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## Successful Retention Strategies by Perfusion Managers to Reduce Perfusionist Attrition

Krysta Lynne Gleeson  
*Walden University*

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# Walden University

College of Management and Technology

This is to certify that the doctoral study by

Krysta L. Gleeson

has been found to be complete and satisfactory in all respects,  
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the review committee have been made.

Review Committee

Dr. Warren Lesser, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Daniel Smith, Committee Member, Doctor of Business Administration Faculty

Dr. Mary Dereshiwsy, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2020

Abstract

Successful Retention Strategies by Perfusion Managers to Reduce Perfusionist Attrition

by

Krysta L. Gleeson

MBA, Marist College, 2016

MS, Long Island University, 2011

BS, Stony Brook University, 2009

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

October 2020

## Abstract

Perfusion managers who lack strategies to mitigate perfusionist attrition place a strain on their remaining employees and incur replacement costs for their organization. Grounded in Vroom's expectancy model, the purpose of this multiple case study was to explore strategies perfusion managers use to mitigate perfusionists attrition within open-heart centers in a northeast U.S. city. Data were collected through digital semistructured interviews with 5 licensed perfusionists who demonstrated successful staff retention. Perfusionist job listings were used as a secondary data source. Data were analyzed using Yin's 5 step process. Four significant themes emerged: job satisfaction, work-life balance, surveys, and compensation. Perfusion managers may consider flexible scheduling to bolster job satisfaction and work-life balance. Perfusion managers should also survey employees to garner individual sentiments towards desired managerial strategies for job satisfaction, work-life balance, and compensation. The implications for positive social change from this study include the potential to enhance employee retention, resulting in improved quality of life for employees and safer, more consistent patient care.

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## Dedication

I would like to dedicate this study to my parents, Brian and Donna, and my siblings, Kevin, Kayla, and Kerri. You have always supported me in my continued education and career and I will always be grateful. I am blessed to call you my family and could not have made it this far without any of you.

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A huge thank you to all of my participants and potential participants I reached out to in the perfusion community of New York City. You are all very busy people and the time you took in considering and participating in my study was generous to say the least. I hope you found the experience to be rewarding and your insight helps other perfusion programs. Thank you!

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## Section 1: Foundation of the Study

Organizational policies and procedures have a direct effect on employee attrition. The role of a cardiovascular perfusionist within a health care organization has expanded to accommodate ever-changing medical advances while utilizing their unique knowledge and skill set (Tucker, 2018). Leaders within a health care organization may benefit from strategies to retain their staff perfusionists due to the unique service they provide. The purpose of this qualitative case study was to examine successful managerial strategies that reduce perfusionist attrition.

### **Background of the Problem**

Employee attrition in health care is a challenge many health care managers encounter. The increasing workload and responsibilities of perfusionists within cardiac surgery are evolving, with Turnage et al. (2017) indicating an increased demand for perfusionists even in the midst of a shortage over the next decade. According to Tucker (2018), perfusionists need to be retained due to their unique role in cardiac surgery and value to an institution. Thus, perfusionist management strategies are required to reduce their attrition. Obtaining perspectives from perfusion managers who have successfully reduced perfusionist attrition may bolster the success of other perfusion departments.

Law, Patterson, and Muers (2017) noted that a health care institution with consistent staffing strengthens the value of the institution. Certified perfusionists are a small profession, numbering less than 4,000 nationally (Turnage et al., 2017). Research on the perfusion profession may allow managers to strengthen their teams through new strategies. A study of successful perfusionist management strategies has never been

conducted. The perceptions and experiences of perfusion managers, as revealed in this study, may contribute to building strong and sustainable perfusion departments.

### **Problem Statement**

The attrition of cardiovascular perfusionists creates high demands on an already shrinking labor supply (Turnage et al., 2017). In the coming years, 39% of the current workforce of cardiovascular perfusionists may exit the workforce (Lewis, Dove, & Jordan, 2016). The general business problem is that perfusion managers currently encounter high employee turnover in their perfusion departments, resulting in service shortages and excessive employee replacement costs for the institution. The specific business problem is that some perfusion managers lack strategies to mitigate perfusionist attrition.

### **Purpose Statement**

The purpose of this qualitative, multiple case study was to explore successful strategies some perfusion managers use to mitigate perfusionist attrition. This study included a target population of chief perfusionists and directors of perfusion who manage hospitals in New York City and have successfully implemented changes in their departments to increase retention. There are nine perfusion managers in this region and I targeted all nine as research participants. The study has two implications for positive social change: (a) sustained staffing could improve the quality of life for employees by not seeking employment elsewhere; (b) the development of an improved patient care delivery system by an experienced and well-staffed perfusion department, would be more likely to provide effective and safe patient care.

### **Nature of the Study**

Researchers choose one of three methods to conduct research: qualitative, quantitative, or mixed-methods (Saunders, Lewis, & Thornhill, 2015). Qualitative researchers study real-world phenomena to provide clarity and insights into a problem (Moser & Korstjens, 2017). Investigators use open-ended interviews and questionnaires in qualitative research to identify and explore themes for an in-depth understanding of nonnumerical data (Saunders, Lewis, & Thornhill). I chose the qualitative research method to understand the strategies that successful perfusion managers use to reduce attrition. Since I did not test a hypothesis in my research, the quantitative and mixed-methods approaches were not used. Understanding strategies managers use to mitigate perfusionists' attrition is the focus of this study, rather than examining the statistical relationships of variables for quantitative research.

I considered four qualitative research designs for this study: (a) ethnography, (b) phenomenology, (c) narrative, and (d) case study. Ethnography involves immersion within a group of people, which did not suit an investigation of strategies managers use to reduce perfusionist turnover (Saunders, Lewis, & Thornhill, 2015). A phenomenological study involves a small group of individuals discussing the personal meanings of participants' experiences with a phenomenon (Saunders, Lewis, & Thornhill). Researchers may use a focus group based in phenomenology to triangulate data and reduce sample bias; however, focus groups do not yield in-depth information on a topic as well as individual interviews (Yin, 2018). Narrative researchers focus on the exploration of one or two individuals then report the meanings of their stories of personal



experiences in chronological order (Saunders, Lewis, & Thornhill). Narrative research describes a research design for exploring a phenomenon through personal storytelling, which was not the focus of this my research.

I used a qualitative case study to develop rich data to enhance the understanding of phenomena with proper ethical vigor (Baskarada, 2014). The case study approach was an appropriate method for answering *what*, *how* and *why* questions involving a group of individuals experiencing a phenomenon (Yin, 2018). As described by Yin (2018), a researcher may choose between a single or multiple case study design. A multiple case study is preferred when there are many different resources for analysis and when a researcher seeks to generalize results within a community. An embedded multiple case study is an appropriate research design when there are multiple subunits of analysis within several units of analysis (Yin, 2018). I conducted an embedded multiple case study to ensure valid conclusions from my research of perfusion managers in New York City.

### **Research Question**

What strategies do perfusion managers use to mitigate perfusionist attrition?

### **Interview Questions**

1. How has your organization developed and implemented approaches to understand and address the causes of perfusionist attrition?
2. What repercussions did your organization have to address as a result of policies that did not mitigate perfusionist attrition?

3. How did you develop and deploy successful policies that produced a reduction in perfusionist attrition?
4. What key challenges did you encounter when implementing your approaches for improving perfusionist retention?
5. How did you measure the effectiveness of your approaches?
6. What retention approaches have been the most successful?
7. What was the specific feedback you received from your perfusionist employees regarding the organization's retention initiatives?
8. What successful measures have you taken to ensure your institution's leadership assists in mitigating perfusionist attrition?
9. As a result of deploying the approaches, what specific actions did you take to ensure there was motivation for a perfusionist to remain employed at your institution?
10. What other comments would you like to add about your organization's successful approaches to retain perfusionists?

### **Conceptual Framework**

Vroom (1964) developed the expectancy motivation theory, also known as the expectancy theory, to explain employee behaviors based on the workers' perceived motivations and beliefs. The expectancy theory indicates three factors that together motivate an employee's behavior to avoid negative outcomes and work towards desirable rewards. The model is demonstrated by the following equation:

$$\textit{Equation 1: Motivation = Expectancy} \times \textit{Instrumentality} \times \textit{Valence}$$

Expectancy represents the level of effort an employee will place on a task to obtain a goal (Lloyd & Mertens, 2018). Instrumentality represents the employee belief that strong performance correlates with a reward (Lloyd & Mertens, 2018). Valence represents the value placed on the reward once a task is performed; it is the employee's perception of a reward leading towards anticipated satisfaction and not the specific value of the reward (Lloyd & Mertens, 2018). Based on Vroom's equation, if any variable is equal to 0, there will be no motivation, and if any value is less than 0, there will be avoidance of the reward in order for the mathematical multiplication model to produce positive or negative trends towards motivation (Vroom, 1964; Lloyd & Mertens, 2018). The values assigned to each variable are as follows: expectancy of 0 to 1, instrumentality of 0 to 1, and valence of -1 to 1. As an example, a highly motivating task that demonstrates a positive expectancy, a positive instrumentality, and positive valence will produce a positive motivational factor:

$$\textit{Motivation} = \textit{Expectancy} \times \textit{Instrumentality} \times \textit{Valence}$$

$$1 = 1 \times 1 \times 1$$

In contrast, if expectancy and instrumentality are positive, but the valence is negative—meaning that there is a lack of reward for being motivated—then this scenario would be expressed by:

$$\textit{Motivation} = \textit{Expectancy} \times \textit{Instrumentality} \times \textit{Valence}$$

$$-1 = 1 \times 1 \times -1$$

Vroom's expectancy model should apply to this study because knowing what motivates employees will help perfusion managers and directors develop and implement

strategies to increase retention. If managers can understand the values of their employees, they can know where and how their departments can make improvements. Furthermore, managers will know what opportunities employees value and more readily provide them.

### **Operational Definitions**

*Cardiovascular perfusionist:* An allied health care professional who operates the heart-lung machine during open heart surgery in addition to maintaining cardiopulmonary support in intensive care units with the use of specialized machines and equipment (Belway, Rubens, & Tran, 2018).

*Employee attrition:* A decrease in size or strength of a workforce that is the choice of the employee and not the employer (Malhotra & Gautam, 2016).

*Employee burnout:* A series of events that promotes desensitization, reduced personal accomplishment, diminished pride in one's work, and emotional exhaustion as a result of continued exposure to stressors in the workplace (Ogunbamila, 2018).

*Employee retention:* Steps organizational leaders take to promote employees remaining at their place of employment (Ranganathan, 2018).

*Extracorporeal membrane oxygenation:* A rescue modality used in the presence of a patient unable to support their heart and/or lungs; the equipment functions outside of the body and consists of an oxygenation and pump system (Nakayama, 2018).

### **Assumptions, Limitations, and Delimitations**

#### **Assumptions**

Assumptions by a researcher are implicit inferences that must be deemed valid by the researcher for a study to occur (Armstrong & Kepler, 2018). I assumed the

participants answered the interview questions truthfully and without bias. I assumed the managers interviewed had experience in perfusionist attrition and had made changes in their departments to reduce employee turnover. Last, I assumed managers understand the implications for conducting my study and thereby understand the need to discover successful methods in reducing perfusionist attrition.

### **Limitations**

Limitations in research are factors in a study that may alter or reduce the validity of the results the researcher cannot rectify (Podsakoff & Podsakoff, 2019). This study suffered from three limitations: (a) the inability to use some participants in the geographic area due to scheduling conflicts, (b) the size of the perfusion management community in New York City hindered the candidate population, and (c) the community in New York City may not be indicative of all perfusion management or turnover experiences nationally.

### **Delimitations**

Delimitations in research are the boundaries that are limiting factors for the study and for the depth of investigation (Thurairajah, 2019). This study was delimited to: (a) managers or directors of perfusion departments in New York City and (b) data collection that was accomplished by digital interviews and publicly available documents, such as job advertisements and descriptions.

### **Significance of the Study**

In this study, I identified strategies to improve business practices and bolster positive social change. Schickus (2017) discussed the importance of research that

combines beneficial business practices and positive social change as an advantage for all stakeholders. Perfusion managers and the strategies they implement to mitigate perfusionist attrition impact business and society. Therefore, the investigation of successful perfusion retention strategies has implications for both business practices and positive social change.

### **Contribution to Business Practice**

Health care leaders may be able to use this study's results by promoting better managerial strategies in institutions where high perfusionist attrition is a problem. Health care providers can deliver quality services when there is consistent staff, which strengthens the value of an institution (Law, Patterson, & Muers, 2017). The business implications of delivering quality care are affected by the managerial strategies of institutional leadership. Improving staff retention may be achieved by management strategies that leadership personnel implement, which may facilitate efficient and effective operations. Personal and professional satisfaction may affect patient care and health care worker retention through efficacious policies, and through strategies that improve business practices (Hill, 2018). Lower costs for a health care institution may be realized by employee retention strategies that mitigate the need for recruiting, hiring, and training replacement workers (Manyazewal & Matlakala, 2018).

### **Implications for Social Change**

This study's results may offer managers strategies on promoting positive social change. Perfusion leaders may bolster positive social change through a better quality of life for their employees and sustain the quality of patient care delivery. With reduction in

attrition in the perfusion community, perfusionists may experience a better quality of life and their patients may experience higher quality care through sharing knowledge and efficacious clinical experiences.

### **A Review of the Professional and Academic Literature**

The attrition of cardiovascular perfusionists from the workforce creates high demands on an already shrinking labor supply (Turnage et al., 2017). In the coming years, 39% of currently employed cardiovascular perfusionists may exit the workforce (Lewis, Dove, & Jordan, 2016). Perfusion managers currently encounter high employee turnover in their departments, resulting in service shortages and excessive employee replacement costs. Some perfusion managers lack strategies to mitigate perfusionist attrition.

I concentrated the literature review on studies conducted by managers, employees, and researchers on retention initiatives. I used the framework of Vroom's expectancy model. To ensure proper triangulation of data, I interviewed perfusion managers to determine if there is alignment between the publicly available job advertisements for wanted perfusionists in New York City and their attached job descriptions to establish what is actually occurring in the phenomena I studied. Using primary data to understand retention strategy, I explored what strategies perfusion managers are currently using and compared them to what has been successful historically in the literature of other professionals. Because no study of successful perfusionist retention strategies has previously been completed, I reviewed other professions' studies to develop a meaningful

contribution of successful retention strategies. Managers may understand how to better address decreased perfusionist retention by first addressing the causes of attrition.

I obtained access to books, seminal online and print sources, peer-reviewed journals, and websites using the following databases: PubMed, ProQuest, Emerald, Medline, Google Scholar, and EBSCOhost. I used the following keywords: *employee retention, employee attrition, management retention, management strategy, expectancy model, expectancy theory, Vroom, perfusionist, nurse retention, nurse engagement, health care retention, leadership retention, strategic leadership, manager motivation, employee motivation, health care engagement, health care worker cost, replacement cost, human capital in health care, employee challenges, employee burnout, and nurse burnout*. I ensured that 85% of resources (104) were from peer-reviewed sources. I also ensured 85% of these peer-reviewed sources were published within the past 5 years.

### **Analysis of Conceptual Framework**

My study is based on the conceptual framework of Vroom's (1964) expectancy theory. Victor Vroom developed the expectancy theory of motivation, also known as the expectancy model, in his seminal book *Work and Motivation* in 1964. The three components of his model formed an equation of motivation as a product of expectancy, instrumentality, and valence. The variables in Vroom's expectancy model include (a) expectancy, the amount of effort required to accomplish a task to completion for the reward; (b) instrumentality, the measurement of if the performance is worth the reward; and (c) valence, the value an individual may place on the reward or outcome (Vroom,



1964). This equation can be used to understand the motivation of an individual engaged in making a choice to complete a task (Vroom, 1964).

Through the expectancy model, Vroom offered a concept for all possible outcomes of a decision based on the attractiveness, desirability, importance, and anticipated satisfaction of the conclusion (Vroom, 1964). Vroom designed this model as a framework for understanding an employee's motivation at work and included the many variables an employee may take into account before completing a task or making a decision towards an action at work. In *Work and Motivation*, Vroom (1964) discussed how individuals make decisions to maximize the positive outcome of an activity while minimizing the negative effects of the same decision.

### **Analysis of Conflicting Theories**

#### **Herzberg's Two-Factor Model**

Herzberg's (1987) two-factor theory is based on the principle that improving certain factors increases job satisfaction, while the removal of other factors leads to dissatisfaction. The factors that may be removed and promote dissatisfaction are referred to as hygiene factors, which are external to the job itself and include pay, hours, benefits, and job security (Herzberg, 1987). Herzberg (1987) noted when an employee is satisfied, the employee is motivated to perform. Although the presence of hygiene factors does not increase job satisfaction, the removal of these factors may reduce satisfaction (Herzberg, 1987).

In a study conducted by Pandza, Deri, Galambos, and Galambos (2015), salary was the lowest rated hygiene factor, with the highest being coworker relationships.

Pandza et al. further revealed that company policy had no effect on happiness or motivation, while being employed generally had a positive impact on motivation at work. The possibility of promotion or recognition was noted to be a strong motivational factor for employees (Pandza et al., 2015). In a contradicting study, Matei and Abrudan (2016) found that if a manager requested an employee to do their job or adhere to company policy, employees were dissatisfied and subsequently lacked motivation. However, similarly to Pandza et al. (2015), Matei and Abrudan (2016) also stated that salary and working conditions did not contribute to satisfaction or dissatisfaction.

The results of applying a particular theory in a study can be best understood when these results are compared with multiple theories to determine alignment (Habib, Awan, & Sahibzada, 2017). Habib, Awan, and Sahibzada (2017) conducted a study using the framework of Herzberg's two-factor theory and demonstrated a positive and significant effect of performance planning, feedback coaching, and reviews or rewards on motivation and hygiene factors.

Herzberg's (1987) two-factor model is used to evaluate the separate aspects of a job that generate satisfaction (intrinsic) and dissatisfaction (extrinsic). Extrinsic factors, such as pay, benefits, and vacation time, all contribute to dissatisfaction when absent, but do not generate job satisfaction. Only those motivators intrinsic to a career, including work environment, recognition, and the job itself, can enhance such satisfaction (Mangi, Kanasro, & Burdi, 2015). In a study conducted by Brayer and Marcinowicz (2018), the researchers supported Herzberg's two-factor model by concluding internal job factors such as interpersonal relationships, trust in management, and job recognition were strong

motivators of employee retention. In a conflicting study, Van de Klundert, Van Dongen-van den Broek, Yesuf, Vreugdenhil, and Yimer (2018) supported Herzberg's two-factor model, but with the condition that to achieve employee satisfaction and better job retention, there must exist an opportunity for better earnings. Van de Kludert et al. (2018) concluded their study noting that better financial opportunities are a strong indicator for employee satisfaction and subsequent retention. Similarly to Brayer and Marcinowicz (2018), Van de Klundert et al. (2018) additionally discussed the dramatic discrepancy between pay and advancement opportunities as a motivation for employee attrition. Both sets of researchers achieved similar results and supported Herzberg's two-factor model.

### **Maslow's Hierarchy of Needs**

Abraham Maslow presented his hierarchy of human needs in his seminal work was published in in 1943. Maslow (1943) described an individual's motivations and the paths towards obtaining their goals as differentiated into clusters of motives. The motives were categorized in a pyramid form, with the most basic motivational needs at the base and self-actualizing needs at the apex. The base of Maslow's pyramid consists of physiological needs such as (a) security needs, (b) social needs, and (c) esteem needs that must be met before an individual may achieve self-actualizing needs and personal growth. In the order listed, motivation is hierarchically arranged from lowest to highest, and an individual's subjectivity to personal gratification may begin or end at any point based on self-determination (Maslow, 1943).

Considering Vroom's expectancy model in relation to Maslow's hierarchy of needs demonstrates the variance in motivational theories that affect both workforce

motivation and the management strategy of an organization. In their study of workforce satisfaction, Gaile and Sumilo (2015) found that employers met only 28% of the basic needs in Maslow's hierarchy. The participants held bachelor's degrees or higher and had entered the Latvian workforce within the last 5 years, which allowed the researchers to establish the increasing need of employers to satisfy the higher standards expected by the younger workforce (Gaile & Sumilo, 2015).

Deficiency needs are the most basic level of needs, including esteem, friendship, security, love, and physical needs, which must be met before higher levels of needs can be achieved or actualized (Rahimi, Divsalar, Rezvani, & Aramoon, 2016; Sholihah, 2017). Rahimi, Divsalar, Rezvani, and Aramoon (2016) found that a significant relationship exists between all of the needs in Maslow's hierarchy and job satisfaction, with an emphasis on the deficiency needs of both married and single questionnaire participants. In comparison, Vroom, through his expectancy model, does not take these basic needs into account directly, although security and physical needs may be viewed as rewards and expressed by similar means (Sholihah, 2017). Vroom's expectancy model and Maslow's hierarchy may have useful applications for researchers investigating management strategies geared towards employee retention, since both frameworks make possible a better understanding of employees' needs and desires.

A drawback to Maslow's model is that motivation and job satisfaction may exist without other more basic needs being met, generating resentment in staff who feel they are working harder without commensurate reward. Furthermore, some individuals may not prioritize self-actualization over other needs. As noted by Sholihah (2017), Vroom's

expectancy model has some advantages over Maslow's hierarchy because it gears an individual's perception of capabilities towards the potential for a reward, generating motivation and creativity to accomplish a task. Vroom (1964) was in agreement with Sholihah (2017) but Vroom (1964) clarified rewards must match expectations to be valuable in the expectancy model, while Sholihah (2017) mentioned nothing relating to expectations and reward. As noted by Kohli, Blitzer, Lefco, Barter, Haynes, Colalillo,...Zink (2018), the expectancy model is not easily implemented because of variable interest and reward desires in the workforce. Sholihah (2017) has supported this view, emphasizing that the expectancy model would be the strongest if there were a variety of rewards to fit diverse desires. When a researcher analyzes motivation and job satisfaction, the subjective nature of individuals must be taken into account. In this context, researchers may benefit from understanding the strengths and weaknesses associated with a chosen framework and the relation of their chosen framework to varying theories.

### **Leadership Member Exchange (LMX) Theory**

The leadership member exchange (LMX) theory was initially published by Dansereau, Graen, and Haga (1975) as the vertical dyad linkage theory to establish the importance and impact of the leader-employee relationship. Employees typically have a strong desire for leadership to mediate problems and challenges occurring in their departments (Dansereau, Graen, & Haga, 1975). In a literature review conducted by Gorman (2019), there was substantial evidence that nurses are overworked and have additional responsibilities placed on them with no further support. Gorman (2019) also

discussed the desire of nurses to have leadership set their needs above the administrative responsibilities they partake in, with the researcher noting a balance between employee and leadership goals as a means for reducing attrition. Conversely, as discussed by Jones and Watson (2017), the emotional and environmental support from a leader does not correlate with employee retention. While Gorman (2019) and Jones and Watson (2017) disagree on the effect of a leader on attrition, Jones and Watson (2017) included leadership in an emotionally supportive role while Gorman (2019) did not investigate that topic in their research. The leader-employee relationship is a complex interpersonal connection that may benefit from open communication about expectations for both stakeholders. Employees and employers alike may benefit from applying the LMX theory and person-job fit relevant to their needs.

While Dansereau, Graen, and Haga (1975) do not directly address person-job fit, it is a relevant component of the LMX theory. Covella, McCarthy, Kaifi, and Corcoran (2017) described positive person-job fit as having an inverse relationship to employee turnover, which may associate the LMX theory to the variable needs of an individual and manager when these goals and needs are aligned. The expectancy model aligns with the LMX theory with the emphasis of satisfying managers' and employees' respective needs explained by Covella, McCarth, Kaifi, and Corcoran (2017). However, Barba-Sanchez and Atienza-Sahuquillo (2017) noted a motivated employee will contribute a degree of wealth, manpower, and welfare to a company that a manager cannot contribute alone in the presence of positive expectancy, valence, and instrumentality. A researcher may identify positive person-job fit as an area of alignment between employees and managers,

while identifying a source of employee motivation in both the LXM theory and expectancy model. The complex relationship between an employee and a manager may offer a source of reducing the subjective element in the alignment of needs between all stakeholders by first identifying grounds of common agreement.

### **Social Exchange Theory**

Homans (1958) first described the social exchange theory and emphasized that in any interpersonal relationship, each individual's investment must be proportional to the reward provided by the other individual. Servant leadership may be a strategy some managers strive for to demonstrate a favorable social exchange that promotes a positive interpersonal relationship in which employees are treated not merely as workers, but as valued individuals with diverse needs working on a team (Jang & Kandampully, 2018). Yu (2019) described a contrasting strategy from Jang and Kandampully (2018) to promote a positive social exchange by demonstrating a desire for more family-friendly work policies. Yu (2019) also mentioned that the implementation of family-friendly work policies aligns with the social exchange theory as a trade-off for the employer by reducing attrition. The claims of both Jang and Kandampully (2018) and Yu (2019) outline leadership initiatives that promote positive social exchange. An employer may benefit from implementing a variety of favorable incentives tailored to the needs of their employees.

Many employees can view rewards in the form of monetary gains. Geloso (2016) examined the effects of monetary raises and productivity for a firm at varying monetary levels. Geloso (2016) concluded that if productivity does not increase, then neither should

pay. Employees subjectively evaluate job rewards when deciding to continue relationships. For a positive social exchange to occur, balance and mutual satisfaction in the relationship between two people are necessary. Additionally, if leaders of a firm invest in its employees, the employees are more likely to remain loyal and continue working at their current institution (Islam, Khan, & Bukhari, 2016). Islam, Khan, and Bukhari (2016) asserted the social exchange theory might be adhered to when analyzing the cost and benefit balance between the inputs and expectations between a firm and an employee. Islam, Khan, and Bukhari (2016) posited a similar view with Geloso's (2016) assertion that the work must balance the reward. It may be in a manager's best interest to learn what monetary values their employees hold to promote a favorable social exchange. The social exchange theory endorses financial rewards from the employer as a means of motivating employees.

### **Analysis of Themes**

#### **Leadership Style**

Ethical leadership is an important component of the health care system and impacts the behavior of managers and employees. As discussed by Rody and Wheeler (2017), the patient-doctor relationship should be the model for how good managers treat their employees, with attention taken to ensure satisfaction on the broad spectrum of their interaction. This treatment ensures retention for employees and patients alike (Rody & Wheeler, 2017). Mayende and Musenze (2018) agreed with Rody and Wheeler (2017) but focused on the strong correlation between ethical leadership and promoting employee retention. Ethical leadership may be demonstrated by open communication about pay and



compensation at competing institutions (Pandita & Ray, 2018). Role development and employee engagement are managerial strategies that, in addition to maintaining job satisfaction and ethical leadership, improve employee retention (Mayende & Musenze, 2018; Pandita & Ray, 2018; Rody & Wheeler, 2017). Ethical leadership is a managerial strategy that has a far-reaching impact across different aspects of a health care system and involves different techniques of implementation by individual managers.

### **The Manager-Employee Relationship**

Managers in health care vary in training and come from diverse backgrounds. A proven successful form of strategic management is to employ health care managers who have been medical professionals themselves at some point during their careers (Vicarelli & Pavolini, 2017). While Vicarelli and Pavolini (2017) pointed to managers who have worked in health care themselves as a factor for a successful manager, Hahn and Lapetra (2019) explained there are other proven qualities and abilities that may predict the success of a manager in health care, none of which require a clinical background. Hahn and Lapetra (2019) also noted a successful health care manager must promote solutions to problems, communicate with their staff, build trust and transparency, and demonstrate accountability to build a successful, satisfied, and sustainable department. Health care managers have many responsibilities, which may explain the variable alignment of needs between some managers and employees. Employees are focused on set tasks and goals, whereas managers are required to balance both their own administrative priorities and the needs of their employees.

The qualities of a health care manager and their business priorities contribute to the success of a department. As discussed by Budreviciute, Kalediene, and Petrauskiene (2018), health care managers' priorities included patient satisfaction, doctor-patient communication, financial resources, and quality care delivery. The priorities described in Budreviciute, Kalediene, and Petrauskiene's (2018) study did not incorporate the satisfaction or needs of employees, but the authors agreed with Hahn and Lapetra (2019) in identifying strong communication as a characteristic of a robust health care manager. Management quality and managers' priorities are closely connected to the success of a department, which is grounded in the work of its employees. Managers must remain in a business mindset to ensure they can handle the multifaceted responsibilities involved in running a health care institution.

Managerial strategies and policies contribute to building the environment of a workplace. Philippou (2015) suggested department managers may benefit from involving their employees in their daily responsibilities to create an understanding of the policies the managers enforce. This approach bridges the gap of health care management responsibilities, as described by Budreviciute, Kalediene, and Petrauskiene (2018) and Hahn and Lapetra (2019). The employee's perspective may assist in developing policies that benefit both managers and employees by establishing a mutual understanding of goals and needs (Budreviciute et al., 2019; Philippou, 2015). When the roles of employee and manager are clearly defined, each stakeholder can benefit from knowing the other's perspective, allowing the expression of needs between managers and employees to progress with a foundation of mutual understanding.

Selleck, Deupree, Hodges, Holland, Plane, Horton, and Harper (2018) noted monetary incentives for attracting both employees and leaders are strong policies that health care employers may offer. The researchers explained, however, that these financial incentives are typically reserved for upper management and may create resentment among employees looking for fiscal rewards. In agreement with Selleck et al. (2018), Sarmad, Ajmal, Shamim, Saleh, and Malik (2016) deemed monetary compensation to be a basic need that motivates both managers and the general workforce to either remain in their current position or search for a new place of employment. The different desires and needs of managers and employees may not be disparate with the needs specific to each role in a health care system. Managers may benefit from making policy decisions based on their own perceived needs and wants.

### **Motivation**

Motivation is a driving force in Vroom's (1964) expectancy model and is used as the basis for many actions associated with employee decision-making. As discussed by Schaarschmidt (2016) and Kim, Marulis, Grammer, Morrison, and Gehring (2017), motivation is not always restricted to monetary or utilitarian value. Schaarschmidt (2016) found that a publicly perceived reputation was a sufficient motivational force to increase valence and instrumentality for an individual employee hoping to secure future internal promotions at a corporation or better employment opportunities elsewhere by positive word of mouth. Additionally, Kim et al. (2017) noted motivation is positive if an individual is confident in a task that they enjoy. Schaarschmidt (2016) and Kim et al. (2017) neglected to examine motivation solely based on a financial reward. Although

managers may provide monetary incentives, there are many aspects of an institution that affect employee motivation. Job satisfaction and the manager-employee relationship are two aspects institutional leaders should consider when determining how to motivate an individual.

The study of motivation between managers and employees is a well-examined discipline. Eswara Murthy, Villatte, and McHugh (2019) observed hierarchal motivation through the process of completing a personal goal, which provided more comfort and self-efficacy to an individual in comparison to conditional motivation, in which a task is completed solely for a desired result. Motivation may be manipulated by an individual to achieve a desired outcome or dissuade negative actions (Eswara, Murthy, Villatte, & McHugh, 2019). When applying Eswara, Murthy, Villatte, and McHugh's (2019) findings, both hierarchal and conditional motivation may be seen within new employee populations. As discussed by Chai, Cheng, Mei, and Fan (2019), there was a significant decrease in employee motivation after a nurse's first month of working in a new department. Chai, Cheng, Mei, and Fan (2019) further noted that when managers and preceptors spent more time with the new nurses, their motivation to learn and work in the new department improved, confirming Eswara, Murthy, Villatte, and McHugh's (2019) assertions. Managers can motivate new health care staff by implementing training and preceptorship at the beginning of employment.

As discussed by Rattat, Matha, and Cegarra (2018), managers may promote motivation by distributing timed tasks for the completion of assignments, which increases the task completer's sense of urgency and awareness. Managers can provide consistency

and structure in employees' roles by demonstrating clear goals (Vroom, 1983). In a recent study, Munichor and LeBoeuf (2018) showed that leaders who provided time intervals for task completion to employees enhanced employee motivation because the focus on the reward provided a distraction from the time exerted. Managers may motivate their employees by providing structure through the use of time limits or intervals when assigning tasks.

Time is a source of both motivation and aversion if presented by managers in a way that promotes the respective goals and needs of managers and employees. Purvis, Zagencyzk, and McCray (2015) determined that the psychological and organizational climate encountered by the employee are strong motivators to ensure positive valence and instrumentality. Cook and Artino (2016) additionally noted the perceived employee value of working in health care, such as the enjoyment of the activity and personal interest. Purvis, Zagencyzk, and McCray (2015), Cook and Artino (2016), and Munichor and LeBoeuf (2018) cumulatively demonstrated that timed tasks have a positive effect on motivation, agreeing with Vroom's (1983) notion of strong leadership as a source of motivation. A timed task provided by a manager may function as a motivational factor for duty completion if an employee finds the activity stimulating and worthwhile, while also providing structure and discipline to the workforce.

Health care professionals are passionate about their careers, the enjoyment of what they accomplish is a central theme of motivation. Managers may benefit from replicating an environment that balances the needs of the employee and the needs of the manager (Zhao, Chen, & Lee, 2017). Based on these findings, it is reasonable that

motivation considered in the context of Vroom's expectancy model is shaped by the organizational leadership that is a driving force of employee motivation.

### **Pragmatism in the Expectancy Model**

As discussed by Asdal (2018), it is important to implement pragmatic research strategies to produce an unbiased and non-subjective study. Similarly, Miller and De Estrada (2017) noted the pragmatic approach was a proven method of change in Indian industry because it requires the balanced consideration of all stakeholder desires and needs. In managerial decision making regarding retention policies, a pragmatic approach may promote a strategy that supports both the employee and employer, resulting in a well-rounded and considerate policy. Organizational culture is a strong indicator for a pragmatic approach in evidence-based practice in both leadership and clinical settings (Milner, Bradley, & Lampley, 2018). Vroom's (1964) expectancy model is an effective and pragmatic approach for understanding health care retention strategies. Managers who adhere to a pragmatic leadership style in motivating their employees may be successful in executing their retention strategies, provided the organizational culture supports this form of management style.

The implementation of pragmatic leadership policies may determine motivation. Logic-driven management is a motivational factor for many employees, since this approach requires logical decisions based on empathy towards employees and their work environment (Shim & Park, 2019). A manager's capacity to make empathetic and logical decisions may be a valuable asset that further promotes employee retention. The

motivation of employees may be rooted in the pragmatism of managerial policy and greatly affected by organizational culture.

### **Cost of Human Capital**

There are many examples of how attrition affects the daily functioning of a health care team, but employee turnover poses a great financial threat to health care institutions as a whole. As discussed by Fibuch and Ahmed (2015), a hospital can lose upwards of \$700,000 for every physician that resigns. Fibuch and Ahmed (2015) also noted that in the presence of a physician shortage, institutional leaders should seek to ensure their place of employment is a desirable work environment, offering significant monetary and benefit-gearred compensation. Halder (2018) agreed with Fibuch and Ahmed (2017) that because human capital is a vital element of health care delivery, the satisfaction of the employed providers should be the starting point of managerial policy. Human capital is obtained and maintained when managers provide a work atmosphere that delivers pay, growth, recognition, and security (Halder, 2018). One of the responsibilities of a health care manager is to ensure the working environment is adequate to maintain staff with little turnover. The cost of employee turnover to an institution may be quantified in terms of the replacement costs of hiring and training new employees and the loss of talent.

**Succession planning.** Leaders may use succession planning as a method to allow current employees the potential for internal growth at an institution. Phillips, Evans, Tooley, and Shirey, (2018) concluded from their cost-benefit analysis study that a health care institution saves nearly \$300,000 by training, preparing, and subsequently hiring a new internal nurse manager rather than recruiting and training an external candidate. The

researchers determined this sum by comparing their formal nurse manager succession plan, already in practice within a health care system, to the costs without the active plan. The succession planning approach examined by Phillips, Evans, Tooley, and Shirey (2018) presented a method of retention that satisfied the criteria proposed by Halder (2018) to provide security and growth at an institution. Foster (2019) identified the loss of organizational knowledge and experience as a critical deficit in United States hospitals that lack succession planning, adding to the financial losses described by Phillips et al. (2018). Institutional leaders who avoid significant costs through open succession planning constitute a strong argument for this approach as a managerial strategy to reduce attrition and conserve financial capital.

**Perfusionists and human capital.** Managing health care professionals is a dynamic role that involves balancing patient care needs with the well-being of health care providers. Perfusionists are necessary for any open-heart procedure and are required to be available for surgery and emergencies year-round, with no limited hours or guaranteed breaks once called for a surgery (Tara, Cheong, & Boonkiangwong, 2016). Managers need to retain their most talented employees because the cost of human capital (Tucker, 2018). Tucker (2018) has also suggested perfusionists benefit from having their specific desires met due their unique role in cardiothoracic surgery, furthering the requirement for leaders to balance the costs of human capital and the needs of employees. Singh and Sharma (2015) conducted a study on human capital to determine successful strategies that maintain valuable employees and demonstrated a strong favoring of pay compensation for better quality work as a short-term solution management strategy. Singh and Sharma



(2015) and Tucker (2018) agreed in identifying job security and benefits as a long-term solution towards employee retention. Perfusion staff provides a great deal of human capital to an institution; therefore, perfusion managers must determine the motivational incentives that maintain well-trained talent in this continuously advancing field.

### **Employee Burnout**

Burnout is a motivational factor that contributes to employee turnover and job dissatisfaction. In a study conducted by Amanullah, McNally, Zelin, Cole, and Cernovsky (2017) to determine the role burnout plays in physician performance and mental health, the researchers found that while physicians' professional performance and efficacy was not affected in the presence of burnout, their levels of emotional exhaustion and cynicism were a substantial factor in decreasing their mental health. As similarly noted by Garcia-Izquierdo, Pedro, Rios-Risquez, and Sanchez (2018), registered nurses (RNs) experience burnout with strong correlations of cynicism and emotional exhaustion in the presence of robust professional performance. In conjunction with environmental factors found in their organization, professional performance may play a substantial role in creating emotional exhaustion and cynicism for both physicians and RNs. Nonclinical managers are typically involved in hospital scheduling and workload arrangements, which limits the autonomy of the practitioners in their charge and creates a lack of understanding between both parties (Bakhamis, Paul III, Smith, & Coustasse, 2019). Burnout may be correlated to managers' failure to mitigate conflicts between the needs of medical professionals and the institutional policies leadership is obliged to follow.

In a study conducted by Rupsiene, Skukauskaite, Baranauskiene, and Tiskuviene (2017), the researchers demonstrated a strong correlation between employee burnout and low management competency. Personal accomplishment by the employees was identified as an important factor contributing to employee burnout, and the researchers concluded managers have a strong impact on employees' perceptions of their own success (Rupsiene et al., 2017). Similarly to Rupsiene et al. (2017), Putranti (2018) noted that management has a strong effect on employee burnout, and that the burnout caused by management leads to subsequent employee turnover. Putranti (2018) discussed work-life balance and burnout as important factors of employee well-being that need to be handled appropriately by managers to generate job satisfaction and organizational commitment. Managers experience burnout at similar levels to their employees because they have increased responsibilities and their job security is directly tied to performance measures (Jugdev, Mathur, & Cook, 2018). Managers have the capacity to understand that burnout, including in themselves, is specific to each employee's subjective characteristics. Thus, managers may better prevent burnout in their staff and subsequent attrition by placing themselves in their employees' situations and making decisions from the perspective of their employees' needs (Jugdey, Mathur, & Cook; Putranti, 2018).

Increasingly, managers are recognizing the importance of employee engagement for mitigating burnout in the health care workforce and tailoring management strategies accordingly. In a study conducted by Willard-Grace, Knox, Huang, Hammer, Kivlahan, and Grumbach (2019), the researchers described low employee engagement in the presence of employee burnout as significant contributing factors for employee turnover.

Exhaustion, depersonalization, and personal achievement as described in the Maslach Burnout Inventory scale are useful as a three-item measure to quickly and reliably determine if health care workers are experiencing burnout (Riley, Mohr, & Waddimba, 2018). In separate studies, Willard-Grace et al. (2019) and Riley, Mohr, and Waddimba (2018) found burnout to be a significant factor in employee turnover. Health care managers could utilize the Maslach Burnout Inventory scale to identify burnout and develop strategies to mitigate voluntary employee turnover (Willard-Grace et al., 2019).

Some health care managers address employee burnout through acknowledging the respective sources of stress and satisfaction at their institution. Researchers at The Mayo Clinic constructed psychological leisure activities to promote relaxation and provide environments that reduce stress: atriums and outdoor spaces were built with the aim of reducing stress and burnout in medical professionals (Dieser, Edginton, & Ziemer, 2017). Dieser, Edginton, and Ziemer (2017) noted positive feedback from employee surveys at the Mayo Clinic following the abovementioned initiatives to reduce the stressfulness of the hospital environment. The positive results from Dieser, Edginton and Ziemer (2017), can be used to mitigate employee turnover from the stressors discussed by Rupsiene et al. (2017) and Putranti (2018). Given that burnout is a strong precursor for employee turnover, managers may benefit from being able to identify or reduce factors contributing to employee burnout, thereby increasing employee retention.

### **Flexible Scheduling**

Managers may motivate their employees to remain at an institution by providing flexible work schedules. Fletcher, Alfes, and Robinson (2018) discussed how, contrary to

their hypothesis, emotional exhaustion is not a contributing factor in voluntary employee turnover, but human resources practices and policies significantly affected such turnover. Jindal, Shaikh, and Shashank (2017) similarly reported that employees had a strong intent to remain at their current place of employment when their organization's human resource policies allowed them the flexibility to meet their personal needs in the home. Scheduling practices may be an institutional need and not entirely dependent on managerial practice. Human resource departments provide a bridge between managers and institutional policies, and some managers with employee attrition problems may benefit from revising their scheduling models.

Employee engagement surveys may be used as a tool by human resource managers to determine if flexible scheduling is a motivational factor for an employee population. It is in a corporation's best interest to maintain employee engagement to reduce employee attrition and subsequently stave off the costs associated with employee turnover (Cross, Opie, Pryor, & Rollag, 2018). Both human resource managers and organizational leaders may benefit from utilizing employee engagement surveys to determine the best ways to maintain job satisfaction in their employee population (Cross, Opie, Pryor, & Rollag, 2018; Fletcher, Alfes, & Robinson, 2018; Jindal, Shaikh, & Shashank, 2017). Managers of various departments may gain insight into the desires of their employees through such engagement surveys. Managers may ask questions about flexible scheduling options in an engagement survey to determine if these options are desirable for the employee population.

## **Management Retention Strategies**

Health care leaders face challenges in developing effective employee retention strategies at their institutions. Ikematsu, Egawa, and Endo (2019) discussed the practice of supplying additional orientation services and clinical staff support through mentoring as a positively reviewed technique for new nurse retention agreed to by both the nurse managers and the new nurses. Fan, Zheng, Liu, and Li (2016) promoted mentorship by senior clinical providers as a strong technique for employee retention, but also confirmed that the psycho-social nature of nursing requires nurse managers to consider how leaders can meet the psychological and social needs of their nursing staff to maintain engagement and satisfaction. Fan et al. (2016) and Ikematsu, Egawa, and Endo (2019) noted job satisfaction contributes to retention and is directly impacted by managerial technique. Retention techniques may not be present if managers perceive no understaffing issues (Buers, Karpinska & Schippers, 2018). While techniques that may assist some managers in addressing retention problems have been proposed, individual managers may need to identify their own motivations for implementing certain strategies.

A variety of factors that affect the motivation of employees may be present in different professions but the need for strong employee retention policies is an organizational commonality. Purvis, Zagenczyk, and McCray (2015) identified the psychological and organizational climate encountered by employees as strong motivators to ensure positive valence and instrumentality. Binder (2016) noted how an employee's accomplishments in the workplace may be measured by the performance expectations set for employees and the values the employer identifies as important for their organizational

culture. Based on these findings, it is reasonable to conclude that Vroom's presentation of the expectancy model is shaped by organizational culture and managerial policies that act as drivers of employee motivation. Researchers may conduct further analysis of Vroom's expectancy model to promote continued development of effective strategies tailored to the needs of different employee populations.

### **Employee Turnover**

Understanding the intentions behind employee turnover is a necessary step for managers seeking to correct underlying retention issues. As discussed by Goodare (2017), lack of adequate employee compensation and long work hours are significant factors motivating health care professionals to seek employment elsewhere. Similarly, Britt, Koranne, and Rockwood (2017) noted that long work hours and inadequate compensation are known factors that contribute to employee burnout, with three in five physicians identifying long hours, compensation, and stress as part of their daily work environment. Although physicians experience burnout, job satisfaction and fulfilment are reasons that many decide to remain at their place of employment longer than other health care professionals (Britt et al., 2017). Aliyu and Nyadzayo (2018) noted that turnover produces expensive consequences for a firm, resulting in increased overtime, recruitment costs, and training, a finding that further supports Goodare's (2017) determination of long work hours as promoting employee turnover. Managers need to find a balance between the respective needs of the firm and the employee by maintaining a strong and mutually rewarding work environment that benefits all stakeholders.

Employee retention in the health care industry is a salient issue to consider when evaluating the strategies managers employ to promote retention. In a qualitative analysis conducted by Oosterbroek, Yonge, and Myrick (2017), the researchers identified preceptorship and clinical support as important factors in a nurse's decision to remain working at their current institution. While acknowledging importance of clinical support, Moloney, Boxall, Parsons, and Sheridan (2018) assessed workload and hourly demands as a uniform issue that promotes attrition for allied health care workers in New Zealand. Moloney et al. (2018) also discussed the importance of career development and positive professional support as strong indicators for employee retention, noting that these factors promote retention when managers demonstrate positive support. The helpful indicators for health care employee retention are strongly related to the manager's need to create a desirable work environment. Managers may be able to use the conceptual framework of the expectancy model as an aid to providing strategic motivation within their employee population.

Managers should adopt strategies that meet the needs of their department and their employees. As discussed by Hoglund and Falkenstrom (2018), the employee population in Stockholm, Sweden desires a balance between market driven policies that improve their workplace environment. Health care is a business that affects the health of a population, so it may be difficult for managers to attain both a balance between ethics and quality delivery and the conditions required for a satisfied employee population. Hoglund and Falkenstrom (2018) noted that health care leaders identified patient-centered care as a method for providing ethical and quality care, however; the effect this strategy has on the

employee population is varied. As discussed by Moloney et al. (2018) and Hoglund and Falkenstrom (2018), the variance in employees' desires poses difficulties for health care managers and leaders engaged in determining employee retention policies.

Following a similar approach to Hoglund and Falkenstrom (2018), Farr and Cressey (2015) demonstrated how patient-centered care produces an increased pressure of efficiency on health care professionals to provide quality care that is also profitable for the institution. Amplified job demands produced by pressure and quality control may lead to employee dissatisfaction, directly impacting attrition (Farr & Cressey, 2015; Green & Munoz, 2016). In a recent study, Jaana, Majdalani, Tamim and Rahbany (2018) described professionalism, ethics, quality management and improvement, strategic planning, and communication as qualities that balance the professional and ethical aspirations of Lebanese managers. Institutional managers may promote reduced attrition through commitment to quality health care and ethical practices if employees feel their managers partake in policies that exemplify these attributes.

**Perfusionist motivation and turnover.** The profession of perfusion is a dynamic field that requires managers to use a myriad of skills to enable perfusionists to operate in a climate in which they are both stimulated and satisfied. Knowledge of human behavior and the factors that motivate individuals to remain at their place of employment may be of use to perfusion managers. In a literature analysis conducted by Chen, Ellis, and Suresh (2016), the researchers noted firms may benefit from developing policies based on valence and expectancy rather than standard economic and strategic theories on the basis of improved motivation. Sabbagha, Ledimo, and Martins (2018) similarly found that



stated motivation and job satisfaction were predicting factors in staff retention 46% of the time. Perfusion managers may benefit from basing their employee retention strategies and policies on a motivational framework. As discussed by Tonnon, van der Veen, de Kruif, Robroek, van der Ploeg, Proper, and van der Beek (2018), in the presence of employee self-efficacy, management support and company culture influence the implementation of strategies that improve employee retention. Managerial support from perfusion managers begins with the policies they determine to benefit their team. Using the framework of the expectancy model to understand employee motivation further may generate strategies not yet explored.

### **Vroom's Expectancy Model in Research**

#### **Vroom and Employee Satisfaction**

Corporations can find success not only by expanding their current businesses, but by reinvesting in their employees. In a case study analysis conducted by Bowen-Ellzey and Romich (2017), the researchers noted profitability and functionality can be greatly affected by maintaining a consistent and content employee population. An effective way for managers to provide employee satisfaction and subsequently reduce employee attrition is to recognize the need to maintain a fair work-life balance for their employees (Parmar, Keevil, & Wicks, 2019). Bowen-Ellzey and Romich (2017) and Parmar, Keevil, and Wicks (2019) noted how managerial strategies for recognizing employee satisfaction can reduce employee turnover. Additionally, in a qualitative study conducted by Desselle (2016), the researcher identified professional support from management and the valuing of employees as equal partners as necessary strategies for providing job satisfaction and

subsequently reducing attrition. Reinvestment in the employee population, work-life balance strategies, and professional support are all approaches that may provide high instrumentality in relation to Vroom's (1964) expectancy model. Considered as a result of performing well, instrumentality can be viewed as the reward for performing what is expected (Vroom, 1964).

As discussed by Carr, Drennan, and Andrews (2016), an employee is an asset that yields monetary value. In acknowledging this observation, managers may need to maximize their assets and utilize their employees to the best of their abilities. Similarly to Carr, Drennan, and Andrews (2016), in a qualitative study conducted by Goksoy and Argon (2015) using the framework of Vroom's expectancy model, the researchers found that administration places great emphasis on the view that an employee's commitment to their job should be demonstrated through performance, organization, and passion for their career. The workforce studied reported that while they felt their performance was above average, its value was recognized by administrators only half of the time. Goksoy and Argon (2015) also revealed that rewards of all types, including monetary rewards, verbal praise, and appreciation certificates, had the same effect of improved performance.

### **Vroom and Generational Values**

Holding true Vroom's expectancy model, managers may benefit from promoting a positive expectancy factor within the model by allowing employees to exert their energy on completing a task with the potential for a reward (Vroom, 1964). Such rewards are subjective and vary in valence between generation. According to Jonck, van der Walt, and Sobayeni (2017), the Baby Boomer generation ranked monetary security higher than

Generations X and Y, who found cultural identity and creativity more important. While Brueton, Stenning, Stevenson, Tierney, and Rait (2017) accepted these claims, they found that monetary security and reward were important to all interviewed groups and not just one cohort. Researchers may use generational studies to demonstrate how different populations subjectively value varying rewards. Valence, instrumentality, and expectancy may be generalized in generational contexts when determining the origins of motivation.

The complex relationship between employees and employers directly impacts an organization. The strategy a manager employs to motivate their employees creates a work environment that either promotes or removes the factors that contribute to employee retention (Matsumoto, 2019). As discussed by Matsumoto (2019), managers in the health care field create and implement policies that are directly responsible for the satisfaction or dissatisfaction of the employees they oversee. Naim and Lenka (2018) expanded on Matsumoto's work to explain how employees in different age demographics view job satisfaction and fulfillment, showing that Generation Y employees preferred a style of inclusivity, performance feedback, and promotion more than older generations. Heyns and Kerr (2018) described how adopting different motivational strategies for different generations can be a successful managerial policy, while noting the values and priorities of various generations did not diverge significantly from each other. Heyns and Kerr (2018) also found that the job satisfaction an employee obtained through completing a task varied significantly between Generation X and Generation Y cohorts, and that this difference affected employee retention. As managers encounter diverse generations in the

workplace, understanding what motivates each generation may provide insight towards successful management strategies.

### **Vroom and Motivation**

Eswara Murthy, Villatte, and McHugh (2019) and Chai, Cheng, Mei, and Fan (2019) observed that the expectancy of the workforce derived from the necessary comfort and self-efficacy provided by managers and leaders to promote motivation. The expectancy model may also be supported with performance appraisals, which can improve the comfort and self-efficacy of a workforce. As demonstrated by Iqbal, Akbar, Budhwar, and Shah (2019), employees correlate a positive performance appraisal with a potential for a reward; therefore, when approached with a performance appraisal review, there is stronger motivation for employees to perform better at their given tasks. Vroom's expectancy model was previously used solely in the context of employee motivation. However, Iqbal, Akbar, Budhwar, and Shah (2019) have suggested a wide range of applications for this model, demonstrating a correlation of Vroom's framework with behavioral choices in alignment with motivation. Health care managers may find the expectancy model useful for designing retention strategies aimed at increasing employees' motivation to remain at their institution.

Enciso, Milikin, and O'Rourke (2017) discussed how good managers may expand their knowledge through engagement with the methods of best practice found in literature and organizational ethical culture. Following this approach enables managers to adhere to the expectancy model of avoiding negative outcomes and producing the best outcomes in their careers. According to Vroom (1964) managers have their own set of needs and the

motivation of their actions is both to the benefit of themselves and their employees.

Alignment occurs if there are no deficits in rewards for the workforce and in expectations from management, generating positive feedback for both parties (Busuic and Lodge, 2017; Goksoy and Argon, 2015). The alignment of needs between managers and employees promotes positive valence, expectancy, and instrumentality for all parties; therefore, both managers and employees will be motivated to work together to achieve all stakeholders' desires.

### **Vroom and Employee Turnover Costs**

As discussed by Block (2016) and Perreira, Berta, and Herbert (2018), the costs associated with employee turnover place extreme strain on a health care institution. Block (2016) noted further how a hospital incurred additional losses over a three year period due to the costs of continued training and employee acclimatization to a new clinical and professional environment. The opportunity to attain a comfortable, stable livelihood was a strong determining factor for health care professionals to seek employment elsewhere (Alameddine, Yassoub, Mourad, & Khodr, 2017; Baciou, 2017; Block, 2016; Perreira, Berta, & Herbert, 2018). Alameddine et al. (2017) mentioned the point of monetary compensation, while also concluding from the results of their qualitative study that the bureaucratic processes associated with managing health care professionals and their grievances are too lengthy. Alameddine et al. (2017) noted that it took over a year for a physician's request for a monetary raise to be processed. Bearing these scenarios in mind, it is unclear if management or human resources departments in hospitals, considered in

the context of Vroom's (1964) expectancy model, have high or low instrumentality and valence to their employees.

### **Vroom and Managerial Strategy**

Organizational leaders' approaches to optimizing best practice in their employee population may impact the motivation of an employee. In a study conducted by Phan, Ngu, Wang, Shih, Shi, and Lin, (2018), the researchers found the well-being of individuals was promoted when persons in authoritative positions encouraged employees to do their best. As discussed by Herawati, Lupikawati, and Purwati (2018), the stress generated by workplace conditions may promote or slow down performance in both managers and employees. Similarly to Phan et al. (2018), these researchers identified the actions of leaders and their personal attitudes towards those actions as a source of workplace stress. Kaiser (2017) determined that transformational leadership strategies promoted positive workplace interactions and subsequently improved employee and managerial performance. A strong moral code that is followed with consistent alignment in values between management and their staff is a source of stress reduction and better performance (Herawati, Lupikawati, Purwati, 2018; Kaiser, 2017). With this understanding, Vroom's (1964) expectancy model is validated by management through their use of ethical decision-making strategies, with employees' motivation being determined by their personal alignment with these ethical practices.

In a health care institution, leaders have a responsibility to deliver quality health care to individuals seeking their expertise (Jha, Sahay, & Charan, 2016). The methods managers employ in their operational modality are centered around quality, strategy,

information technology, scheduling, and performance (Ja, Sahay, & Charan, 2016; Kaiser, 2017). Employee performance in response to managerial policy must be in alignment with expectancy, instrumentality, and valence to promote motivation (Vroom, 1964). Given that quality health care delivery is an utmost priority, there are a myriad of diverse stakeholders who rely on a well-functioning institution.

As discussed by Greenwald (2017), leaders and managers in health care face challenges absent in other industries, mainly due to the multidisciplinary group of stakeholders that rely on a hospital for their professional livelihood. Consequently, the priorities of managers are two-fold, encompassing the respective needs of the employees and the patients. If managers enhance expectancy and instrumentality for their employees and patients, they may additionally promote a positive valence (Chopra, 2019).

Warshawski, Barnoy, and Kagan (2017) similarly observed that collaboration between managers and employees promotes an environment of productivity and openness to new organizational initiatives, while additionally providing a successful employee retention and motivation strategy. New organizational initiatives utilizing a team approach may produce a quality health care delivery system that benefits the stakeholders employed by the institution and the patients in need of medical treatment. All stakeholders must find value in the nature, the outcomes, and the expected rewards of their work.

The organizational strategies implemented by managers may have strong implications for employee attrition. Advocating for employees who desire better pay and work conditions is a proven approach for managers seeking effective retention strategies (Assefa, Mariam, Mekonnen, Derbew & Enbiale, 2016). Managers engaged in

developing retention strategies can benefit from awareness of the areas in their field that directly impact job satisfaction. Following Assefa et al. (2016), Green and Munoz (2016) identified the following significant areas of improvement in management strategies aimed at generating positive job satisfaction: employee preparedness, institutional practice and leadership, professional independence, time, and benefits. However, while Assefa et al. (2016) recognized better pay as a retention strategy, this approach was not explicitly identified by Green and Munoz (2016). Retention strategies are integral to maintaining adequate staffing; therefore, managers may benefit from observing and modifying their strategies consistently based on employee need.

Pay and professional lifestyle as discussed by Assefa et al. (2016) may be linked to job satisfaction as described by Green and Munoz (2016), with both factors providing reward and value to a chosen career. Conversely, management strategies that provide sufficient pay, adequate incentives, and strong job satisfaction were not shown to be significant in a study conducted by Zievinger and Swint (2018), who found better attrition rates when managers provided job recognition and training. The varying data from Assefa et al. (2016), Green and Munoz (2016), and Zievinger and Swint (2018) demonstrate conflicting valuations of rewards among different workforces. Researchers may apply Vroom's expectancy model to these studies by determining the valence, instrumentality, and expectancy of each workforce to develop better understanding of conflicting valuations of varying rewards.

Managers in developing countries may find benefit in applying Vroom's (1964) expectancy model to achieve better understanding of the needs of health care employees.



Due to the long work hours, poor conditions, and lack of strong leadership in Myanmar, doctors and health care professionals are migrating out of the country to seek better employment opportunities overseas (Saw, Than, Thaung, Aung, Wen-Shuan Shiao, Win... Saw, 2019). While health institutions in Myanmar face many challenges, changes to their management and retention strategies may prove helpful. As demonstrated by White (2017), offering additional training to an existing workforce may provide the economic opportunities and mobility desired by strongly motivated and high-performing employees. White (2017) and Saw et al. (2019) have investigated the nature of working for a reward and the effort required to obtain the reward in two strikingly different environments. Coordination, communication, and trust are necessary to sustain an employee population (Winn, 2018). While the rewards and efforts deemed worthy by the workforce often vary, the implementation of responsive, well-informed managerial strategies may result in a sustained and reliable employee population.

According to Busuic and Lodge (2017), in an effort to understand what guides the expectancy model internally, the accountability of both management and employees is of the utmost importance. Busuic and Lodge (2017) described how deficits between management and the workforce are found when what is important for the institution is not what is valued by the employee. If there are insignificant deficits between management and the workforce, then it may be accepted that the expectancy model is valid for both managerial and workforce preferences, as both parties are obtaining desirable outcomes. Managers are motivated to make effective decisions, as their career success depends on the notion that their performance is a reflection of the constituents they manage.

## **Transition**

In Section 1, I described the foundation of my study on perfusion retention strategies, explained the need for new research, and then outlined the background of my research problem, problem statement, purpose statement, and nature of study. This section also included the research question and interview questions for my research participants to establish themes and trends within the perfusion manager community. I presented my conceptual framework through the lens of Vroom's (1964) expectancy model, along with operational definitions, assumptions, limitations, delimitations, and the significance of my study to the health care industry. I completed Section 1 with a review of professional and academic literature. In my extensive review of this literature, I explored up-to-date causes and effects of employee turnover in addition to managerial responses to employee attrition. In Section 1, I have demonstrated a strong need for conducting my research on retention strategies within the perfusion community and the significant positive impact I may provide to perfusion managers with my results.

In Section 2, I will discuss my role as the researcher, research participants, research method, research design, population and sampling, and the conduct of ethical research. I will conclude Section 2 by discussing data collection techniques, data organization, data analysis, and reliability and validity.

Section 3 will present the findings of my qualitative research in relation to Vroom's (1964) expectancy model. I will discuss applications of the findings to professional practice, implications for social change, and recommendations for action and further research. Section 3 will culminate with a personal reflection and a conclusion.

## Section 2: The Project

Section 2 includes a detailed description of how I conducted this study, including necessary components of data collection and analysis and concluding with reliability and validity of the study. The decisions I made in the design of this study are in accordance with ethical research guidelines of the Walden University IRB. The methods I used in this study were formulated carefully so I may reveal quality data to analyze in Section 3.

### **Purpose Statement**

The purpose of this qualitative, multiple case study was to explore successful strategies some perfusion managers use to minimize perfusionists' attrition. This study included nine chief perfusionists and directors of perfusion in New York City who had successfully promoted retention in their departments. The study has two implications for positive social change: (a) if staffing is maintained, employees' quality of life is improved and (b) if an improved patient care delivery system is developed by an experienced and well-staffed perfusion department, effective and safe patient care is more likely to be provided.

### **Role of the Researcher**

As a researcher, my role in this study was to collect primary data by conducting digital interviews and gather secondary data from publicly available documents, including job descriptions and job advertisements. As characterized by Karagiozis (2018), the primary role of a qualitative researcher is to investigate people's perceptions, perspectives, and sentiments regarding a research topic and subsequently analyze a record of the interview to discover themes. Wesely (2018) further characterized the qualitative

researcher's role as that of a neutral, nonbiased data collector and analyzer. Merriam and Tisdell (2016) discussed the importance of how a qualitative researcher links a theoretical or conceptual framework with themes identified through the interview process. After I gathered the data, I identified themes through analysis and formulated these findings into charts and graphs.

My knowledge of this topic is based on my 10-year career as a cardiovascular perfusionist in New York City. I do have professional relationships in the research area, and I do come into contact with the research participants occasionally. My role as a perfusionist is focused in New York City, and the research participants were perfusion managers in a large New York City health care network. I have professional interaction with the research participants since the perfusionist community is small in number, served by less than 180 total licensed and certified perfusionists in the entire state of New York (American Board of Cardiovascular Perfusion, 2019).

My conduct as a researcher was guided by the *Belmont Report's* three basic ethical principles: respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research [NCPHSNNR], 1978). In accordance with NCPHSNNR (1978), the interview protocol was designed to ensure respect, protection from harm, informed consent, anonymity, and research that is unbiased as to race, gender, ethnicity, disability, sexual orientation, age, or social status.

When conducting a study in the researcher's own vocation, the researcher must carefully mitigate the potentialities of ethical compromise and personal bias. As

discussed by Yin (2018), case study methodology may provide a researcher with both known and unknown biases due to their prior knowledge or personal sentiments about the research topic. The neutrality of a researcher is necessary for accurate data interpretation (Morgado, Meireles, Neves, Amaral, & Ferreira, 2017). As an ethical researcher, I mitigated any bias by acknowledging and documenting any personal attitudes towards the data and remained objective in the analysis. To preserve the integrity of the research I was conducting, I maintained a moral and ethical mindset with utmost professionalism.

Data collection should be maintained consistently throughout for all research participants to enhance the validity of the study (Yin, 2018). A protocol for conducting interviews and collecting data in a qualitative case study allows a researcher to provide continuity between each participant, thereby obtaining high-quality data (Yin, 2018). As the primary source of data collection, the interview protocol I devised was in accordance with the Walden University Institutional Review Board guidelines and was completed through an ethical process. I maintained objectivity and ensured the comfort of the interview participants to preserve ethical standards and obtain the most truthful and honest attitudes concerning the research topic.

Additionally, I used publicly available documents as secondary data resources to further develop the themes obtained from the individual interviews. The documents I included as secondary data were job descriptions and advertisements from the company websites. Yin (2018) discussed the importance of triangulating data in case studies with primary and secondary sources in research. I identified key themes found in primary and secondary data and analyze them in the context of Vroom's (1964) expectancy model as

conceptual framework. Examination of the prior research on retention strategies in health care provided me with another lens of analysis, which assisted me in developing a more well-rounded approach to analyzing the themes extracted from interview data.

### **Participants**

When selecting research participants, investigators should make their selections based on obtaining the most reliable information about the topic under study (McCalman, Heyeres, Campbell, Bainbridge, Chamberlain, Strobel, & Ruben, 2017). To maintain the ethical standards of the study, potential participants must be willing to participate and consent to the research process explicated by the researcher (NCPHSNNR, 1978; Yin, 2017). The participants who were eligible for selection in this study were perfusion managers who maintained their perfusion license in New York State. A perfusion manager may include a Chief of Perfusion, Assistant Chief of Perfusion, or a Director of Perfusion because each of these roles reflects the job description of a perfusion manager, and all individuals in these roles have input on strategies for managing their perfusion teams.

I established a working relationship with the research participants by reaching out via email, text messages, and telephone calls to inform them about this study. Using a digital mode of communication is viewed as a professional mode of contact (de Jong, Ros, van Leeuwen, & Schrijvers, 2016). When initially contacting the potential participants, I used a formal introductory letter and included an informed consent document that was returned to me by email before the agreed upon interview date or physically on the date of interview. As discussed by Yin (2018), the environment created

for interviews has a direct impact on how forthcoming interview participants may be about their true feelings and attitudes towards a research subject. I allowed for any questions about the study to be answered over the phone, email, and text message to produce a comfortable and inviting environment for the research participants. In my introductory letter, I explained clearly to participants that we will select a suitable interview setting in which participants feel comfortable. I established a professional, ethical, and honest working relationship with the participants by creating a comfortable and appealing tone through the initial contact about my research. Managers in a given vocation must be able to influence, lead, and engage a profession (Palma, Clifford, & Hayward-Giles, 2017). Interviewing perfusion managers aligned with the overarching research question because these participants directly lead perfusion teams and have explicit influence on their perfusion department policies.

## **Research Method and Design**

### **Research Method**

Qualitative case study researchers generate rich data on complex issues and facilitate a comprehensive analysis of the research topic (Atchan, Davis, & Foureur, 2016). Quantitative research involves the use of statistical analysis to deduce causal inferences based on relationships in a given data set (Hochbein & Smeaton, 2018). Qualitative researchers explore a phenomenon through the use of firsthand accounts, typically provided by interviews, to understand attitudes and themes associated with a behavior (Makrakis & Kostoulos-Makrakis, 2016). I used a qualitative approach including subject interviews to achieve a greater understanding of the successful

strategies that perfusion managers use to improve perfusionist retention. The mixed methods approach was another option that includes both qualitative and quantitative aspects of research, but the combination of qualitative and quantitative methodology may be difficult for a researcher to administer in comparison to a single research method (Yin, 2018). I chose the qualitative method because I opted not to include any kind of numerical data in this study. Walden University's approval number for this study is 05-07-20-0760762

### **Research Design**

The research design options for conducting my study on successful strategies perfusion managers use to reduce perfusionist attrition included (a) ethnography, (b) phenomenology, (c) narrative, and (d) case study. A case study may be either a single case study or a multiple case study, and it may be divided into three categories: (a) explanatory, (b) descriptive, and (c) exploratory (Yin, 2018). I chose to undertake an exploratory multiple case study instead of a single case study because a single case study is representative of one group and is difficult to achieve generalized results. (Yin, 2018). Moreover, I decided against a single case study because I preferred to focus on solutions to the business problem in one region, rather than gleaning a superficial understanding from one organization. Perfusion managers in different populations may accept as more valid and reliable, purported success strategies which are corroborative among study subjects from different organizations.

Ethnography involves deep immersion into a culture or a group of people to gain better understanding of its practices and beliefs (Gergen, 2018). Given that I did not need



to understand a culture to gain a better understanding of perfusionist retention strategies, ethnography was not an appropriate design for this study. Phenomenology involves the close study of people's experiences to produce detailed personal accounts (Cordonnier, Barnier, & Sutton, 2018). Phenomenology was not a well-suited design for this study because such accounts are not necessary for the exploration of successful management strategies for perfusionist retention. A narrative design in research includes descriptions of events in the form of a story for the purpose of describing an experience (Shanahan, Jones, & McBeth, 2018). Given that I uncovered themes by analyzing the results of interviews, a narrative design was not appropriate for this study.

### **Population and Sampling**

The target population for this multiple case study consisted of perfusion managers who had successfully implemented strategies for perfusionist retention. The perfusion managers selected consisted of five managers employed in New York City from all five boroughs; Manhattan, Brooklyn, The Bronx, Queens, and Staten Island. These perfusion managers were appropriate for this study due to their experience with high employee turnover and the methods they have used to curtail perfusionist attrition. Interviews can provide multiple intimate perspectives on a phenomenon and propel a researcher towards valid qualitative research findings (Abdalla, Oliveira, Azevedo, & Gonzalez, 2018). Therefore, obtaining interviews from perfusion managers who have encountered the problems related to my research question firsthand and developed successful strategies for perfusionist retention aligns with my purpose for this case study, ensuring data was collected from appropriate research participants.

The interview participants involved in a multiple case study assist a researcher in exploring their problem statement using primary data. Semistructured interviews provide personal, subjective experiences that may only be understood if the participant is afforded a comfortable environment free of bias and judgment (Hogan, Hinrichs, Hornecker, 2016). Canales and Caldart (2017) discussed interview techniques and identified benefit in participants assisting with location selection for the interview to establish the setting they found most comfortable and unthreatening. Additionally, Levitan, Mahfouz, and Schussler (2018) discussed the importance of the responsibility of the researcher to be supportive and nonjudgmental while an interview participant shares personal experiences. Therefore, the ideal setting for conducting semistructured interviews was through a Zoom digital conference call.

### **Ethical Research**

Practicing ethical research when including human research subjects is a necessary component of data collection (Yin, 2018). While conducting this study, I adhered to Walden University Internal Review Board (IRB) guidelines, which helped me to comply with U.S. government and university ethical standards. According to Walden University's IRB, a researcher should provide informed consent documents for research participants discussing research impartiality. According to Lindsley (2019), the informed consent form must be a standardized document that includes a respectful and impartial explanation of the anticipated research for participants. I provided an informed consent document for each participant to review and sign via email after initial contact to solicit their participation in the study.

Participants were able to withdraw from the study at any time and without providing reasons. Lernmark, Lynch, Baxter, Roth, Simell, Smith, and the TEDDY Study Group (2016) identified logistical aspects and psychosocial pressure as reliable indicators for participant withdrawal. I engaged in due diligence while assuring participant retention by making any reasonable accommodations for participants. However, if any participants requested to withdraw, the process was accomplished with a phone call, email, or text message. There were no incentives for study participation.

All interviews I conducted and data I obtained was accomplished under the guidance of the Belmont Report. I used the informed consent checklist provided by the Belmont Report under item §46.166 to ensure the ethical protection of participants (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research [NCPHSNNR], 1978). Additionally, I assured the confidentiality of all participants. By maintaining confidentiality during their investigations, researchers maintain ethical standards and bolster the integrity of their study (Petrova, Dewing, & Camilleri, 2016). To provide additional privacy and participant protection, I stored any research data, including but not limited to emails and recorded transcripts, securely for 5 years. According to van Nunen, Reinders, Semsar-Kazerooni, and van de Wouw (2019), confidentiality is more easily obtained using a heterogeneous pool of data. Neither the health care systems nor the individual hospitals were mentioned in this study as a measure to ensure the privacy of the participants.

### **Data Collection Instruments**

As the researcher, I was the primary data collection instrument for this study. As discussed by Skillman, Cross-Barnet, Friedman-Singer, Rotondo, Ruiz, and Moiduddin (2019), primary data in qualitative research is obtained through interviews conducted by the researcher. Researchers can gain a rich understanding of various perspectives on a phenomenon from their study participants by gathering primary data through in-depth interviews (Buathong & Lai, 2019). Yin (2018) further explained how semistructured interviews may focus directly on the research question, providing targeted responses.

I conducted semistructured interviews with the use of an interview protocol, which is found in the appendix. As discussed by Yeong, Ismail, Ismail, and Hamzah (2018), interview protocols must be easily understood and focus strictly on research objectives. Yin (2018) noted that an interview protocol includes six steps to ensure the consistency of the study: (a) introduction, (b) purpose of the study, (c) discussion of confidentiality, (d) follow-up questions to address concerns, (e) conducting the interview, and (f) wrap-up. I carefully followed a detailed interview protocol during the process of data collection through all interviews.

The reliability and validity of the data collected were paramount to my research. Yin (2018) verified reliability and validity as necessary components to qualitative case studies. As the researcher, I ensured that the data collected reflected the true sentiments of the participants. After obtaining consent, I recorded each interview using the Zoom recording feature in addition to the TapMedia voice recorder application on an iPhone to

ensure a backup method. I then transcribed the conversation and provided a transcript summary to each interview participant to foster member checking.

A researcher may bolster reliability and validity in their study through the use of member checking. Member checking ensures the data obtained from interviews is interpreted as the participant intended, promoting ethically sound research that maintains autonomy and respect for persons (Naidu & Prose, 2018). Member checking of interview transcripts promoted accurate interpretation of the data I analyzed, enhancing the reliability and validity of this study. Gentil et al. (2017) recommended that researchers use secondary data from digital sources, such as public recruitment advertisements and job descriptions, so a researcher may promote reliable study results through triangulation. I followed the process of triangulating primary data with secondary data from digital sources. Perfusionist job descriptions and job advertisements were publicly available on the employer websites and I obtained this secondary data through an internet search.

### **Data Collection Technique**

My data collection technique involved semistructured interviews that I recorded and transcribed to identify themes regarding successful strategies for perfusionist retention. I conducted digital interviews between myself and the participant in settings that were comfortable for both myself and the participant. A benefit of semistructured interviews is the ability to rephrase a question to allow a participant to add clarity, which is not a possibility when administering a written interview or questionnaire (Cole & Harbour, 2015). Semistructured interviews conducted between professionals of the same discipline facilitate deep data collection from shared knowledge and foster professional

or friendly rapport between the interviewer and participant (Nowak & Haynes, 2018).

Yin (2018) identified interview bias due to poorly articulated questions as a weakness of the interview technique. Before conducting interviews, I practiced speaking the interview questions in an even tone, reviewing audio recordings of myself and refining my delivery until I did not identify any bias or inappropriate inflection within my voice. I practiced my interview language with a colleague and noted their feedback, as well as recognized my own comfort and voice intonation. According to Jae-Bok and Park (2016), the use of voice recording with a personal device, such as an iPhone or tablet, is a reliable and modern form of data collection. Jae-Bok and Park (2016) further noted the human error that may be encountered with such devices, including malfunction or loss of data. To reduce the risk of device malfunction, I recorded all interviews using two different devices and applications. I used an iPad with the Zoom application and an iPhone with the TapMedia voice recorder application for backup.

Once situated in the digital meeting location, I used an interview protocol to guide the interview with the participant. The protocol consisted of (a) an introduction, (b) an explanation of the purpose of the study, (c) a statement of confidentiality, (d) a provision for addressing any participant concerns, (e) the interview questions, and (f) a conclusion with member checking before data analysis. Yang (2017) noted that nonverbal communication such as facial expression, eye contact, and body movement may indicate human feelings of comfort or discomfort. Additionally, Middaugh (2017) advised caution over the subjectivity involved in interpreting another individual's physical reactions, while agreeing that nonverbal communication is an accurate means of conveying a

feeling. Due to the potential subjectivity inherent in the interpretation of nonverbal communication, I did not take observational notes during each interview question.

After I transcribed each interview, I initiated member checking with each participant. To keep the interview fresh in each participant's experience and to facilitate prompt review, I provided the research subjects an emailed copy of the interview transcript within 7–10 days of the meeting. Member checking mitigates subjectivity and bias on the part of the researcher regarding interpretation of their data (Madill & Sullivan, 2018). Furthermore, member checking enables a participatory research practice by promoting the idea of research as a joint endeavor (Netta, 2018). Peer debriefing is a method of data interpretation that allows for an expert contacted by the researcher to analyze data rather than the individual who produced it (Scharp & Sanders 2019). I did not engage in peer debriefing because member checking accomplished data interpretation with the clarity the research subject intended.

### **Data Organization Technique**

When researching a health care industry target population within a small community and profession, confidentiality and ease of participant identification must be rigorously addressed (Turcotte-Tremblay & McSween-Cadieux, 2018). Using generic pseudonyms and generalized descriptions of research participants can assist researchers in maintaining participant confidentiality (Surmiak, 2018). I maintained the research participants' confidentiality by applying participant identification pseudonyms as a coding technique with the codes *PI–P5* for each individual interviewed. Participant coding is a valuable technique in case study research because it enables a researcher to

protect confidentiality (Yin, 2018). All transcripts and digital communication were labeled in this fashion, and no participant had access to the personal names attached to others' pseudonyms. I disclosed the use of participant pseudonyms in each research participant's signed informed consent form to help ensure confidentiality.

I used NVivo 12 software to transcribe and code the interviews. Automated coding with the use of software is a method to ensure researcher bias is limited (Venta, Cooper, Shmueli-Goetz, & Sharp, 2018). After I transferred the recorded interviews as .m4a files from Zoom to NVivo 12, I began the transcription and coding process, which were saved as NVivo 12 files. After I secured this data within the NVivo 12 software, I deleted the voice recordings originally made through the Zoom platform and TapMedia voice recorder on an iPhone. I stored these voice recordings and transcripts on a password-protected laptop for 5 years.

### **Data Analysis**

Yin (2018) discussed four types of triangulation for case study research: (a) data triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) methodological triangulation. Investigator triangulation involves collaborating with other investigators, theory triangulation involves different perspectives among a data set, and data triangulation involves differing data sets in a study (Bruning, Godri, & Takahashi, 2018). While these triangulation methods are useful, Yin (2018) noted methodological triangulation, which involves collecting data from multiple sources that vary in method of data collection, may be supported by multiple sources of data and strengthen construct validity. I used methodological triangulation with secondary resources, which included



recruitment advertisements and job descriptions for perfusionists, to ascertain collaborative evidence for the themes I elucidated from the interview data.

The process of analyzing data includes (a) collecting, (b) rearranging or disassembling, (c) arranging, (d) interpreting, and (e) concluding (Yin, 2018). Data collection occurred during the interviews and the transcribing process. As discussed by Stutzman, Olson, Greulich, Abdulkadir, and Rubin (2017), transcribing interviews enables a qualitative researcher to more efficiently code interviews and identify themes. Coding interviews is a method of disassembling data (Yin, 2018). I arranged data based on identified codes to develop themes from each transcript. The development of themes from codes with the assistance of a software program enables a researcher to interpret data and draw conclusions with reduced bias (Cypress, 2018).

During case study research in a qualitative study, semistructured interview questions are designed to elicit responses related to the research question while representing the phenomena encountered by the participant (Papautsky, Crandall, Grome, & Greenberg, 2015). I designed the research questions to explore the successful strategies perfusion managers use to retain staff perfusionists. Pattern matching in single case studies serves as a method for answering *how* and *why* questions through the replication of answers provided by interview participants (Yin, 2018). I used pattern matching for theme development from semistructured interviews.

After conducting the interviews and transcribing them with the assistance of NVivo 12 software, I conducted member checking before coding the interviews and then edited as necessary to ensure the correct interpretation of each participant. I used NVivo

12 software to code transcripts and identify any similar themes that emerged from different interviews. I pattern matched the transcripts after completing the coding process. Researchers may use data from many sources to promote pattern matching and enhance effective analysis when comparing each case (Yang, Han, Chen, & Cai, 2019). I pattern matched transcripts to discern any commonalities and gaps between interviews.

After coding and pattern matching, I triangulated the primary data with secondary source documents to identify themes. I analyzed these themes using the conceptual framework of Vroom's expectancy theory. Then, I identified patterns to facilitate discussion of converging and diverging codes while comparing transcripts. I collated the primary data codes and patterns with the secondary data collected from job descriptions and advertisements. The primary and secondary data were analyzed together with the conceptual framework to evaluate and draw conclusions.

### **Reliability and Validity**

#### **Reliability**

In the context of qualitative research, reliability may be used as a term to describe data adequacy: showing consistent support for a researcher's analysis across a given field (Spiers, Morse, Olson, Mayan, & Barrett, 2018). As noted by Morse (2015), an unreliable study is difficult for other researchers to replicate and replication and triangulation are essential to produce dependable results in qualitative research. Qualitative research is not measurable; therefore, it is important for the researcher to reflect reliability in a study (Yin, 2018). Belotto (2018), discussed the benefit of coding, which may assist in ensuring researcher objectivity and promote the triangulation of data through themes, enhancing

the reliability of data. Researchers employ member checking to help interpret data through the lens of the research subject (Marshall and Rossman, 2016). Before coding the transcripts, I facilitated member checking to ensure the reliability of the transcript data.

### **Validity**

Credibility in qualitative research is achieved by a researcher faithfully describing a phenomenon and reporting believable results (Marshall and Rossman, 2016). The use of multiple data sources and triangulation is a sound method for producing a believable study (Abdalla, Oliveira, Azevedo, & Gonzalez, 2018). I triangulated the primary and secondary data sources to promote the credibility of my research. Additionally, the interview protocol supported the credibility of my data, which promoted consistent data collection. Researchers use interview protocols to detect honest participant attitudes by adhering to a given protocol and structure (Heydon & Powell, 2018).

Transferability in qualitative research is achieved when a study is rigorously conducted to facilitate trustworthy and replicable results (Cook, Kuper, Hatala, & Ginsburg, 2016). Abdalla, Oliveira, Azevedo, and Gonzalez (2018) discussed the need for accomplishing transferability by obtaining similar results with different participants. Purposive sampling allows a researcher to select the participants deemed to be insightful, knowledgeable, and experienced regarding the topic under study, which assists them in exploring their research question (Forero, Nahidi, De Costa, Mohsin, Fitzgerald, & Gibson, 2018). I selected experienced perfusion managers who work in New York City as participants for semistructured interviews. The use of purposive sampling helped me achieve transferability in my study.

Researchers use confirmability to demonstrate confidence in their qualitative research (Korstjens & Moser, 2018). As discussed by Morse (2015), triangulation is a method that assists a researcher in remaining objective through the use of themes found in multiple data sources. To drive consistency, I confirmed the themes and patterns discovered through semistructured interviews and the application of the conceptual framework with job recruitment and advertisements found in the secondary data.

A researcher may achieve data saturation in qualitative research by obtaining data through many different methods, thereby ensuring the transparency and trustworthiness of their research results (Hancock, Amankwaa, Revell, & Mueller, 2016). As discussed by Fuchs and Ness (2015), data saturation includes determining an adequate sample size for primary data to ensure the data is replicable and addresses the research question. I interviewed all willing perfusion managers in the targeted health care system until I could derive no new data and all further data collected would be redundant. As mentioned by Kahlke (2017), data collected through various primary and secondary sources improve data saturation. Thus, the secondary data sources—publicly available job postings and job descriptions for perfusionists in the New York City area—helped triangulate my data and reinforce the achievement of data saturation.

### **Transition and Summary**

In Section 1 of this study, I detailed the importance of exploring the successful retention strategies used by perfusion managers. The problem statement and purpose statement served to continuously align my study with the overarching research question. I established the relevancy of the research question by providing background information

on the perfusionist turnover challenge. Section 1 comprised the proposal for the research project and concluded with an exhaustive review of the academic literature.

The synthesis of professional and academic literature served as a means to understand perfusionist retention strategies through the lens of Vroom's expectancy theory of motivation. Within the literature review, I discussed Vroom's expectancy theory and converging and diverging interpretations of Vroom's seminal work. I explored conflicting conceptual theories and provided in depth analysis of prior research. I synthesized conceptual framework relating to retention and the managerial implementation of motivational strategies involved in the health care industry.

Section 2 involved a comprehensive discussion of the conduct of my research, which included supporting my research decisions using the relevant academic literature and providing an explanation of the participant choices. I discussed how I collected primary and secondary data, organized this data, and ensured ethical standards were adhered to while processing and analyzing the data. I concluded Section 2 by discussing reliability and validity.

In Section 3, I present my findings, discussing the application of these findings to business practice and the implications for social change. Section 3 culminates with recommendations for actions and further research, a reflection, and a conclusion.

### Section 3: Application to Professional Practice and Implications for Change

#### **Introduction**

The attrition of cardiovascular perfusionists from the workforce creates high demands on an already shrinking labor supply (Turnage et al., 2017). This qualitative, multiple case study explored successful strategies perfusion managers used to reduce perfusionist attrition. Nine participants were contacted and five chose to participate. I obtained data for this study by conducting five digital interviews with perfusion managers in New York City. Vicarelli and Pavolini (2017) emphasized that health care managers have the most success and the best relationships with their employees when they have done the same kind of work themselves. The participants were all perfusion managers, chiefs of perfusion, or directors of perfusion who held a New York State license as a perfusionist. A license is required in New York to work as a staff perfusionist. I obtained a great deal of data through these interviews and in-depth insight on successful perfusion retention strategies. I identified four themes as a result of the interviews: (a) job satisfaction, (b) work-life balance, (c) surveys, and (d) compensation. The interview participants collectively viewed these themes as the framework for successful perfusionist retention strategies.

#### **Presentation of the Findings**

The overarching research question for this study was: What strategies do perfusion managers use to mitigate perfusionist attrition? The primary sources of data for this study were semistructured interviews with five perfusion managers; the goal was to garner a better understanding of how these managers attract, sustain, and retain their

perfusion staff in New York City. I used job listings for hospitals in this area as secondary data to bolster the themes that emerged from the interviews. I used pseudonyms to anonymously identify the participants: P1, P2, P3, P4, and P5. The four main themes that emerged through coding these interviews with NVivo 12 software were (a) job satisfaction, (b) work-life balance, (c) surveys, and (d) compensation (see Table 1, Table 2, and Figure 1). I used the conceptual framework of Vroom's expectancy model and evidence from the literature review to relate to the themes identified from the interviews and public job descriptions.

Table 1

*Frequency of Themes According to Participant*

Themes	Frequency				
	P1	P2	P3	P4	P5
Job satisfaction	11	13	8	10	7
Work-life balance	8	5	2	8	4
Surveys	7	7	2	1	2
Compensation	6	3	1	3	1

Figure 1. Comparison of participant theme frequency

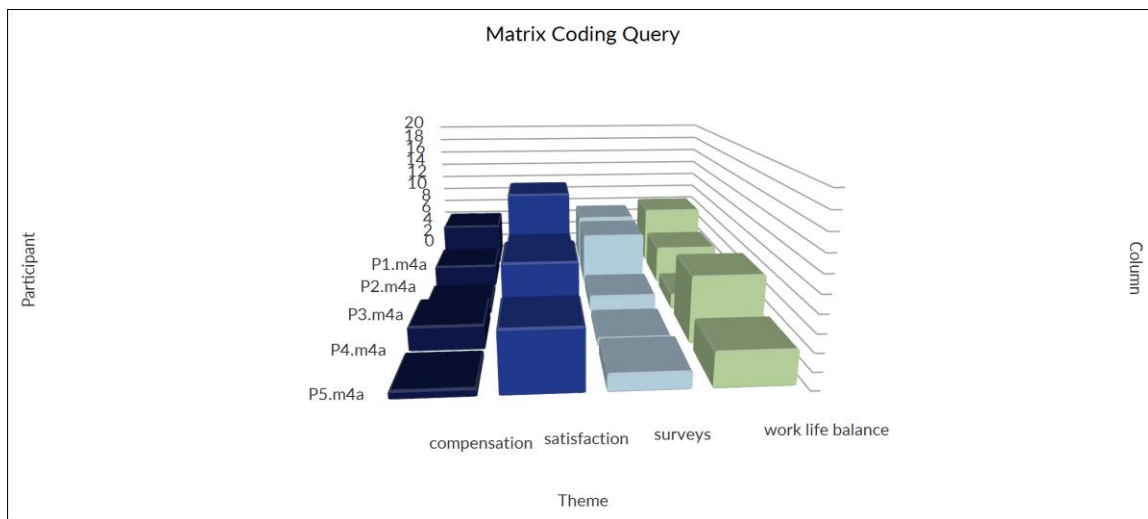


Table 2

Total Frequency of Participant Themes

Themes	Total frequency
Job satisfaction	49
Work-life balance	28
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**Theme 1: Job Satisfaction**

Job satisfaction was the greatest theme identified in this study by all participants with P1, P2, and P3 identifying satisfaction ideals varying through different generations. P1 noted past generations remained at a single job their entire life and managers must address the generational shift of desires by “creating an environment that would hang on to people.” P2 agreed with P1 while adding the notion that P2’s institution is able to maintain a younger generation by ensuring “people are happy where they are.” P3



mentioned their success at retaining perfusionists long-term by providing a sense of purpose through responsibility distribution. “I have tried to figure out the need for each individual perfusionist, and believe it or not, it’s age dependent” (P3). Job satisfaction through purposeful work resonated additionally with P4, in agreement with P3 but with no notion of demographics playing a role. “My most successful strategies [for retention] have been giving people a role, giving them a purpose, not just coming to work” (P4). Job satisfaction for P5 included a deep understanding of what makes an employee happy through personal connection and building a trusting relationship to demonstrate support. “A big part of my [leadership] style is understanding individuals. Not everybody is the same” (P5). All participants noted positive feedback was a method that led to job satisfaction and subsequent retention. “You always want to catch people doing the right thing and recognize that” (P2).

The methods perfusion managers use to reduce perfusionist attrition to promote job satisfaction varied through the need to cater to a demographic shift and keeping employees engaged, happy, and supported. Heyns and Kerr (2018) stated different management strategies for different generations leads to employee satisfaction. Each manager found a different way to promote job satisfaction within their team that revolved around managing the different people and personalities as separate needs. All participants noted employee engagement varies from individuals’ personal desires and goals, with the ability to achieve those goals leading to job satisfaction. Cook and Artino (2016) identified the value an employee feels from a health care institution may be correlated to the enjoyment of the tasks they complete. The subjective nature and large scope of job

satisfaction may promote managers to form a strong working relationship with their employees in order to foster trust and a deeper understanding for what a manager can do for each employee.

The primary data and literature align with what many of the job listings for the New York City area advertise for their potential employee pools. The secondary data of job listings identified engagement in all listings as being a prevalent recruitment highlight in their institution. Employee engagement is a robust indicator for reducing employee attrition (Cross, Opie, Pryor, & Rollag, 2018). The positive correlation to employee engagement and job satisfaction was identified by all participants through their varied approaches to managing their team.

Job satisfaction has a strong presence in Vroom's expectancy model. Vroom (1964) noted that valence in the expectancy model dictates the personal satisfaction one will obtain from an action. The strong presence of job satisfaction as a major theme in perfusionist retention and the varying degrees of how a perfusion manager promotes satisfaction within their team notes the personal nature of job satisfaction. Every perfusionist within a team has different needs and goals, with the motivation of personal satisfaction being a theme of remaining at an institution.

## **Theme 2: Work-Life Balance**

Work-life balance was the second most prevalent theme identified through the research participants. Work-life balance had a direct effect on both overall job satisfaction and perfusionist retention, with manager implementation of flexible scheduling and personal lifestyle considerations being the most prominent methods of

promoting both job satisfaction and perfusionist retention. When asked about their approach to reducing perfusionist attrition, P1 responded, “So the first thing is looking at what we do and trying to create a quality of life environment is one thing I think that our institution does.” P2 identified shifting the start and end times of shifts in order to be more cognizant of the New York traffic and commute from their location as a method of promoting work-life balance. “Everybody seems to be relatively happy with the schedule. But what’s really bad about this hospital is its location” (P2). “The work life balance is better here than what’s out there” (P3). P3 continued to note that this was an area where he could control directly in comparison to hospital benefits, which require meetings and negotiation. P4 identified their location being a hinderance as P2 did, but found that promoting a positive work environment through work life balance was a method to both attract and retain perfusionists. “We make it seem gruesome now working five days a week, to working four days a week. I had to give them a little flexibility, meaning that if we're a little quieter, it is less. Our schedule will be less invasive [into personal life]. People escape a little bit earlier [if schedule allows]” (P4). P5 found allowing the staff to participate in making the schedule had a positive impact on retention and the team unanimously approves of this strategy. “The scheduling they did is one that's had very positive feedback from almost everybody” (P5).

Work-life balance was not noted in any job listings as a strategy to attract new staff members, even though this theme of creating a supportive work-life balance is found in all perfusion managers interviewed. Jindal, Shaikh, and Shashank (2017) supported work life balance through flexible scheduling as a method of employee retention.

Emotional exhaustion from working did not have an impact on employee turnover, but managerial policies did (Fletcher, Alfes, & Robinson, 2018). Flexible scheduling policies accomplished by the perfusion manager, even in places that are markedly more busy than other institutions, are indicators for perfusionist retention since the sampling of interview participants was from multiple institutions and not a single hospital.

Work life balance can be identified in Vroom's expectancy model through the variable of expectancy. As identified through primary data interviews, work-life balance through flexible scheduling allows a degree of control of their time, both inside and outside of work, for the employee. P5 was shown to promote the highest degree of expectancy by allowing the staff to have primary control of the schedule, while the other participants used more of a discussion-based approach. Since Vroom's model is meant to identify motivation, the motivation in this study would be what motivates a perfusionist to remain at their place of employment. Expectancy identifies different levels of confidence across individuals from completing a task (Vroom, 1964). If the task identified is motivation to remain at their place of employment, employees then have varying expectancy levels based on their personal needs. Successful perfusion managers identified work life balance as a successful theme to reduce perfusionist attrition, with flexible scheduling as a primary strategy with positive feedback.

### **Theme 3: Surveys**

Surveys were identified as a third major theme that emerged from in-depth interviews. The surveys included engagement surveys, exit interviews, and personal, informal discussions with perfusion employees. P1, P2, and P5 discussed the importance

of exit interviews at their institutions. “Anytime anybody leaves or we have any attrition at all, we try to have exit interviews” (P1). P2 noted they conduct exit interviews and that it is a requirement by their institution’s leadership, with P5 reflecting that while sometimes all former employees are not the most honest in their exit interviews, but are still worthwhile. “You garner a lot more from the exit interviews that you do have... where they actually might be able to give some insight that you didn't have before” (P5). P1, P2, P3, and P4 noted hospital evaluations and engagement surveys as being paramount to understanding their teams and relaying them. P3 identified engagement surveys as their personal method to reducing perfusionist attrition since the results go directly to the higher administration and those leaders are alerted if there is dissatisfaction.

“They do a survey every year, but it goes out to all the staff. And then what happens is it's broken down into each individual department. And then each individual little group. So, I get feedback and input on the perfusion department. Do they feel worthy? Do they have responsibilities? How is their pay compared to other hospitals?” (P3).

P4 found employee empowerment through engagement surveys, noting, “I think my employees are empowered to do an evaluation on me to see if I'm covering all their bases, answering their needs, and if I'm receptive to their emotional response.”

All participants found themselves to be approachable and encouraged speaking up through informal methods as a method for understanding the sentiments of their staff. P5 found a personal approach to be part of their leadership style, encouraging an open-door

policy for discussion at any time. “I think that having open lines of communication with people and trying to listen to everybody’s individual needs. This has probably the most successful side [for retention] ...I think my personal touch” (P5). P1, P2, and P3 noted building trust between them and their employees was important to understanding needs, and this trust was built upon open lines of communication. P3 and P4 noted their teams were always open and honest about things they like and what they do not, but found the hospital surveys to be the best strategy for addressing concerns that were above what they can do for immediate change.

Employee engagement was noted on job listings in New York City as an encouraging mode of recruitment, but in order to measure engagement a survey must be assessed. Managers best build institutional policies to reduce employee attrition by first understanding the needs of their employees (Jugdey, Mathur, & Cook; Putranti, 2018). Engagement surveys are one method of understanding the needs of employees, but being able to subsequently provide the results to upper administration to promote changes that are above a perfusion managers scope is a benefit in comparison to personal conversations. Still, the honesty afforded from personal reflections within a team may encourage honest and frank engagement survey participation, especially if employees know the results do matter.

The framework of Vroom’s expectancy model may be used within the theme of surveys in assisting perfusion managers mitigate perfusionist attrition. Instrumentality is the third variable of Vroom’s expectancy model of motivation and is the component of the equation that supports if a desirable outcome will occur if a task is performed

(Vroom, 1964). Conducting surveys on the part of administration in accordance with employee participation may directly lead to change in the way an undesirable policy is employed or amplify a concern within a department that may have otherwise gone unnoticed. The knowledge within the employee population that their concerns will be addressed through these surveys may encourage motivation to both participate in the survey and subsequently remain at their place of employment with the promise of change. On a more personal level, instrumentality may be asserted with personal conversations and relationships in order to identify specific scenarios that a perfusion manager may address. Perfusionist motivation to remain at their institution can be bolstered with the knowledge change is possible through communicating areas of improvement; through surveys and personal discussion.

#### **Theme 4: Compensation**

Compensation emerged as a theme within perfusionist retention, but varied in importance within each institution. All participants noted compensation must be competitive and is a motivational factor for perfusionist attrition if other institutions are willing to pay more. P1, P2, and P5 noted that while compensation is important, it is not the biggest factor in their strategy for retention as long as they remain competitive. P3 and P4 identified being competitive as being something their institution has or is addressing, but noting their quality of life is better than at other institutions who may be paid more. “I guess some of the feedback is there are always people that want more money” (P1). “We’re a lot more competitive than other New York hospitals” (P2). P5 agreed in sentiments expressed by P1 and P2, adding that they must “prioritize and pick

their battles” when addressing compensation with their upper management since can be “a delicate political balance.” P3 and P4 identified the importance of honesty in salary gripes during engagement surveys, noting those survey results encourage administration to review if they are competitive for the area and this subject being one of their great administrative challenges. “We don’t make what everyone else does...my difficulty is making sure the other things are better than what's out there. Their [employee] work life balance is better than what's out there somewhere else” (P3). P4 expressed, “this hospital was an outlier” until creating “a salary ladder” with compensation based on years of experience while still noting “life balance is the key.”

The themes uncovered through interviews with perfusion managers identified compensation as an important contribution to retention when compared to other institutions. Many of the job listings in New York mention compensation, but in the presence of other benefits such as retirement, health care benefits, and tuition assistance. These other benefits outside of salary are important components of quality of life and necessary components of a job that require a prospective employee to take into account other aspects of an employer. Assefa et al. (2016), identified employer strategies to improve job satisfaction such as better benefits, pay, and work life balance to be successful at reducing employee attrition, with Green and Munoz (2016) identifying the same but with no mention of salary being a factor. The theme of compensation overall should be noted as a component of perfusionist attrition when not competitive, while taking into account for the desire of slower paced work environment and other job benefits on the part of the staff perfusionist.



All three of Vroom's expectancy model variables may be applied to the theme of compensation due to the subjective nature of each perfusionist's personal desires. Motivation to remain at an institution may be affected by the amount of work they do for the offered compensation (expectancy), the ability to work in a given environment for the offered compensation (instrumentality), and if the compensation is desirable for the work (valence). While in many studies compensation is placed within valence in the framework of Vroom's expectancy model, the primary data I collected insinuates compensation to play the sole role of valence when it is not competitive.

### **Applications to Professional Practice**

I conducted this study to determine successful strategies perfusion managers use that may mitigate perfusionist attrition. The themes I uncovered through the use of semi structured interviews are areas to consider if a manager encounters perfusionist attrition. Job satisfaction, work-life balance, surveys, and compensation all have a place in retaining perfusionists. Furthermore, managers may control some, but not all of these elements. Job satisfaction and work-life balance are directly correlated to the perfusion manager's strategy, personal innovation, and understanding the needs of each employee. Surveys, when in the form of engagement surveys and exit interviews, are part of the larger scope of the institution and may assist a perfusion manager in addressing issues such as compensation, which includes other management areas. Surveys through a more informal method such as informal conversation and team meetings may assist managers in understanding circumstances employees encounter through their lens rather than a business sense. Building this kind of relationship with open communication and trust was

a sentiment all participants expressed, which was demonstrated to lead directly to improved quality of life, job satisfaction, and compensation.

Perfusionists are a valuable part of a health care institution in a unique field with finite employees in a geographical region. Due to the number of licensed perfusionists available, a health care institution will be limited in their resources in seeking new hires in the perfusion community when there is turnover. The findings in this study may assist perfusion managers in improving job satisfaction for retention through improving work-life balance, introducing or improving survey methods (both formal and informal), and ensuring their institution is offering a competitive salary.

Health care leaders will benefit from implementing or improving upon these strategies, which may have a broadly positive effect on reducing perfusionist attrition. Perfusionist retention will support strong continuity of care, ensuring patients are cared for by staff who knows the institution better than a new employee and may be more adept at problem solving. The cost of extra overtime in the presence of being short-staffed may place a strain on perfusion managers who are trying to improve costs in their department, in addition to diminished employee satisfaction from the extra work hours. Additionally, employing these strategies may save a health care institution the cost of training and hiring a new employee.

### **Implications for Social Change**

The implications for social change through the results of this study will directly contribute to the job satisfaction of the perfusionist employee, which has a resonating effect. An institution may render job satisfaction through many avenues, but the main

onus lies on the perfusion manager to determine what strategy best accomplishes this theme. A staff perfusionist who is overall happier at their place of employment will be able to contribute more to the areas they are passionate about, whether professionally or personally. Thomas, McGarty, Stuart, Smith, and Bourgeois (2019) noted social change may be found in the form of engagement outside the interests of family or friends. Perfusion managers may use the themes identified in this study to understand the desires of their employees and make changes to their departments that will allow perfusionist staff to be engaged in the areas that bring them happiness.

Social change may additionally be identified in the area of patient benefit. A consistent staff in a given department bolsters professional rapport with others and will overall support patients in a more confident setting. Continuity of care by the same group of care providers is associated with improved patient satisfaction, respect of privacy, and acceptability of care (Das, Manjunatha, Kumar, Math, & Thirthalli, 2020). The role of a perfusionist is not limited to the operating room at many institutions and expands to both adult and pediatric intensive care units, in addition to heart failure and blood conservation modalities due to the unique knowledge set and training they provide. Consistent perfusionist staffing will benefit the institution by bolstering continuity of patient care.

### **Recommendations for Action**

The findings from this study may be beneficial for perfusion managers who encounter perfusionist attrition, or who would like to take action to prevent future turnover. Based on the findings of this study, overall job satisfaction should be assessed in the setting of improved work-life balance and a consistent survey modality.

Understanding the desires of employees may lead to direct perfusionist turnover mitigation while providing a basis for a trusting manager-employee relationship, bolstering a common ground of communication. Additionally, employee compensation should be compared to area compensation to ensure comparable offerings.

### **Recommendation 1: Flexible Scheduling**

One of the most consistent themes related to job satisfaction was accomplished by a flexible schedule. P2, P3, and P4 noted working five days a week was something they mitigated with shortened work weeks, with P4 promoting leaving early from the shift when the work was finished early. These managers consistently received positive feedback from all employees regarding shortened work weeks. In a large city with traffic patterns like New York, flexible scheduling allows an employee to improve their commute while also improving quality of life.

I would recommend perfusion managers who do not implement shortened work week options to consider it, even on a rotating basis. Managerial assessment of worker fatigue may be mitigated by a flexible schedule and subsequently improve organizational productivity (Hyatt & Coslor, 2018). The changing desires and demographics of the workforce may foster a change in the typical five-day work week, which many other industries, including nurses, have already began. Perfusion managers may find benefit in mitigating perfusionist attrition by changing their schedule structure and promoting job satisfaction.

**Recommendation 2: Improving Survey Methods**

The theme of surveys was diverse in response but resounded with an overarching message of the need of perfusion managers in understanding your employees. While some participants found engagement surveys a mode of communication to their own managers about improvements needed within their departments, others found personal discussions in the form of exit interviews and informal conversation to best assess the sentiments surrounding their team. Many participants made efforts to engage in many or all of these survey modalities, but understanding the best way to mitigate an issue demonstrated which mode provided the best benefit. If there is a compensation issue, the participants discussed the need of evidence or support of the claim for a better salary; through engagement surveys and salary searches. For most respondents, engagement surveys included a question of if an employee felt they were appropriately compensated, while others did not and required escalation in a more personal form. Engagement surveys are designed to reach above a single department, so ensuring the questions on the engagement surveys are aligned with a team's needs may be a recommendation for an institution. Additionally, if a perfusion manager works at an institution that does not participate in anonymous departmental surveys that reach above their position, those managers may want to explore using them as an option.

Perfusion teams foster an environment of relationship building and comradery, due mainly to their size and unique expertise. According to Johnson (2020), a strong relationship between managers and employees directly improves employee engagement. A perfusion manager who may not engage with their staff may find added benefit to form

such relationships in order to foster trust and communication of needs, which may not be uncovered fully in an engagement survey. The perfusion profession encourages professional relationships while supporting an organization, employee engagement, and employee satisfaction.

### **Recommendations for Further Research**

The limitations of this study reflect the need for further research on strategies perfusion managers use to reduce perfusionist attrition. The geographic nature of this study was a limitation, which included only perfusion managers in New York City. I would recommend enlarging this geographic limitation to include the whole Northeast or all of New York State. The size of the perfusion community in New York City is not large and may not be a total reflection of the regional perfusion community, so increasing the geographic range of eligible perfusion managers would rectify both the number of available participants and provide a more diverse representation of the geographic population.

Another recommendation for further research would be to investigate the sentiments of perfusion employees regarding the strategies that would reduce perfusionist attrition. Investigating alignment between staff and manager would provide further understanding from a staffing perspective on how well some strategies are implemented and may yield improvements to the team. While most interview participants regarded their employees as honest when it came to personal discussions, exit interviews, and engagement surveys, a deeper understanding of the staff perspective may further assist

managers in their desire to retain perfusionists due to the anonymity provided from a comprehensive study.

### **Reflections**

I entered the doctoral study process with the hope of learning how to truly conduct and analyze quality research, but I am leaving with so much more. The thorough rigor needed to justify a researcher's thought process was a challenge for me because of the need to soundly justify your individual thought. The use of peer reviewed journals to accomplish this became second nature and the "big picture" of why these justifications are needed has come full circle. I am grateful for this lesson because justification of reasoning with evidence promotes pragmatic thought and problem solving, a skill I did not have prior to my journey of becoming a doctor.

I was excited and nervous to conduct a study within a population of research participants that I know professionally and wondered if they found my topic interesting through the interview process. Many of these individuals I knew from meetings or have worked with in some capacity, so the bias of our personal/professional affections for each other was something I knew had to be mitigated. The NVivo software and transcription process gave me confidence that I could accomplish the interviews and obtain non-biased coding. The New York City perfusion population is diverse and busy, so these measures were worthwhile knowing the rich data I could obtain.

I went into the interview process expecting much more discussion about the need for more adequate compensation, but was surprised to find that was not the most discussed topic. Compensation seemed only to be important in the sense of being within

reason of other institutions, something many chiefs prior to this study have said openly within our profession. Years ago, I was involved in a movement for raises and human resources pointed out our turnover was based on management strategy, not money. Our team was happy with our managers, but we were able to prove we were not competitive and subsequently obtained compensation that was competitive with the area. I falsely believed that this proved money kept perfusionists, however; this study and ironically, that scenario, proved we just needed to be competitive. I wrestled with including compensation as its own theme, but found it important since it went hand-in-hand with many preconceived ideas and the market value of competition. For the reason of compensation being such an independent factor, I found this theme was important enough to include on its own.

Many of the participants I view as mentors in my career after having interviewed them and I have surely gained a better understanding of their roles as perfusion managers. They were candid and easy to speak with, something that I was hoping would be the case. Many were interested in my study, were supportive of my decision to continue with school, and many offered continued help in any way they could. I hope they know how much respect I have for them, their contribution to our area's profession, and the growth they have had on me; many since I was a perfusion student, bright-eyed and eager to learn.

### **Conclusion**

The purpose of this qualitative multiple case study was to discover the strategies of successful perfusion managers that reduce perfusionist attrition. I conducted



semistructured digital interviews in order to garner in depth perspectives from each of the research participants. I uncovered four themes associated with successful retention of perfusionists: (a) job satisfaction, (b) work-life balance, (c) surveys, and (d) compensation. I triangulated these themes with public job recruitment ads found on the internet and aligned these themes in the framework of Vroom's expectancy model.

After I aligned these themes, I was able to convey the positive effect of successful perfusionist retention strategies on business practice and society. Perfusion managers may find benefit from this study by adjusting their managerial strategy to tailor the needs of the team for improved job satisfaction and quality of life. The changes managers make should be discussed with the team in honest conversation, since managers should not assume every team member has the same needs or desires within a career. Building strong professional relationships may allow managers to have a deep understanding of their team while providing a comfortable and enjoyable work environment built on trust.

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## Appendix A: Recruitment Letter

Hello,

The purpose of this letter is to kindly invite you to participate in my research about strategies perfusion managers use to reduce perfusionist attrition. Using the results of my study, I intend on gaining a better perspective towards perfusionist retention strategies in the presence of a future shortage of clinicians. I will conduct this study using perfusion managers working in New York City and your insight would provide a great contribution to my study. Would you like to participate in my research study?

Perfusion managers may benefit from the results of my study by discovering new methods of retaining their staff. While there are many perfusion employment studies published, none address retention strategies. The results of my research may lead perfusion managers to identify themes within attrition they may improve upon. Your experience and perspective on managing staff perfusionists is a strong asset in developing these themes.

In addition to providing insight towards retention strategies, this study may catalyze positive social change within a business construct in the health care system. Consistent and experienced staff promotes quality patient care delivery. Through this research, other perfusion managers may find these themes in experiences and retention techniques useful by promoting changes within their managerial practice. I invite your knowledge and insight on this topic with the goal of helping the perfusion community; managers, staff, and patients.

If you are interested in participating in this study or have any questions please reply to this email. The study will consist of 10 interview questions and should take approximately 60 minutes. Thank you very much for your consideration.

Sincerely,

Krysta L. Gleeson, doctoral candidate at Walden University



## Appendix B: Informed Consent

You are invited to take part in a research study about successful strategies perfusion managers use to reduce perfusionist attrition. The researcher is inviting perfusion managers working in New York City to participate. I obtained your email from your organization's website and supplied a recruitment letter describing participation. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Krysta Gleeson who is a doctoral candidate at Walden University. You might already know the researcher as a staff perfusionist, but this study is separate from that role. Any relationship with the researcher, whether personal or professional, will not be affected by your choice in participating or not participating.

### **Background Information:**

The purpose of this study is to identify themes within successful managerial strategies that reduce perfusionist attrition.

### **Procedures:**

If you agree to be in this study, you will be asked to:

- Provide acknowledgement and consent of this form with an emailed reply of "I Consent."
- Participate in a one-time, 10 question interview conducted off-site at the date and time of your choosing.
- Participate in an interview lasting approximately one hour.

- You will be asked to participate in this interview face-to-face or via video conference.
- You will be asked for permission to allow voice or video recording with the purpose of producing an interview transcript.
- You will be asked to review the interview transcript for accuracy within a week of the interview and confirm it is an appropriate reflection of your responses.
- Your review of the transcript may take up to 30 minutes.

Here are some sample questions:

- What retention strategies have been the most successful?
- How did you develop and deploy successful strategies that produced a reduction in perfusionist attrition?
- What key challenges did you encounter when implementing your strategies for improving perfusionist retention?

**Voluntary Nature of the Study:**

This study is voluntary. You are free to accept or turn down the invitation. If you decide to be in the study now, you can still change your mind later. You may stop at any time.

The researcher will accept all volunteers that have received a recruitment letter.

**Risks and Benefits to the Study:**

Being in this study will not pose risk to your safety or wellbeing. The study may provide perfusion managers outside of this study with methods to reduce perfusionist attrition at their institution, benefitting the perfusion community as a whole.

**Payment:**

The researcher will not provide payment, thank you gifts, or reimbursement to the research participants.

**Privacy:**

Reports coming out of this study will not share the identities of individual participants. Details that might identify participants, such as the location of the study, also will not be shared. The researcher will not use your personal information for any purpose outside of this research project. Data will be kept secure by being retained on a password protected laptop, omitting names. Data will be kept for a period of 5 years, as required by the university.

**Contacts and Questions:**

You may ask any questions you have now. Or, if you have questions later, you may contact the researcher via phone number (631-835-1901) and/or email ([Krysta.Gleeson@Waldenu.edu](mailto:Krysta.Gleeson@Waldenu.edu)). If you want to talk privately about your rights as a participant, you can call the Research Participant Advocate at my university at 612-312-1210. Walden University's approval number for this study is 05-07-20-0760762 and it expires on May 6, 2021.

Please keep a copy of this form for your records.

**Obtaining Your Consent:**

If you feel you understand the study well enough to make a decision about it, please reply to this email with the words "I Consent." That email will serve as your consent to participate.

## Appendix C: Interview Protocol and Questions

What you will do	What you will say
<ul style="list-style-type: none"> <li>• Introduce the interview</li> <li>• Ensure informed consent is signed and understood</li> <li>• Offer any questions to be answered before we begin</li> <li>• Confirm participant is aware the interview is being recorded</li> </ul>	<p>Hello, thank you for participating in my research study. Before we begin, I would like to confirm you have signed informed consent. Do you have any questions?</p> <p>Just to confirm I would like to remind you this interview is being recorded.</p>
<ul style="list-style-type: none"> <li>• Begin active recording on recording device.</li> <li>• Begin with interview question 1 follow through until question 10 is complete.</li> <li>• Look for non-verbal cues</li> <li>• Paraphrase as needed</li> <li>• Allow for flow of conversation but remain on interview question topic.</li> </ul>	<ol style="list-style-type: none"> <li>1. How has your organization developed and implemented approaches to understand and address the causes of perfusionist attrition?</li> <li>2. What repercussions did your organization have to address as a result of policies that did not mitigate perfusionist attrition?</li> <li>3. How did you develop and deploy successful policies that produced a reduction in perfusionist attrition?</li> </ol>

	<p>4. What key challenges did you encounter when implementing your approaches for improving perfusionist retention?</p> <p>5. How did you measure the effectiveness of your approaches?</p> <p>6. What retention approaches have been the most successful?</p> <p>7. What was the specific feedback you received from your perfusionist employees regarding the organization's retention initiatives?</p> <p>8. What successful measures have you taken to ensure your institution's leadership assists in mitigating perfusionist attrition?</p> <p>9. As a result of deploying the approaches, what specific actions did you take to ensure there was motivation for a perfusionist to remain employed at your institution?</p> <p>10. What other comments would you like to add about your organization's</p>
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	successful approaches to retain perfusionists?
<ul style="list-style-type: none"> <li>• Wrap up interview and thank the participant.</li> <li>• Allow them to ask questions about the study in order to provide further participant comfort.</li> </ul>	Thank you for participating in my study, now that we have completed do you have any questions for me about this study?
<ul style="list-style-type: none"> <li>• Discuss member checking</li> </ul>	Once I have the interview transcribed, which will take about a week, I will email you a copy for you to review. This is to ensure I have your words and sentiments correctly described and analyzed that reflect what you would like to convey.
End Session	