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### RN Perception of Resources, Communication, and Leadership during COVID-19 and the Impact on RN Satisfaction and Turnover in a Multi-hospital System

Gina Bullington

gina.bullington@pop.belmont.edu

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RN Perception of Resources, Communication, and Leadership during COVID-19 and  
the Impact on RN Satisfaction and Turnover in a Multi-hospital System

Gina Bullington  
Belmont University

Project Faculty Advisors:

Dr. Linda Wofford

Faculty Reader/Advisor

Dr. Cathy Taylor

Dr. David Phillippi

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### Abstract

While RN retention has been a perennial challenge, COVID-19 has exacerbated the problem. The project's purpose was to study RNs' perception of communication, resources, and leadership during COVID-19, and the impact on RN turnover in a multi-hospital system. 3280 RNs' engagement survey responses and turnover percentages from pre-COVID-19 (November 2019) were compared to engagement survey responses and turnover percentages 12 months later (November 2020). 90% ( $n = 2963$ ) were female and 43% ( $n = 1396$ ) were between the ages of 25 and 39 years. The majority of RN respondents were employed 1-9 years (59%,  $n = 1934$ ). Comparing the survey results from 2019 to 2020, RNs' perception of adequate resources declined ( $t(3279) = -5.09, d = -.089, p < .001$ ). Perception of "good communication" and confidence in leadership declined ( $t(3279) = -6.34, d = -.111, p < .001$ ; and  $t(3279) = 3.89, d = -.068, p < .001$ ). RN satisfaction and willingness to recommend decreased ( $t(3279) = -5.65, d = -.099, p < .001$ ; and  $t(3279) = -7.04, d = -.123, p < .001$ ). RN turnover increased 5.5% in 2020 from 2019. Although the hypotheses were statistically significant, the effect size represented by Cohen's  $d$  reflected RNs' responses in the survey from 2019 to 2020 was less than 0.1. The continued work by nursing leaders offered a protective effect on the overall RN turnover rate. Despite multiple external forces, nursing leaders can mitigate the negative effects with focus on resources, communication, and leadership. Nursing leaders can be encouraged by these results because their actions during a crisis period have an impact.

## **Introduction and Background**

COVID-19 has impacted RNs and other healthcare providers personally and professionally. On January 19, 2020, the first case of COVID-19 was diagnosed in the United States and by January 30, 2020, the World Health Organization declared COVID-19 a public health emergency of international concern (Chen, Lai, & Tsay, 2020). National news and other media sources reported weekly numbers of RNs and other healthcare workers who contracted the virus and died, which produced fear and anxiety in the healthcare community. In a national survey of 32,000 nurses, nurses feared going to work due to lack of personal protective equipment (American Nurses Association, 2020). RNs and others were concerned about taking the virus home to family members or spreading the virus to other patients in the hospital. Furthermore, there was fear of exposure from other healthcare colleagues with whom the RNs worked alongside in the hospitals. Because of the facilities' exposure risks, healthcare workers were balancing staying in their jobs with the risk of exposing family members (Centers for Disease Control and Prevention, 2020, June 12). Before the emergence of COVID-19 pandemic, Van Der Heijden et al. (2019) reported that additional job demands and the emotional impact of family-work conflict could increase RN turnover. RNs' fear and anxiety related to the job environment risk, combined with concern for their family members, further impacted an already-struggling RN workforce.

The statistics of RN shortages and RN turnover were daunting before COVID-19. The United States RN Workforce Report Card and Shortage Forecast detailed the supply of RNs across the country would fall short of the demand from 2016-2030 (Juraschek, Zhang & Ranganathan, 2012). Nursing Solutions Incorporated (NSI; 2020) invited over 3,000 hospitals in

the United States to participate in a survey to capture data on RN staffing and retention. NSI (2020) reported the RN vacancy rate at 9% in 2019, up a full point from 2018, and 62% of hospitals reported RN vacancy rates higher than 7.5%. Although the 2019 RN turnover rate was 15.9% as an average, nationwide percentage, individual hospitals reported turnover as high as 43.9%. The turnover rate is problematic due to the RN Recruitment Difficulty Index which reported an average of 81 days to recruit an experienced RN (NSI, 2020). Increasing demand for RNs and rising RN vacancy rates, along with the fears of COVID-19, combined into critical concerns for hospitals that depend on a strong RN workforce to provide care for their patients.

One way to assure adequate numbers of RNs is to promote retention of existing RNs. RN perception of the nursing practice environment, staffing availability, and resource adequacy affect RN retention (Shimp, 2017). The nursing practice environment can consist of managerial support, staffing matrixes and resource adequacy, RN and physician relationships, and perceived quality of care (Nelson-Brantley et al., 2018). The Practice Environment Scale of the Nursing Work Index measured the characteristics of the practice environment and revealed how the practice environment could positively or negatively affect RN turnover. If the nursing unit had a high overall rating of the practice environment, the turnover rate was lower (Nelson-Brantley et al., 2018). Schutz & Shattell (2020) stated COVID-19 produced a negative environment because of the lack of staffing and personal protective resources and the increased workload. Personal protective equipment was the most prevalent resource needed for RNs and other healthcare personnel. Shortages were reported in the media, and nurses became fearful of the potential lack of masks, gowns, shoe covers, and head covering (Schutz & Shattell, 2020). The other resource needed was additional RNs to provide care to the COVID-19 patients. Chen, Lai, & Tsay (2020)

stated COVID-19 caused massive increases in manpower and resources to prevent and treat these patients, increasing the burden on healthcare systems across the world.

Effective communication and visibility of leadership were also challenging with COVID-19. Staff meetings, town hall meetings, and meetings in the hospital cafeterias stopped to prevent the spread of the virus among healthcare workers. Leaders subscribed to virtual communication techniques such as employee portals and weekly email postings. COVID-19 impacted the practice environment by challenging the hospital's ability to ensure adequate resources, provide effective communication, and allow for leadership visibility.

### **Problem Statement**

While RN retention has been a perennial challenge, COVID-19 has exacerbated the problem. RNs' perception of adequacy of resources, good communication, and supportive leadership impacts their intent to stay, as well as their engagement and their overall turnover rates.

### **Purpose**

The scholarly project's focus was to understand how RNs' perception of resources, communication, and leadership engagement impact the RNs' intent to stay in hospital settings. COVID-19 has contributed to RNs leaving hospitals for alternate careers due to the risk to their health and their families (ANA, 2020). Understanding more about the value of modifiable factors impacting RN engagement and turnover could help nursing administrators. The information learned from a multi-hospital system's data can be generalized to the broader RN population across the United States to understand RNs' job satisfaction and engagement related to perception of resources, communication, and leadership support.

### **Hypotheses**

1. RN employee satisfaction will decrease in 2020 compared to 2019 in the multi-hospital system.
2. The COVID-19 crisis in 2020 will be associated with a decrease in RN's recommending the organization in 2020 compared to 2019 in the multi-hospital system.
3. The RNs' perception of adequacy of resources will be decreased in 2020 compared to 2019.
4. The RNs' perception of "good job" communicating will be decreased in 2020 compared to 2019.
5. The RNs' perception of confidence in the leadership team will be decreased in 2020 compared to 2019.
6. The overall RN turnover rate will increase in 2020 compared to 2019.

## **Review of Evidence**

### **RN Turnover and Quality Outcomes**

RN turnover continues to be one of the most significant challenges healthcare facilities face today. Quality of nursing care is measured using nurse-sensitive outcomes, such as pressure injuries, falls, medication errors, and unexpected mortalities. Other nurse-sensitive outcomes are catheter-associated urinary tract infections, upper- gastrointestinal bleeding, hospital-acquired pneumonia, and wound infections. Studies have demonstrated with a shortage of RNs, the incidence of these adverse patient outcomes increases (Kim & Bae, 2018; Nelson-Brantley et al., 2018; Stalpers et al., 2015). Staffing challenges are exacerbated with RN turnover, resulting in an inability to meet patients' needs and quality of care decreases (Portuguese et al., 2015). Ball et al. (2018) acknowledged the increased risk of poor quality with staffing challenges and noted

critical elements of nursing care were missed, such as patient assessments, skincare, and timely medication administration. Nursing turnover impedes nursing workforce stability further escalating the risk to quality nursing care (Park and Boyle, 2015). This literature indicates providing quality outcomes, meeting patients' needs, and completing all essential nursing care are impacted when RN turnover is high.

### **RN Turnover and Financial Impact**

In addition to the impact on quality of patient care, a financial cost was associated with RN turnover in hospitals. The average annual cost of a bedside RN's turnover is \$44,400 and ranges from \$33,300 to \$56,000 (NSI, 2020). With RNs making up 30% of a hospital's labor budget, the cost of losing RNs is significant to the hospital's budget (United States Bureau of Labor and Statistics, n.d.). Pollick and Benfield (2018) described the other "hidden" costs of RN turnover, including costly premium pay practices for existing staff and utilization of contract labor RNs. Premium labor, defined by extra shift bonuses and overtime, costs 50% higher than average RN rates of pay, and RN contract labor costs up to 100% more than average RN pay. Loss of patient revenue occurs when patients are diverted to other facilities because of inadequate staffing, or patients and physicians choose competitor hospitals due to the perception of inadequate care. NSI (2020) reported with each percent increase of turnover (15.9% in 2019), the average hospital will lose an additional \$308,400 per year in unexpected salary costs.

Additionally, the United States Bureau of Labor Statistics (n.d.) projected a 7% increase in RN job growth from 2019-2029, compared to all other occupations at an average of 4% annual growth. With an aging population, which requires more hospitalizations due to extensive medical problems, long-term care needs, and increased outpatient treatments, such as chemotherapy, rehabilitation, and surgery, RN labor needs are further increased. RNs are also

exiting the nursing workforce for other occupations and retiring earlier than planned. In summary, the cost of RN turnover, the growing need for nursing care of the aging population, and RNs leaving the nursing profession further demonstrate the need to retain RNs.

### **RN Turnover and Practice Environment**

Several factors can positively or negatively impact RN turnover in the practice environment or "work" environment. For this project, the term "practice environment" will be used. The practice environment includes staffing adequacy, support, quality of the nursing leader, workload, and autonomy. The RNs' perception of adequate staffing is a factor in RNs' intent to stay in an organization (Nelson-Brantley et al., 2018; Pineau Stam et al., 2015; Van der Heijden et al., 2019). Job workload, fatigue, and nurse burnout are the result of inadequate staffing resources, resulting in a decrease in RN engagement and intent to stay (Dols et al., 2019; Liu et al., 2016; Norman & Sjetne, 2017; Unruh et al., 2016; Van der Heijden et al., 2019). The job's physical demands, the stress of the work, and other emotional demands affect the RNs' job satisfaction. Job satisfaction is negatively impacted when the RN perceives inadequate time to care for their patients. Personal protective supplies and equipment are another resource nurses are concerned about specifically during COVID-19. Shimp (2017) stated RNs need to be empowered to influence their practice environment to decrease turnover. Communication about the adequacy of supplies and RNs' voice in the practice environment are vital to sustaining trust in the facility's leadership.

The practice environment includes the perception of support of nursing leadership. Nursing leaders who are visible, supportive, and highly engaged with staff increase nursing engagement. Authentic leadership, described as having personal integrity, transparency, and allowing shared decisions, positively impacts the practice environment (Raso et al., 2020). The

nursing managers' or leaders' behaviors are significant determinants in RNs' job satisfaction (Burke et al., 2017; Feather, 2015; Halter et al., 2017; Portoghese et al., 2015). When the nursing leader provides good communication, shows respect, and demonstrates care for the nurses, job satisfaction increases (Burke et al., 2017). Shimp (2017) listed additional leadership areas that impact RNs' decision to stay in the organization, including learning opportunities, the RNs' trust in leadership, and recognition opportunities.

Autonomy, empowerment, and self-governance are other components of the practice environment. Self-efficacy, or confidence in one's ability, was also studied and revealed a strong association with RN engagement (DeSimone et al., 2018; Vardaman et al., 2020). Vardaman et al. (2020) described explicitly how self-efficacy and job embeddedness impact nurses' turnover intentions. Job embeddedness is defined as how the employee becomes attached to their organization and coworkers. The results from this study demonstrated nurses embedded in the organizational community had higher change-related self-efficacy and were less likely to leave their jobs. COVID-19 brought significant changes in the practice environment, and nurses had to adapt quickly, and often, the bedside nurse was not involved in the decisions. Nurses who are empowered and have a sense of control are more likely to stay in a facility (Vardaman et al., 2020). The RNs' perception of communication and leadership support for nurses' autonomy will impact their job satisfaction. COVID-19 affected critical areas of the RN's practice environment, including resources, autonomy, and leader's communication.

### **RN Turnover and COVID-19**

SARS-CoV-2, most commonly called COVID-19, is caused by severe acute respiratory syndrome coronavirus and is highly transmittable. Yuen et al. (2020) reported an 83% attack rate in families with mild to moderate symptoms. The World Health Organization (2020) declared a

global health emergency at the end of January 2020. The Centers for Disease Control and Prevention (2020, March 20) and the World Health Organization (2020) quickly published recommendations for health care facilities. There are still many questions to be answered about the importance of asymptomatic viral shedding and how this impacts infection control. RNs who may have little exposure to an infectious disease of this magnitude in their careers are challenged with new medication regimens, new personal protective equipment guidelines, and a rapidly changing practice environment. RNs' perception of how leaders distributed resources, provided up-to-date communication, and provided support to the bedside nurses during COVID-19 is essential because these RNs' perceptions may influence their engagement and turnover.

### **Theoretical Model**

#### **The Theory of Planned Behavior**

The theory of planned behavior is the model for this scholarly project. Icek Ajzen designed the theory of planned behavior as an extension of an earlier model, the theory of reasoned action by Ajzen and Fishbein. The difference between the two theories is the theory of reasoned action did not include the individual's ability to control the behavior while the theory of planned behavior describes how behavior-specific motivating factors predict and explain human behavior in specific contexts (Ajzen, 1991). The intention to perform the behavior is a central factor in the theory of planned behavior. Intention is an indication of how hard people are willing to try and how much effort they are willing to exert to perform the behavior. If the intention to perform the behavior is strong and the person believes it is under their actual control, the behavior will be performed. The theory outlines three motivational factors that drive the intention to perform the behavior. Attitude toward the behavior is the belief the person can

perform the behavior and handle any likely consequences (Ajzen & Sheikh, 2013). The subjective norm is others' perception of the behavior and their influence on the person. The third factor is perceived behavioral control and explains how much the person perceives the ease or difficulty of performing the behavior (Ajzen, 1991). The three elements work together or separately to influence the intention to perform a behavior. Ajzen and Sheikh (2013) described how beliefs affect attitude, subjective norm, and perceived behavioral control:

Beliefs about a behavior's potential consequences (behavioral beliefs) are assumed to determine attitudes toward the behavior, beliefs about the expectations and behaviors of others (normative beliefs) are assumed to determine subjective norms; and beliefs about potential facilitating or inhibiting factors (control beliefs) are assumed to determine perceived behavioral control. Attitudes, subjective norms, and perceptions of control in turn combine to produce intentions that, together with actual control, determine performance of the behavior (Ajzen & Sheikh, 2013, p.155).

Other non-healthcare fields used the theory of planned behavior. Binyamin (2020) used the theory to demonstrate how employees' service quality was associated with their leaders' expectations for service quality. The influence of the leader impacted the intent of the employees' behaviors for service quality. Jimmieson et al. (2008) studied employees' perception of receiving sufficient information from the leader about a building relocation and reported strong intentions to support the organizational change with the leader's word. The intention to support the change was partially mediated by the subjective norm and perceived behavioral control. In another study, Van Dam et al. (2009) described how a company gave employees perceived control over their retirement decision to decrease their intentions to retire early. One study with constructs similar to the scholarly project involved external predictors and basic predictors and how they lead to

turnover intentions. The external predictors were job satisfaction, organizational commitment, and tenure, and the behavioral predictors were attitude, subjective norm, and perceived behavioral control. The research indicated combining external factors with behavioral predictors leads to the intention to turnover. The behavioral intention was the single best predictor of actual resignations in this study (Van Breukelen et al., 2004). Comparing infectious diseases like COVID-19, Lee and Kang (2019) used the planned behavior theory to predict nurses' intention to care for patients with emerging infectious diseases. The results demonstrated the nurses' intent to care for those with infectious diseases directly impacted their confidence in their ability to care for them (perceived behavioral control). These examples offer a strong foundation for using the theory of planned behavior in this scholarly project.

The project used the theory of planned behavior to describe how the three behavioral factors impacted an RN's turnover intention. An RN's perception of his or her ability to leave an organization is the attitude belief; others' influence on the RN to go or stay in the organization is the subjective norm. Family, friends, and other RNs can influence an RN's intention to remain or leave an organization. Finally, the perceived behavioral control is the RN's belief they have the resources and the ability to leave an organization. The RN may consider the likelihood of their ability to find another job, how they feel about their current environment, and their ability to change their work schedules.

The RN's perception of adequate resources, good communication, and confidence in leadership may be impacted directly by their own beliefs and attitudes, others' opinions, and the RN's ability to control their environment. The planned behavior theory model provided a framework to potentially explain the impact of COVID-19 on RNs' intention to leave or remain

in an organization and if nurses' attitudes, subjective norms, and perceived behavioral control factored into the behavior (see Figure 1).

### **Project Design**

Using a quasi-experimental research design, secondary data from two distinct times of RN engagement and RN turnover results from a multi-hospital system were compared. The engagement survey responses and turnover percentages from pre-COVID-19 (November 2019) were compared to engagement survey responses and turnover percentages 12 months later (November 2020). The engagement survey data measured RN's perception of adequacy of resources and communication, perception of confidence in senior leadership, and overall RN engagement. The healthcare system's HR analytics calculated a rolling 12-month RN turnover percentage for the two time periods, January-November 2019 and January-November 2020. The institutional review boards at the multi-hospital system and Belmont University verified exempt status in August 2020.

### **Clinical Setting**

The study's setting included 19 acute care hospitals in three states in the United States' southeastern region. These hospitals comprise one division of the larger for-profit healthcare system, which includes over 186 hospitals. There are twelve adult acute care hospitals, three behavioral health hospitals, one children's hospital, and one critical access hospital within the division. Five hospitals have a bed capacity of fewer than 100 beds, six have 101-150 beds, seven have 151-250 beds, and the critical access hospital has 12 beds. The division's hospitals offer health care services for all age ranges, including neonates, pediatrics, adults, and geriatrics.

## **Project Population**

The project participants were RNs employed in facilities of the multi-hospital system. The system employs over 5,000 RNs, and all were eligible to participate regardless of status, i.e., full-time, part-time, or per diem employees. RNs voluntarily participated, and their responses to the survey questions were anonymous. Descriptive characteristics of the RNs were captured, including age, gender, length of employment, RN tenure, unit description, generation, and facility name.

## **Sources of Data/Data Collection Instruments**

The healthcare system's parent company partnered with a vendor to conduct the 14-question engagement survey. The vendor provided this survey to all the hospitals in the healthcare system. For the project, data from five questions provided secondary engagement data. Each of the five questions used a Likert scale to capture the participants' perceptions. Three of the five questions used an ordinal scale: strongly agree, agree, neutral, disagree, and strongly disagree. The responses are assigned numbers ranging from 1 (strongly disagree) to 5 (strongly agree). The first three questions were:

1. I have the resources that I need to do my job well.
2. My organization does a good job of communicating with me.
3. I have confidence in the senior leadership team.

The project leader chose these three questions due to the nursing leaders' ability to impact these areas significantly.

The fourth and fifth questions combined to capture the engagement index. The fourth question, "How happy are you at work?" used a scale of 1 (not happy at all) to 5 (completely happy). The fifth question used the previous Likert scale of 1 (strongly disagree) to 5 (strongly agree) for the question, "I would recommend my organization as a great place to work." Engagement is a latent construct, which cannot be measured, but the vendor designed a set of survey items to tap into the construct. The vendor used large amounts of data over five years to validate the engagement index. Although the vendor's initial narrowing process with 52 outcome items yielded 11 items, the number of items was further reduced to a two-item engagement index that captured 90% of the variance ( $r = 0.95$ ). In multiple studies, Kullback-Leibler divergence was minimized with the two-item index, and nothing substantial was gained by adding more items. The other constructs including leadership, belonging, and accomplishment were validated through multiple items based on years of research and tested for high internal consistency using Cronbach's alpha  $>0.9$ . Single "marker items" were selected from the multi-item construct based on each item's scores loaded onto the loading factor  $>0.9$  and the correlation with different constructs. Based on this analysis, the vendor recommended the two questions for employee engagement index and 21 other questions. Each company decides which questions to use for their survey. The vendor defines "employee engagement" as the degree to which employees invest their mental, emotional, and behavioral energies toward positive organizational outcomes (A Modern Approach to Measuring Engagement, 2020).

### **Data Collection Process/Procedures**

Results from RN responses in the November 2019 survey were analyzed and compared to survey results in November 2020. The survey was open for one month and available to any RN to participate in the two time periods. The vendor provided the facilities with a survey link for

any RN to participate in the survey, and the facilities distributed the survey link in emails, hospital intranets, and flyers. De-identified RN responses to five survey questions were used for the project.

The RN turnover rate was reported monthly and represented a rolling 12-month turnover percentage. The turnover percentage was calculated using the number of RNs who left the hospital by the total RNs employed at the hospital. The division turnover rate combines the percentages of the 19 hospitals. The 12-month rolling turnover percentage in November 2019 was compared to the 12-month rolling turnover percentage in November 2020 for the division. The statistical test used for the secondary data was the paired *t* test for comparing the two time periods.

### **Data Pairing**

The survey results from 2019 and 2020 were reviewed to include only RNs who participated in both surveys. The survey data was paired in excel and entered into SPSS. The pairing of the results enabled the project leader to use a paired *t* test to analyze the results.

### **Results**

Over 5000 RNs were invited to participate in the employee engagement surveys, 3280 participated in the 2019 and 2020 surveys, a 65% overall response rate. The project leader calculated the demographic information from the 2020 survey data. Most of the respondents were female (90%,  $n = 2963$ ), and 10% ( $n = 317$ ) were male. The age categories of the RNs included 43% ( $n = 1396$ ) between the ages of 25 and 39, 20% ( $n = 641$ ) 40-49 years old, and 18% ( $n = 570$ ) 50-59 years old. A majority of the RNs were employed 1-9 years (59%,  $n = 1934$ ) and 10% ( $n = 311$ ) were employed 20+ years. Another key characteristic was the status of

the employee, i.e., full-time, part-time, or PRN. 83% ( $n = 2706$ ) of the RN participants were full-time employees. More detailed information regarding the descriptive characteristics is displayed in Table 1.

RNs' responses from November 2019 were compared to their responses in November 2020 to determine if there was a significant difference in RNs' perceptions before COVID-19 compared to the current COVID-19 period using a paired samples  $t$  test. The survey question regarding whether RNs were satisfied did have a statistically significant difference ( $t(3279) = -5.65, d = .099, p < .001$ ), the mean difference was  $-.12$  (see Table 3). RNs' response to whether they would recommend the facility had statistically significant results ( $t(3279) = -7.04, d = -.123, p < .001$ ), the mean difference was  $-.17$ . RNs' perception of resources from 2019 to 2020 was statistically significant ( $t(3279) = -5.69, d = -.089, p < .001$ ), the mean difference was  $-.13$ . The perception of "good" communication responses decreased from 2019 to 2020 ( $t(3279) = -6.34, d = -.111, p < .001$ ), and the mean difference was  $-.17$ . RNs' perception of confidence in leadership decreased ( $t(3279) = -3.89, d = -.068, p < .001$ ), and the mean difference was  $-.10$ . Additional detail of the SPSS results is displayed in Table 3. The RN turnover rate calculated from data retrieved from the HR analytic system was 12-months rolling. The 12-month RN turnover rate in November 2019 was 14.6%, and the 12-month RN turnover rate in November 2020 was 15.4%, a difference of 0.8 percentage points, or a 5.5% increase (Figure 2).

### Discussion

The survey results analysis statistically supported the five hypotheses from the engagement surveys, and the data from the HR analytics supported the 6<sup>th</sup> hypothesis. Although the hypotheses were statistically significant, the effect size represented by Cohen's  $d$  reflected RNs' responses in the survey from 2019 to 2020 was less than 0.1. The difference in the

questions' means was not substantial in the 2019 survey and the 2020 survey. As reported in the review of literature, the practice environment is a driver of RN satisfaction. RNs' perception of the practice environment affects the RNs' intent to stay in the organization. The practice environment includes staffing, resources, perception of leaders, and job workload (Nelson-Brantley et al., 2018; Pineau Stam et al., 2015; Van der Heijden et al., 2019).

### **RN employee satisfaction and recommending the organization**

There were statistically significant differences in the RNs' satisfaction and willingness to recommend the facility from the first survey in 2019 to the second survey in 2020. Still, the practical significance indicated the difference was minimal. Changes within the practice environment, including new personal protective equipment, increased workloads, and fatigue, were evident, but the change in RNs' satisfaction with their organizations was minimal. RNs' satisfaction can impact their intent to stay; however, these survey findings indicated even with the new challenges RNs faced, their satisfaction had little change from the pre-COVID-19 period. These results are encouraging for nursing leaders because RN dissatisfaction is a precursor to increased RN turnover. The nursing leader's ability to keep RNs satisfied in the midst of this pandemic speaks volumes to the system's culture. The culture of the organization is the core of nursing engagement. Nurses stay in the organization when they perceive their leader cares about them as an individual. During this pandemic, nurses leaned on their leader and each other to endure difficult trials and heartbreaking patient scenarios. Nurses embracing the "family" culture was a driver in the hospital's ability to keep RNs satisfied.

### **RNs' perception of adequacy of resources**

RNs were consistently challenged with adequate equipment and staffing within hospitals. Staffing shortages and lack of personal protective equipment directly impacted RNs' intent to

stay (Schultz & Shattell, 2020; Chen, Lai, & Tsay, 2020). Adequate resources were statistically different between 2019 and 2020, the difference was small and the practical implication of such a decline is likely minimal. Many hospitals reported shortages of resources, and RNs were being interviewed and quoted in the media regarding their fears of contracting the virus due to the inadequate personal protective equipment. Supply managers were counting masks, gowns, and face shields and reporting the inventory daily. Supply czars distributed supplies to maintain control over the usage. There were debates in the literature on whether to use shoe covers and hair covering for protective equipment when caring for a COVID-19 patient. The ability to provide adequate resources in a pandemic was a priority for hospital leaders, and even though the RNs' perception of resources declined, there was not a large difference from the 2019 survey. This finding was a positive one for the multi-hospital system when many hospitals had RNs reuse personal protective equipment resulting in RNs feeling unsafe in their practice environment.

### **RNs' perception of communication**

The RNs' perception of "good" communication did have a statistically significant change from November 2019 to November 2020. Communication techniques in 2019 included town halls, live staff meetings, and small group meetings. In 2020, nursing leaders had to create alternate communication modes, including virtual meetings, group emails, and social media forums. The mean score of the survey question about "good" communication in 2019 was 3.75 using the Likert scale of 1-5. The mean of the same question in 2020 was 3.62, a -.17 difference. Although there is statistical significance, the difference is minimal considering the effect size. The inability for leaders to have in-person staff meetings during the COVID-19 period was impactful; however, the new communication platforms were somewhat effective and prevented a

more negative perception of communication. Burke et al. (2017) reported effective communication from the nursing leader increases job satisfaction. Nursing leaders need to continually explore ways to get information to nurses in ways the RNs perceive the information is meaningful and effective. With RNs working a variety of shifts, days, nights, and weekends, leaders must communicate in various ways, pandemic or not, and it is essential for the RN to have information and feedback.

### **RNs' confidence in leadership**

The survey vendor did not define the leadership team, but results demonstrated the RNs' confidence in the leadership team decreased from the November 2019 survey to the November 2020 survey. The ambiguity surrounding adequate and accurate personal protective equipment, new treatment protocols, quarantine guidelines, and availability of the vaccine could have contributed to the decrease in confidence of the leadership team. Although the statistical difference was present, the mean difference in the RN responses of confidence in leadership in 2019 and 2020 was not a meaningful change. Nurses were facing fears and uncertainty beyond anything they had experienced before in their careers and were looking to their leaders to help guide them and support them. The information from the CDC required the leaders to make process and clinical changes weekly. Leaders had to make choices impacting the leader personally, such as being visible in the COVID-19 units or choosing to stay at a safe distance. Some non-nursing leaders suggested that senior nursing leaders work from home and stay off the nursing units to keep from contracting the virus. The nursing leaders in this system did the opposite. The leaders put on scrubs and went on the units to assist in multiple ways. There were reports of leaders transporting patients, giving medications, watching telemetry monitors, and answering phones. Whatever was needed to support the nursing staff and keep the patients safe

was the nursing leaders' additional job roles. When not on the units, nursing leaders worked on creative staffing plans, delivered food to staff, and provided emotional support. The nurses' confidence in the leader is a driver for nurses to stay at their facility (Dols et al., 2019). The ability to maintain relationships with staff is essential to retention of the RN (Burke et al., 2017; Feather, 2015; Halter et al., 2017; Portuguese et al., 2015). Nursing leaders can connect with RNs by demonstrating their willingness to be present and assist RNs in their care in small ways, including gathering equipment, communicating with families, or answering phones. The visibility of the nursing leader is key to increasing the RNs' confidence in the leader.

### **RNs' turnover**

The nursing leaders closely monitored RN turnover in the multi-hospital system. Additionally, the acuity of the COVID-19 patients increased the number of RNs needed at each hospital. Hospitals were reporting capacity issues in critical care units due to the decreased availability of critical care nurses. The data did not reveal reasons for RN turnover, but typically when the practice environment changes significantly and RNs perceive a lack of control over their environment, turnover increases (Shimp, 2017). With the increased costs of RN labor, including contract labor, premium pay, and overtime, RN turnover negatively impacted the system's financial burden (United States Bureau of Labor and Statistics, n.d.; NSI, 2020). Although many RNs stayed at their facilities, the turnover was statistically significant, and understanding why RNs stayed could be critical in future studies. With the minimal change in RN satisfaction documented between the two surveys, the increase in turnover may have been for alternative reasons, including retirement, pursuing advanced practice degrees, childcare issues, or other personal reasons unrelated to the practice environment.

### **RNs and the Theory of Planned Behavior**

The survey findings and alignment of the theory of planned behavior were evident in the results. RNs' attitude about staying, others' influencing the RN to stay, and the RNs' perception of control were not specific survey questions; however, their impact was evident in the results. RNs' perception of resource availability, confidence in leadership, communication, and satisfaction are influenced by their peers and the leadership's response. The project results supported the literature regarding the impact of the practice environment on the RNs' intent to stay. Strong communication from the leaders continues to be an essential factor in RN satisfaction.

### **Implications for Practice**

The project findings support the need to continue nursing leaders' focus on what impacts RNs' practice and practice improvements to ease the job demands of RNs. The pandemic certainly added additional pressures and demands to an already struggling nursing workforce. The literature suggests self-governance and increasing autonomy are critical elements to enhance RN satisfaction. These are elements of the practice environment the hospital system will need to add to the survey. Retaining RNs, as well as recruiting additional RNs, is the focus for healthcare systems. Understanding the reasons why RNs leave will help healthcare organizations create an environment in which RNs can stay engaged.

### **Strengths, Limitations, and Future Direction**

Strengths of the project included the validity and reliability of the survey questions, as well as the large data set and the clear fit of the Theory of Planned Behavior to the project

questions. The robust response rate of the RNs completing the survey was another strength. Comparisons of RN's perception of hospital response during a time of COVID 19 with a previous year is a timely contribution. A limitation of the project is the numerous unmeasured confounding factors that impact RN turnover and RN engagement. The findings may be generalized to the greater population of RNs within the multi-hospital system. The project results demonstrate the importance of assessing RNs' needs and responses in order to address the critical issue of RN turnover.

### **Conclusion**

RNs' perception of resources, communication, and leadership was decreased from the pre-COVID period, and RN turnover increased by 5.5%. The pandemic brought challenges in all three areas for leadership to manage and support the RN workforce. The COVID-19 pandemic impacted the practice environment negatively by challenging resource availability and the leader's ability to communicate effectively. Although the pandemic was unprecedented, the knowledge leaders can gain from these findings are important to minimize the effects of a future crisis on the RN workforce. Nursing leaders can be encouraged with these results. Next steps could include researching the impact of coworkers on RNs' intention to stay in hospitals.

Additionally, the RNs' ability to control the environment, as the theory of planned behavior describes, could be a key strategy in RN retention. More frequent surveys of RNs in the workforce to gain additional insight could be helpful. As leaders work to retain RNs, surveying RNs to gain further knowledge about RNs' needs and their desire to be more autonomous can be future projects for nursing researchers.

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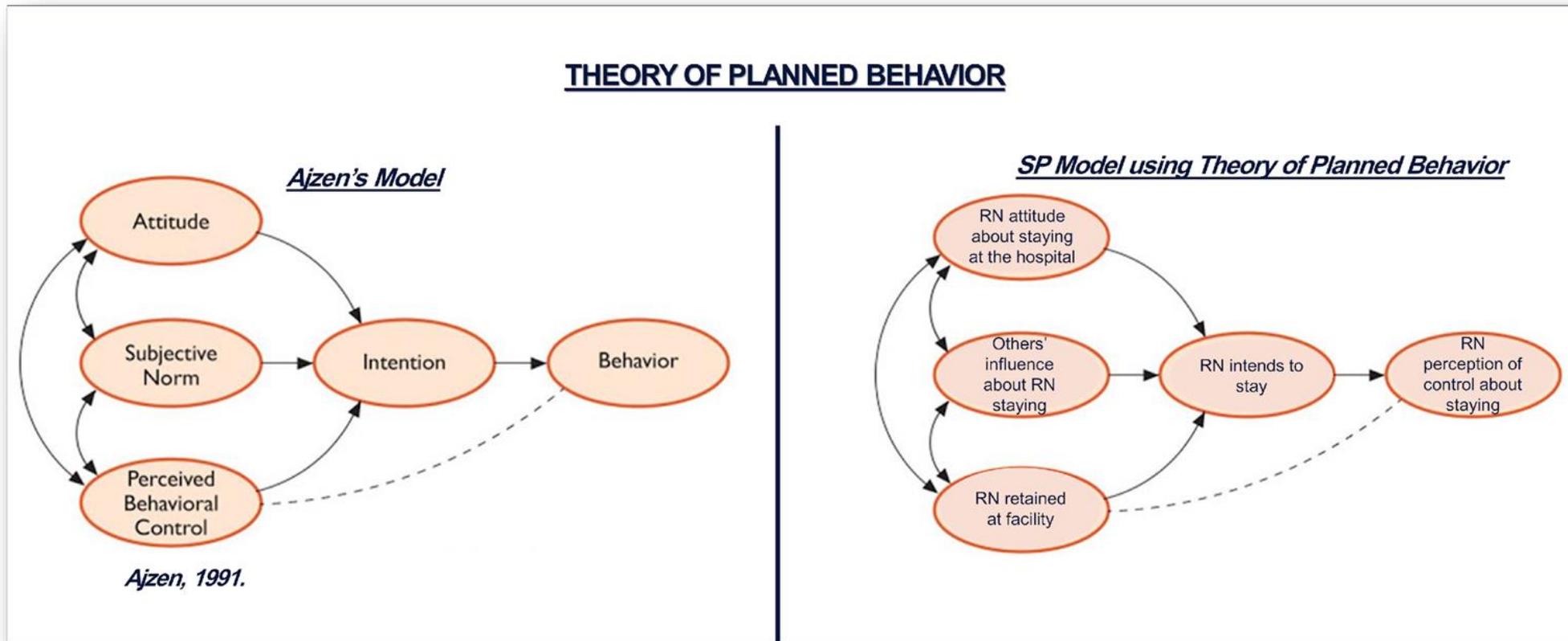
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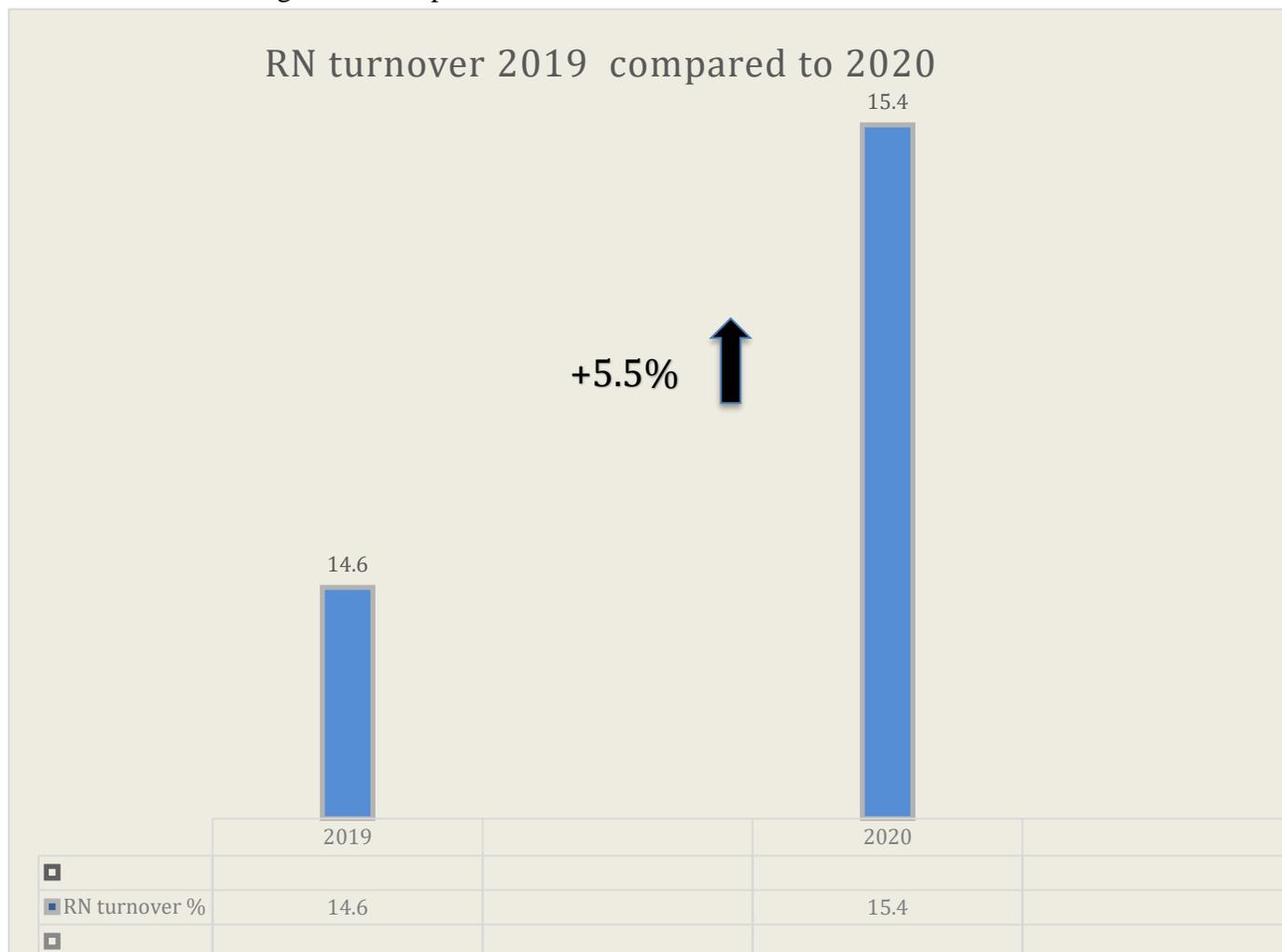
**Figure 1**

Theory of Planned Behavior and RN Turnover



**Figure 2**

RN Turnover Percentage 2019 compared to 2020



**Table 1***Characteristics of RN participants*


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Characteristics	<i>n</i>	%
<b>Gender</b>		
Female	2963	90
Male	317	10
<b>Age Group</b>		
16-24	372	11
25-39	1396	43
40-49	641	20
50-59	570	18
60+	301	9
<b>Tenure</b>		
1-90d	119	4
91-180d	210	6
181-365d	236	7
1-4y	1207	37
5-9y	727	22
10-14y	267	8
15-19y	202	6
20+y	311	10
<b>Status</b>		
FT	2706	83
PT	177	5
PRN	397	12

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**Table 2***Paired Samples Statistics*


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	<i>M</i>	<i>n</i>	<i>SD</i>	<i>SEM</i>
Pair 1` esat2020	3.79	3280	.957	.016
esat2019	3.92	3280	.888	.015
Pair 2 recommend2020	3.78	3280	1.03	.018
recommend2019	3.96	3280	.955	.016
Pair 3 resources2020	3.53	3280	1.12	.019
resources2019	3.67	3280	1.05	.018
Pair 4 communication20	3.58	3280	1.20	.021
Communication19	3.75	3280	1.08	.018
Pair 5 leadership2020	3.66	3280	1.15	.020
leadership2019	3.77	3280	1.13	.019

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**Table 3***Samples Paired t Test*


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				95% Confidence Interval					
		Mean Difference	SD	Lower	Upper	<i>t</i>	<i>d</i>	<i>df</i>	<i>p</i>
Pair 1	esat2020 - esat2019	-.12	1.30	-.173	-.084	-5.65	-.099	3279	<.001
Pair 2	recommend2020 - recommend2019	-.17	1.39	-.219	-.123	-7.04	-.123	3279	<.001
Pair 3	resources2020 - resources2019	-.13	1.53	-.189	-.084	-5.09	-.089	3279	<.001
Pair 4	communication2020 - communication2019	-.17	1.58	-.230	-.121	-6.34	-.111	3279	<.001
Pair 5	leadership2020 - leadership2019	-.10	1.60	-.163	-.053	-3.89	-.068	3279	<.001

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