

Organizational Climate Variables and Performance as Predictors
of Voluntary and Involuntary Turnover Among Nurses

by

Anna White

A Thesis Submitted in Partial Fulfillment of the Requirements
of the Degree of Master of Arts in Psychology

Middle Tennessee State University
May 2022

Thesis Committee:
Dr. Glenn Littlepage, Chair
Dr. Michael Hein, Committee Member
Dr. Judy Van Hein, Critical Reader

ACKNOWLEDGEMENTS

I would like to thank Dr. Glenn Littlepage, my thesis advisor, for his guidance throughout my thesis process. His patience and willingness to help me made the process so much easier for me. To Dr. Hein, my committee member, thank you for your valuable input into my thesis. I would also like to thank Dr. Van Hein, my critical reader, for her helpful feedback and careful review.

To my mom, dad, and grandma, thank you for your unwavering support. Your encouragement and pride in me are incredibly meaningful to me. I would also like to thank my cohort. Every person in my cohort has been supportive of me both academically and personally. I am very grateful I got to work alongside you the past couple of years. To Brenna Armfield, thank you for being an incredible friend to me. You always go out of your way to encourage and support me, and living with you throughout the program has greatly improved my life.

ABSTRACT

Previous research has examined antecedents of turnover, including performance, engagement, leader effectiveness, and other variables. The purpose of this study is to research the relationships between organizational climate variables, performance, and voluntary and involuntary turnover. Data were collected from surveys and performance appraisals conducted in 2019 and turnover records through 2021. Participants were nurses in hospitals in a healthcare organization across the United States. Exploratory factor analysis was used to identify organizational climate variables measured in the surveys, which included organizational climate, satisfaction with supervision, intention to stay, professional support, peer support, and collaboration. Regression analyses were used to test the hypotheses. The combination of the organizational climate variables was indirectly related to voluntary turnover rate through intention to stay. Performance was negatively related to voluntary and involuntary turnover. The findings contribute to the literature on antecedents of turnover.

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CHAPTER I: LITERATURE REVIEW

Introduction

Turnover is costly to organizations due to lost productivity and employee replacement expenses (Mitchell et al., 2001). Nurses have particularly high voluntary turnover rates and are in high demand. A recent survey of 226 hospitals in the United States measured an average turnover rate of 15.7% in 2020 for full- and part-time registered nurses (NSI, 2021). Hospitals reported needing 89 days on average to hire a nurse and 40% of hospitals expected to increase the number of nursing staff members. Given the costs of turnover and the turnover rate among nurses, it is beneficial for hospitals to reduce the nursing turnover rate.

The purpose of the research project is to examine predictors of voluntary and involuntary turnover among nurses. Hypotheses are that engagement and positive perceptions of leadership will be negatively related to voluntary turnover and stronger predictors of voluntary than involuntary turnover. Additionally, performance rating will be negatively related to involuntary turnover and a stronger predictor of involuntary than voluntary turnover. Data will be collected from several thousand nurses at geographically dispersed hospitals owned by a healthcare investment company.

Turnover

Turnover Definition and Types. Turnover occurs when employees leave their job and organization. The two types of turnover are voluntary and involuntary. The employee decides to leave the organization in the voluntary turnover process, but the organization decides to remove an employee from their position in the involuntary turnover process (Chhinzer, 2021). Turnover is considered external when employees leave the

organization to go to another and internal when employees stay in the organization but change jobs. Studies vary in whether they distinguish between and include both types (Li & Jones, 2013). Given that organizations choose to terminate employees in the involuntary turnover process but lose employees they wish to retain in the voluntary turnover process, research on turnover has focused on voluntary turnover to help organizations retain high performers and reduce turnover costs.

Researchers have studied turnover at a variety of levels, such as by examining the individual decision-making process to leave an organization or human resource practices that influence turnover rate at the organizational level. Turnover rate is typically calculated by dividing the number of terminations by the total number of people in the group of interest. Li and Jones (2013) recommend supplementing turnover rate with other measures, such as instability rate, which includes both internal and external turnover, and the average length of service for voluntary leavers.

It is more common for researchers to study turnover intention than actual turnover. Turnover intention can be measured at the same time as other variables with survey items whereas actual turnover can take years to occur and must be studied using organizational records. Although turnover intention is typically easier to study, it does not perfectly predict actual turnover. In a meta-analysis examining nurse turnover, turnover intention and actual turnover had a correlation of 0.28 (Nei et al., 2015). Researchers often use turnover intention to indirectly measure or predict turnover because of the easier data collection process. However, there are differences in antecedents of turnover intention versus actual turnover, so it is better to study actual turnover for organizations trying to reduce the number of employees leaving.

Turnover Costs. Turnover is costly to both organizations and departing employees. At the organizational level, people who leave have valuable experience and connections. If the organization chooses to find a replacement, there are costs associated with hiring them such as payment for temporary workers, selection costs, and training costs (Mitchell et al., 2001). The departing employee may experience stress, uncertainty, and financial loss regardless of whether they chose to leave (Mitchell et al., 2001). Once a position is filled, it takes time for the new employee to reach their full productivity levels. A small group of clinical nursing directors estimated that it takes experienced nurses about six weeks to reach 90% productivity, but it takes inexperienced nurses 14 weeks (Jones, 2005).

Estimates of turnover cost per nurse vary greatly due to inconsistencies in defining turnover, measuring turnover, and calculating turnover costs (O'Brien-Pallas et al., 2006). Nursing turnover costs are difficult to track, constantly change due to inflation, and depend on organizational and market factors (Li & Jones, 2013). Li and Jones (2013) reviewed nursing turnover costs and found studies that placed estimates between \$10,098 and \$88,000, with turnover cost as a percentage of average salary ranging from 31% to 130%.

Jones (2005) updated the Nursing Turnover Cost Calculation Methodology to divide turnover costs into seven categories and specify how to calculate the nursing turnover costs according to human resource accounting techniques.

Advertising/recruiting, vacancy, and hiring costs are all turnover-related costs that occur before a replacement employee begins working, while orientation/training, new hire productivity, and termination costs occur after a replacement employee begins working

(Jones, 2005). Jones (2005) estimated turnover costs to be between \$62,100 and \$67,100 per registered nurse. The most expensive cost category was vacancy, which included the costs of overtime pay, temporary nurses, patient deferrals, closed beds, coworkers' lost productivity, and more (Jones, 2005).

Voluntary Turnover Antecedents. In an effort to understand and reduce turnover and its related costs, researchers have studied the voluntary turnover process. Research on the antecedents of voluntary turnover traditionally focused on dissatisfaction and the ease of finding an alternative job (Harman et al., 2007; Thomas W. Lee et al., 1999; Mitchell et al., 2001). Because organizations can more easily influence job satisfaction, a commonplace strategy for years has been to assess job satisfaction and develop interventions in order to decrease turnover (Mitchell et al., 2001). Job satisfaction has a modest relationship with turnover, but the number and type of job alternatives is inconsistently related to turnover. (Thomas W. Lee et al., 1999). The focus on dissatisfaction and job alternatives misses the complexity of employees' decisions to leave their jobs (Harman et al., 2007). Voluntary turnover is complicated, and many of the reasons employees quit are unrelated to their manager or even their job and organization (Thomas W. Lee et al., 1996). Therefore, researchers have examined other predictors of and explanations for voluntary turnover.

Lee and Mitchell (1994) proposed the unfolding model of voluntary turnover, which combines market and individual factors that either push employees to leave their job or pull them to alternative jobs. In the model, an employee's decision to leave their job can occur through several paths that vary in whether a shock occurred, whether job alternatives were evaluated and considered, whether the employee was dissatisfied, and

more. A shock is a job-related event that causes enough disturbance that the employee cannot ignore it. It can be expected or unexpected and positive, negative, or neutral but must change the employee's typical state (T. W. Lee & Mitchell, 1994). Examples of shocks are changes to the company's strategy, a significant change to the job, marriage, or having a child. According to image theory, job alternative evaluation involves comparing shocks to value, trajectory, and strategic images (Harman et al., 2007). Value images are important job-related values or principles. Trajectory images are goals people have that guide their behavior on the job (Harman et al., 2007). These goals can be more specific, like getting a job or learning a particular skill, or vague, such as feeling happy or successful (Beach & Mitchell, 1987). Strategic images are the behaviors a person believes will lead to them reaching job-related goals (Harman et al., 2007). These behaviors are sequential and may be planned in more detail as a person works towards their goals (Beach & Mitchell, 1987). Through comparing these images between the current job and alternative job, the person will decide which is preferable and make a decision.

There are five decision paths that employees can take to decide to quit their jobs according to the unfolding model of voluntary turnover. Some researchers refer to the types of quit decisions using numerical labels, but Maertz and Kmitta (2012) gave the voluntary turnover decision types descriptive labels: impulsive, comparison, preplanned, conditional, and satisficing. Impulsive quitters make an automatic quit decision in which they experience a shock, reflect on previous decisions and their outcomes, and decide to leave without considering alternatives (T. W. Lee & Mitchell, 1994). The previous decision and its outcome is known as a script that the employee follows when deciding to

leave their job (Thomas W. Lee et al., 1999). The other decision paths result in a controlled quit decision (T. W. Lee & Mitchell, 1994). A comparison quitter experiences a shock, reassesses their fit and commitment, and decides to leave without evaluating alternatives. Similarly, a preplanned quitter experiences the shock and reassessment then decide to leave after considering alternatives (T. W. Lee & Mitchell, 1994). Sometimes, there is no shock, but rather an employee decides to quit because of changes in the job or changes in what the employee desires that lead to dissatisfaction (T. W. Lee & Mitchell, 1994). They have a plan to quit their job if a certain event occurs or they get a better offer, and these are conditional and satisficing quitters respectively (T. W. Lee & Mitchell, 1994; Maertz & Kmitta, 2012).

Maertz and Kmitta (2012) studied the reasons that people make each of these types of decisions by interviewing people across jobs and organizations and classified them into the five decision types. They found that impulsive quitters tended to experience management conflict, family events, and work stress as reasons for leaving. Comparison quitters considered the opportunities other jobs would offer, including pay, career advancement, and responsibilities (Maertz & Kmitta, 2012). Preplanned quitters were more likely to mention family demands, career changes, and relocation as reasons for leaving, which are all shocks employees are often able to anticipate. Conditional quitters tend to leave after a major negative event either at work, such as a conflict with management, or in their personal life more so than any other type (Maertz & Kmitta, 2012). Satisficing quitters evaluate aspects of a job alternative similar to comparison quitters. However, unlike comparison quitters, satisficing quitters accept the first job

offer that meets their standards without extensive deliberation or holding out for other potential offers (Maertz & Kmitta, 2012).

The unfolding model of voluntary turnover differs from previous models because it acknowledges that job dissatisfaction is not necessary for employees to leave their job, that employees may not search for job alternatives before quitting, and that some turnover decisions take longer than others (Harman et al., 2007). Lee et al. (1999) later made some modifications to the model. They suggested that an unsolicited job offer would be considered a shock. An unsolicited job offer could also result in a job alternative evaluation without a search, although the search and evaluation were once considered to occur together.

Lee et al. (1996) tested the model by interviewing nurses and classifying them according to the paths in the unfolding model. Almost all cases aligned with a path in the model with some exceptions. The most common types of quit decisions were conditional and satisficing quits, which involved no shock and dissatisfaction, and preplanned quits, which involved a shock, dissatisfaction, and a search for an alternative job (Thomas W. Lee et al., 1996). Less common were situations in which a shock occurred and prompted employees to leave without considering alternatives, or impulsive and comparison quits. Similarly, Mitchell et al. (2001) interviewed a small sample of nurses and found preplanned quits were most common, followed by satisficing and conditional quits. In all occupational groups, most people experienced a shock and searched for an alternative job before leaving. Slightly more shocks were external to the organization (Mitchell et al., 2001).

Involuntary Turnover Antecedents. Compared to research on voluntary turnover antecedents, little research is published about involuntary turnover antecedents, presumably because organizations choose to terminate employees and therefore already understand what caused the decision for the employee to leave. However, there are studies about performance, absenteeism, personal characteristics, and human resource practices as they relate to involuntary turnover. There is a negative relationship between performance and involuntary turnover (Bycio et al., 1990; Wells & Muchinsky, 1985). A meta-analysis found a correlation of 0.253 between absenteeism and turnover (Berry et al., 2011). Stumpf and Dawley (1981) found absenteeism accounted for 10.5% of variance in involuntary turnover in one group of bank tellers they measured but was not a significant predictor of involuntary turnover in another. The personal characteristics of general mental ability and conscientiousness predicted performance and were negatively correlated with involuntary turnover (Barrick et al., 1994). Involuntary turnover also has a relationship with human resource practices. Training and selection ratio were significant predictors of discharge rates. Shaw et al. (1998) found that training was positively related to discharge rates, contrary to the hypothesized negative relationship, meaning employees who underwent more training tended to be discharged from the organization at greater rates. Selection ratio was positively related to discharge rates, so organizations that selected a greater proportion of applicants also tended to discharge a greater proportion of employees. This finding only held when valid selection procedures were used (Shaw et al., 1998).

Turnover Antecedents. Research on turnover typically focuses on voluntary turnover, although some research examines overall turnover or involuntary turnover. Generally, antecedents of turnover are more strongly related to turnover intention than actual turnover, meaning predictions of turnover intention are expected to be more accurate than predictions of actual turnover (Nei et al., 2015).

Griffeth et al. (2000) conducted a comprehensive meta-analysis examining predictors of turnover at the individual level. Overall job satisfaction was a modest predictor of turnover. Aspects of the work environment, including supervisory satisfaction, co-worker satisfaction, and work group cohesion were predictive of turnover (Griffeth et al., 2000).

Absenteeism and lateness predicted turnover, but performance did not (Griffeth et al., 2000). Many cognitions and behaviors related to withdrawal were predictors of turnover (Griffeth et al., 2000). These included organizational commitment, searching for jobs, intention to quit, and expected utility of withdrawal. Few demographic variables that Griffeth et al. (2000) studied predicted turnover. Employees of different genders, races, cognitive abilities, education levels, and marital statuses were all equally likely to leave. The only significant demographic predictors studied were tenure and number of children. Both of these variables were negatively related to turnover, meaning that the longer you have worked for an organization and greater number of children you have, the less likely you are to leave the organization (Griffeth et al., 2000).

Nursing Turnover Antecedents. Given the high turnover rate among nurses and high number of nurses in the workforce, various researchers have examined antecedents of intention to stay or leave, turnover intention, and turnover in samples of nurses.

Autonomy and job content are related to intention to stay (Carter & Tourangeau, 2012; Han et al., 2015). Work hours, overtime requirement, and lack of breaks did not significantly influence intent to stay (Han et al., 2015). Peer support and relationship with coworkers were related to intention to stay after adjusting for other variables, but supervisor support was not (Carter & Tourangeau, 2012; Han et al., 2015).

Organizational support for development and work-life balance were negatively related to intention to leave (Carter & Tourangeau, 2012). In a sample of nurses from the Netherlands, Homburg et al. (2013) found that work-to-home interference was positively associated with intention to leave while satisfaction with leadership and management, pay and benefits, and their job were negatively related to nurses' intention to leave. Career development opportunities were not related to intention to leave.

Nei et al. (2015) conducted a meta-analysis examining predictors of voluntary turnover in 106 studies of nurses. The turnover-related attitudes of job commitment, involvement, and satisfaction were negatively related to turnover. Older nurses, nurses who had been in the profession or organization longer, and nurses who had fewer job alternatives were less likely to leave their job (Nei et al., 2015). However, salary was not a significant predictor of turnover. Nei et al. (2015) found support for a model showing that role tension has negative relationships with organizational commitment and job satisfaction while job control has positive relationships. Role tension includes role conflict, ambiguity, and overload. Organizational commitment and job satisfaction are negatively related to turnover intention, which is positively related to actual turnover (Nei et al., 2015). In the model, organizational tenure and leadership have direct and indirect relationships with actual turnover.

Nurses may choose to leave their profession entirely rather than just the organization they work for. In a survey of nurses in Europe, 15.6% of nurses indicated they considered leaving the profession at least once per month while 53.9% indicated they never considered it (Hasselhorn et al., 2003). Nurses who experienced burnout, dissatisfaction with their schedule or staffing arrangements, and high physical demands were more likely to leave the profession (Mazurenko et al., 2015). Those who experienced stress and dissatisfaction with leadership, pay, or career advancement opportunities were more likely to leave the organization but not the profession. The annual turnover rate was estimated to be 15.7% for nurses in the United States in 2020 (NSI, 2021).

Performance as a Predictor of Involuntary Turnover

Performance has been found to have a negative relationship with involuntary turnover. In a meta-analysis, the correlation between job performance and involuntary turnover ranged from -0.52 to -0.61 depending on the type of job performance measure (Bycio et al., 1990). In a manufacturing organization that was reducing the size of its workforce, the performance measures of sales volume and supervisor ratings had correlations of -0.21 and -0.35 respectively with involuntary turnover (Barrick et al., 1994). This indicates that employees with poorer performance, as measured by sales volume and supervisor ratings, were more likely to be dismissed during the downsizing.

Given the relationship between performance and involuntary turnover, the following relationships are hypothesized:

H1: Performance ratings will be negatively related to involuntary turnover.

H2: Performance ratings will be more highly correlated with involuntary turnover than voluntary turnover.

Engagement as a Predictor of Voluntary Turnover

Engagement Definition and Aspects. Engagement is a persistent, positive cognitive state related to work (Schaufeli et al., 2002). Engaged employees are psychologically attached to their work and invest personal resources into performing work tasks (Christian et al., 2011). They enjoy their work without being addicted to it and associate tired from work with a feeling of accomplishment (Bakker & Demerouti, 2008). They also perceive their work as challenging rather than demanding (Bakker et al., 2008). Engagement is related to but distinct from organizational citizenship behavior, job involvement, and organizational commitment (Saks, 2006).

Researchers define engagement and its components in different ways. One conceptualization of engagement is that it contains cognitive, emotional, and behavioral aspects (Saks, 2006). Employees are cognitively engaged when they perceive their work as meaningful and safe. Emotionally engaged employees are invested in their work and have positive feelings towards it. Behavioral engagement is the physical outcomes of engagement, or putting in effort towards performance (Shuck et al., 2014). Engaged employees invest more physical, cognitive, and emotional energy into their work (Rich et al., 2010).

Most commonly, researchers describe engagement as a composition of three factors: vigor, dedication, and absorption (Schaufeli et al., 2002). Vigor is a state of high activation in which employees are resilient, persistent, and put in high levels of effort (Schaufeli et al., 2002). Dedication is characterized by involvement in work and feeling

that work is significant (Bakker & Demerouti, 2008; Schaufeli et al., 2002). Absorption refers to engrossment in work (Schaufeli et al., 2002). Engagement is most commonly measured with the Utrecht Work Engagement Scale, which contains subscales for vigor, dedication, and absorption (Bakker et al., 2008). Engagement is distinct from but negatively related to burnout, which contains the dimensions of exhaustion and cynicism (Schaufeli & Bakker, 2004). Low professional efficacy was once considered an aspect of burnout, but research suggests high professional efficacy may be an extended component of engagement (Schaufeli et al., 2002).

Engagement and the Job Demands-Resources Model. Engagement and burnout are influenced by job demands and resources, as described in the job demands-resources model. Job demands are the parts of a job that employees put continued effort into (Demerouti et al., 2001). The greater an effort the job demands require, the more of an effect they have on an employee. Job resources are the parts of a job that help employees do their work, lead to personal development, and/or reduce job demands and their effects. Examples of job resources are participation in decision making and social support (Demerouti et al., 2001). Employees look for ways to increase their resources. One way to do this is to change jobs either by seeking a promotion or a position at a different company (De Lange et al., 2008).

According to the job demands-resources model, engagement is high when employees have a high level of resources and low when employees have a low level of resources (Bakker & Demerouti, 2007). Job resources are strong predictors of engagement (Schaufeli & Bakker, 2004). Demerouti et al. (2001) proposed and found evidence that job demands lead to exhaustion, an aspect of burnout, while a lack of job

resources leads to disengagement. Job demands moderate the relationship between job resources and engagement such that the relationship is stronger when job demands are high (Bakker & Demerouti, 2007).

Antecedents of Engagement. Some individual and organizational characteristics have been found to be antecedents of engagement. Conscientiousness and positive affect are positively related to engagement (Christian et al., 2011). Although some individual factors predict engagement, organizations can more easily impact engagement by changing their practices.

Job characteristics and organizational practices are antecedents of engagement. Many job characteristics, including task variety, task significance, autonomy, and feedback, are positively related to engagement (Christian et al., 2011). Additionally, the more physically demanding a job is, the less engaged employees tend to be (Christian et al., 2011). Value congruence, perceived organizational support, and core self-evaluations are positively related to engagement (Rich et al., 2010). Saks (2006) differentiated between job engagement and organization engagement and found differences in the antecedents of each. Job characteristics predicted job engagement, while procedural justice predicted organization engagement. Organizational support predicted both. The organizational practices of career management, job control, compensation, person-job fit, and performance appraisal predicted increased organizational engagement, which in turn predicted decreased turnover intention (Juhdi et al., 2013).

Teams also influence engagement given that engagement can cross over between teams and team members through team interactions and climate. This finding held after controlling for job demands and resources (Bakker et al., 2006). Team engagement can

offset the negative symptoms of burnout (Bakker et al., 2006). Span of control, or the number of employees a manager directly oversees, has a negative relationship with team engagement. Teams with more than 15 people had significantly lower engagement. A healthcare organization added more management positions, thereby reducing team size, and subsequently measured significantly higher levels of employee engagement (Cathcart et al., 2004).

Outcomes of Engagement. Engagement has many positive outcomes for organizations related to attitudes and performance. Engagement predicted task performance and organizational citizenship behavior, both factors of job performance (Christian et al., 2011; Rich et al., 2010). It predicted these beyond the related variables of job involvement, job satisfaction, and intrinsic motivation (Rich et al., 2010). Outcomes of both job and organization engagement are increased job satisfaction, organizational commitment, and organizational citizenship behavior and decreased intentions to quit (Saks, 2006). A meta-analysis examining relationships between employee engagement and business outcomes at the unit level found that employee engagement was also related to customer satisfaction and loyalty, profit, productivity, and safety (Harter et al., 2002).

Engagement is also negatively related to voluntary turnover and turnover intention. Schaufeli and Bakker (2004) found that as engagement increases, turnover intentions tend to decrease, although this relationship is relatively weak. This suggests that engagement is predictive of turnover, although there are other variables that also influence turnover intentions. Employees who lack job resources, have low job autonomy, and have low work engagement are more likely to leave their jobs (De Lange

et al., 2008). A meta-analysis found a negative relationship between employee engagement and turnover at the unit level (Harter et al., 2002). Cognitive, emotional, and behavioral engagement all have a negative relationship with turnover intention. Emotional engagement was the strongest predictor of the three types of engagement (Shuck et al., 2014).

Leader Effectiveness as a Predictor of Voluntary Turnover

Employees' direct supervisors and other leaders in the organization influence their job satisfaction and their decision to stay at or leave their positions. Quality of leadership in healthcare can vary given that many nursing leaders were trained in nursing but have little to no leadership training and experience (Van Der Heijden et al., 2009).

In studies examining leader effectiveness, it was positively related to job satisfaction and negatively related to turnover intention and intention to leave the organization. Employees with effective leaders were less likely to want to leave their jobs (Elçi et al., 2012). They also tended to have higher job satisfaction, which was negatively related to intention to leave their profession (Van Der Heijden et al., 2009). Nurses who perceived their supervisor to be a good manager and leader had lower intention to leave and higher job satisfaction (Duffield et al., 2010).

Behaviors of Effective Leaders. Leader behaviors contribute to perceptions of leader effectiveness. High quality leaders assign tasks, provide clear goals and expectations, communicate well, and allow employees to give input into decisions (Van Der Heijden et al., 2009). Greco et al. (2006) proposed and found support for a model in which leader empowering behaviors indirectly influence nurse engagement. These behaviors were enhancing meaningfulness of work, fostering participation in decision-

making, facilitating goal accomplishment, providing autonomy, and expressing confidence. Employees who perceive that their supervisor actively listens to them have significantly lower intention to leave the job (Lloyd et al., 2015). Supervisors who listen to their employees may be perceived as more supportive and be able to detect dissatisfaction earlier. In contrast, Sellgren et al. (2007) found that leadership behavior was positively related to work climate and job satisfaction but not turnover after controlling for other variables. Although leadership behavior was not directly related to turnover, leaders impacted the work climate and job satisfaction, and job satisfaction was related to turnover.

Some researchers have identified characteristics of effective leaders among nurses specifically. Duffield et al. (2010) found that nurses in wards with positive scores on survey items related to leadership were more likely to report that managers consulted with their staff, they received recognition, senior nursing leaders were visible and accessible, and they perceived their managers or supervisors to be good leaders. In a qualitative study of a small sample of nurses, every participant stated that leadership contributed to their decision to leave their previous job. This was particularly true when leaders were poor communicators, did not support their team properly, or impacted their team's ability to work together or perform their job (Hayward et al., 2016). A small sample of nurses identified behaviors characteristic of effective leaders, including open communication, providing support, being present in challenging situations, encouraging collaboration, and supporting professional development (Hayward et al., 2016).

Supervisor Support and Turnover. A characteristic of effective leaders is being supportive towards employees. Perceived supervisor support and perceived organizational support are negatively related to turnover intention (Kalidass & Bahron, 2015). DeConinck and Johnson (2009) surveyed salespeople and found that perceived supervisor support positively impacted perceived organizational support, which then positively influenced organizational commitment. Organizational commitment then led to a decrease in turnover intentions, and turnover intention was related to actual turnover. A meta-analysis examining predictors of turnover among nurses found that supportive and communicative leadership was one of the strongest predictors of turnover (Nei et al., 2015). It was equally as correlated with turnover as turnover intention was.

The finding that supervisor and leader support are negatively related to turnover intention held in samples of nurses. Nurses' relationship with their manager and support they receive from them was related to their intention to stay in the organization (Carter & Tourangeau, 2012). Supervisor social support had a positive relationship with job satisfaction, which was negatively related to intention to leave the nursing profession. (Van Der Heijden et al., 2009).

Some studies have examined mediators of the relationship between supervisor support and turnover or turnover intention. Nichols et al. (2016) found a negative relationship between supervisor support and turnover that was fully mediated by affective commitment, or employees' emotional attachments to their organization. Gillet et al. (2013) found that perceived organizational support had a negative relationship with turnover intention both directly and indirectly. Perceived supervisor autonomy support was also negatively related to turnover intention. This relationship was mediated by

autonomous motivation, which is behaving out of choice rather than control (Gillet et al., 2013). Afzal et al. (2019) found that perceived supervisor support had a negative relationship with turnover intention that is fully mediated by self-efficacy.

Given the relationship between organizational climate variables and voluntary turnover, the following relationships are hypothesized:

H3: Organizational climate ratings will be negatively related to voluntary turnover rate.

H4: Organizational climate ratings will be more highly correlated with voluntary turnover rate than involuntary turnover rate.

CHAPTER II: METHOD

Participants

The participants are nurses who worked for a healthcare company at any point in 2019. Nursing leaders were not included in the sample. The hospitals where they worked are geographically dispersed across the United States. As of 2022, approximately 7,000 of the organization's 25,000 employees were nurses.

Procedure

Data were collected during the company's annual employee survey, performance appraisal process, and turnover recordkeeping process. All identifying information was removed from the data before analysis to maintain confidentiality. Data collected in 2019 was used for predictor variables because the company recorded more detailed performance appraisal information through 2019. The data for the criterion variables related to turnover included nurses who left the organization at any time between the time surveys and personal appraisals were conducted in 2019 and December 31, 2021. This gave time for the turnover process to occur and used the most up-to-date data available.

Supervisors rated their subordinates on ten competencies as part of the performance appraisal process. The ratings were recorded once per year per employee. Organizational climate constructs were measured with items from the annual employee survey. Data from the employee survey was only available at the team level for teams with at least five responses for confidentiality purposes, so all analyses using employee survey data were at the team level. Turnover data was recorded every time an employee left the company. It included the date and reason the employee left the company as sorted into reason categories.

Measures

Organizational Climate Variables. Organizational climate variables were measured during the company's annual employee survey. Data from two surveys, an engagement survey sent to all employees and a nursing excellence survey sent to some employees, were used in the study. In line with the performance appraisal data, data were from 2019. Employees rated each of the items on a scale from 1 to 5, with 1 meaning strongly disagree, 2 meaning somewhat disagree, 3 meaning neither agree nor disagree, 4 meaning somewhat agree, and 5 meaning strongly agree. Data from each of the items were reported at the team level in line with the organization's survey data confidentiality policy. Any team that did not meet the threshold of five responses for reporting data with confidentiality was excluded from the study. Exploratory factor analysis was used to determine the organizational climate constructs measured by the survey. The scores of the items comprising each of the factors were averaged to create composite scores for each factor for each team.

Performance. Ratings were on a scale from 1 to 5, with 1 meaning unacceptable performance, 2 meaning low performance or developing, 3 meaning good performance, 4 meaning excellent performance, and 5 meaning outstanding performance. Supervisors rated their subordinates according to the extent to which they met performance expectations on ten competencies. The competencies were created to be applicable across the organization, so some are more relevant to nurses than others. Therefore, only five competencies will be included in analyses. Descriptions and behavioral examples of each of the competencies are in Appendix A. The following competencies will be included in

analyses because they were rated the highest on importance for clinical staff in a survey with 30 respondents in 2017:

Patient centered customer service

Cultivate a compassionate environment

Clinical and operational excellence

Promotes a collaborative environment

Holistic approach

Turnover. Participants were categorized into voluntary turnover and involuntary turnover groups based on the reason they left the organization as recorded in the organization's data. Every time an employee left the company, a human resources employee recorded the date and reason they left according to turnover reason descriptions. These reasons included voluntary turnover, involuntary turnover, medical necessity, business reasons, hire no start, contract termination, notice, retired, and deceased. Only nurses in the categories of voluntary turnover or involuntary turnover or currently employed nurses were included in the study. To calculate turnover rate for the group level analyses, the number of team members who left the organization was divided by the total number of team members. The teams were set using the organizational hierarchy from the 2019 survey. Only teams with 20 or fewer people were included in the study.

CHAPTER III: RESULTS

Organizational Climate Variables and Turnover

Exploratory factor analysis was conducted to identify constructs measured in the surveys. The oblimin rotation method was used. The extraction method was principal component analysis. Four factors were identified from the engagement survey items: organizational climate, satisfaction with supervision, ethics and compliance program, and intention to stay. Organizational climate explained 55.21% of variance, satisfaction with supervision explained 6.36%, ethics and compliance program explained 6.36%, and intention to stay explained 3.56%. Collectively, the four factors explained 68.04% of variance in survey responses. Three factors were identified from the nursing excellence survey: professional support, peer support, and collaboration. Professional support explained 55.22% of variance in survey responses, peer support explained 7.17%, and collaboration explained 6.09%. Collectively, the three factors explained 68.47% of variance in survey responses. The items in each factor are in Table 1. The factor loadings for the engagement survey items and nursing excellence survey items are in Appendix B and Appendix C respectively.

Table 1

Survey Items in Each Factor

Organizational Climate
The environment at this organization makes employees in my work unit want to go above and beyond what's expected of them.
Patient safety is a priority in this organization.
This organization provides career development opportunities.
I get the tools and resources I need to provide the best care/service for our clients/patients.
I have sufficient time to provide the best care/service for our clients/patients.
I feel like I belong in this organization.

I would recommend this organization as a good place to work.
 Different work units work well together in this organization.
 My work unit is adequately staffed.
 This organization provides high-quality care and service.
 I would recommend this organization to family and friends who need care.
 This organization makes every effort to deliver safe, error-free care to patients.
 I feel comfortable reporting ethics and compliance issues without retaliation.
 I have a high degree of trust in facility leadership.
 Facility leadership skillfully directs the overall function of the facility.
 Facility leadership recognizes, appreciates, and supports employees.
 Facility leadership understands the needs of our department.
 Facility leadership communicates openly and honestly with employees.

Satisfaction with Supervision

The person I report to treats me with respect.
 The person I report to cares about my job satisfaction.
 I am satisfied with the recognition I receive for doing a good job.
 I am involved in decisions that affect my work.
 When appropriate, I can act on my own without asking for approval.
 The person I report to encourages teamwork.
 I respect the abilities of the person to whom I report.
 The person I report to is a good communicator.
 Overall, I am a satisfied employee.

Ethics and Compliance Program

I understand the Ethics and Compliance Program.
 I understand how to report concerns regarding ethics and compliance concerns.

Intention to Stay

I like the work I do.
 I am proud to tell people I work for this organization.
 I would stay with this organization if offered a similar position elsewhere.
 My job makes good use of my skills and abilities.
 I would like to be working at this organization three years from now.

Professional Support

Within my scope of nursing practice, I have the freedom to act on what I know is in the best interest of the patient.
 I have the opportunity to influence nursing practice in this organization.
 I have opportunities to learn and grow in this organization.
 The person I report to uses the performance process to coach me on my professional development.
 The person I report to supports free exchanges of opinions and ideas.
 The person I report to is responsive when I raise an issue.
 Nurse leaders are accessible in this organization.
 Senior nursing leadership is responsive to my feedback.
 My work unit uses evidence-based practice in providing patient care.
 I am involved in quality improvement activities.
 Our organizational values are reflected in our Nursing Professional Practice Model.

Nurse leaders share a clear vision for how nursing should be practiced in this organization.

Peer Support

Nurses in my work unit help others to accomplish their work.

Nurses in my work unit help others even when it's not part of their job.

Collaboration

Communication between physicians, nurses, and other medical personnel is good in this organization.

We effectively use cross functional (interprofessional) teams in this organization.

There is good collaboration between nursing and the different ancillary services, e.g., pharmacy, lab, radiology, nutrition, behavioral health, etc.

Fifty-one survey items loaded onto factors while 8 did not. The ethics and compliance program factor was eliminated from future analyses because it was not expected to relate to turnover, resulting in six total factors. Items loading on each factor were averaged to create a scale. Cronbach's Alpha was computed to examine the internal consistency of each scale. Organizational climate consisted of 18 items ($\alpha = .97$). Satisfaction with supervision consisted of 9 items ($\alpha = .93$). Intention to stay consisted of 5 items ($\alpha = .86$). Professional support consisted of 12 items ($\alpha = .95$). Peer support consisted of 2 items ($\alpha = .93$). Collaboration consisted of 3 items ($\alpha = .78$).

A series of one-way ANOVAs with group as the independent variable was conducted to determine whether there were differences between groups. Results are in Table 2. There were more similarities within groups than between groups.

Table 2*ANOVA Results for Organizational Climate Variables*

		Sum of Squares	df	Mean Square	F	Significance
Organizational Climate	Between Groups	195.48	78	2.51	5.09	<.001
	Within Groups	364.06	740	.49		
	Total	559.54	818			
Satisfaction with Supervision	Between Groups	152.96	78	1.96	4.04	<.001
	Within Groups	359.14	740	.49		
	Total	512.13	818			
Intention to Stay	Between Groups	110.22	78	1.41	3.61	<.001
	Within Groups	289.45	740	.39		
	Total	399.68	818			
Professional Support	Between Groups	103.62	70	1.48	3.20	<.001
	Within Groups	175.53	379	.46		
	Total	279.15	449			
Peer Support	Between Groups	60.37	69	.88	1.60	<.001
	Within Groups	205.53	376	.55		
	Total	265.90	445			
Collaboration	Between Groups	99.56	70	1.42	2.97	<.001
	Within Groups	180.64	377	.48		
	Total	280.20	447			

Intraclass correlations were calculated for each variable to determine the amount of variance that can be attributed to group membership (Bliese, 2000). Results are in Table 3 below. ICC(1) values ranged from .05 to .26. ICC(2) values for organizational climate, satisfaction with supervision, and intention to stay indicate strong agreement

between employees. The values for professional support and collaboration indicate moderate agreement while the value for peer support indicates weak agreement (Woehr et al., 2015).

Table 3

Intraclass Correlations for Organizational Climate Variables

Variable	ICC(1)	ICC(2)	Number of Items
Organizational Climate	.26	.80	18
Satisfaction with Supervision	.21	.75	9
Intention to Stay	.18	.72	5
Professional Support	.16	.69	12
Peer Support	.05	.37	2
Collaboration	.15	.66	3

Voluntary and involuntary turnover rates were calculated for each team. Teams were limited to ones containing 20 or fewer people. For confidentiality purposes, only teams with at least five survey responses were included in analyses. 170 of 457, or 37.20%, of teams with nurses had at least five survey responses. 78 teams met both criteria and were included in analyses for the engagement survey, and 71 teams were included in analyses for the nursing excellence survey. The average team size was 11.52 ($SD = 4.38$). To calculate turnover rate, the number of people in the team that left the organization voluntarily or involuntarily from the time the survey was administered in 2019 to the end of 2021 was divided by the number of people in the team in 2019. The average voluntary turnover rate was 24.66% ($SD = 16.75\%$). The average involuntary turnover rate was 4.80% ($SD = 6.98\%$).

Correlations between each of the factors and the turnover indices were calculated. Results are in Table 4. Organizational climate, satisfaction with supervision, professional support, peer support, and collaboration were correlated with each other and intention to

stay. Intention to stay was correlated with voluntary turnover rate. Involuntary turnover rate was not correlated with other variables.

Table 4

Correlation Matrix

	Voluntary Turnover Rate	Involuntary Turnover Rate	Organizational Climate	Satisfaction with Supervision	Intention to Stay	Professional Support	Peer Support	Collaboration
Voluntary Turnover Rate	–	–	–	–	–	–	–	–
Involuntary Turnover Rate	-.01	–	–	–	–	–	–	–
Organizational Climate	-.22	-.08	–	–	–	–	–	–
Satisfaction with Supervision	-.18	-.02	.88**	–	–	–	–	–
Intention to Stay	-.32**	-.05	.94**	.85**	–	–	–	–
Professional Support	-.17	-.05	.82**	.80**	.78**	–	–	–
Peer Support	-.15	.04	.53**	.53**	.49**	.56**	–	–
Collaboration	-.06	-.11	.66**	.50**	.62**	.81**	.57**	–

** Correlation is significant at the .01 level.

Organizational Climate Variables and Voluntary Turnover Rate. Linear regression was used to test if organizational climate, satisfaction with supervision, intention to stay, professional support, peer support, and collaboration predicted voluntary turnover rate. Each of the variables was expected to have a negative relationship with voluntary turnover rate. The overall regression was statistically significant ($R^2 = .23$, $F(6,63) = 3.16$, $p = .009$). Intention to stay ($\beta = -1.06$, $p = .004$) and collaboration ($\beta = .51$, $p = .04$) predicted voluntary turnover rate. Organizational climate ($\beta = .34$, $p = .41$), satisfaction with supervision ($\beta = .50$, $p = .11$), professional support ($\beta = -.36$, $p = .23$), and peer support ($\beta = -.17$, $p = .25$) did not explain a significant amount of unique variance in voluntary turnover rate. Hierarchical regression indicated that organizational climate, satisfaction with supervision, intention to stay, professional support, and peer support explained 17.7% ($F(5, 64) = 2.76$, $p = .03$) of the variance in voluntary turnover rate and collaboration explained an additional 5.4% ($F(1, 63) = 4.46$, $p = .04$).

Since intention to stay is often examined as a mediator between various variables and turnover, linear regression was used to test if organizational climate, satisfaction with supervision, professional support, peer support, and collaboration predicted intention to stay. Each of the variables was expected to have a positive relationship with intention to stay. The overall regression was statistically significant ($R^2 = .90$, $F(5,64) = 120.00$, $p < .001$). Organizational climate ($\beta = .84$, $p < .001$) predicted intention to stay. Satisfaction with supervision ($\beta = .17$, $p = .12$), professional support ($\beta = -.07$, $p = .53$), peer support ($\beta = -.04$, $p = .46$), and collaboration ($\beta = .05$, $p = .56$) did not explain a significant amount of unique variance in intention to stay.

Previous analyses demonstrated that organizational climate predicted intention to stay and intention to stay predicted voluntary turnover rate. Given these findings, linear regression was used to determine whether organizational climate had an indirect effect on voluntary turnover rate. Organizational climate predicted intention to stay ($R^2 = .88$, $F(1,77) = 557.72$, $p < .001$), and intention to stay predicted voluntary turnover rate ($R^2 = .10$, $F(1,77) = 8.93$, $p = .004$). Organizational climate had an indirect effect on voluntary turnover rate ($R^2 = .09$).

Previous analyses demonstrated that satisfaction with supervision, intention to stay, professional support, peer support, and collaboration predicted intention to stay but not voluntary turnover rate. Although none of these variables had a direct relationship with voluntary turnover rate, they predicted intention to stay and intention to stay predicted voluntary turnover rate. Given these findings, linear regression was used to determine whether satisfaction with supervision, intention to stay, professional support, peer support, and collaboration indirectly affected voluntary turnover rate through intention to stay. Ratings of the five scales were related to intention to stay ($R^2 = .90$, $F(5,64) = 120.00$, $p < .001$), and intention to stay was related to voluntary turnover rate ($R^2 = .10$). Together, these five scales had an indirect effect on voluntary turnover rate ($R^2 = .09$).

Organizational Climate Variables and Involuntary Turnover Rate. Linear regression was used to test if organizational climate, satisfaction with supervision, intention to stay, professional support, peer support, and collaboration predicted involuntary turnover rate. The variables were expected to not have a relationship with involuntary turnover rate. The overall regression was not statistically significant ($R^2 = -$

.05, $F(6,63) = .45, p = .84$). Organizational climate ($\beta = -.20, p = .66$), satisfaction with supervision ($\beta = .08, p = .81$), intention to stay ($\beta = -.02, p = .95$), professional support ($\beta = .18, p = .58$), peer support ($\beta = .15, p = .36$), and collaboration ($\beta = -.24, p = .38$) did not predict involuntary turnover rate.

Performance and Turnover

Next, the relationships between performance and involuntary and voluntary turnover were examined. 2,098 nurses were included in analyses. Of the 3,236 nurses in the sample, 91 had involuntarily left the organization, 1,047 had voluntarily left the organization, and 2,098 remained employed by the organization as of December 31, 2021. Most performance ratings were clustered towards the middle to upper end of the rating scale. .05% of nurses received a rating of 1, 2.02% received a 2, 33.93% received a 3, 54.94% received a 4, and 9.06% received a 5.

Employees who left the organization involuntarily, left the organization voluntarily, and stayed in the organization differed in their average performance ratings. Employees who stayed in the organization had an average performance rating of 3.65 ($SD = .67$). Employees who left voluntarily had an average performance rating of 3.48 ($SD = .67$). Employees who left involuntarily had an average performance rating of 3.25 ($SD = .64$).

A one-way ANOVA was conducted to determine whether performance ratings differed by employment status. It revealed that there were differences in performance ratings between employees with different employment statuses ($F(2, 3,233) = 32.91, p < .001$). Tukey's HSD tests for multiple comparisons revealed that performance ratings were different between employees with each type of employment status. Performance

ratings differed between employees who stayed in the organization and involuntarily left the organization ($p < .001$, 95% C.I. = [.23, .56]), employees who stayed in the organization and voluntarily left the organization ($p < .001$, 95% C.I. = [.11, .23]), and employees who voluntarily and involuntarily left the organization ($p = .005$, 95% C.I. = [-.23, -.11]).

Performance and Involuntary Turnover. Binary logistic regression was conducted to analyze the relationship between performance ratings and turnover. Performance was expected to be negatively related to involuntary turnover. Logistic regression demonstrated it was negatively related to involuntary turnover ($\beta = -3.14$, $p < .001$). The regression model fit the data ($X^2 = 30.04$, $p < .001$).

Performance and Voluntary Turnover. Performance was expected to not be related with voluntary turnover. Logistic regression demonstrated performance was negatively related in voluntary turnover ($\beta = -.70$, $p < .001$). The regression model fit the data ($X^2 = 42.70$, $p < .001$).

CHAPTER IV: DISCUSSION

The purpose of the study was to examine predictors of voluntary versus involuntary turnover among nurses. The study used data from a large healthcare company. Data sources include performance data from 2019, survey data from 2019, and turnover data from 2021. As hypothesized, performance was negatively related to involuntary turnover. Contrary to expectations, performance was also negatively related to voluntary turnover. This means that nurses who were rated higher on performance were less likely to leave the organization both involuntarily and voluntarily. Performance ratings were highest for employees who remained in the organization followed by employees who left voluntarily then employees who left involuntarily.

Six organizational climate variables were identified using factor analysis: organizational climate, satisfaction with supervision, intention to stay, professional support, peer support, and collaboration. It was hypothesized that each of these variables would be negatively related to voluntary turnover rate. Intention to stay and collaboration were negatively related to voluntary turnover rate, but the other variables were not related to voluntary turnover rate. However, although the results of the regression analysis showed that collaboration predicted voluntary turnover rate when controlling for the other variables, correlation analyses showed it was not independently related to voluntary turnover rate. Collaboration was related to intention to stay, but it was not a significant predictor of intention to stay when all other scales were entered. This suggests that the impact of collaboration on voluntary turnover is minimal.

Given that intention to stay is often examined as a mediator between organizational climate variables and voluntary turnover, regression analyses were used to

determine if the organizational climate variables had an indirect effect on voluntary turnover rate. The combination of organizational climate, satisfaction with supervision, professional support, peer support, and collaboration scales were found to have a positive relationship with intention to stay and an indirect relationship with voluntary turnover rate through intention to stay. As hypothesized, none of the organizational climate variables were related to involuntary turnover.

Practical Implications

Results indicated that nurses who had lower performance scores were more likely to leave the organization both voluntarily and involuntarily. Turnover can have positive effects when people are replaced with higher performers. However, turnover is costly, and the costs and lost productivity often outweigh any productivity gains that may occur when a replacement is hired. The findings that performance is negatively related to voluntary and involuntary turnover suggest that by improving individual job performance, organizations may be able to reduce voluntary turnover.

The combination of organizational climate, satisfaction with supervision, professional support, peer support, and collaboration was negatively related to voluntary turnover rate through intention to stay. This suggests that creating interventions that improve these areas could lead to a reduction in voluntary turnover.

Practitioners could use the findings in the study to identify potential contributors to voluntary and involuntary turnover in organizations, particularly among nurses. They could conduct similar analyses to identify the causes of voluntary turnover in organizations and predict and reduce the number of employees who leave.

Limitations

The study had several potential limitations, including ones related to selection, external validity, rater bias, construct validity, history, level of analysis, and inaccuracy of turnover reason data. Given that participation in the employee survey was voluntary, not all nurses in the organization took the survey. The participation rate for the entire organization was approximately 80%. Additionally, only teams containing 20 or fewer people were included in the study. It is possible that nurses who completed the survey and were in teams of 20 or fewer are different from those who did not complete the survey or were in teams of more than 20 people in a way that influenced the results of the study.

Participants were not randomly sampled because the data are archival data from one organization. This limits the ability to generalize the findings to broader populations, such as nurses in the United States. However, the participants worked at hospitals that are geographically dispersed and have varied sizes and specialties.

It is possible that organizational climate constructs did not measure what they appeared to. The measures could be missing aspects of the construct they intend to measure or capture information unrelated to the construct they intend to measure. The peer support variable only consisted of two items, which could mean that it did not adequately capture the construct and may have limited the ability to find relationships between it and other variables.

The raters may have exhibited bias when assigning performance ratings. The ratings were clustered towards the upper end of the rating scale. This could be because many of the participants truly were high performers. However, this could also indicate

that some raters were lenient when assigning ratings, which could mask the relationship between performance ratings and turnover.

An event could have occurred at approximately the same time as data was collected and influenced the data. The COVID-19 pandemic could have influenced nurses' decision to resign or the organization's decision to terminate employees.

Measures of the organizational climate variables were captured at the individual level. Then, data were aggregated to create one score for each item per team to ensure confidentiality. Therefore, these variables were not analyzed in relation to turnover outcomes at the individual level. Analyzing the data at the individual level would have been the most appropriate level of analysis for the research, but the relationships between organizational climate variables and voluntary turnover rate were studied at the team level.

Participants could have been dishonest when reporting the reason that they left the organization. The turnover reason codes may have failed to capture the complexity of the company's decisions to terminate some participants or some participants' decisions to leave the organization.

Conclusion

The study aimed to research the relationship organizational climate variables and performance have with voluntary and involuntary turnover. Analyses revealed that organizational climate variables are indirectly related to voluntary turnover through intention to stay and performance is related to both types of turnover. The study contributes to the literature on antecedents of voluntary and involuntary turnover, particularly through its measurement of actual turnover rather than turnover intention.

Practitioners can use the findings to understand and reduce turnover in organizations.

Future research could continue to examine the relationships between organizational climate variables, performance, and turnover.

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APPENDICES

Appendix A: Performance Appraisal Competencies

Competency	Description	Example Behaviors
Patient centered customer service	Genuinely cares about people	Actively solicits input to ensure optimal service delivery Is attentive and responsive Safeguards and honors other's dignity and humanity Develops and improves process from a patient perspective
Cultivate a compassionate environment	Changing lives for the better together	Demonstrates empathy Listens actively to understand and respond to others Intentionally works to put others at ease Cares for the entire person
Clinical and operational excellence	A relentless drive to be the best	Effectively implements evidence-based practices Consistently plans, measures, and adjusts performance to ensure optimal outcomes Courageously removes barriers to change Makes changes that drive increased quality
Promotes a collaborative environment	Builds effective working relationships with others	Consistently demonstrates a commitment to compliance with the Code of Conduct and regulatory requirements Holds oneself and others accountable Effectively resolves conflict Places the needs of others ahead of own Establishes mutual respect
Holistic approach	Thinks and acts for the benefit of the whole	Improves how different parts of the organization work together Diagnoses root causes to problems Reduces variances to optimize outcomes Redirects competing efforts to achieve a greater common good

Appendix B: Factor Loadings for Employee Engagement Survey Items

Item	Organizational Climate	Satisfaction with Supervision	Ethics and Compliance Program	Intention to Stay
The person I report to treats me with respect.	.34	.85	-.61	.35
The person I report to cares about my job satisfaction.	.46	.89	-.31	.42
I am satisfied with the recognition I receive for doing a good job.	.55	.80	.73	.45
This organization conducts business in an ethical manner.	.65	.69	.04	.55
I am involved in decisions that affect my work.	.57	.71	.06	.48
When appropriate, I can act on my own without asking for approval.	.37	.61	-.06	.45
This organization supports me in balancing my work life and personal life.	.55	.65	.05	.50
I like the work I do.	.35	.38	-.10	.76
My pay is fair compared to other healthcare employers in this area.	.48	.32	.23	.43
The environment at this organization makes employees in my work unit want to go above and beyond what's expected of them.	.72	.69	.01	.59
I get the training I need to do a good job.	.56	.61	-.11	.59
Patient safety is a priority in this organization.	.66	.54	-.09	.62

Item	Organizational Climate	Satisfaction with Supervision	Ethics and Compliance Program	Intention to Stay
This organization treats employees with respect.	.77	.73	-.08	.59
The person I report to encourages teamwork.	.56	.86	-.27	.46
I am proud to tell people I work for this organization.	.73	.65	-.18	.77
I would stay with this organization if offered a similar position elsewhere.	.66	.56	-.09	.71
My job makes good use of my skills and abilities.	.57	.58	-.23	.65
This organization provides career development opportunities.	.67	.59	-.13	.53
I get the tools and resources I need to provide the best care/service for our clients/patients.	.76	.58	-.12	.60
I have sufficient time to provide the best care/service for our clients/patients.	.74	.45	-.06	.58
I respect the abilities of the person to whom I report.	.61	.81	-.40	.45
I would like to be working at this organization three years from now.	.67	.54	-.24	.76
The person I report to is a good communicator.	.60	.82	-.35	.40
I feel like I belong in this organization.	.76	.67	-.31	.72

Item	Organizational Climate	Satisfaction with Supervision	Ethics and Compliance Program	Intention to Stay
I would recommend this organization as a good place to work.	.82	.65	-.26	.75
Overall, I am a satisfied employee.	.81	.68	-.25	.71
My work unit works well together.	.58	.56	-.45	.47
Different work units work well together in this organization.	.72	.40	-.25	.49
My work unit is adequately staffed.	.74	.41	-.15	.50
This organization provides high-quality care and service.	.81	.53	-.38	.70
I would recommend this organization to family and friends who need care.	.78	.49	-.40	.71
This organization makes every effort to deliver safe, error-free care to patients.	.79	.48	-.40	.66
I understand the Ethics and Compliance Program.	.60	.35	-.76	.50
I understand how to report concerns regarding ethics and compliance concerns.	.60	.38	-.76	.49
I feel comfortable reporting ethics and compliance issues without retaliation.	.70	.56	-.55	.44
I have a high degree of trust in facility leadership.	.90	.62	-.36	.48
Facility leadership skillfully directs the overall function of the facility.	.90	.57	-.38	.48

Item	Organizational Climate	Satisfaction with Supervision	Ethics and Compliance Program	Intention to Stay
Facility leadership recognizes, appreciates, and supports employees.	.92	.59	-.32	.48
Facility leadership understands the needs of our department.	.91	.52	-.28	.45
Facility leadership communicates openly and honestly with employees.	.91	.55	-.34	.44

Appendix C: Factor Loadings for Nursing Excellence Survey Items

Item	Professional Support	Peer Support	Collaboration
Within my scope of nursing practice, I have the freedom to act on what I know is in the best interest of the patient.	.69	.45	.53
I have the opportunity to influence nursing practice in this organization.	.80	.39	.56
I have opportunities to learn and grow in this organization.	.77	.43	.53
The person I report to uses the performance process to coach me on my professional development.	.86	.48	.33
The person I report to supports free exchanges of opinions and ideas.	.86	.46	.25
The person I report to is responsive when I raise an issue.	.85	.49	.27
Nurse leaders are accessible in this organization.	.84	.47	.50
Senior nursing leadership is responsive to my feedback.	.82	.39	.53
Communication between physicians, nurses, and other medical personnel is good in this organization.	.48	.32	.79
We effectively use cross functional (interprofessional) teams in this organization.	.63	.43	.78
There is good collaboration between nursing and the different ancillary services, e.g., pharmacy, lab, radiology, nutrition, behavioral health, etc.	.42	.42	.78
Overall, I am satisfied with the expertise of the nursing staff.	.60	.64	.60
My work unit uses evidence-based practice in providing patient care.	.71	.61	.54
My work unit demonstrates a commitment to patient- and family-centered care.	.67	.69	.53
I am involved in quality improvement activities.	.71	.43	.56
Our organizational values are reflected in our Nursing Professional Practice Model.	.77	.50	.64
Nurse leaders share a clear vision for how nursing should be practiced in this organization.	.81	.44	.63
Nurses in my work unit help others to accomplish their work.	.47	.94	.32
Nurses in my work unit help others even when it's not part of their job.	.46	.94	.28

Appendix D: IRB Approval Letter

IRB

INSTITUTIONAL REVIEW BOARD

Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129
FWA: 00005331/IRB Regn.. 0003571



IRBN007 – EXEMPTION DETERMINATION NOTICE

Wednesday, February 09, 2022

Protocol Title *Engagement, Perceived Leadership Effectiveness, and Performance as Predictors of Voluntary and Involuntary Turnover Among Nurses*

Protocol ID **22-1083 4**

Principal Investigator **Anna White** (Student) **Faculty Advisor:** Glenn Littlepage

Co-Investigators Michael Hein

Investigator Email(s) as25f@mtmail.mtsu.edu; glenn.littlepage@mtsu.edu

Department/Affiliation Psychology

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category **(4) Study involving existing data (analysis of archival non-research data)**. A summary of the IRB action and other particulars of this protocol are shown below:

IRB Action	EXEMPT from further IRB Review Exempt from further continuing review but other oversight requirements apply
Date of Expiration	12/31/2022 <i>Date of Approval:</i> 1/11/22 <i>Recent Amendment:</i> 2/9/22
Sample Size	TEN THOUSAND (10,000) data records
Participant Pool	Data collected from adult individuals by the Human Resources of Ardent Health Services
Exceptions	NONE
Type of Interaction	<input checked="" type="checkbox"/> Non-interventional or Data Analysis <input type="checkbox"/> Virtual/Remote/Online Interview/survey <input type="checkbox"/> In person or physical– Mandatory COVID-19 Management (refer next page)
Mandatory Restrictions	1. All restrictions for exemption apply. 2. The participants must be 18 years or older. 3. Mandatory ACTIVE informed consent. Identifiable information including, names, addresses, voice/video data, must not be obtained. 4. NOT approved for new data collection.
Approved IRB Templates	<i>IRB Templates:</i> NONE <i>Non-MTSU Templates:</i> NONE
Research Inducement	NONE
Comments	NONE

Summary of the Post-approval Requirements: The PI and FA must read and abide by the post-approval conditions (Refer "Quick Links" in the bottom):

- **Final Report:** The Faculty Advisor (FA) is responsible for submitting a final report to close-out this protocol before **12/31/2022**; if more time is needed to complete the data collection, the FA must request an extension by email. **REMINDERS WILL NOT BE SENT. Failure to close-out (or request extension) may result in penalties** including cancellation of the data collected using this protocol or withholding student diploma.
- **Protocol Amendments:** IRB approval must be obtained for all types of amendments, such as:
 - Addition/removal of subject population and sample size.
 - Change in investigators.
 - Changes to the research sites – appropriate permission letter(s) from may be needed.
 - Alternation to funding.
 - Amendments must be clearly described in an addendum request form submitted by the FA.
 - The proposed change must be consistent with the approved protocol and they must comply with exemption requirements.
- **Reporting Adverse Events:** Research-related injuries to the participants and other events, such as, deviations & misconduct, must be reported within 48 hours of such events to compliance@mtsu.edu.
- **Research Participant Compensation:** Compensation for research participation must be awarded as proposed in Chapter 6 of the Exempt protocol. The documentation of the monetary compensation must Appendix J and MUST NOT include protocol details when reporting to the MTSU Business Office.
- **COVID-19:** Regardless whether this study poses a threat to the participants or not, refer to the COVID-19 Management section for important information for the FA.

COVID-19 Management:

The FA must enforce social distancing guidelines and other practices to avoid viral exposure to the participants and other workers when physical contact with the subjects is made during the study.

- The study must be stopped if a participant or an investigator should test positive for COVID-19 within 14 days of the research interaction. This must be reported to the IRB as an "adverse event."
- The FA must enforce the MTSU's "Return-to-work" questionnaire found in Pipeline must be filled and signed by the investigators on the day of the research interaction prior to physical contact.
- PPE must be worn if the participant would be within 6 feet from the each other or with an investigator.
- Physical surfaces that will come in contact with the participants must be sanitized between use
- **FA's Responsibility:** The FA is given the administrative authority to make emergency changes to protect the wellbeing of the participants and student researchers during the COVID-19 pandemic. However, the FA must notify the IRB after such changes have been made. The IRB will audit the changes at a later date and the PI will be instructed to carryout remedial measures if needed.

Post-approval Protocol Amendments:

The current MTSU IRB policies allow the investigators to implement minor and significant amendments that would not result in the cancellation of the protocol's eligibility for exemption. **Only THREE procedural amendments will be entertained per year (changes like addition/removal of research personnel are not restricted by this rule).**

Date	Amendment(s)	IRB Comments
02/09/2022	Additional archival data are included.	IRBA2022-329

Post-approval IRB Actions:

The following actions are done subsequent to the approval of this protocol on request by the PI or on recommendation by the IRB or by both.

Date	IRB Action(s)	IRB Comments
NONE	NONE	NONE

Mandatory Data Storage Requirement:

All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol

Institutional Review Board, MTSU

FWA: 00005331

IRB Registration: 0003571

application. The data must be stored for at least three (3) years after the study is closed. Additionally, the Tennessee State data retention requirement may apply (*refer "Quick Links" below for policy 129*). Subsequently, the data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects. **The IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this notice.** Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

- Post-approval Responsibilities: <http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php>
- Exemption Procedures: <https://mtsu.edu/irb/ExemptPaperWork.php>
- MTSU Policy 129: Records retention & Disposal: <https://www.mtsu.edu/policies/general/129.php>