical nurse specialist, nurse anesthetist, nurse midwife, and nurse practitioners belong to different categories and were excluded from this study. Nurse managers, nursing supervisors, nursing aides, and allied healthcare staff were also excluded. All participants were expected to read English.

Research Design

A descriptive cross-sectional research design was selected for this study.

All Sources of Data

The sources of data are the results of the MMSS Job Satisfaction Survey of Registered Nurses in the acute medical-surgical units of the hospital and the demographic questionnaire

Data Collection Process and Tool

Study data were collected and managed using REDCap electronic data capture tools hosted at University of New Mexico. REDCap (Research Electronic Data Capture) is a secure, web-based software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources. REDCap is a secure web application for building and managing on line surveys and databases. It is a browser-based, metadata-driven EDC (electronic data capture) software and workflow methodology for designing clinical and translational research databases. It is widely used in the academic research community (Harris et al., 2009, pp. 377-378; Harris et al., 2019). This study used REDCap to build and manage secure, HIPAA-compliant, online survey and database. Through REDCap, e-mail contacts were built; e-mail invitations were created, and respondents were tracked anonymously. Data was exported to Microsoft Excel for analysis.

Data Protection Plan

The project was created with secure web authentication using REDCap.

Statistical Analysis

Initial data analysis involved confirmation of completed MMSS survey. Data analysis involved both descriptive and inferential data analysis. Inferential statistics involved the correlation of overall global MMSS score with selected demographics.

Microsoft Excel

REDCap is a data collection, and data storage program provided by the University of New Mexico for use by the investigator. Data were moved over for statistical analyses to Microsoft Excel (MS Excel). "MS Excel is a powerful spreadsheet program created by Microsoft that uses tables to record and analyze numerical and statistical data with formulas and functions" (JavaTpoint, 2021).

Preliminary Data Analysis

Job satisfaction scores for the eight subscales were calculated by adding each item score in the subscale together, Individual job satisfaction item scores were calculated by adding each item score in the subscale for the total sample and dividing the sum by the total number of study participants to provide the average mean (Mueller & McCloskey, 1990, p. 115).

Descriptive Data Analysis

Descriptive statistics were used to organize and determine the frequency and percentages of the numerical ratings, the distribution of the survey data, and the sample characteristics. Descriptive statistics identify the frequency, means, standard deviations of the sample characteristics and provide detailed representation of the sample data.

Inferential Data Analysis

Inferential data analysis included correlational analyses between selected demographic data (i.e., age and years of experience) and Global MMSS Scores. Spearman's correlation was used to examine associations between age and years of experience categories with the Global MMSS Scores. The Spearman's correlation was calculated using VassarStats (2022), and $p < .05$ was used as criteria for statistical significance.

Budget

Estimated costs for this study were minimal considering that the survey was done through REDCap; a data collection tool.

Data Driven Intervention Planning

Report of overall and individual unit results were provided to the nursing staff and management of the hospital. Ideas for potential interventions and recommendations on identified areas of greatest concern were solicited from them and discussed via zoom conference and/or in writing. Literature review was done to search for past interventions for specific identified areas from this study with low satisfaction results.

CHAPTER 4. RESULTS AND DISCUSSION

Results/Outcomes

Chapter four presents the findings and interpretations of this study using the method described in Chapter three. These are the response rate, demographic data, descriptive data analysis, inferential data analysis, interpretation of findings, and discussion.

Response Rate

The medical-surgical RN participants were selected from the two medical-surgical units in a general acute care hospital in the southwestern region in the United States. A total of 27 participants were invited through the REDCap generated recruitment e-mail. The response rate was 18.5% with five surveys returned; all of which were complete. Data from five surveys were analyzed.

Demographic Data

Demographic data collected for the study included medical-surgical RN's gender, age, years in nursing, and level of nursing education. Table 2 displays the descriptive statistics that include the frequencies and percentages for the variables: gender, age, years, and level of nursing education. Five participants completed the study instruments. All of the participants were female (100%) ranging from 25 to 44 years-old. A majority (60%) of them were from 35 to 44 years-old age group; a majority (60%) indicated that they had been in nursing for between six and ten

years; and another majority (60%) also indicated they have Bachelor's as their highest nursing degree while the rest had graduate degrees in nursing.

Descriptive Data Analysis

Descriptive statistics were used to organize and determine the frequency and percentages of the numerical ratings, the distribution of the survey data, and the sample characteristics. Descriptive statistics identify the frequency, means, standard deviations of the sample characteristics as well as providing a detailed representation of the sample data. For each McCloskey/Mueller Satisfaction Scale (MMSS) subscale, scores were summed and divided by the number of items to attain a mean. The Global MMSS Score was calculated by averaging across 31-item scores.

Table 2. Descriptive Statistics for Gender, Age, Years in Nursing, and Level of Nursing Education

Variables	Categories	N	%
Gender	Female	5	100
Age in Years	25-34	2	40
	35-44	3	60
Years in Nursing	6 mos-5 years	1	20
	6-10 years	3	60
	11-15 years	1	20
Level of Nursing	Bachelor's	3	60
Education	Master's/Doctorate	2	40

All the participants were females between the age of 25 and 44, a majority (60%) of them had been in nursing between six and ten years, and another majority (60%) had bachelor's as their highest nursing degrees in nursing.

Table 3. Descriptive Statistics of MMSS scale and subscale scores ($N = 5$)

MMSS Job Satisfaction Subscale Mean Scores		
	<i>M</i>	<i>SD</i>
Extrinsic Rewards	3.80	0.69
Scheduling	3.80	0.41
Balance	2.87	0.73
Co-workers	4.10	0.82
Interaction Opportunities	3.70	0.82
Professional Opportunities	3.05	0.27
Praise & Recognition	3.90	0.91
Control & Responsibility	3.84	0.68
Overall Global Job Satisfaction Score	3.64	0.53

The descriptive statistics showed that the participants reported an overall level of satisfaction between neither satisfied or dissatisfied and moderate satisfaction (3.64) on a five-point Likert scale with a score of five as very satisfied and a score of one as very dissatisfied. Six of the subscales resulted closest to moderate satisfaction (four) namely: Extrinsic Rewards, Scheduling, Co-workers, Interaction opportunities, Praise and Recognition, and Control and Responsibilities, with the highest subscale scores for moderate satisfaction with Co-workers (4.10). The remaining subscales were Balance of Family and Work (2.86) and Professional Opportunities (3.05) which were close to Neither Satisfied nor Dissatisfied (3) (see Figure 3 and

Table 3). See Table 4 on Appendix H for eight job satisfaction subscales, potential range of study participant subscale scores, actual average subscale scores and means, and Overall Global Job Satisfaction Score

Figure 3. Average Mean Scores for the MMSS subscales.

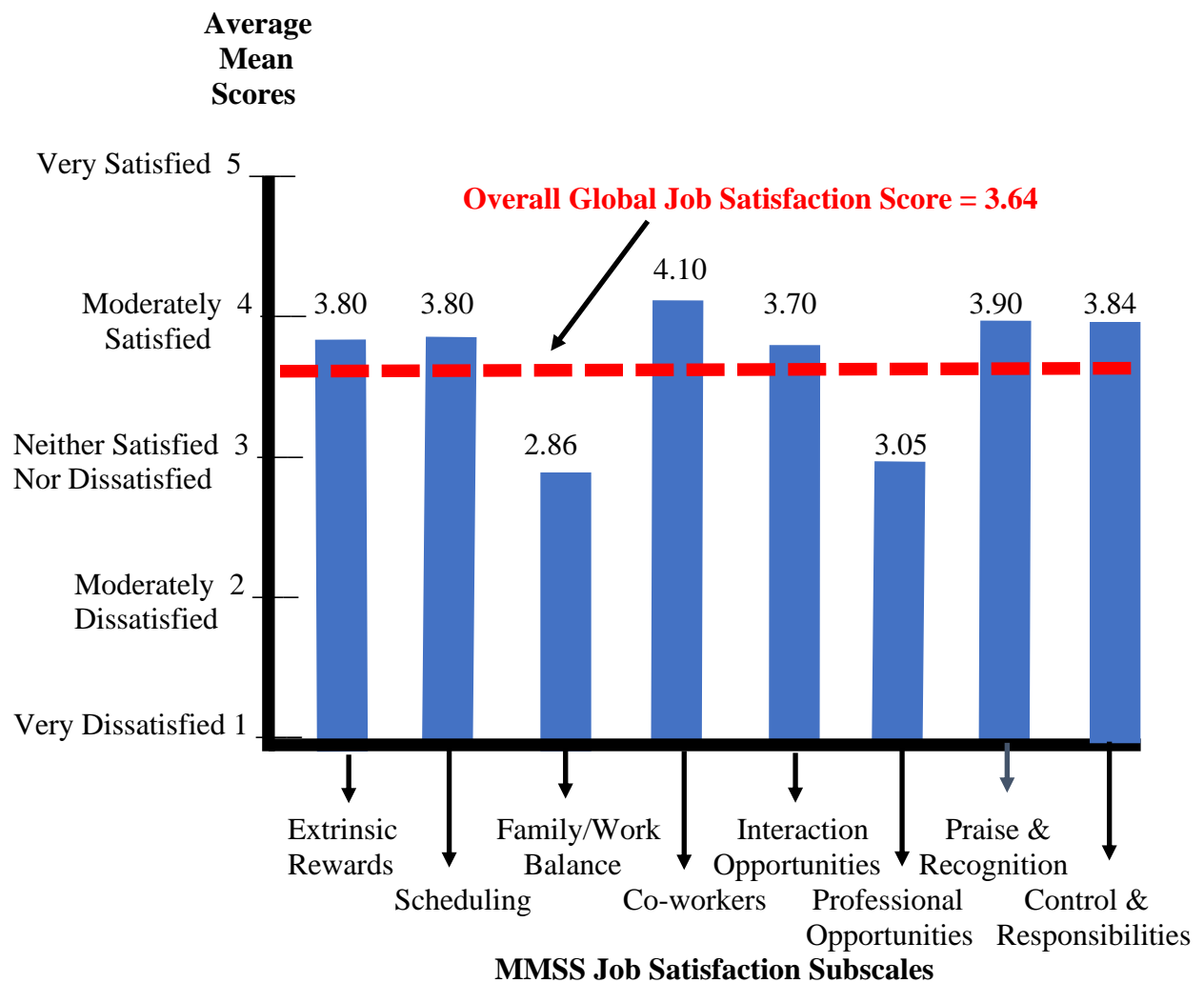


Figure 3 shows the Average Mean Scores for the MMSS subscales. The bar graph represents the Average Mean Scores for the MMSS eight job satisfaction subscales. The red,

broken horizontal line is the Overall Global Job Satisfaction Score (3.64) which represents a moderate level of overall job satisfaction. The Overall Global Job Satisfaction Score is the average of all the Global Scores for all participants and is the overall level of satisfaction of all the participants in this study.

Inferential Data Analysis

Inferential data analysis included correlational analyses between selected demographic data (i.e., age and years of experience) and Global MMSS Scores. Spearman's correlation was used to examine associations between age and years of experience categories with the Global MMSS Scores. The Spearman's correlation was calculated using VasaarStats (2022), and $p < .05$ was used as criteria for statistical significance.

Correlation of RN's Categorical Age in Years and Nursing Experience with Global Job Satisfaction Score.

There is a negative correlation between age and global score, $\rho = -0.29$, $p < .05$, small effect size. There is also negative correlation between years of nursing experience and global score, $\rho = -0.22$, $p < .05$, small effect size. Neither of these correlations are statistically significant.

Interpretation of Findings

The MMSS scale consists of 31 items within eight subscales that support Maslow's Hierarchy of Needs Model (McLeod, 2020) and Herzberg's Motivation-Hygiene Theory (Expert Program Management, 2018; Management Study Guides, 2020, Maniksaly, n.d.; Nidhisingh,

n.d.). The 3.64 Overall Global Job Satisfaction Score ($SD = 0.53$) of all the participants in this study which can be rounded to four and interpreted as a moderate level of satisfaction rated on a five-point Likert scale (five is very satisfied and one is very dissatisfied). It is interesting to learn that the highest subscale score for satisfaction was with Co-workers (4.10). It is important to point that the nurses leaned on each other during this pandemic. On the other hand, the remaining subscales were Balance of Family and Work (2.86) and Professional Opportunities (3.05) which can be rounded to three which were Neither Satisfied nor Dissatisfied. The lowest satisfaction subscale score was for Balance with Family and Work (2.86) and this is what we all have expected too; particularly now given demands on nurses as a result of the COVID-19 outbreak. With severe shortages in nurses and constant hospital surge for about two years, balancing family and work is truly a challenge to everyone.

There were 27 RNs invited to participate in the study with five respondents which gave a response rate of 18.5%. This is a very small sample size and response rate which causes limitations of the study. There is a negative correlation between age and global score, $\rho = -0.29$, $p < .05$ with small effect size. There is also negative correlation between years of nursing experience and global score, $\rho = -0.22$, $p < .05$ with small effect size. [Strength, Effect size: small ($\rho = .1$ to $.29$), medium ($\rho = .3$ to $.49$), large ($\rho = .5$ to 1.00)]. Both of these correlations are not statistically significant since they don't meet the critical threshold of $\rho = 1$ in magnitude for $p < .05$ with $N = 5$, a very small sample size. A statistically significant result with a large effect size could have been achieved if the sample size is at least 82.

Discussion

The goal of the present study was to assess the levels of job satisfaction among registered nurses in the two acute medical-surgical units on eight dimensions: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility.

COVID-19 Pandemic

This scholarly paper was done during the time of the COVID-19 Pandemic with the first US laboratory case confirmed by the Centers for Disease Control and Prevention (CDC, 2022) on January 20, 2020 and still on going at the time of this writing for more than 2 years. The pandemic has affected the whole world severely, more so on the delivery of essential health services, especially the hospitals, doctors, nurses, and other frontliners. Hospitals report hundreds of staff out with COVID (Richert, 2022). The extreme staffing shortages and the surge of patients especially with the Omicron COVID-19 wave made the pandemic worse, despite the availability of highly effective vaccines. The US health systems nationwide was challenged with too many employees leaving their job, getting sick, and some even passed away because of the disease on top of an astronomical number of cases. There were just too few staffs, too many patients, and too much distress (Young, 2022). To fill staffing shortages, hospitals were hiring contract workers, providing bonuses and other incentives for people to work more hours (Richert, 2022).

The production of this scholarly paper was also severely affected by the pandemic which caused significant delays for more than a year. This project was initially designed to look into the

job satisfaction variable of nurses at the medical-surgical unit in a large county affiliated tertiary hospital in the west coast region in the United States. This could have been a more ideal setting for unit-based research with about 90 Registered Nurses in the three medical-surgical units. However, because of the pandemic, where services have been limited to essential priorities, an affiliation agreement could not be obtained with the county and the University of New Mexico. The authors had to look for other options. Even after a hospital had finally agreed for this project, the survey cannot be started because of hospital surge nationwide due to the pandemic aggravated by the nursing shortage. Nurses are burned out, out sick, transferred elsewhere, or relocated to another state for varied reasons.

The hospital setting in this study in the southwestern USA is a 60-bed general acute care hospital composed of two medical-surgical units (48 beds total): General Medicine Specialty Unit (24 beds) and Surgical Specialty Unit (24 beds). The Intensive Care Unit (ICU) has 12 beds but their nurses were excluded from this study. Prior to the pandemic, there were 23 full time core staff RNs in each Medical and Surgical Specialty Units (46 nurses total). After the survey study, there were 11 and 10 full time core staff RNs (all females) remaining in the Medical and Surgical Specialty Units, respectively (21 nurses total). These numbers did not include any of the PRN and travel nurses. To address the shortages in its nursing workforce, the hospital employed traveler nurses for a 13-week assignment which can be renewed. As of this writing, there were 13 and 19 traveler nurses (32 nurses total) in in the Medical and Surgical Specialty Units, respectively. Basically, majority of nurses (59%) were traveler nurses in both units during the survey but they were excluded from the study; 41% were core staff RNs.

Sample Size

More than 50% of the core RN staff in both units had left the wards since the pandemic which explains why only 27 nurses were invited to participate in the study. Nurses leaving these units for good while the survey was going on and their emotional vulnerabilities explain the low response rate of 18.5%. Burnout is a major threat to the stability of the nursing workforce. The prevalence of burnout among US registered nurses ranges from 35 to 45% (Janeway, 2020). Nurses who work with COVID-19 patients were overstressed, anxious, and with high rate of burnt out because of their emotional vulnerability due to fatigue, discomfort, and helplessness related to their high intensity work (Dincer & Inangil, 2021). The low response rate could be related to survey burnout and lack of interest in participating in a survey that was not required as part of employment.

Age and Nursing Experience

Some of the factors that influence nurses job satisfaction are nurses age and nursing experience. Both of these demographics had small negative correlation with job satisfaction in this study. This means that as nurses become older and have longer experience, their levels of satisfaction decreases but these should be interpreted with cautions because these are not statistically significant. The small effect size for both correlations indicate limited practical applications. In the study of Almansour et al. (2020) with a sample size of 743, they found out that there was a small positive correlation between age and overall job satisfaction ($r = 0.10$, 95% CI 0.03 to 0.17), years of nursing experience and overall job satisfaction ($r=0.11$, CI 0.04 to 0.18). This may indicate that results in some studies may vary when it comes to correlation of

age and years of experience with overall satisfaction in different settings and a much bigger sample size. Nevertheless, it is important to understand the influence of the nurses' age and nursing experience to be supportive to the needs for particular RN groups.

Levels of Job Satisfaction

The results on the MMSS subscales and the overall level of satisfaction were generally consistent with those observed in the study of Rupp (2017) but differ with other studies (Almansour et al., 2020; Liton, 2021; Liu et al., 2011). The current study indicates that there were six most important work-related factors that affect job satisfactions, namely: satisfaction with co-worker relationships on top of the list, followed by praise and recognition, control and responsibilities, extrinsic rewards (such as salary, vacation, and benefits), the ability to have flexible scheduling, and interaction opportunities. When under stress especially during this time of pandemic, the nurses got their best social and psychological support from their co-workers, hence satisfaction with co-workers was on top of the list among the eight satisfaction dimensions. Studies have shown that social support from co-workers enhances the effects of work engagement on nurses' satisfaction, improve quality care and reducing turnover intention in nursing staff (Orgambidez-Ramos & Almeida, 2017). Bedside nurses may have better control and responsibilities if they are given the option to decide on acceptable nurse-patient ratios instead of managers. The dimension of job satisfaction that were lowest for the RNs were satisfaction with professional opportunities and family life/work balance as the least. With severe shortages in nurses and constant hospital surge for about two years, balancing family and work was truly a challenge to everyone.

The findings in this study are consistent with the research of Rupp (2017). In this study, participants indicated that the subscale with the highest scores for satisfaction was with Coworkers (4.02). Among the subscales with greatest dissatisfaction was Family/Work Balance (2.99). The results with the other subscales and overall global score differ with other studies (Almansour et al., 2020; Liton, 2021; Liu et al., 2011). Liu et al, (2011) found that nurses who scored as dissatisfied on overall job satisfaction, extrinsic rewards, interaction, praise/recognition and control/responsibility were more likely to leave than nurses who scored as satisfied. Their study showed that satisfaction with extrinsic rewards was the strongest predictor of intention to leave.

Correlations between nurses' job satisfaction gender and level of nursing education were not analyzed in this study due to the small sampling issue. In the study of Liu et al., (2011), all respondents were female and so with this study where all the nurses in the wards were all females. The nursing education level and gender ratio of the participants in this study may not be representative of this hospital and the general population in a normal situation.

Implications for Practice

Several nursing researches have investigated the factors that influence job satisfaction but there are gaps on individual differences which make translation of many of these studies into clinical practice difficult (Paulsen, 2018). What is needed by one group may differ from what is needed by other groups and this will impact their satisfaction. This is a unit-based study and unlike large-scale, nationwide or regional researches, the findings of unit-based studies are more specific and applicable to the particular setting. However, other hospital in similar situation may

benefit from this unit-based study and gain ideas on what are the particular dimensions that satisfied most nurses and work on other aspects that are less satisfactory and yet, are important to their staff. This will address turnover intention, nurse retention, and nursing shortage so as to achieve a full, effective, efficient, and satisfied nursing workforce at a unit-based level. This calls for a unit-level evidence-based data for a better nurse and patient outcomes.

The Rise of Travel Nurses (Cultural Change)

The pre-COVID-19 factors for nurses' dissatisfaction aggravated by the impact of the pandemic on the nursing workforce encourage the nurses to seek other employment options that give them more control over where and when they work. These give rise to explosive demand for travel nurses who are paid between \$5,000 and \$10,000 per week, tripling their earnings, plus other great benefits while the staffing agencies have been profiting. These increased earnings for travel nurses and staffing agencies have many concerns such as decrease in hospital employees' morale and the allegation of price gouging which is the unlawful or unfair rising of prices (Yang & Mason, 2022). State and federal lawmakers should implement effective price gouging laws that is tailored to the nursing shortage crisis especially during declared states of emergency. Additionally, the cost of high turnover can have a profound financial impact on the hospitals and needs to be managed. The high demand for travel nurses gives rise to a cultural change that will extend beyond the COVID-19 pandemic where many core staff nurses are leaving their jobs, mostly to become travel nurses at about 50-60% per anonymous personal communications (March, 2022) with some nurse executives in the southwest and west coast regions in the US.

This should be addressed immediately in cooperation with different nursing organizations and the legislature.

Intervention and Dissemination

A report of overall and individual unit results, being a unit-based study, were provided to the nursing staff and management of the hospital where this study was done. Ideas for potential interventions and recommendations on identified areas of greatest concern were solicited from them and discussed via zoom conference and in writing. Literature review was done to search for past interventions for specific identified areas from this study with low satisfaction results so as to address dissatisfaction within the nursing profession and with the working environment. The Herzberg's Motivation-Hygiene Theory emphasis is on organizational strategies and action that support nurse satisfaction and this may guide nursing executives in their interventions (e.g., supervisory practices, company policies, salary, work conditions, fringe benefits, job security, status, insurance, vacations).

Limitations for Health Policy

The 2020 National Nursing Workforce Survey (National Council of State Boards of Nursing, 2021) showed that the median age for RNs was 52 years, the largest age category (19%) was 65 and above; 89.6% were females and 9.4% were males; and the most common highest level of nursing education was a baccalaureate degree (65.2% of RNs). The specific circumstances at this this specific hospital such as the small demographic sampling in this study may not reflect what is happening at the national level for other hospitals because of small

sample size and because of the pandemic situation with so many nurses leaving their jobs.

Anyway, it is good for the nursing administrators to know what are the levels of satisfaction of the respondents in different dimensions and their overall satisfaction level and work on it for their benefits and satisfaction. Nurses age, level of nursing education and nursing experience are some of the factors that influence nurses job satisfaction. Understanding the influence of the nurses' age, nursing education levels, and nursing experience is essential to the development of a nursing organizational model that is supportive to the needs for particular RN groups and is best to have this information at the unit-based level.

Limitations and Strengths of the Study

Limitations

Cronbach's alpha data analysis on each subscale as well as the overall 31 item MMSS scale and inferential statistics involved the correlation of MMSS data with nursing education was not done due to small sample size. All participants in the study were females, hence, there was no data to analyze job satisfaction for males and other genders. No significant results can be concluded if there is any variance in RN Job satisfaction among other different demographic groups because of the small sample size.

The Response Rate is 18.5%. About 81.5% did not participate; these nurses as well as the more than 50% of nurses who left their jobs may be very dissatisfied because of the pandemic situation. These are important things to consider in interpreting the result of this study.

Strengths

This is probably one of the first unit-based study on nurse job satisfaction. This research was able to achieve the goal to assess the levels of job satisfaction in a unit-based setting among registered nurses in acute medical-surgical units on eight dimensions: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility at the unit level. Scores on overall job satisfaction and different dimensions may reveal significant differences in different settings so that a unit-based study is more valid and reliable if done in your own specific unit.

Suggestions for Further Research

The main limitation of this study is the small sample size attributed mainly due to the pandemic situation as explained above. It is recommended that this study be repeated when the situation has improved or normalized. Nurses were very stressed and burnt-out so that active participation is very challenging. Job satisfaction may be different during normal condition more so if there is a high response rate of participation.

This is a unit-based study so that it is expected to have a small sample size. In this scenario, your study can still assess the levels of job satisfaction among registered nurses in the unit on eight dimensions but correlations with other variables maybe limited. You must target a high response rate to have significant results or assess the core RNs of the whole hospital to have a bigger sample size so as to have a more valid and reliable correlation studies (e.g., additional demographic variables, MMSS Subscale scores, and Overall Global Scale score). Job satisfaction

that is truly reflective of their sentiments can be achieved when the response rate is high and in a normalized condition. Additionally, you may correlate it also with intention to leave. With bigger sample size, results can also be compared between Acute Medical and Acute Surgical Units.

Concluding Remarks

Nurse job satisfaction is a global concern because of its crucial importance in nurse turnover, nurse retention, and the quality of care of patients. This study despite its limitations could assist the nursing profession in developing standards that are supportive of nurses and increase RN intention to stay in nursing through improved nurse job satisfaction. Various factors have been identified that affects job satisfaction such as work environment, structural empowerment, organizational commitment, professional commitment, job stress, patient satisfaction, patient-nurse ratios, social capital, evidence-based practice and ethnic background (Lu et al., 2019). These have been summed up in the eight dimensions of satisfaction that was the focused in this research and giving importance on those that yield high satisfaction and working on those dimension that have less satisfaction scores will be additional information to nursing management to improve their program on nurse retention. This in turn may aid the development of effective strategies to address the nursing shortage, ensure an adequate nursing workforce. and increase the quality of patient care. Interventions should be developed to mitigate these factors (e.g., by improving work schedules, increasing autonomy and/or nurse support); since the demands and requirements of nurses vary widely by unit, unit-based research on job satisfaction would enable nursing administrators to tailor these interventions to that specific unit.

Nurses face burnout and tremendous stress more so during this pandemic. There should be counselling services available when and where necessary to alleviate any problems arising from work setting. The current prevalence of burnout among US registered nurses ranges from 35 to 45% (Janeway, 2020). In this study and elsewhere, nurses were actively leaving their units for good while the survey was going on and their emotional vulnerabilities explain the low response rate of 18.5%. Burnout is a major threat to the stability of the workforce on the front lines. A readily accessible mental health treatment for all health care workers should be available during this pandemic (Janeway, 2020).

Nurses' job satisfactions are related to several factors. Knowing the eight dimensions of job satisfaction and how they are rated by nurses will open doors for a more in-depth study to find out the root causes for the dissatisfaction, and design a nursing intervention or policy to address their job satisfactions. Satisfaction with family and work balance has the lowest score in this study. Nursing management should brainstorm with the nurses to identify the main causes and work on these. During this pandemic, nursing shortage, stressful working condition, and hospital surges should be effectively and efficiently addressed to alleviate the nurses.

This study on nurse job satisfaction at the unit-level reduces gaps from many evidence-based studies on nurse outcomes using data from large national data bases. This unit level study provides focused data on one specific type of unit, acute medical-surgical units; because the study is focused on this one specific type of unit interventions it can be tailored to these specific units rather than a general hospital wide study resulting in hospital wide interventions. This will lead to better job satisfaction, higher retention rates, and less desire to leave their chosen profession.

Finally, the rise of travel nurses is a cultural change that needs to be addressed. Nurse executives in collaboration with nurses' unions and legislature should come up with acceptable solutions to the satisfaction of nurses.

References

- Aiken, L., Sloane, D., Bruyneel, L., Van den Heede, K., Griffiths, P., Busee, R., Diomidous, M., Kinnunen, J., Koska, M., Lesaffre, E., McHugh, M., Moreno-Cabadas, M., Rafferty, A., Schwendimann, R., Scott, P., Tishelman, C., Achterberg, T., & Semeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: A retrospective observational study. *Lancet*, 383(9931), 1824-1830.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4035380/pdf/nihms571000.pdf>
- Almansour, H., Gobbi, M., Prichard, J., & Ewings, S. (2020). The association between nationality and nurse job satisfaction in Saudi Arabian hospitals. *International Nursing Review* 67 (420–426). <https://onlinelibrary-wiley-com.libproxy.unm.edu/doi/pdf/10.1111/inr.12613>
- American Association of Colleges of Nursing (2019). Fact sheet: Nursing shortage.
<https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Shortage>
- Balinbin, C., Balatbat, K., Balayan, A., Balcueva, M. I., Balicat, M. G., Balidoy, T., Macalindo, J., & Toress, G. (2020). Occupational determinants of compassion satisfaction & compassion fatigue among Filipino registered nurses. *Journal of Clinical Nursing*, 29(5-6). 955-963. <https://onlinelibrary-wiley-com.libproxy.unm.edu/doi/epdf/10.1111/jocn.15163>

Baljoon, R., Banjar., & Bankhar, M. (2018). Nurses' work motivation and the factors affecting it:

A scooping review. *International Journal of Nursing and Clinical Practices*, 5(277), 1-

10. <https://www.graphyonline.com/archives/IJNCP/2018/IJNCP-277/>

Baum, A., & Kagan, I. (2015) Job satisfaction and intent to leave among psychiatric nurses:

closed versus open wards. *Archives of Psychiatric Nursing*, 29(4), 213-216.

[http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=3c](http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=3c72af3d-68cf-4891-aa3b-e32c488fa9c6%40sdc-v-sessmgr01)

[72af3d-68cf-4891-aa3b-e32c488fa9c6%40sdc-v-sessmgr01](http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=3c72af3d-68cf-4891-aa3b-e32c488fa9c6%40sdc-v-sessmgr01)

Baysal, H. Y., & Yildiz, M. (2019). Nursing's job quality's effect on job satisfaction.

International Journal of Caring Science, 12(2), 1056-1064.

[http://web.b.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=7&sid=f8](http://web.b.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=7&sid=f80f3395-e0a2-4cde-8dec-eaf392c43a0e%40pdc-v-sessmgr04)

[0f3395-e0a2-4cde-8dec-eaf392c43a0e%40pdc-v-sessmgr04](http://web.b.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=7&sid=f80f3395-e0a2-4cde-8dec-eaf392c43a0e%40pdc-v-sessmgr04)

Bell, S. A., & Brysiewics, P. (2020, March). 2020 year of the nurses and midwife: meeting new

challenges. *International Emergency Nursing*, 49(100848). [https://www-sciencedirect-](https://www-sciencedirect-com.libproxy.unm.edu/science/article/pii/S1755599X20300203?via%3Dihub)

[com.libproxy.unm.edu/science/article/pii/S1755599X20300203?via%3Dihub](https://www-sciencedirect-com.libproxy.unm.edu/science/article/pii/S1755599X20300203?via%3Dihub)

Brown, R., Wey, H., & Foland, K. (2018). The relationship among change fatigue, resilience,

and job satisfaction of hospital staff nurses. *Journal of Nursing Scholarship*, 50(3), 306-

313. [https://sigmapubs-onlinelibrary-wiley-](https://sigmapubs-onlinelibrary-wiley-com.libproxy.unm.edu/doi/epdf/10.1111/jnu.12373)

[com.libproxy.unm.edu/doi/epdf/10.1111/jnu.12373](https://sigmapubs-onlinelibrary-wiley-com.libproxy.unm.edu/doi/epdf/10.1111/jnu.12373)

Buchan, J., Shaffer, F., & Catton, H. (2018). Policy brief: Nurse Retention. *International Centre on Nurse Migration*. https://www.icn.ch/sites/default/files/inline-files/2018_ICNM%20Nurse%20retention.pdf

Center for Disease Control and Prevention, CDC (2022, January 5). CDC Museum COVID-19 timeline. <https://cdc.gov/museum/timeline/covid9.html>

Coronavirus highlights lack of ICU nurses and equipment. (2020, April/May). *Lamp*, 77(2), 8-9. <http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=4&sid=4c87c122-3ee5-4c37-84c7-5f7437746796%40sessionmgr4007>

Connor, K., & Davidson, J. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale. *Depression and Anxiety*, 18(2), 76-82. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/da.10113>

Dincer, B., & Inangil, D., (2021). The effect of Emotional Freedom Techniques on nurses' stress, anxiety, and burnout levels during the COVID-19 pandemic: A randomized controlled trial. *Explore*, 17(2), 109-114. <https://www.sciencedirect.com/science/article/pii/S1550830720303839?via%3Dihub>

Do Nascimento, L. H., Guerra, G. M., Perbone Nunez, J. G., & Monteiro da Cruz, D. A. L. (2019). Strategies for nurse retention in hospitals: scoping review protocol. *Revista de Enfermagem Referencia, English Ed.* 4(22),169-176. <http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=10&sid=00089f84-ee66-4510-8d5f-817f2fc3d3eb%40sessionmgt4007>

Expert Program Management. (2018). *Herzberg's Motivation Theory – Two Factor Theory*.

<https://expertprogrammanagement.com/2018/04/herzbergs-two-factor-theory/>

Faller, M., & Gogek, J. (2019). Break from the past: Survey suggests modern leadership styles needed for millennial nurses. *Nurse Leader*, 17(2), 135-140. <https://www.sciencedirect-com.libproxy.unm.edu/science/article/pii/S1541461218303707?via%3Dihub>

Galleta, M., Portoghese, I., Carta, M. G., d'Aloja, E., & Campagna, M. (2016). The effect of nurse-physician collaboration on job satisfaction, team commitment, and turnover intention in nurses. *Research in Nursing & Health*, 39(5), 375-385.

<https://doi.org/10.1002/nur.21733>

Global Health Workforce Alliance. (2020). Positive practice environments campaign.

<https://www.who.int/workforcealliance/about/initiatives/ppe/en/>

Gurdogan, E. P., & Uslusoy, E. C. (2019). The relationship between quality of work life and happiness in nurses: A sample from Turkey. *International Journal of Caring Sciences*, 12(3), 1364-1372.

<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=e5c9893b-22ad-4f58-ab6c-d88c93865d97%40sdc-v-sessmgr02>

Halm, H. (2019, March). The influence of appropriate staffing and healthy work environments on patients and nurse outcomes. *American Journal of Critical Care*, 28(2), 152-156.

<http://ajcc.aacnjournals.org/content/28/2/152.full.pdf+html>

- Han, K., Trinkoff, M., & Gurses, A. P. (2015) Work related factors, job satisfaction & intent to leave the current job among United States nurses. *Journal of Clinical Nursing*, 24(21-22), 3224-3232. <https://www.ncbi.nlm.nih.gov/pubmed/26417730>
- Harris, P. A., Taylor, R., Minor, B. L., Elliott, E., Fernandez, M., O'Neal, L., McLeod, L., Delacqua, G., Delacqua, F., Kirby, J., Duda, S. N., & REDCap Consortium. (2019, May 9). The REDCap consortium: Building an international community of software partners, *Journal of Biomedical Informatics*, 95(103208). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7254481/>
- Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009, April). Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, 42(2), 377-81. <https://reader.elsevier.com/reader/sd/pii/S1532046408001226?token=D593D4D031288E87A648F848125EF02C21AA1ADE1F3BAAE36FD87EBF607EB8CF9CFC533115E1D620C1F20984ADBF290>
- Havens, D., Gittell, J. H., & Vasey, J. (2018). Impact of relational coordination on nurse job satisfaction, work engagement and burnout. Achieving the Quadruple Aim. *The Journal of Nursing Administration*, 48(3), 132-140. https://journals-lww-com.libproxy.unm.edu/jonajournal/Fulltext/2018/03000/Impact_of_Relational_Coordination_on_Nurse_Job.6.aspx

- He, J., Staggs, V., Bergquist-Beringer, S., & Dunton, N. (2016). Nurse staffing and patient outcomes: a longitudinal study on trend and seasonality. *BioMed Central (BMC) Nursing* 15(60), 1-10.
<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=8b5439fc-6a34-47cb-bec0-bc4954a0b430%40sessionmgr4006>
- Helbing, E., Teems, M., & Moultrie, D. (2017). An investigation of job satisfaction among nurses in the Emergency Department. *Association of Black Nursing Faculty (ABNF) Journal*, 28(4), 103-108.
<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=4&sid=ad910478-768f-4877-a039-9118149b4812%40sdc-v-sessmgr03>
- Hickson, J. (2015). New nurses' perceptions of hostility and job satisfaction. *The Journal of Nursing Administration*, 43(5), 293-301. [https://journals-lww-com.libproxy.unm.edu/jonajournal/Citation/2015/10001/New Nurses Perceptions of Hostility and Job.8.aspx](https://journals-lww-com.libproxy.unm.edu/jonajournal/Citation/2015/10001/New_Nurses_Perceptions_of_Hostility_and_Job.8.aspx)
- Hill, B. (2017, June). Do nurse staffing levels affect patient mortality in acute secondary care? *British Journal of Nursing*, 26(12), 698-705.
<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=82364e38-6651-4061-9c6f-62747bdc4878%40sdc-v-sessmgr02>
- Hines, M. (2019). Implementing self-care guidelines for nurses. *Oklahoma Nurse*, 64(4) 8-10.
<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=4&sid=0c5340ec-11ec-468e-a460-4133eb1b484f%40sessionmgr4006>

International Council of Nurses (2020, May 12). Nurses a voice to lead nursing the world to health. *International Council of Nurses: Nursing the World to Health*.

<https://www.icn.ch/news/international-council-nurses-nursing-world-health>

Jackson, D., Firtko, A. & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: a literature review. *Journal of Advanced Nursing*, 60(1), 1-9. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-2648.2007.04412.x>

Janeway, D. (2020, September). The role of Psychiatry in treating burnout among nurses during the COVID-19 pandemic. *Journal of Radiology Nursing* 39 (3), 176-178. <https://www-sciencedirect-com.libproxy.unm.edu/science/article/pii/S1546084320300973?via%3Dihub>

JavaTpoint. (2021). MS Excel tutorial. <https://www.javatpoint.com/ms-excel-definition>

Kalisch, B., & Lee, K. H. (2014). Staffing and job satisfaction: nurses and nursing assistants. *Journal of Nursing Management*, 22(4), 465-471. <https://onlinelibrary-wiley-com.libproxy.unm.edu/doi/epdf/10.1111/jonm.12012>

Leigh, J., P., Markis, C., Iosif, A., & Romano, P. (2015). California's nurse-to-patient ratio law and occupational injury. *International Archives of Occupational and Environmental Health*, 88(4), 477-484. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6597253/pdf/nihms-1037193.pdf>

Liton, R. (2021). Nurses' job satisfaction at the Southeast District, Chattogram in Bangladesh: A cross-sectional study. *International Journal of Caring Sciences*, 14(1) 679-687.

<https://web-p-ebshost-com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=5&sid=49197f2e-34cf-4115-b53f-e18df5e0d399%40redis>

Liu, C., Zhang, L., Ye, W., Zhu, J, Cao, J., Lu, X, & Li, F. (2011). Job satisfaction and intention to leave: a questionnaire survey of hospital nurses in Shanghai of China. *Journal of Clinical Nursing*, 21(1-2), 255-263. <https://onlinelibrary-wiley-com.libproxy.unm.edu/doi/epdf/10.1111/j.1365-2702.2011.03766.x>

[com.libproxy.unm.edu/doi/epdf/10.1111/j.1365-2702.2011.03766.x](https://onlinelibrary-wiley-com.libproxy.unm.edu/doi/epdf/10.1111/j.1365-2702.2011.03766.x)

Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4(4),309-336. doi:10.1016/0030-5073(69)90013-0

Lu, H., Zhao, Y., & While, A. (2019, June). Job satisfaction among hospital nurses: A literature review. *International Journal of Nursing Studies*, 94, 21-23.

<https://doi.org/10.1016/j.ijnurstu.2019.01.011>

Mahoney, C. B., Lea, J., Schumann, P. L., & Jillson, I. A. (2020). Turnover, burnout, and job satisfaction of Certified Registered Nurse Anesthetists in the United States: Role of job characteristics and personality. *American Association of Nurse Anesthetists Journal*, 88(1), 39-49.

<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=30&sid=e0533661-482a-4221-ade0-9dbd67735bf9%40sessionmgr4006>

Management Study Guide. (2020). Herzberg's Two-Factor Theory of Motivation.

<https://www.managementstudyguide.com/herzbergs-theory-motivation.htm>

Maniksaly, S. (n.d.). Job satisfaction theory. *Economics Discussion*.

<https://www.economicsdiscussion.net/human-resource-management/job-satisfaction-theory/31947>

Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.

<https://psychclassics.yorku.ca/Maslow/motivation.htm>

Maslow, A. (1987). *Motivation and personality (3rd ed.)*. Pearson Education.

MBASchool. (2020, May 13). Job satisfaction definition, importance, example & overview.

<https://www.mbaskool.com/business-concepts/human-resources-hr-terms/4394-job-satisfaction.html>

McCloskey, J. (1974). Influence of rewards and incentives on staff nurse turnover rate. *Nursing*

Research, 27(3), 239-247. <https://doi.org/10.1097/00006199-197405000-00009>

McHugh, M., Rochman, M., Sloane, F., Berg, R., Mancini, M., Nadkarni, V., Merchant, R.,

Aiken, L., & American Heart Association's Get With The Guidelines-Resuscitation

Investigators. (2016). Better nurse staffing and nurse work environments associated with increased survival of in-hospital cardiac arrest patients. *Medical Care*, 54(1), 74-80.

<https://insights-ovid-com.libproxy.unm.edu/article/00005650-201601000-00012>

McKenna, B., Smith, N., Poole, S., & Coverdale, J. H. (2003). Horizontal violence: Experiences of registered nurses in their first year of practice. *Journal of Advance Nursing*, 42(1), 90-

96. <https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2648.2003.02583.x>

McLeod, S. (2020, March 20). Maslow's hierarchy of needs. *Simply Psychology*.

<https://www.simplypsychology.org/maslow.html>

Mohdin, A. (2016, December 5). Nurses are some of the most trusted workers across the world, while politicians still languish at the bottom. *Quartz*. <https://qz.com/853048/nurses-are-the-most-trusted-profession-across-the-world-and-politicians-are-the-least/>

Moneke, N., & Umeh, (2013). Factors influencing critical care nurses' perception of their overall job satisfaction: An empirical study. *The Journal of Nursing Administration*, 43(4), 201-207.

https://journals.lww.com/jonajournal/Abstract/2013/04000/Factors_Influencing_Critical_Care_Nurses_.6.aspx

Mueller, C. & McCloskey, J. (1990). Nurses' job satisfaction: A proposed measure. *Nursing Research*, 39(2). 113-117. <https://www.ncbi.nlm.nih.gov/pubmed/2315065>

National Council of State Boards of Nursing. (2021, April). 2020 National Nursing Workforce Survey Executive Summary. *Journal of Nursing Regulation*, 12/Supplement, S5-S6. [The 2020 National Nursing Workforce Survey \(ncsbn.org\)](https://www.ncsbn.org/2020-National-Nursing-Workforce-Survey)

National Nurses United (2022, January 13). Registered nurses top Gallup poll for 20th year in a row. <https://www.nationalnursesunited.org/press/registered-nurses-top-gallup-poll-for-20th-year-row>

Nidhisingh, B. (n.d.). Herzberg's two factor theory of motivation. *Economics Discussion*.

<https://www.economicsdiscussion.net/motivation/herzbergs-two-factor-theory-of-motivation/31821>

Norbeck, J. S. (1985). What constitutes a publishable report of instrument development? *Nursing*

Research, 34(6), 380-382. <https://doi.org/10.1097/00006199-198511000-00022>

Nowrouzi-Kia, B. & Fox, M. (2020). Factors associated with intent to leave in Registered Nurses

working in acute care hospitals. A cross-sectional study in Ontario, Canada. *Workplace*

Health & Safety, 68(3), 121-128. [https://journals-sagepub-](https://journals-sagepub-com.libproxy.unm.edu/doi/pdf/10.1177/2165079919884956)

[com.libproxy.unm.edu/doi/pdf/10.1177/2165079919884956](https://journals-sagepub-com.libproxy.unm.edu/doi/pdf/10.1177/2165079919884956).

Nursing Solutions, Inc. (2021). 2021 NSI national health care retention & RN staffing report.

https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf

O'Hara, M., Burke, D., Ditomassi, M., & Lopez, R. (2019). Assessment of millennial nurses' job

satisfaction and professional practice environment. *The Journal of Nursing*

Administration, 49(9), 411-417. [https://journals-lww-](https://journals-lww-com.libproxy.unm.edu/jonajournal/Fulltext/2019/09000/Assessment_of_Millennial_Nurses_Job_Satisfaction.5.aspx)

[com.libproxy.unm.edu/jonajournal/Fulltext/2019/09000/Assessment_of_Millennial_Nurses_Job_Satisfaction.5.aspx](https://journals-lww-com.libproxy.unm.edu/jonajournal/Fulltext/2019/09000/Assessment_of_Millennial_Nurses_Job_Satisfaction.5.aspx)

Orgambidez-Ramos, A., & De Almeida, H. (2017, August). Work engagement, social support,

and job satisfaction in Portuguese nursing staff: A winning combination. *Applied Nursing*

Research. 36 (37-41). <https://doi.org/10.1016/j.apnr.2017.05.012>

Paris, G. L., & Terhaar, M., (2011). Using Maslow's pyramid and the National Database of Nursing Quality Indicators to attain a healthier work environment. *The Online Journal of Issues in Nursing*, 16(1).

<http://ojin.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-16-2011/No1-Jan-2011/Articles-Previous-Topics/Maslow-and-NDNQI-to-Assess-and-Improve-Work-Environment.html?css=print>

Paulsen, R. (2018). Taking nurse staffing research to the unit level. *Nursing Management*, 49(7), 42-49.

<https://journals.lww.com/nursingmanagement/Pages/articleviewer.aspx?year=2018&issue=07000&article=00009&type=Fulltext>

Reinhart, R. J. (2020, January 6). Nurses continue to rate highest in honesty, ethics.

Gallup. <https://news.gallup.com/poll/274673/nurses-continue-rate-highest-honesty-ethics.aspx>

Richert, C. (2020, January 9). 'All hands in deck': Hospitals report hundreds of staff out with COVID. MPR News. <https://www.mprnews.org/story/2022/01/09/all-hands-on-deck-hospitals-report-hundreds-of-staff-out-with-covid>

Rupp, K. (2017). Intention to stay & RN job satisfaction: the influence of caring leadership (Doctoral Dissertation).

<http://web.b.ebscohost.com.libproxy.unm.edu/ehost/detail/detail?vid=15&sid=1c8703f4-bf5c-46f9-89b1->

[70ab3123888b%40sessionmgr103&bdata=JnNpdGU9ZWhtvc3QtbGl2ZQ%3d%3d#AN=124668158&db=ccm](https://www.gallup.com/poll/328136/ethics-ratings-rise-medical-workers-teachers.aspx)

Saad, L. (2020, December 22). U.S Ethics Ratings Rise for Medical Workers and Teachers.

Gallup. <https://news.gallup.com/poll/328136/ethics-ratings-rise-medical-workers-teachers.aspx>

Semachew, A., Belachew, T., Tesfaye, T., & Adinew, Y. (2017). Predictors of job satisfaction among nurses working in Ethiopian public hospitals, 2014: institution-based cross-sectional study. *Human Resources for Health*, 15(31), 1-8.

<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=50&sid=4148b01b-9809-48b4-a154-1b04695ff3d1%40sdc-v-sessmgr01>

Sherman, R. (2015). Recruiting and retaining generation Y perioperative nurses. *Association of periOperative Registered Nurses Journal*, 101(1), 138-143.

<https://aornjournal.onlinelibrary.wiley.com/doi/10.1016/j.aorn.2014.10.006>

Snaveley, T. (2016). A brief economic analysis of the looming nursing shortage in the United States. *Nursing Economics*, 34(2), 98-101.

<https://www.ncbi.nlm.nih.gov/pubmed/27265953>

Swamy, D. R., Nanjundeswaraswamy, T.S., & Rashmi, S. (2015). Quality of work life: Scale development and validation. *International Journal of Caring Sciences*, 8(2), 281-300.

<http://web.a.ebscohost.com.libproxy.unm.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=efa894b2-d2a7-44d8-8b32-92d5df00e822%40sdc-v-sessmgr01>

VassarStats. (2022). Spearman Rank-Order Correlation Coefficient.

www.vassarstats.net/corr_rank.html

Williams, H., Costley, T., Bellury, L., & Moobed, J. (2018). Do health promotion behaviors affect levels of job satisfaction & job stress for nurses in an acute care hospital? *Journal of Nursing Administration*, 48(6), 342-348. <https://insights-ovid-com.libproxy.unm.edu/crossref?an=00005110-201806000-00011>

Williams, R. L., McDowell, J. B., and Kautz, D. D. (2011). A caring leadership model for nursing's future. *International Journal for Human Caring*, 15(1), 31-35. https://libres.uncg.edu/ir/uncg/f/D_Kautz_Caring_2011.pdf

Wynendaale, H., Willems, R., & Trybou, J. (2019, July). Systematic review: Association between the patient-nurse ratio and nurse outcomes in acute care hospitals. *Journal of Nursing Management*, 27(5), 896-917. doi.org/10.1111/jonm.12764. <https://www.ncbi.nlm.nih.gov/pubmed/30801808>

Yang, Y. T., & Mason, D. J. (2022, January 28). COVID-19's impact on nursing shortages, the rise of travel nurses, and price gouging. *Health Affairs*. <https://www.healthaffairs.org/doi/10.1377/forefront.20220125.695159>

Young, M. (2022, March 1). Omicron created problems of too few staff, too many patients, too much distress. *Relias Media*, www.reliasmedia.com/articles/149048-omicron-created-problems-of-too-few-staff-too-many-patients-toomuch-distress

APPENDIX A

HRRC ID 21-446: Nurse Job Satisfaction**Recruitment Email, version date 11/20/21**

Subject Line: Participants being sought for a research study on Nurses Job Satisfaction

Dr. Janice Martin (Principal Investigator) and Reynaldo A. Gonzales (Co-Investigator) from the University of New Mexico College of Nursing are looking for participants for a research study on “Nurse Job Satisfaction” (HRRC Study Number 21-446). You are receiving this email because you are a Registered Nurse in the Acute Medical-Surgical Unit at the UNM Sandoval Regional Medical Center (SRMC). Your email address was obtained from the SRMC Human Resources.

This is a study measuring job satisfaction among Registered Nurses in general acute medical-surgical units. If you take part in this study, you would answer a 31-item job satisfaction survey instrument on a five-point Likert scale for about 10 minutes as well as four demographic questions. All answers to these study questions will only be reported as a group (i.e., aggregated data). To be able to take part in this study, you must have worked at the hospital for at least 24 hours per week and have at least 6 months tenure on the selected medical-surgical nursing units. Exclusion criteria includes RNs with less than six months of experience on the nursing unit and RNs who work fewer than 24 hours per week. RNs from the hospital float pool and nursing registries were also excluded from the study. Nurse managers and nursing supervisors are also excluded.

Participation in this study is voluntary. You may choose to ignore any question that could be a cause for personal concern. The authors have no potential conflicts of interest with respect to the research, authorship, and/or publication of this paper. All information will be de-identified utilizing the REDCap software. The information which we collect from you will go towards the data used for the final paper and poster presentation of the scholarly project.

Participants will need to use a computer with an internet connection. You may open the survey in your web browser by clicking the link provided and this signifies an implied consent to the study. A \$5 merchandise card will be given to all participants who will complete the study survey. At the end of the survey there will be an e-mail link, participants will be asked to separately e-mail Reynaldo A. Gonzales their name and address for the merchandise cards so that their answers to the survey remain anonymous.

Please click the link if you are interested in participating in this study,
<https://ctsctrials.health.unm.edu/redcap/surveys/?s=KT9XNRPP8FAAE9EM>. Clicking the link

signifies implied consent to the study. If you have any questions, please email Reynaldo A. Gonzales at reygonzales@salud.unm.edu or call at 818-744-2808.

Very truly yours,

Janice Martin, DNP, RN, CCM, PAHM

Principal Investigator
UNM College of Nursing

Reynaldo A. Gonzales, MPH, RN
Co-Investigator
UNM College of Nursing

Please take this survey.

You may open the survey in your web browser by clicking the link below:
<https://ctsctrials.health.unm.edu/redcap/surveys/?s=KT9XNRPP8FAAE9EM>.

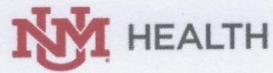
If the link above does not work, try copying the link below into your web browser:
<https://ctsctrials.health.unm.edu/redcap/surveys/?s=KT9XNRPP8FAAE9EM>.

This link is unique to you and should not be forwarded to others.

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APPENDIX B

Letter of Recommendation UNM Sandoval Regional Medical Center



Sandoval Regional Medical Center

September 28, 2021

FROM:

Pamela J. Demarest, MBA, MSN, RN
Chief Nursing Officer and Chief Operating Officer
UNM Sandoval Regional Medical Center

To Whom It May Concern:

I am aware of the planned survey study on Nurse Job Satisfaction among Registered Nurses using a validated McCloskey/Mueller Satisfaction Scale being conducted by Reynaldo A. Gonzales (co-investigator) and Dr. Janice Martin (principal investigator) at the UNM Sandoval Regional Medical Center. I am aware that this study will involve an on-line assessment via REDCap. I give permission for the study to take place at our location.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Pamela J. Demarest', written over a horizontal line.

Pamela J. Demarest, MBA, MSN, RN
Chief Nursing Officer and Chief Operating Officer
UNM Sandoval Regional Medical Center
3001 Broadmoor Blvd NE
Rio Rancho, NM 87144
pdemarest@srmc.unm.edu
Assistant: 505-994-7403

Co-investigator: Reynaldo A. Gonzales, MPH, RN
reygonzales@salud.unm.edu
(818) 744-2808
DNP Student, University of New Mexico College of Nursing
College of Nursing, Building #228, University of New Mexico

Principal Investigator: Janice Martin, DNP, RN, CCM, PAHM
jmartin@salud.unm.edu
(505) 720-2523
Assistant Professor/Principal Investigator GEHM Clinic
College of Nursing, Building #228, University of New Mexico

Study Title: Nurse Job Satisfaction

APPENDIX C

Demographic Survey

HRRC ID 21-446: Nurse Joh Satisfaction**Demographic Survey**

Instruction: Please select the correct answer for each question.

Age in years:

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+
- ☐ I prefer not to answer

Gender:

- ☐ male
- ☐ female
- ☐ non-binary
- ☐ other
- ☐ I prefer not to answer

Years in Nursing:

- ☐ 6 months – 5 years
- ☐ 6-10 years
- ☐ 11-15 years
- ☐ 16-20 years
- ☐ more than 21 years
- ☐ I prefer not to answer

Level of Nursing Education

- ☐ Associate Degree
- ☐ Bachelor's Degree
- ☐ Master's/Doctorate Degree
- ☐ I prefer not to answer

APPENDIX D

McCloskey/Mueller Satisfaction Scale (MMSS) Copyright 1989

How satisfied are you with the following aspects of your current job?

Please circle the number that applies.

	Very Satisfied	Moderately Satisfied	Neither Satisfied nor Dissatisfied	Moderately Dissatisfied	Very Dissatisfied
1. Salary	5	4	3	2	1
2. Vacation	5	4	3	2	1
3. Benefits package (insurance, retirement)	5	4	3	2	1
4. Hours that you work	5	4	3	2	1
5. Flexibility in scheduling your hours	5	4	3	2	1
6. Opportunity to work straight days	5	4	3	2	1
7. Opportunity for part-time work	5	4	3	2	1
8. Weekends off per month	5	4	3	2	1
9. Flexibility in scheduling your weekends off	5	4	3	2	1
10. Compensation for working weekends	5	4	3	2	1
11. Maternity leave time	5	4	3	2	1
12. Child care facilities	5	4	3	2	1
13. Your immediate supervisor	5	4	3	2	1
14. Your nursing peers	5	4	3	2	1
15. The physicians you work with	5	4	3	2	1
16. The delivery of care method used on your unit (e.g. functional, team, primary)	5	4	3	2	1
17. Opportunities for social contact at work	5	4	3	2	1

	Very Satisfied 5	Moderately Satisfied 4	Neither Satisfied nor Dissatisfied 3	Moderately Dissatisfied 2	Very Dissatisfied 1
18. Opportunities for social contact with your colleagues after work	5	4	3	2	1
19. Opportunities to interact professionally with other disciplines	5	4	3	2	1
20. Opportunities to interact with faculty of the College of Nursing	5	4	3	2	1
21. Opportunities to belong to department and institutional committees	5	4	3	2	1
22. Control over what goes on in your work setting	5	4	3	2	1
23. Opportunities for career advancement	5	4	3	2	1
24. Recognition for your work from superiors	5	4	3	2	1
25. Recognition of your work from peers	5	4	3	2	1
26. Amount of encouragement and positive feedback	5	4	3	2	1
27. Opportunities to participate in nursing research	5	4	3	2	1
28. Opportunities to write and publish	5	4	3	2	1
29. Your amount of responsibility	5	4	3	2	1
30. Your control over work conditions	5	4	3	2	1
31. Your participation in organizational decision making	5	4	3	2	1

APPENDIX E

McCloskey/Mueller Satisfaction Scale (MMSS)

REQUEST FORM

Name: REYNALDO A. GONZALES**Organization:** University of New Mexico
College of Nursing**Title/Position:** Student, Doctor of Nursing Practice**Email address:** rxgonzales@msn.com**Address:** 2502 Marble Ave. NE
Albuquerque, NM 87106**Address:** 19926 Lisa Lane, Porter Ranch, CA 91326**Country:** USA**Phone:** 818-744-2808**Purpose of the request.** Please briefly describe the proposed purpose of the request:

I intend to use the MMSS Instrument with my student scholarly project for my Doctor of Nursing Practice at the University of New Mexico. My paper will look into the job satisfaction variable of nurses at the medical-surgical unit in a county affiliated tertiary hospital in the west coast here in the United States.

Type of permission. Please mark the type you are requesting:**Type:**☒ **Student**

For use in a thesis/dissertation. (Request must be accompanied by a statement from the advisor verifying use.)

☐ **Researcher** (non-student)

For use in a specific study.

☐ **Institution**

For use for an indefinite period of time related to ongoing assessment of staff.

Handling Fee


\$10.00

\$75.00

\$250.00

Please send me an electronic copy of the McCloskey/Mueller Satisfaction Scale (MMSS) and permission to use the scale.

I will use the MMSS tool only for the purpose indicated above and will not distribute the instrument further without the author's permission.



Signature

Date: 05/06/2020Print Name REYNALDO A. GONZALES**Send this completed form to:**

Center for Nursing Classification & Clinical Effectiveness

Attn: Noriko Abe

College of Nursing 407 CNB

University of Iowa

Iowa City, Iowa 52242

noriko-abe@uiowa.edu

319-335-7051

Make checks or money order payable to the College of Nursing, University of Iowa.

Center for Nursing Classification & Clinical Effectiveness

Rev. 2019.05.31

APPENDIX F

Permission to use MMSS from the University of Iowa College of Nursing



Permission to use form:

This statement gives permission to use the McCloskey/Mueller Satisfaction Scale (MMSS) to Reynaldo A. Gonzales for the purpose as stated in the request dated May 6, 2020.

The instrument may be reproduced in a quantity appropriate for this project.

Signed:

A handwritten signature in black ink that reads "Sue Moorhead".

Sue Moorhead, RN, PhD, FAAN
Associate Professor
College of Nursing

Date: May 15, 2020



The University of Iowa
The Center for Nursing Classification & Clinical Effectiveness
College of Nursing 407 CNB
Iowa City Iowa 52242 USA

APPENDIX G

IRB Approval, Human Research Protection Program



Human Research Protections Program

November 23, 2021
Jan (aka Janice) Martin
505-720-2523
Fax: 505-272-8901
jemartin@salud.unm.edu

Dear Jan (aka Janice) Martin:

On 11/23/2021, the HRRC reviewed the following submission:

Type of Review: Initial Study
Title of Study: Nurse Job Satisfaction
Investigator: Jan (aka Janice) Martin
Study ID: 21-446
Submission ID: 21-446
IND, IDE, or HDE: None

Submission Summary: Initial Study

Documents Approved:

- Abstract, Nurse Job Satisfaction.pdf
- Demographic Survey.pdf
- GONZALES HRP-583 Exempt Cat 2 Protocol v1.0.pdf
- Letter of Recommendation, UNM SRMC
- McCloskey-Mueller Satisfaction Scale (MMSS).pdf
- Recruitment Email.pdf
- Recruitment Strategy.pdf

Review Category: EXEMPTION: Categories (2)(ii) Tests, surveys, interviews, or observation (low risk)

Determinations/Waivers: Employees.
Provisions for Consent are adequate.
HIPAA Authorization Addendum Not Applicable.

Submission Approval Date: 11/23/2021
Approval End Date: None
Effective Date: 11/23/2021

The HRRC approved the study from 11/23/2021 to inclusive. If modifications were required to secure approval, the effective date will be later than the approval date. The "Effective Date" 11/23/2021 is the date the HRRC approved your modifications and, in all cases, represents the date study activities may begin.



Human Research Protections Program

Because it has been granted exemption, this research is not subject to continuing review.

Please use the consent documents that were approved by the HRRC. The approved consents are available for your retrieval in the "Documents" tab of the parent study.

If the study meets the definition of an NIH Clinical Trial, the study must be registered in the ClinicalTrials.gov database. Additionally, the approved consent document(s) must be uploaded to the ClinicalTrials.gov database.

This determination applies only to the activities described in this submission and does not apply should you make any changes to these documents. If changes are being considered these must be submitted for review in a study modification to the HRRC for a determination prior to implementation. If there are questions about whether HRRC review is needed, contact the HRPO before implementing changes without approval. A change in the research may disqualify this research from the current review category. You may submit a modification by navigating to the active study and clicking the "Create Modification/CR" button.

If your submission indicates you will translate materials post-approval of English materials, you may not recruit or enroll participants in another language, until all translated materials are reviewed and approved.

In conducting this study, you are required to follow the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library.

Sincerely,

Thomas F. Byrd, MD
HRRC Executive Chair

Abbreviated Investigator Responsibilities


NOTE: For a full unabbreviated version of the **Investigator Manual**, please visit the HRPO website at <https://hsc.unm.edu/research/hrpo/>.

What will happen after HRRC review?

The HRPO will provide you with a written decision indicating that the HRRC has approved the Human Research, requires modifications to secure approval, or has disapproved the Human Research.

APPENDIX H

Table 4. Eight job satisfaction subscales, potential range of study participant subscale scores, actual average subscale scores and means, and Overall Global Job Satisfaction Score

MMSS Subscale	Number of items	Potential Range of Study Participant Subscale Scores		Actual Scores	
		Very Dissatisfied	Tahar Satisfied	Average Subscale Scores	<i>M</i>
Extrinsic Rewards #1,2,3	3	3	15	11.4	3.80
Scheduling #4,5,6,8,9,10	6	6	30	22.8	3.80
Balance of Family and Work #7,11,12	3	3	15	8.58	2.86
Co-workers #14,15	2	2	10	8.2	4.10
Interaction Opportunities #16,17,18,19	4	4	20	14.8	3.70
Professional Opportunities #20,21,27,28	4	4	20	12.2	3.05
Praise and Recognition #13,24,25,26	4	4	20	15.6	3.90
Control and Responsibility #22,23,29,30,31	5	5	25	19.2	3.84
Combined Overall Satisfaction Score	31	31	155	112.84	3.64
Overall Global Job Satisfaction Score 					<i>SD</i> = 0.53