Spring 5-7-2022

A Mixed-Method Study Comparing Staff Nurse and Nurse Manager Perceptions of Fairness related to Scheduling, Self-Scheduling, and Scheduling Incentives as Motivators

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A MIXED-METHOD STUDY COMPARING STAFF NURSE AND NURSE
MANAGER PERCEPTIONS OF FAIRNESS RELATED TO
SCHEDULING, SELF-SCHEDULING, AND
SCHEDULING INCENTIVES AS
MOTIVATORS

By

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Submitted to the Faculty of the Graduate College of
Arkansas Tech University
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE IN NURSING
May 2022

Abstract

A MIXED-METHOD STUDY COMPARING STAFF NURSE AND NURSE

MANAGER PERCEPTIONS OF FAIRNESS RELATED TO SCHEDULING, SELF-

SCHEDULING, AND SCHEDULING INCENTIVES AS MOTIVATORS

Understanding and addressing the perception of fairness in scheduling and incentives lets the healthcare system administration tailor scheduling needs to the staff nurses, thereby creating an environment that improves job satisfaction, work-life balance, and increased retention. This study was a mixed method research project using questionnaires to compare what motivated registered nurses to work according to the nurse's perception and the nurse manager's perception of fairness in scheduling, self-scheduling, and incentives. The findings from this study indicated staff registered nurses and nurse managers had similar responses, however, comments highlighted the importance of fairness as it relates to job satisfaction. Healthcare systems need to ensure consistency and fairness in scheduling processes, and continually evaluate the perceptions of their staff.

Keywords: scheduling; fairness; incentives, staff nurses, nurse managers

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I. Introduction

There is documentation of nurses working side-by-side with physicians as far back as 300 AD and the Roman Empire, making nursing one of the oldest professions (Smith, 2019). The nursing profession changed significantly in the 1850s with the work of Florence Nightingale (Smith, 2019) and by the 1930s, nursing shortages in the United States (U.S.) began emerging (Whelan, n.d.). The need for registered nurses continues to grow along with the demand for healthcare services worldwide, thus perpetuating the nursing shortage. In the U.S., a registered nurse is one of the highest-ranked most-in-demand jobs of any profession, with an average of only 12.06:1,000 nurse to population ratio. There are many reasons for the nursing shortage, the two key reasons being nursing schools cannot graduate nurses fast enough to meet the need and current registered nurses are leaving the profession ("U.S. nursing shortage: A state-by-state breakdown," 2021). Compounding the nursing shortage is that many find healthcare unappealing due to the shift work and emotional strain on nurses and their families.

Registered nurses play a pivotal role in delivering care to patients and are the largest healthcare staff group providing direct patient care (Holland et al., 2019). The retention of registered nurses is critical to healthcare overall and the healthcare systems that employ them. Therefore, healthcare systems that identify and understand what motivates and incentivizes staff from the staff perspective versus the perspective of management/administration have a higher probability for increased nurse retention.

Statement of the Problem

The well-being of healthcare staff is vital but often overlooked as systems focus on patient satisfaction and cost. The largest healthcare staff group providing direct patient

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care on the frontlines is registered nurses (Holland et al., 2019). With growing RN shortages, retention is vital. A priority for healthcare systems is understanding what motivates and incentivizes staff from the staff perspective versus the perspective of management/administration (Uhde et al., 2020). There is a need to examine current scheduling practices/procedures to determine if staff RNs perceive them as fair. Additionally, there is a need to explore current incentives to see if staff nurses perceive them as fair and if they motivate staff RNs to work extra shifts. Furthermore, there is a need to assess the nurse managers understanding of what their staff RNs deem fair.

Background

The ability to hire and retain nurses is an ongoing challenge in healthcare and carries a heavy financial burden. According to an independent study by Nursing Solutions, Inc. (2021), the average turnover rate for RNs in a hospital setting increased from 15.9% in 2019 to 18.7% in 2020, a 2.8% increase in one year. They estimate that each percentage point increase will cost to the hospital an average of $270,800 per year. The estimated loss for the average hospital is $3.6 million - $6.5 million per year due to RN turnover. (NSI National Healthcare Retention & RN Staffing Report, 2021). The U.S. Bureau of Labor Statistics expects a 9% growth in the employment of registered nurses between 2020 and 2030 on top of the current shortages (U.S. Bureau of Labor Statistics, 2021).

Nurse satisfaction is predictive of nurse turnover and retention (Rizany et al., 2019; Wright et al., 2017). However, the basis of nurse satisfaction is the individual's emotional response and feelings regarding their job (Rizany et al., 2019). Nurse satisfaction is affected by many factors, including work-life balance. Direct care nurses

generally work 12-hour shifts, limiting their ability to participate in or be present for their family's extracurricular activities (Uhde et al., 2020). The lack of scheduling flexibility negatively impacts work-life balance and leads to decreased nurse satisfaction and increased turnover (Wright et al., 2017). A well-designed scheduling system is needed to offset shift work incorporating nurse preferences through schedule flexibility and self-scheduling options that address perceived fairness and consider nurse-preferred incentives (Rerkjirattikal et al., 2020; Uhde et al., 2020).

The retention of staff RNs is a continued problem facing all healthcare administrators. Fairness in scheduling, self-scheduling, and incentives are drivers of retention; thus, hospitals must discover why nurses decide to stay/leave their organization, and nurse managers must understand what drives their staff (Rerkjirattikal et al., 2020; Uhde et al., 2020). The purpose of this study is to compare what motivates registered nurses to work according to the nurse's perception and the nurse manager's perception of fairness in scheduling, self-scheduling, and incentives.

Assumptions

The study makes the following assumptions. The participants fully understand the questionnaires and will provide honest feedback based on their perceptions. The nurse manager participants will give honest feedback based on their perceptions of what their RNs would answer, not their perceptions. Participants are committed to improving their working environment.

Research Question

By understanding and addressing the differences in perception of fairness, the nurse managers and the healthcare system administration can tailor needs to the staff

nurses, thus creating an environment that improves job satisfaction, work-life balance, and increased retention. This study seeks to determine if nurse managers understand the perceptions of the registered nurses who work for them by answering the following questions.

1. Do the registered nurses believe the current scheduling process is fair?

2. Do the registered nurses believe the current incentives are fair?

3. Do the nurse managers' perceptions of the fairness of the current scheduling process and incentives match those of the registered nurses?

Limitations

The study's limitations include interpretations of qualitative responses that the researcher's experience and knowledge may influence. Data were collected during a pandemic when nurses and managers were under increased stress, and nurse managers received the staff RN survey along with the nurse manager survey, therefore the incorrect survey may have been completed by the nurse manager.

Definitions of Terms

For improved comprehension of the study, the following terms are defined according to the context used in the study.

Scheduling. Planning staffing needs by determining how many registered nurse shifts are needed to care for the patient load and placing registered nurses into those shifts.

Scheduling incentives. The incentives offered by the healthcare system to encourage registered nurses to work additional hours above their regular required hours.

Self-scheduling. The ability for the registered nurse to select the shifts they work versus the shifts assigned by the nurse manager.

Staff registered nurse (Staff RN). The registered nurses who provide direct care for patients on inpatient units, observation units, emergency departments, perioperative areas, and other areas where direct patient care is given, and are employees of the healthcare system.

Nurse Manager. The manager of the staff RNs with scheduling oversight.

Summary

Studies show that schedule flexibility influences job satisfaction and nurse turnover (Dall'Ora et al., 2020; Wright et al., 2017). Additionally, studies show job satisfaction and retention improvement with well-designed scheduling, self-scheduling, and incentive programs (Rerkjirattikal et al., 2020; Wynedaele et al., 2020). A literature review addressing nurse and nurse manager perceptions highlights the interrelated themes of burnout, job satisfaction, fairness, and work-life balance.

II. Literature Review

Conceptual Framework

Adam's Equity Theory centers on people's desire to feel treated fairly compared to the treatment of others. It states that people are motivated to maintain a balance between their contributions and rewards in comparison with the contributions and rewards received by others. Adam's describes this as inputs (effort) and outputs (results). Inputs are the contributions a person makes such as education, experience, effort, skill, and/or abilities. Outputs consist of financial rewards such as salary, bonuses, and promotions, and recognition (Borkowski, 2015).

When considering the concept of fairness, the terms equality and equity are often confused. Allocating resources based on equality would imply that all individuals receive an equal share of the resource. Whereas equity takes individual differences into account including needs and performance (Uhde et al., 2020). For example, a nurse who prefers not to work weekends would most likely want weekend shifts to be allocated equally, however, a nurse who has other obligations may prefer to work mostly weekends and would want the shifts allocated based on need or equity.

The Equity Theory explains that employees experience job satisfaction when there is balance between inputs and outputs. Kollmann et al. (2019) studied the effect age has on a person's perspective of job satisfaction. The study combined Equity Theory with Socioemotional Selectivity Theory and contended that a person's priorities, or value they placed on inputs and outputs, would differ with age. The 166 study participants were German employees at a global logistics company. The study was a multisource approach conducted online using surveys that allowed participants to self-report job

satisfaction, rate task contributions, and used an objective measure for pay. The study found that inputs played a stronger role for older employees while outputs played a stronger role for younger employees. This study draws attention to the need for organizations to understand what motivates their staff and that the "one size fits all" approach will most likely not be successful (Kollmann et al., 2019).

Literature Review

Healthcare systems focus on patient satisfaction and cost but often overlook the importance of the well-being of the healthcare staff. The largest healthcare staff group providing direct patient care on the frontlines is registered nurses (Holland et al., 2019). With growing RN shortages, retention is critical, but nurse retention is a continued problem facing healthcare. Understanding what motivates and incentivizes staff RNs is a priority for healthcare systems as staff RN perspective may differ from the perspective of management/administration (Uhde et al., 2020). Fairness in scheduling, self-scheduling, and incentives are drivers of retention; thus, hospitals must discover why nurses decide to stay/leave their organization, and nurse managers must understand what drives their staff. When reviewing prior work, the findings on retaining nursing staff identify that healthcare systems must mitigate burnout and emotional exhaustion that is due in part to inadequate work-life balance and low job satisfaction. In creating a better work-life balance, nurses and health systems attempt to allow more schedule flexibility through self-scheduling (Wynedaele et al., 2020).

This literature review provides a discussion of topics related to understanding motivations behind nurse and nurse manager perceptions on staff scheduling found in current research. These topics include burnout, job satisfaction, perceived fairness, and

work-life balance. Additionally, it includes a look at some of the issues with perception.

The literature review highlights how interconnected each topic is with the others and the

importance of understanding how the nurse's perception affects the topics.

The Arkansas Tech University library "keyword" search feature and Google

Scholar were deployed to perform a search of research completed between 2016-2021

using keywords and phrases. Keywords and phrases searched included "*self-scheduling*,"

"*scheduling fairness*," "*nurse perception of fairness*," "*equality*," "*equity*," "*work-life*

balance," "*perceived fairness*," and "*schedule flexibility*." Searches were limited to peer

reviewed articles with full-text available.

Burnout

The interest in understanding and combatting burnout in nursing continues to

grow. Dall'Ora et al. (2020) examined the relationship between burnout and nursing

outcomes through a theoretical literature review of 91 quantitative primary empirical

studies, published in English. The review found evidence that many factors, including

job control, schedule flexibility, and intention to leave, are associated with burnout and

emotional exhaustion. Reducing burnout has led research towards identifying the

underlying problem and understanding the why behind the problem to create solutions.

For example, Berlanda et al. (2020) explored the perceptions of healthcare staff to

identify and clarify well-being sources, precisely well-being sources and risks at work.

The study consisted of an online questionnaire completed by 795 professionals (423

educators and 372 ward nurses) in northeast Italy, selected using the convenience

sampling method. The qualitative data was analyzed using thematic analysis with an

inductive (data-driven) approach (NVivo 11). The study identified four themes:

interactions, working conditions, emotional responses to work, and competence/professional growth. The working conditions theme was the leading risk factor to well-being at work. Sub-themes under working conditions are control over work scheduling and perceived workload, work organization, remuneration, job security, and physical space and tools. Control over the work schedule is under the working conditions theme. This researcher believes this finding is essential in understanding that nurses consider schedule flexibility as a working condition.

Another term for burnout is emotional exhaustion. Dhaini et al. (2018) aimed to show that for RNs, higher schedule flexibility equals lower emotional exhaustion. The study was a "secondary analysis of data collected for the multi-center observational cross-sectional Match^{RN} study, which included a national sample of 23 hospitals and 1833 registered nurses across Switzerland" (p.99). The study indicated improved standardization of flexibility across hospitals and units would improve the balance between work demands and the nurse's individual needs. The study results revealed that over half of the participants stated they had difficulty with short notice shift swaps. A third of the participants felt they had little to no input on their schedule. Therefore, the participants reported work-family or work-life conflict and emotional exhaustion. Interestingly, they scored the perceived nurse manager's ability at 3.1 out of 4 (somewhat agree). The authors recommend additional research to link perceived flexibility along with perceived nurse manager ability and work-life balance.

Job Satisfaction

Many factors affect job satisfaction. One of those factors is scheduling. Rizany et al. (2019) examined nurse scheduling management and its impact on job satisfaction.

The study used a cross-sectional approach and consisted of 102 nurses, with less than one year experience, selected through stratified random sampling at an Army Hospital. Data was collected via quantitative questionnaires and analyzed using "Pearson correlation, independent *t* test, one-way analysis of variance (ANOVA), and double linear regression analysis" (p.1). The authors suggested positive association between nurse satisfaction and schedule organization or management, whereas salary and career development were still areas of low satisfaction. The authors recommended continued evaluation of the nurse scheduling processes and proactive involvement of nurse managers. The authors considered that job satisfaction is the individual's feelings and is an emotional expression of their performance, work-life balance, and work environment. Nurse job satisfaction is a crucial factor in predicting and increasing retention. Organizing and actuating in the scheduling process were identified as the most dominant factors affecting nurse satisfaction. This study highlights how job satisfaction is a basis for perception.

The theme of perception repeats in a systematic literature review targeting the impact of self-scheduling on outcomes in three areas: patient, nurse, and organization by Wynedaele et al. (2020). A total of 23 studies between 1984 and 2017, originating from Europe and North America met the author's inclusion criteria. The authors found that self-scheduling had a statistically significant correlation with increased job satisfaction with scheduling and work/life balance for nurse outcomes. The authors found that most articles did not include a clear definition of what self-scheduling is and determined that self-scheduling depends on how the staff feels about fairness or impartiality. These staff perceptions can affect staff commitment. A strength of this study not seen in others is that it lists barriers to successful self-scheduling implementation, such as lack of

education, consistency, and fairness. The authors recommend focusing on the self-scheduling process's continued sustainability as little of the research found was greater than one year. As this study highlights, the perception of what self-scheduling means is essential. Additionally, it opens the idea of perceived fairness in scheduling.

Fairness

Studies on schedule fairness have recently emerged. Rerkjirattikal et al. (2020) discussed fairness and nurse preferences concerning nurse scheduling problems and the lack of research in these areas. The mixed-method study took place in the operating room at a private, 200-bed hospital, in Pathum Thani, Thailand and consisted of a survey, head nurse interview, and questionnaire. Participants were one head nurse and 16 full-time nurses. The author's intervention was to create an efficient nurse schedule using optimization tools. The authors wanted to improve the nurse perception in areas of fairness and schedule preference. The study was conducted during one, 28-day, schedule period; however, the authors were confident the scheduling tools would increase perceptions of fairness and positively affect nurse turnover in the future. A unique feature of this article is that the authors considered different staffing scenarios and how they would work with the scheduling tools.

One way to increase perceived fairness is through transparency and inclusion, supported by Uhde et al. (2020) when they investigated fairness related to healthcare workers' attitudes on scheduling to better understand "perceived fairness." The study consisted of in-depth qualitative interviews with three RNs using Interpretive Phenomenological Analysis (IPA), and a validating vignette study of 51 healthcare workers. This study explored fairness on four levels: distributional, procedural,

informational, and interpersonal. Additionally, it compared equality and equity. The authors concluded that based on equality, general scheduling decisions function well with equity employed on a need basis for conflict resolution by an inclusive decision-making process with all parties.

In a more recent study, Uhde et al. (2021) designed and studied an interactive scheduling system implementation and how it established guidelines for future staff-oriented scheduling systems. The participants were 45 healthcare workers and 120 residents in a medium-size retirement community in Germany. The first step was to identify existing positive practices and the psychological needs of the staff for scheduling using interviews based on the Positive Practice Canvas (PPC) tool and following IPA. One of the study's central findings was the role of leadership. Leaders in the study encouraged work-life balance, introduced conflict resolution when needed, and monitored fairness on a group level. On a team level, the self-scheduling allowed staff to compromise; most conflicts arose around holiday shifts.

Work-life Balance

Nurses perceive schedule flexibility as essential to ensure a work-life balance. Through a descriptive study using a pretest/posttest design, Wright et al. (2017) evaluated the implementation of a self-scheduling program for nursing staff. The study setting was a large Magnet-designated hospital system in the U.S. with 1,317 pretest RN participants and 1,492 posttest RN participants. The study examined RN autonomy, professional development, and turnover, which are important factors in nurse retention. The study found an increase in nurse perceptions across all three areas. Additionally, their findings showed that self-scheduling increased the perception of a stable work-life balance. A

qualitative descriptive study, with a purposive sample of 12 hospital nurses in Sweden, exploring nurse retention by Nunstedt et al. (2020) cited the importance of work-like balance in why hospital nurses stay at their place of work. The interviews were analyzed using qualitative content analysis, deductively and inductively. The authors listed many findings, including the importance of a work-life balance and schedule flexibility; they call it workplace and personal space balance that includes recovery time and the ability to leave their work behind. The term individual schedule is used in the study to reflect schedule flexibility. The authors cited having opportunities to influence their work situation as a prerequisite to a positive work environment for nurses.

Issues with Perception

Perceptions may not always equal reality. Recio et al. (2020) conducted a cross-sectional descriptive study, based on the Sixth European Working Conditions Survey (EWCS), on nurse perceptions of their health in relation to personal characteristics. These characteristics included professional and personal time management. Overall, 75.6% of 1,056 nurse participants asserted a perceived work-life balance. However, 70.6% of the nurses perceived their work time arrangements as inflexible, with 60.1% stating they found it challenging to take time off work. The study by Dhaini et al. (2018), as previously discussed, found a discrepancy between the nurse's perceived schedule flexibility and the perceived nurse manager's ability. This discrepancy can suggest that individuals have poor self-assessment skills or an incomplete understanding of the meaning of schedule flexibility and self-scheduling, as previously mentioned.

Summary

Fairness in scheduling, self-scheduling, and incentives are drivers of retention. The literature shows that scheduling affects nurses' perceptions of well-being, job satisfaction, fairness, and work-life balance. Mitigating these factors will improve nurse retention. However, health systems first need to understand what drives them. A driving factor is schedule flexibility, achieved through self-scheduling options. To be successful, nurse managers must compare their perceptions of what they feel the nurse wants to the actual perceptions from the nurses themselves.

III. Methodology

Research Design

This study was conducted to gain an understanding of how perceptions between staff registered nurses and their nurse managers differ and to expand on what is needed to build a fair scheduling and incentive program that meets the needs of the nurses and the nurse managers. This study followed a mixed-method research design, using both quantitative and qualitative methods. The study consists of four phases 1) a literature review, 2) questionnaires sent to the staff registered nurses and nurse managers, 3) data analysis, and 4) review and discussion of the findings.

Setting

The setting for the study was a large not-for-profit healthcare system in Arkansas. Three hospitals in the system were selected for the study, and are all located in a centralized area, within one hour of each other. All three hospitals are located in what is considered Central Arkansas, the most populous metropolitan area in the state, but also serve rural parts of Arkansas. The hospitals overall have approximately 1,179 beds. Hospital 1 is a 843-bed medical center and the largest hospital in the health system. Hospital 2 is a 225-bed medical center. Hospital 3, the newest hospital of the three, is a 111-bed medical center.

In these hospitals, scheduling routes differed and included paper schedules, spreadsheets, and computerized scheduling software. At the time this study was conducted, there were no formal schedule guidelines or scheduling policies found. Scheduling requests were handled by the nurse managers according to their own informal

guidelines. Additionally, there were multiple different incentives programs but not all were available to all three hospitals or all staff RNs.

Population/Sample

The population sampled was staff registered nurses working in direct patient care areas and the nurse managers they reported to in the three hospitals selected. A list of staff registered nurses and nurse managers was requested and received from the health systems human resources department. The list excluded any registered nurses that were working on a travel contract. Once obtained, an email that contained a request to participate in this research study, with informed consent, was sent to the nurse managers and staff registered nurses containing a link to the appropriate version (nurse manager or registered nurse) of the online questionnaire created with an online service called QuestionPro.

The questionnaire link was sent out on December 28, 2021 and closed on January 14, 2021.   The email invitation was sent to 1,686 staff RNs and 49 nurse managers inviting them to participate with 20% of this number expected to participate. All questionnaires not completed past the demographics section were not included in the results.

Human Subjects

The appropriate application was submitted to the Arkansas Tech University Institutional Review Board (IRB) requesting expedited review and approval under category seven of the expedited review categories of research. A letter of permission to conduct research from the healthcare system administration was obtained and submitted

with the IRB application. Approval was obtained from the IRB prior to beginning the study, see Appendix A.

Informed consent was explained in the email sent to participants. Participation was strictly voluntary, and the participant could exit the questionnaire at any time. Participants clicked on a hyperlink at the end of the email to participate. The hyperlink directed the participant to the questionnaire on the QuestionPro website. All data was collected through the QuestionPro website to ensure anonymity. Data downloaded from QuestionPro was stored on the researcher's password and biometric protected private computer. Data will be stored on the researcher's computer until it is no longer needed by the researcher, then erased with no physical copies kept.

Instrumentation

The study consisted of two questionnaires developed by the investigator based on current scheduling procedures in the healthcare system. The first questionnaire was for staff registered nurses. The second questionnaire was for the nurse managers of those staff registered nurses. The questionnaires were used to collect data on perceptions by the nurses and nurse managers on fairness in scheduling, self-scheduling, and incentives. Both questionnaires consisted of the following question types: multiple choice, yes/no, and open-ended questions using comment boxes.

Questionnaire 1 – Staff Registered Nurses

The questionnaire for the staff registered nurses asked for the nurse's point of view. It consists of 28 questions divided into six sections. The sections were demographics, scheduling, weekends, managing time off requests, overtime/incentives, and fill in the blank. The demographics section consisted of questions that asked for the

participants age and nursing experience using range options. The other sections had varied question types, the majority with an option to select "other".

Questionnaire 2 – Nurse Managers

The nurse manager questionnaire consisted of 27 questions with the same sections as the staff registered nurse questionnaire. The differences between the two questionnaires were: (1) the questionnaire for the nurse managers was worded to encourage the nurse managers to answer the questions based on what they think the nurses on their units would answer; (2) the demographics section in the nurse manager questionnaire was also two questions but asked for age and nursing manager experience using range options; and (3) the nurse manager questionnaire did not contain the question under the scheduling section that asked about how much time was spent on scheduling each week. This question was not included as the nurse managers answered this question on another recent survey conducted by the health system.

Data Collection

Informed consent was obtained through the email sent to the participants. Participants included staff registered nurses working in a direct patient care area and their nurse managers across the three hospitals of the healthcare system. The questionnaire responses were collected between December 28, 2021, and January 14, 2021.

Data Analysis

Data were collected and analyzed initially through the QuestionPro online survey site. The collected data was reviewed according to respondent type, staff RN or nurse manager, then according to data type: quantitative or qualitative. Quantitative data was analyzed using descriptive statistics and reported in frequency tables. Qualitative data

was derived from open response comments boxes and open response questions. The qualitative data was reviewed, and common ideas were identified. These ideas were further divided into common subject matter.

Summary

The purpose of this study was to compare what motivated registered nurses to work according to the nurse's perception and the nurse manager's perception of fairness in scheduling, self-scheduling, and incentives. IRB approval was requested and received prior to beginning the study. Staff RNs and nurse managers were invited to participation in this research study by email. The email contained informed consent and stated participation was voluntary. Two questionnaires, created by this researcher in QuestionPro, were included in the email.

<div align="center">**IV. Results**</div>

This chapter presents the findings of this study to compare what motivates staff registered nurses to work according to the nurse's perception and the nurse manager's perception of fairness in scheduling, self-scheduling, and incentives.

The questionnaires contained a demographics section containing participant's age and experience as either a staff RN or nurse manager. Following the demographics section, the questionnaires were divided into five sections: scheduling, weekends, managing time off requests, overtime and incentives, and open response (fill in the blank) questions. Tables were created to present the results of each section. Graphs were used in some sections to further compare the results data.

Demographics

The demographics section of both surveys consisted of age and experience in the role of either registered nurse or nurse manager. The largest percentage of staff nurses were in the 30-39 years range. The largest percentage of nurse managers fell in the next higher age category at 40-49 years. The majority of respondents, staff RNs and nurse managers combined (66.3%, *n*=203), answered above thirty years of age. See Table 1. The experience level for the staff RNs varied with the highest percentage (29.9%, *n*=89)in the 15+ years category. The nurse managers experience level varied with the highest percentage (37.5%, *n*=3) selecting the less than 12 months category. See Figure 1 and Figure 2.

Table 1

Age of Participants

Age Range	Staff RNs		NMs	
18-24 years	13.8%	*(n=41)*		
25-29 years	18.1%	*(n=54)*		
30-39 years	29.5%	*(n=88)*	25.0%	*(n=2)*
40-49 years	12.8%	*(n=38)*	50.0%	*(n=4)*
50-59 years	19.1%	*(n=57)*	25.0%	*(n=2)*
60 +years	6.7%	*(n=20)*		
	100.0%	***(n=298)***	**100.0%**	***(n=8)***

Figure 1

Registered Nurse Experience

Years of Experience - Staff RNs

- < 12mths n=24 — 8.0%
- 1-3yrs n=59 — 19.7%
- 4-7yrs n=76 — 25.4%
- 8-10yrs n=27 — 9.0%
- 11-14yrs n=24 — 8.0%
- 15+ yrs n=89 — 29.9%

Total n=299
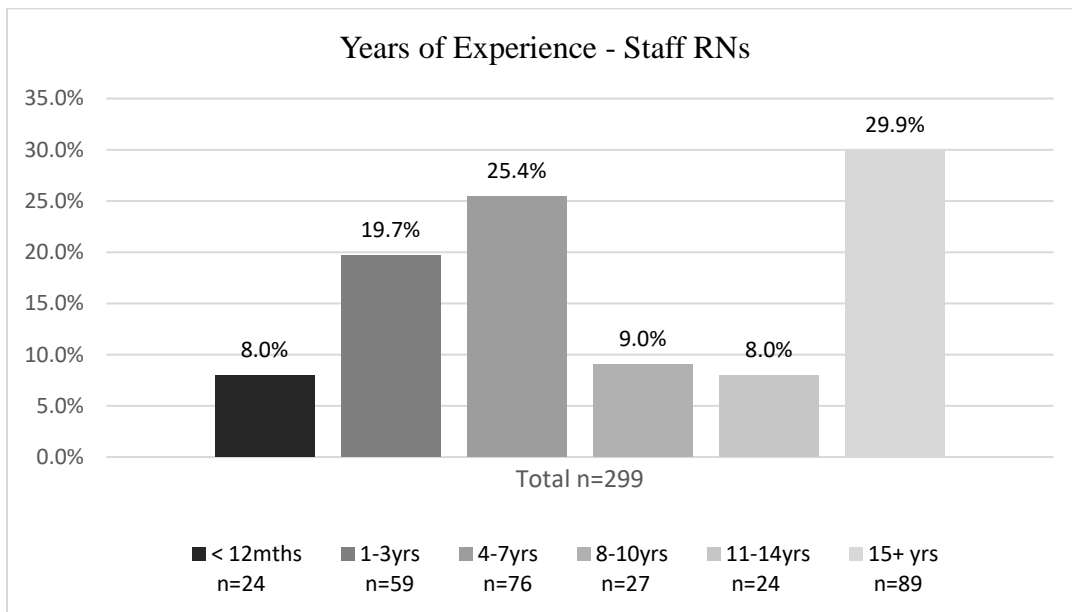
Figure 2

Nurse Manager Experience

Years of Experience - NMs

Total n=8

| < 12mths | 1-3yrs | 4-7yrs | 8-11yrs | 12+ yrs |
| n=3 | n=1 | n=0 | n=2 | n=2 |

(37.5%, 12.5%, 0.0%, 25.0%, 25.0%)
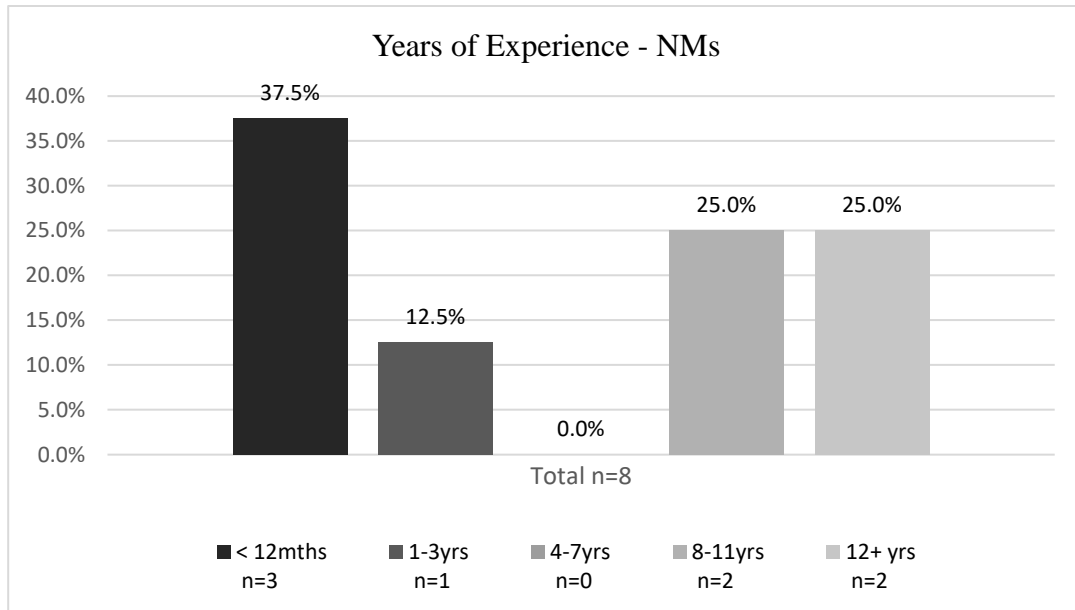
Scheduling

The scheduling section of the staff RN survey consisted of four questions: (1) How is scheduling currently done on your unit? (2) Does your unit currently have written scheduling guidelines? (3) Who do you think should have ownership of scheduling?, and (4) How much time do you think your nurse manager spends on the following areas of scheduling each week: Filling open shifts? Finding coverage for call-ins? The staff RN questionnaire asked the staff RNs to answer the questions based on their own preference, while the nurse manager questionnaire asked the nurse managers to answer based on their perception of what the nurses on their unit would answer.

The scheduling section of the nurse manager section consisted of three questions. The first question is the same as the staff RN survey: How is scheduling currently done on your unit? The second and third questions ask what the nurse manager thinks the

nurses on their unit will answer: Would the nurses on your unit say there are written

scheduling guidelines for the unit? Who would the nurses on your unit say should have

ownership of scheduling? Nurse managers in this section were asked their perception of

how they thought the staff RNs would answer the questions, not their own personal

preferences.

Scheduling is currently being done several different ways according to the staff

RNs and the nurse managers. According to the staff RN responses, 57.2% (n=171) are

self-scheduling in some form (paper 21.7%, n=65; Excel/Google 11.7%, n=35; Kronos

23.7%, n=71). In contrast, 38.8% (n=116) answered the schedule is assigned (23.7%,

n=45) or set (15.1%, n=45). The 'other' option received 4.0% (n=12) of the responses.

The nurse managers responded 25% (n=2) use self-scheduling, however, the self-

scheduling responses were only Excel/Google. The nurse managers responded that

62.5% (n=5) of scheduling is assigned by the manager or designee (37.5%, n=3) or by

using set scheduling patterns (25.0%, n=2). Only one nurse manager selected the 'other'

option (12.5%, n=1). Table 2 and Figure 3 below shows the breakdown by each answer

option and a graph of the results.

The comments for the other section show an overall theme of scheduling being

performed as a mix between self-scheduling and manager/designee assignments,

however, they state that the manager has final say on the schedule.

Table 2

Current Method of Scheduling

Method	Staff RNs		NMs	
Manager/designee assigns	23.7%	*(n=71)*	37.5%	*(n=3)*
Set patterns	15.1%	*(n=45)*	25.0%	*(n=2)*
Self-scheduling – paper	21.7%	*(n=65)*		
Self-scheduling Excel/Google	11.7%	*(n=35)*	25.0%	*(n=2)*
Self-scheduling - Kronos	23.7%	*(n=71)*		
Other	4.0%	*(n=12)*	12.5%	*(n=1)*
	100.0%	**(n=299)**	**100.0%**	**(n=8)**

Figure 3

Method of Scheduling Bar Graph
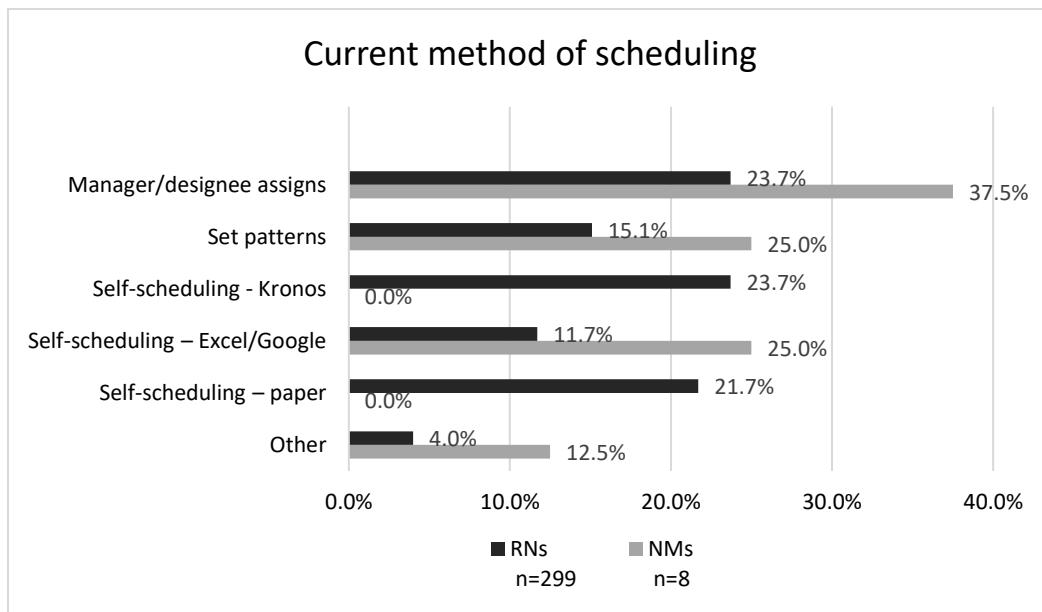
The majority of respondents on both the staff RN and nurse manager questionnaires indicated there are written scheduling guidelines, however, the percentage is 13.5% lower on the staff RN questionnaire. See Figure 4.

Figure 4

Written Scheduling Guidelines

Written Scheduling Guidelines

Yes — NMs 75.0%, RNs 61.5%
No — NMs 25.0%, RNs 38.5%

X-axis: 0.0% 10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%

■ NMs   ■ RNs
Total n=8   Total n=296
Yes n=6   Yes n=182
No n=2   No n=114
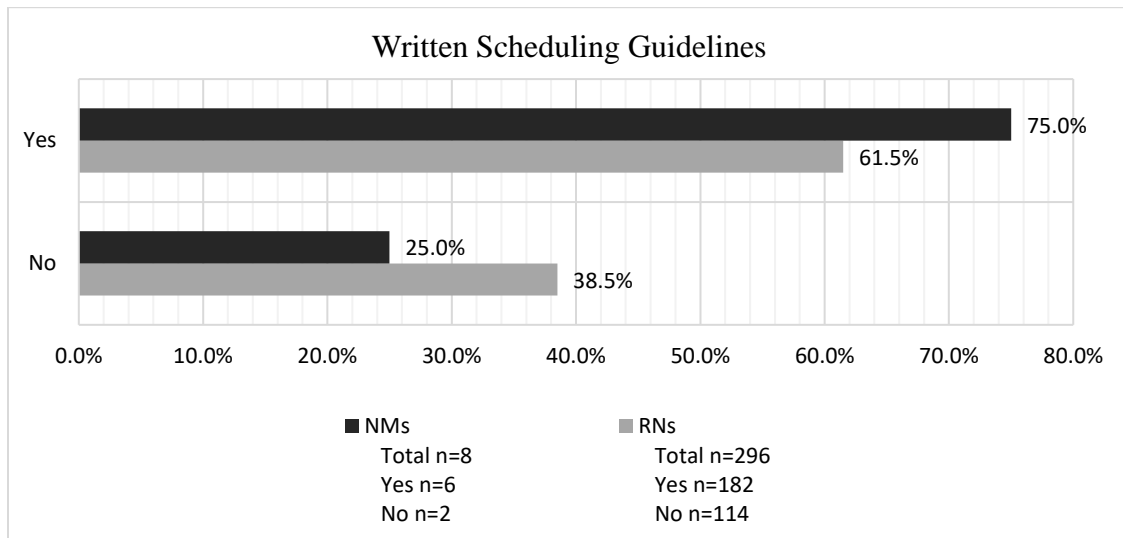
The majority of respondents on both questionnaires answered that the nurse managers should have ownership of scheduling, however, the staff RNs response was 82.2% (*n=245*) whereas the nurse managers response was 62.5% (*n=5*) indicating that staff RNs believe that nurse managers should have ownership of the scheduling process. None of the nurse managers selected the central staffing office and only 4.4% (*n=13*) of the staff RNs felt a central staffing office should have ownership. See Table 3. Fewer staff RNs (13.4%, *n=40*) selected the 'other' option than nurse managers (37.5%, *n=3*). Under comments for the 'other' option, three nurse managers left a comment. Two felt the staff RNs would want ownership of scheduling while the third stated "department scheduler and managers". There were 30 comments on the staff RN questionnaire under the 'other' option. The overall theme in the comments was that staff nurses should have ownership of scheduling. Additionally, it was strongly commented that after the staff nurses selected their shifts, only one person should adjust the schedule. Most felt this person should be a charge nurse or another staff nurse that works on the unit.

Table 3

Ownership of Scheduling

Ownership	Staff RNs	NMs
Nurse Managers	82.2% *(n=245)*	62.5% *(n=5)*
Central Staffing Office	4.4% *(n=13)*	0% *(n=0)*
Other	13.4% *(n=40)*	37.5% *(n=3)*
	100.0% *(n=298)*	**100.0% *(n=8)***

Weekends

The weekends section of the questionnaires consisted of four questions (see Table 4). The staff RN questionnaire asked the staff RNs to answer the questions based on their own preference, while the nurse manager questionnaire asked the nurse managers to answer based on their perception of what the nurses on their unit would answer. All nurse manager responses in this section are the perception of how they thought the staff RNs would answer the questions, not their own personal preferences.

The four questions were: (1) Would you prefer to be required to sign up for: more weekend shifts and possibly have one removed, or less weekend shifts and possibly have one added? (2) Should part-time and full-time weekend requirements be the same? (3) Should PRN staff have weekend requirements?, and (4) Should weekends be fixed (same weekends each schedule) or vary (according to individual request)? Questions 1 and 4 included an option to select 'other' with a comment box.

The staff RNs responded they would prefer for the weekend requirement to be less weekend shifts with the possibility of additional shifts being added (43.6%, *n=126*). In contrast, the nurse managers thought the staff RNs would prefer the weekend requirement to be more weekends with the possibility of a weekend shift being removed from the schedule (50%, *n=4*). However, one nurse manager commented under the

'other' option that the staff RNs would state they preferred to not work weekends. The staff nurse comments show that in some areas weekend shifts are not required, some have fixed weekends, or weekend option staff to cover. While most seem to prefer not to work weekends, an emerging theme in the staff RN comments is the need for consistency and fairness.

On the second question of the weekend section regarding part-time and full-time weekend requirements, the staff RNs and nurse managers again had differing views. The staff RNs answered 52.6% ($n=152$) that requirements should be the same, whereas the nurse managers answered 57.1% ($n=4$) they felt the staff RNs would say no. However, it was close to an even divide for both groups. For the third question, the staff RNs (60.8%, $n=175$) and nurse managers (87.7%, $n=6$) answered that PRN staff should have weekend requirements.

The majority of respondents for the question on whether weekends should be fixed or varied answered that weekends should vary according to the individual's request. None of the nurse managers selected the 'other' option and therefore did not comment. Of the staff RNs, 5.6% ($n=16$) chose the 'other' option, and comments leaned towards a combination of fixed and varied weekends with flexibility. One staff nurse commented "weekends should become less with seniority."

Table 4

Weekends

	Staff RNs		NMs	
Prefer to be required to sign up for:				
More weekend shifts, possibly have one removed	28.0%	*(n=81)*	50.0%	*(n=4)*
Less weekend shifts, possibly have on added	43.6%	*(n=126)*	37.5%	*(n=3)*
Other	28.4%	*(n=82)*	12.5%	*(n=1)*
	100.0%	*(n=289)*	100.0%	*(n=8)*
Part-time and full-time weekend requirement the same				
Yes	52.6%	*(n=152)*	42.9%	*(n=3)*
No	47.4%	*(n=137)*	57.1%	*(n=4)*
	100.0%	*(n=289)*	100.0%	*(n=7)*
PRN staff weekend requirement				
Yes	60.8%	*(n=175)*	87.7%	*(n=6)*
No	39.2%	*(n=113)*	14.3%	*(n=1)*
	100.0%	*(n=288)*	100.0%	*(n=7)*
Weekends				
Fixed (same each schedule)	13.2%	*(n=38)*	14.3%	*(n=1)*
Vary (according to individual request)	81.3%	*(n=234)*	85.7%	*(n=6)*
Other	5.6%	*(n=16)*	0.0%	*(n=0)*
	100.0%	*(n=288)*	100.0%	*n=7)*

Managing Time-off Requests

The managing time-off requests section of the questionnaires consisted of six

questions. The staff RN questionnaire asked the staff RNs to answer the questions based

on their own preference, while the nurse manager questionnaire asked the nurse managers

to answer based on their perception of what the nurses on their unit would answer. All

nurse manager responses in this section are the perception of how they thought the staff

RNs would answer the questions, not their own personal preferences.

The first two questions of the section are regarding how to handle if multiple

people request the same shift off: (1) Who should receive the shift off?, and (2) How the

decision should be made. The staff RNs responded that the person who asked for a shift

off first should be the one who is approved for the time off at 72.1% (*n=202*). The nurse

managers correctly perceived that most of the staff RNs would choose that answer

(87.5%, *n=7*). Some of the staff RNs (16.8%, *n=47*), selected the 'other' option. Forty-

four of the 47 staff RNs that selected the 'other' option left a comment. Of these 44

comments, 45.5% (*n=20*) stated seniority should be the deciding factor or play a role in

the decision. Several comments were made that staffing should be adequate so that

multiple people can have the same time off. Additionally, the theme of staff RNs

wanting fairness in decision making was evident. These comments are echoed in the next

question regarding how approvals should be determined when there are multiple request

off for the same shift where the majority of staff RNs (42.1%, *n=118*) and nurse

managers (50.0%, *n=4*) think the nurse managers should decide. Both RNs 38.6%

(*n=108*) and NMs 37.5% (*n=3*) think second to the nurse managers making the decision,

the requesting staff should discuss and try to find a solution.

 The next questions in the section were regarding the ability to switch shifts on

short notice and being asked to switch shifts on short notice. The staff RNs responded

(42.7%, *n=120*) they are able to switch shifts on short notice the majority of the time

(always 10.0%, *n=28*; most of the time 32.7%, *n=92*). The nurse managers perception

was that the nurse would primarily answer either always (25.0%, *n=2*) or most of the

time (50.0%, *n=4*). In comparison, the staff RNs (61.5%, *n=171*) and nurse managers

(62.5%, *n=5*) both responded similarly to how often the staff RNs are asked to switch

shifts on short notice at by selecting the 'once in a while' option. See Table 5.

Table 5

Request Approvals and Switching Shifts

	Staff RNs		NMs	
Multiple requests off for same shift – who receives approval				
The person who asked for the shift off first	72.1%	*(n=202)*	87.5%	*(n=7)*
The person with the most important reason	11.1%	*(n=31)*	12.5%	*(n=1)*
Other	16.8%	*(n=47)*	0.0%	*(n=0)*
	100.0%	*(n=280)*	100.0%	*(n=8)*
Multiple requests off for same shift – how approval determined				
Requesting staff discuss and try to find a solution	38.6%	*(n=108)*	37.5%	*(n=3)*
The manager should decide who gets the time off	42.1%	*(n=118)*	50.0%	*(n=4)*
Unit created committee to decide these request	6.4%	*(n=18)*	0.0%	*(n=0)*
Other	12.9%	*(n=36)*	12.5%	*(n=1)*
	100.0%	*(n=280)*	100.0%	*(n=8)*
Switching Shifts: ABLE to switch on short notice?				
Always	10.0%	*(n=28)*	25.0%	*(n=2)*
Most of the time	32.7%	*(n=92)*	50.0%	*(n=4)*
About half the time	10.7%	*(n=30)*	12.5%	*(n=1)*
Once in a while	34.9%	*(n=98)*	12.5%	*(n=1)*
Never	11.7%	*(n=33)*	0.0%	*(n=0)*
	100.0%	*(n=281)*	100.0%	*(n=8)*
Switching Shifts: ASKED to switch on short notice?				
Always	1.8%	*(n=5)*	0.0%	*(n=0)*
Most of the time	7.6%	*(n=21)*	12.5%	*(n=1)*
About half the time	16.5%	*(n=46)*	25.0%	*(n=2)*
Once in a while	61.5%	*(n=171)*	62.5%	*(n=5)*
Never	12.6%	*(n=35)*	0.0%	*(n=0)*
	100.0%	*(n=278)*	100.0%	*(n=8)*

The next question asks the staff RNs if they have felt they were treated unfairly regarding the schedule. Most of the staff RNs (60.0%, *n=168*) did not feel they had been treated unfairly regarding their schedule in the past year with 40.0% (*n=112*) responding they did. The nurse manager's perception was 50/50. Both groups answered positively

(either always or most of the time) on the next question regarding influence in planning

the schedule and how often their schedule preference was granted. See Table 6.

Table 6

Influence and Preference

	Staff RNs		NMs	
Felt treated unfairly regarding schedule in past year				
Yes	40.0%	*(n=112)*	50.0%	*(n=4)*
No	60.0%	*(n=168)*	50.0%	*(n=4)*
	100.0%	*(n=280)*	100.0%	*(n=8)*
Schedule planning and preference: How often do you have influence in planning your own schedule?				
Always	28.5%	*(n=80)*	12.5%	*(n=1)*
Most of the time	45.2%	*(n=127)*	50.0%	*(n=4)*
About half the time	11.0%	*(n=31)*	12.5%	*(n=1)*
Once in a while	9.6%	*(n=27)*	25.0%	*(n=2)*
Never	5.7%	*(n=16)*	0.0%	*(n=0)*
	100.0%	*(n=281)*	100.0%	*(n=8)*
Schedule planning and preference: How often do you think your schedule preference is granted?				
Always	16.0%	*(n=45)*	0.0%	*(n=0)*
Most of the time	63.0%	*(n=177)*	87.5%	*(n=7)*
About half the time	14.6%	*(n=41)*	12.5%	*(n=1)*
Once in a while	4.3%	*(n=12)*	0.0%	*(n=0)*
Never	2.1%	*(n=6)*	0.0%	*(n=0)*
	100.0%	*(n=281)*	100.0%	*(n=8)*

The last question in the section asks if having more say in their schedule would

improve work-life balance, increase job satisfaction, and decrease thoughts of leaving

their position. The staff RNs' responses and nurse managers' responses show that having

more say in the schedule would improve work-life balance, increase job satisfaction, and

decrease thoughts of leaving the position. See Table 7.

Table 7

Schedule Influence Perceptions

	Staff RNs		NMs	
Improve work-life balance				
Yes	93.9%	*(n=260)*	87.5%	*(n=7)*
No	6.1%	*(n=17)*	12.5%	*(n=1)*
	100.0%	*(n=277)*	100.0%	*(n=8)*
Increase job satisfaction				
Yes	93.1%	*(n=257)*	87.5%	*(n=7)*
No	6.9%	*(n=1)*	12.5%	*(n=1)*
	100.0%	*(n=276)*	100.0%	*(n=8)*
Decrease thoughts of leaving position				
Yes	87.6%	*(n=240)*	75.0%	*(n=6)*
No	12.4%	*(n=34)*	25.0%	*(n=2)*
	100.0%	*(n=274)*	100.0%	*(n=8)*

Overtime and Incentives

The overtime and incentives section consisted of eight questions. Like the previous section, the staff RN questionnaire asked the staff RNs to answer the questions based on their own preference, while the nurse manager questionnaire asked the nurse managers to answer based on their perception of what the nurses on their unit would answer. All nurse manager responses in this section are the perception of how they thought the staff RNs would answer the questions, not their own personal preferences.

The first four questions of the overtime and incentive section are (1) What motivates you to pick up additional shifts outside of your regular shifts? (2) When picking up shifts, how important is a financial incentive in your decision to work? (3) How often do you pick up shifts outside of your regular hours?, and (4) Would you pick up more shifts if you were guaranteed to work on your home unit?

The primary motivation for picking up additional shifts is due to financial needs (63.5%, *n*=172) with helping the team (25.1%, *n*=68) as second. The nurse managers responses parallel the staff RNs with 62.5% (*n*=5) selecting due to financial needs and 12.5% (*n*=1) selecting to help the team. Very few staff RNs answered they pick up shifts to help the nurse manager (1.8%, *n*=5). The nurse managers understand this and none of the nurse managers selected that option. The 'other' option received 9.6% (*n*=26) of the responses by the staff RNs and 25.0% (*n*=2) of the nurse manager responses. The staff RNs and nurse manager comments are that staff RNs pick up additional shifts for a combination of reasons, generally financial and to help their co-workers. With financial needs being the primary motivation for picking up additional shifts, it was not unexpected that a large majority, staff RNs 81.5% (*n*=220) and NMs 100.0% (*n*=8) answered either extremely important or very important to the question of how important the financial incentive was in the decision to work when picking up additional shifts.

The staff RNs responded that 72.2% (*n*=197) pick up at least one additional shift each schedule 4-week schedule leaving 27.3% (*n*=74) responding they do not work extra shifts. When asked if a guarantee to work on their home unit would incentivize them to pick up more shifts, 72.1% (*n*=194) responded yes and 27.9% (*n*=75) responded no. It appears that there is a correlation between the 27.3% (*n*=74) responding they do not work extra shifts and the 27.9% (*n*=75) that responded the home unit guarantee would not incentive them to pick up more shifts. The nurse managers perception matched the staff RNs for these two questions. See table 8 below.

Table 8

Extra Shifts

	Staff RNs		NMs	
Motivation for picking up additional shifts outside of regular hours				
Financial needs	63.5%	*(n=172)*	62.5%	*(n=5)*
To help the team	25.1%	*(n=68)*	12.5%	*(n=1)*
To help the manager	1.8%	*(n=5)*	0.0%	*(n=0)*
Other	9.6%	*(n=26)*	25.0%	*(n=2)*
	100.0%	*(n=271)*	100.0%	*(n=8)*
Importance of financial incentive in decision to work additional shifts				
Extremely important	53.3%	*(n=144)*	62.5%	*(n=5)*
Very important	28.2%	*(n=76)*	37.5%	*(n=3)*
Moderately important	12.2%	*(n=33)*	0.0%	*(n-0)*
Slightly important	3.0%	*(n=8)*	0.0%	*(n-0)*
Not important	3.3%	*(n=9)*	0.0%	*(n-0)*
	100.0%	*(n=270)*	100.0%	*(n=8)*
How often work additional shifts outside of regular hours				
1 x per week	12.5%	*(n=34)*	37.5%	*(n=3)*
2 x per week	6.3%	*(n=17)*	25.0%	*(n=2)*
1 x per 4-week schedule	31.4%	*(n=85)*	12.5%	*(n=1)*
2 x per 4-week schedule	14.4%	*(n=39)*	25.0%	*(n=2)*
3 x per 4-week schedule	8.1%	*(n=22)*	0.0%	*(n-0)*
I do not work extra shifts or never	27.3%	*(n=74)*	0.0%	*(n-0)*
	100.0%	*(n=271)*	100.0%	*(n=8)*
Pick up more shifts if guaranteed to work on home unit				
Yes	72.1%	*(n=194)*	62.5%	*(n=5)*
No	27.9%	*(n=75)*	37.5%	*(n=3)*
	100.0%	*(n=269)*	100.0%	*(n=8)*

Currently at this healthcare system, incentives to work additional shifts are generally offered on a last minute/urgent basis. The fifth question in this section asked if an incentive was offered sooner, would the staff RNs be more likely to pick up additional shifts. All four options received the highest rating in the likely and very likely range as can be seen in Table 9.

Table 9

Likeliness of Picking Up Additional Shifts Based on Incentive Offered

	Staff RNs		NMs	
Prior to the schedule being finalized and posted				
Very unlikely	4.8%	*(n=13)*	0.0%	*(n=0)*
Unlikely	5.6%	*(n=15)*	0.0%	*(n=0)*
Neutral	17.8%	*(n=48)*	25.0%	*(n=2)*
Likely	34.2%	*(n=92)*	50.0%	*(n=4)*
Very likely	37.6%	*(n=101)*	25.0%	*(n=2)*
	100.0%	*(n=269)*	100.0%	*(n=8)*
As soon as the schedule is posted				
Very unlikely	4.9%	*(n=13)*	0.0%	*(n=0)*
Unlikely	6.0%	*(n=16)*	0.0%	*(n=0)*
Neutral	25.4%	*(n=68)*	37.5%	*(n=3)*
Likely	35.8%	*(n=96)*	50.0%	*(n=4)*
Very likely	28.0%	*(n=75)*	12.5%	*(n=1)*
	100.0%	*(n=268)*	100.0%	*(n=8)*
2 weeks in advance of the schedule start date				
Very unlikely	4.5%	*(n=12)*	0.0%	*(n=0)*
Unlikely	8.9%	*(n=24)*	0.0%	*(n=0)*
Neutral	20.4%	*(n=55)*	37.5%	*(n=3)*
Likely	37.9%	*(n=102)*	50.0%	*(n=4)*
Very likely	28.3%	*(n=76)*	12.5%	*(n=1)*
	100.0%	*(n=269)*	100.0%	*(n=8)*
1 week in advance of the schedule start date				
Very unlikely	4.1%	*(n=11)*	0.0%	*(n=0)*
Unlikely	8.9%	*(n=24)*	0.0%	*(n=0)*
Neutral	23.0%	*(n=62)*	50.0%	*(n=4)*
Likely	37.0%	*(n=100)*	37.5%	*(n=3)*
Very likely	27.0%	*(n=73)*	12.5%	*(n=1)*
	100.0%	*(n=270)*	100.0%	*(n=8)*

The sixth question asked the staff RNs to rate alternative incentives according to how likely that would be to pick up an additional shift if the incentive was offered (see Table 10). The rating is based on a Likert scale from ranging from 1 to 5 with 1 being very unlikely and 5 being very likely. The results show that incentives with a financial impact scored the highest.

Table 10

Likeliness Rating According to Incentive Offered

Premium parking spot for a specified time frame				
Very unlikely	80.5%	*(n=215)*	37.5%	*(n=3)*
Unlikely	7.9%	*(n=21)*	50.0%	*(n=4)*
Neutral	5.6%	*(n=15)*	0.0%	*(n=0)*
Likely	1.9%	*(n=5)*	12.5%	*(n=1)*
Very likely	4.1%	*(n=11)*	0.0%	*(n=0)*
	100.0%	*(n=267)*	100.0%	*(n=8)*
Points towards career ladder				
Very unlikely	44.9%	*(n=120)*	12.5%	*\(n=1)*
Unlikely	12.0%	*(n=32)*	37.5%	*(n=3)*
Neutral	16.5%	*(n=44)*	37.5%	*(n=3)*
Likely	12.4%	*(n=33)*	12.5%	*(n=1)*
Very likely	14.2%	*(n=38)*	0.0%	*(n=0)*
	100.0%	*(n=267)*	100.0%	*(n=8)*
Gift certificates to restaurants, movies, scrubs, etc.				
Very unlikely	30.0%	*(n=80)*	12.5%	*(n=1)*
Unlikely	14.6%	*(n=39)*	0.0%	*(n=0)*
Neutral	25.5%	*(n=68)*	62.5%	*(n=5)*
Likely	13.0%	*(n=35)*	12.5%	*(n=1)*
Very likely	16.9%	*(n=45)*	12.5%	*(n=1)*
	100.0%	*(n=267)*	100.0%	*(n=8)*
Lunch with the CNO and/or CEO				
Very unlikely	84.6%	*(n=226)*	62.5%	*(n=5)*
Unlikely	9.4%	*(n=25)*	25.0%	*(n=2)*
Neutral	2.3%	*(n=6)*	12.5%	*(n=1)*
Likely	1.5%	*(n=4)*	0.0%	*(n=0)*
Very likely	2.2%	*(n=6)*	0.0%	*(n=0)*
	100.0%	*(n=267)*	100.0%	*(n=8)*
Charitable donation made in your name				
Very unlikely	68.6%	*(n=183)*	37.5%	*(n=3)*
Unlikely	12.7%	*(n=34)*	50.0%	*(n=4)*
Neutral	9.7%	*(n=26)*	12.5%	*(n=1)*
Likely	4.1%	*(n=11)*	0.0%	*(n=0)*
Very likely	4.9%	*(n=13)*	0.0%	*(n=0)*
	100.0%	*(n=267)*	100.0%	*(n=8)*
Extra paid time off (PTO) hours				
Very unlikely	15.3%	*(n=41)*	0.0%	*(n=0)*
Unlikely	7.5%	*(n=20)*	0.0%	*(n=0)*
Neutral	16.4%	*(n=44)*	28.6%	*(n=2)*
Likely	28.0%	*(n=75)*	14.3%	*(n=1)*
Very likely	32.8%	*(n=88)*	57.1%	*(n=4)*

	100.0%	*(n=268)*	100.0%	*(n=7)*
Paid time off (PTO) without using accrued PTO				
Very unlikely	14.3%	*(n=38)*	0.0%	*(n=0)*
Unlikely	7.9%	*(n=21)*	0.0%	*(n=0)*
Neutral	14.0%	*(n=37)*	25.0%	*(n=2)*
Likely	21.9%	*(n=58)*	25.0%	*(n=2)*
Very likely	41.9%	*(n=111)*	50.0%	*(n=4)*
	100.0%	*(n=265)*	100.0%	*(n=8)*
Catered lunch coupon				
Very unlikely	55.1%	*(n=146)*	12.5%	*(n=1)*
Unlikely	13.6%	*(n=36)*	37.5%	*(n=3)*
Neutral	14.3%	*(n=38)*	50.0%	*(n=4)*
Likely	9.8%	*(n=26)*	0.0%	*(n=0)*
Very likely	7.2%	*(n=19)*	0.0%	*(n=0)*
	100.0%	*(n=265)*	100.0%	*(n=8)*
If your campus does not allow t-shirts, able to wear company logo t-shirt				
Very unlikely	58.1%	*(n=154)*	12.5%	*(n=1)*
Unlikely	12.5%	*(n=33)*	12.5%	*(n=1)*
Neutral	10.9%	*(n=29)*	50.0%	*(n=4)*
Likely	9.1%	*(n=24)*	25.0%	*(n=2)*
Very likely	9.4%	*(n=25)*	0.0%	*(n=0)*
	100.0%	*(n=265)*	100.0%	*(n=8)*

The last two questions in the overtime and incentives section are (7) Have you considered leaving your position in the past year related to your schedule? (8) Do you think the current incentives offered are fair? Only 38.2% (*n=102*) of the staff RNs responded that they had considered leaving your position in the past year related to their schedule. The NMs perception (62.5%, *n=5*), was the staff RNs would answer yes to this question. Most staff RNs (59.8%, *n=159*) responded they thought the current incentives were not fair. See Table 11. The no response on this question opened another question, "what do you think is unfair about the current incentives." These comments are discussed in the next chapter.

Table 11

Leaving Position and Incentive Fairness

	Staff RNs		NMs	
Considered leaving your position in the past year related to your schedule				
Yes	38.2%	*(n=102)*	62.5%	*(n=5)*
No	61.8%	*(n=165)*	37.5%	*(n=3)*
	100.0%	*(n=267)*	100.0%	*(n=8)*
Current incentives fair				
Yes	40.2%	*(n=107)*	50.0%	*(n=4)*
No	59.8%	*(n=159)*	50.0%	*(n=4)*
	100.0%	*(n=266)*	100.0%	*(n=8)*

Open Response Questions

There were four open response (fill in the blank) questions on each questionnaire, and they were (1) What does schedule fairness mean to you? (2) What are your definitions of a fair work schedule and fair scheduling process? (3) Describe what you like or dislike about the scheduling process on your unit and how you would change it, and (4) Any other details/information you feel would be helpful or any follow-up to previously asked questions? The data from the open response questions are discussed in chapter V, Conclusions. Table 12 shows some sample responses from the open response questions.

Table 12

Open Response Questions Sample Responses

What does schedule fairness mean to you?
"Equal distribution of resources to enable safe and effective care."
"Approval of my days I request and if those do not work, a discussion with me… what will work."
"Equal weekend responsibilities."
"Its important. If one person always gets what they want to the exclusion of others, it's not fair and created discord amongst staff."
"Schedule fairness to me means that everyone should be required to do their part and should be required to work weekends and holidays just like the rest of us."
"Not showing favoritism to staff members that you are friends with. Trying your best to accommodate the days that people request within reason."
"It means a lot to me. It makes me feel respected."
"People follow the rules."
"Treating all equal."
"That it is equal to all staff members."

What are your definitions of a fair work schedule and fair scheduling process?
"Blind to who the person is. Based on black and white criteria that is followed."
"Fair work schedule would be making sure everyone works same amount of weekends and share holidays. Fair process would be giving everyone the ability to request and get all or most of the days off or worked they want. Also, a fair process of resolving multiple requests for same days."
"Fair scheduling process would involve more nurse participation and cooperation with the final say going to the supervisor for scheduling conflicts."
"Fair work, do your job and help if you can. Fair scheduling, schedule where there is enough people working in a day not 2 here… 4 the next day."
"Treating people kindly, discussing needs and preferences, and most importantly listening to feedback (good or bad)."
"Treating all employees the same and giving equal hours and opportunity."

Describe what you like or dislike about the scheduling process on your unit and how you would change it
"I would like if our nurse manager adhered to the deadline in which the schedule is supposed to be posted, which is two weeks prior to the starting date of that schedule, so we have time to make arrangements to swap with other employees."
"No set rules and travelers getting a better schedule when they get paid more. New hires getting less weekends."

"The rules for scheduling are not heavily enforced. There are many who never work weekends or sign up for weekend shifts, and no one says anything."
"Core staff is the minority. Travel nurses are held to different expectations depending on their travel contract. Core staff is frequently moved and required to work more."
"The fact they want 2 months in advance on what our preferences are but can't release the schedule until 3 days before."
"The scheduling process is done by the managers, which I agree with. The schedule usually does not come out until a few days before the start of the schedule. I would make sure it was out sooner than that."
"I can have 6 weekend shifts scheduled over all 4 weekends and would think the next schedule would be less… thinking it is someone else's turn to have the 'unfair' schedule, but I don't think they are able to keep up with that."
Regarding weekends, "I do not like that it seems I am being treated unfairly."

Any other details/information you feel would be helpful or any follow-up to previously asked questions?
"Needs to be fairness in our job responsibilities. If you can't be dependable, you should not be here."
Regarding travel nurses, "As a loyal employee, you get next to nothing in return except for the occasional 'good job'… not to mention, you get cancelled on your overtime day because the travel staff are required to get their hours. Wow."
"It all depends on your team, if you work together, it makes a difference."
"My decision to pick up extra shifts is for the EXTRA incentive pay, as pulling an extra shift for just the overtime pay I not usually sufficient motivation; although I will usually rally for my fellow coworkers… and hope that they will return the favor when the opportunity arises."
"Communication and appreciation of employees is key especially in the current climate of the medical profession."
"Weekends are and have always been a problem. There is a policy about having to work every other weekend, but it is not followed."
"There is more I could go on about but its futile."
"When you are treated poorly, it makes it really hard… I just feel that there are several areas and ways to improve this, and something needs to be done since the staff members are getting burnt out."

V. Conclusions

Summary

This research study sought to determine if nurse managers understood the perceptions of the staff registered nurses who work for them in relation to fairness in scheduling and incentives, and by seeking to understand what motivates the staff registered nurses to work. Understanding the similarities and differences in perception, is important when creating an environment that improves job satisfaction, work-life balance, and increased retention.

This study followed a mixed-method research design, using both quantitative and qualitative methods and consisted of four phases 1) a literature review, 2) questionnaires sent to the staff registered nurses and nurse managers, 3) data analysis, and 4) review and discussion of the findings. Questionnaires were sent to the staff registered nurses and the nurse managers in effort to understand of how perceptions between staff registered nurses and their nurse managers differ and to expand on what is needed to build a fair scheduling and incentive program that meets the needs of the nurses, the nurse managers, and the overall health system.

Discussion

Berlanda et al. (2020) identified schedule flexibility as a working condition that nurses relate to well-being at work. In a study by Dhaini et al. (2018), participants reported work-life conflict and emotional exhaustion with low schedule flexibility. A third of the participants felt they had little to no input on their schedule, with over half reporting difficulty with short notice shift swaps, and the majority reporting that their schedule changed last minute two or less times per month. In contrast, this study found

the great majority of participants felt they do have influence in planning their schedule and felt their schedule preferences were granted most of the time or always. About half of the participants reported some difficulty switching shifts on short notice and two-thirds felt they were asked to switch shift last minute occasionally or never. Furthermore, the staff RNs perceive that having more say in their schedule would increase job satisfaction supporting a study by Rizany et al. (2019) that indicated a positive association between satisfaction and schedule management.

Discussions surrounding nurse perceptions of scheduling and fairness are important but not much research is available (Rerkjirattikal et al., 2020). Uhde et al. (2020) aimed to understand "perceived fairness" regarding health care workers' attitudes on scheduling. Wynedaele et al. (2020) determined that while self-scheduling increased job satisfaction and work-life balance, part of its success depends on the staff's perception of whether scheduling is fair and impartial. Similarly, these findings of fairness and impartiality are also reported in this research study in the form of comments surrounding consistency, favoritism, and equality are found throughout the open response questions.

Conclusions

Fairness of Current Scheduling Process

A variety of different scheduling methods were in use at the three different hospitals in this study. These methods included the use of set patterns/rotations, assigned schedules, self-scheduling, and varied combinations of methods. The majority of staff RNs and nurse managers responded that the nurse managers should have ownership of scheduling for their unit and that there are written scheduling guidelines for their units.

However, in reviewing the open response questions, several common ideas emerged related to fairness.

Two-thirds of the staff RNs responded yes when asked if there are written scheduling guidelines on their unit. A frequent comment found in the open response questions is that while there are guidelines, the staff RNs do not believe they are always followed. Another widespread premise is that many believe there is favoritism by the person(s) finalizing the schedule. The following comments were made by staff RNs.

"Allowing set scheduling with certain employees and not others."

"All employees need to be treated fairly, not because, there are favorites or buddies in the team."

"My manager… plays favorites."

"Travelers getting a better schedule… new hires getting less weekends."

Another dissatisfier related to the schedule is that several staff RNs state the schedule comes out too late, sometimes only a day or so before the next schedule starts. This makes it difficult to make plans. Additionally, there are multiple comments from the staff RNs regarding their scheduled shifts being moved without discussion. Overall, scheduling fairness needs further investigation by the healthcare system.

Fairness of Current Incentives

The staff RNs response to the importance of financial incentives question shows that financial incentives are very important or extremely important in their decision to work additional shifts. The majority of staff RNs answered they find the current incentives offered to be unfair.

In reviewing the comments left by the staff RNs several common ideas emerged including issues with travel nurse pay compared to staff RNs pay, no incentives offered in some areas, current incentives only offered to staff RNs and not support staff, and the primary incentive requires a contract and requirement to work five shifts per week. Other key words and phrases found in the comment section of what the staff RNs found unfair are: inconsistency, incentives offered too late for many to take advantage of, and incentives only offered to new employees.

The main dissatisfier with current incentives is staff RNs perceive travel nurses as making considerably more money with no loyalty to the healthcare system. Staff RNs perceive the travel nurses to make "$140-$160/hr", "triple what they make", and "4-5 times what they make" with fewer responsibilities. Travel nurses are guaranteed their shifts while staff RNs may be cancelled. One staff RN identified, "Travel nurses are held to different expectations depending on their travel contract." This has many staff RNs questioning why they are staying loyal to the healthcare system as they feel very underappreciated and without any recognition. One staff RN commented the only benefit for loyalty is the once yearly ability to choose vacation weeks for the year. Additionally, staff RNs perceive their pay as lower than what other health systems in the area are paying their RNs. Staff RNs are asking for higher base pay and increased benefits such as additional paid time off. It is believed this will help retain staff RNs and prevent more from leaving to pursue high dollar travel contracts.

The second largest group of comments surrounded a contract that is offered where staff RNs agree to work five shifts per week at a higher pay rate and receive a bonus at the end. Flaws in this contract are the extra shifts can be cancelled, the contract is voided

if the staff RN must call in sick and the bonus is lost. Staff RNs want these stipulations

removed. Staff RNs think the incentive for working extra shifts should be paid for any

extra shift, after 72 hours for full-time or after 48 hours for part-time. There were several

staff RNs who expressed concern over the safety of these contracts in relation to patient

care and the nurse's physical and emotional well-being.

Staff RN Perceptions Compared to Nurse Manager Perceptions

Overall, the nurse managers perception of what the staff RNs on their units

preferred were similar with a few exceptions on the questions: weekend preferences,

how often staff RNs pick up extra shifts, staff RNs considered leaving related to

schedule, and if current incentives are fair.

The NMs responded the staff RNs on their unit would prefer to be required to sign

up for more weekend shifts and possibly have one removed which is opposite to what the

staff RNs answered. The staff RNs would prefer to be required to sign up for fewer shifts

and possibly have one added. The NMs perceived their staff RNs pick up extra shifts

more often than the staff RNs indicated with their responses. The majority of staff RNs

responded "no" when asked if they considered leaving their position in the past year

related to their schedule. The majority of NMs responded that the nurse on their unit

would say yes. The majority of staff RNs answered they do not think that current

incentives are fair whereas the NMs perceived the response would be half.

Limitations

As previously mentioned, limitations for this study include a possible

interpretation bias of the open response comments on the questionnaires due to the

researcher's experience and knowledge with the healthcare system, and the data being

collected during a pandemic when nurses and managers were under increased stress. Additionally, and nurse managers were included on the staff RN list and therefore received the staff RN questionnaire along with the nurse manager questionnaire. It is known one nurse manager completed the staff RN questionnaire as the statement "I am the nurse manager" was found on an open response question. This survey was removed from the staff RN results and incorporated into the nurse manager results. There is a possibility other nurse managers may have completed the staff RN questionnaire.

Implications

The results of this research study shows that the perception of fairness overall is an important factor in increasing job satisfaction. Registered nurses want to feel valued by their employers and receive fair equal treatment. They want consistency in scheduling and incentives, and for nurse managers to apply rules/guidelines equally to all without favoritism. This study also suggest that health systems overall need a way to be more in touch with the needs of their staff RNs.

Recommendations

Current research on registered nurse perceived fairness is limited therefore further research is recommended, specifically research targeting smaller audiences, such as inpatient units versus procedural areas would help to understand the individual needs of the areas. Research is needed on how to ensure nurse managers understand what their registered nurse really need/want and how staff RNs can voice concerns.

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Appendix A

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November 10, 2021

To Whom It May Concern:

The Arkansas Tech University Institutional Review Board has approved the IRB application for Alicia Workman's proposed research, entitled "A mixed-method study comparing staff nurse and nurse manager perceptions of fairness related to scheduling, self-scheduling, and scheduling incentives as motivators" The Institutional Review Board used an expedited review procedure under 45 CFR 46.110 (7).

Please note that in the event that any of the parameters of the study change, the researcher may be required to submit an amended application.

Please proceed with your research. We wish you success with this endeavor.

Sincerely,

gWright

Dr. Georgeanna Wright
Institutional Review Board
Arkansas Tech University