2017

Strategies for Recruiting and Retaining Rural Emergency Department Physicians

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This is to certify that the doctoral study by

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Abstract

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MS, Jackson State University, 1989

BS, Alcorn State University, 1980

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Recruiting and retaining physicians to work in rural emergency departments (EDs) have reached a crisis level, threatening the availability of services to rural residents. In this study, a case study design was used to explore strategies that rural ED administrators use to recruit and retain physicians to work in their facilities. The study population consisted of 5 rural hospital administrators operating EDs in central Mississippi. These administrators were charged with the responsibility to recruit and retain ED physicians. The on-going staffing of ED physicians, with no lapses in coverage, was evidence that these administrators successfully recruited and retained ED physicians at their facilities. The conceptual framework that grounded this study was strategic human resource management. Semistructured interviews were used to collect data from participants, and the modified van Kaam method of data analysis was used to create and cluster themes, validate data, and to construct and describe textural meaning. One of the dominate themes that emerged from the study was the challenge of maintaining rural ED physician coverage. Deterrents to maintaining ED coverage included insufficient pools of available physicians, changing technological demands, and financial constraints. A second dominate theme permeating the study was the insufficient focus on retention of rural ED physicians. Study findings may contribute to social change by providing a replicable recruitment and retention model for recruiting and retaining rural ED physicians. The most successful strategies to recruit and retain ED physicians, as identified in this study, were provision of financial incentives and development of a sense of family and community.

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Dedication

Above all, I would like to thank God, whose guiding hand has kept me through this DBA journey. I am also grateful to my husband, Carl R. Fleming, and the rest of my family for supporting and tolerating me throughout this process. I would also like to express gratitude to and respect for my mentor, Dr. Robert Hockin, who demanded my best and gave his best as he guided and encouraged me to press to the finish line, even though at times it seemed to be a moving target. Finally, I would like to thank Walden University for providing the platform and structure I needed to reach this milestone, ulminating in the conferring of my doctoral degree.

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Section 1: Foundation of the Study

Researchers have presented literature that does not adequately address the critical nature of rural emergency department (ED) administration, and existing evidence consists primarily of descriptive studies of individual hospitals (Baker & Dawson, 2013). In 2006, representatives of the Institute of Medicine issued a report entitled *Hospital-Based Emergency Care: At the Breaking Point*, highlighting the lack of specialty-trained emergency care practitioners, especially in the rural United States (Casaletto, Wadman, Ankel, Bourne, & Ghaemmaghami, 2013). Recruiting physicians to work in rural emergency medicine markets is difficult and central to the dilemma (Drouin et al., 2015). Identifying and placing emergency department physicians in rural facilities may lay the foundation for improved rural medical care.

Background of the Problem

Resolution of recruitment and retention issues surrounding emergency medicine requires an ongoing reform effort, including recruitment and career development of rural physicians, along with engagement of health care providers and rural residents (Douthit, Kiv, Dwolatzky, & Biswas, 2015). Although research on rural EDs is scarce, the problems specific to these vital health care entities are not. The lack of research on rural emergency staffing is troubling because rural EDs are safety nets for people living in rural settings (Fleet et al., 2013). Identification and replication of effective rural emergency physician recruitment and retention strategies are of paramount importance. Therefore, in this study, I have addressed strategies to maintain rural ED physician coverage.

Problem Statement

The ever-increasing underserved and older populations inhabiting rural areas in the United States are significantly greater than the supply of physicians available to provide care across all specialties (Duffrin et al., 2014). Representatives of the Office of the Inspector General predicted a 20% shortage of specialty physicians in the United States by 2034, especially in rural areas (Lee & Nichols, 2014). The general business problem that I addressed in this study was recruitment and retention issues in rural hospitals. The specific business problem that I addressed in this study was that some rural hospital administrative leaders lack strategies to recruit and retain ED physicians.

Purpose Statement

The purpose of my qualitative multiple case study was to explore the strategies that rural hospital administrative leaders use to recruit and retain ED physicians. The research population included five rural Mississippi ED administrators, from five hospitals, with demonstrated success recruiting and retaining ED physicians. Study findings may contribute to social change by providing a replicable recruitment and retention model that facilitates stable and efficacious emergency care for rural patients, with concomitant benefits to patients' families and communities.

Nature of the Study

Researchers facilitate prioritization of depth and quality of data for addressing research questions through the performance of qualitative research (Anyan, 2013). Qualitative researchers strive to provide an exhaustive understanding of phenomena through observation, descriptions, or narratives (Anyan, 2013). I sought to explore and

recount the experiences of hospital administrative leaders charged with securing rural ED physician coverage in central Mississippi, including exploration of strategies that lead to successful physician recruitment and retention. Using a qualitative research method was justified because this method enables researchers to incorporate the interview process to ask questions leading to detailed responses, to an extent not available using quantitative or mixed methods (Frels & Onweugbuzie, 2013). By contrast, using quantitative research methods allows the researcher to describe numbers, quantities, figures, or amounts (Anyan, 2013). Researchers can also use mixed research methods to incorporate qualitative and quantitative methodologies in the same research effort to test theories and obtain detailed interviewee input (Venkatesh, Brown, & Bala, 2013). The quantitative and mixed research methodologies were inappropriate for my study because I sought to explore successful strategies, rather than test hypotheses on relationships or differences among variables.

After reviewing potential research designs, I decided that a case study design was most appropriate to facilitate the collection of evidence and exploration of the problem through the eyes and experiences of participants. Hoon (2013) defined *case study* research as the study of occurrences, in their actual surroundings, through exploration of single or multiple cases. Case study research designs are most appropriate for addressing *what* research questions (Dasgupta, 2015). I selected a case study design for my study as opposed to other designs considered, (e.g., ethnography, narrative, phenomenological, and grounded theory) because using a case study design could provide greater insight into the strategies that successful hospital administrators use to staff rural EDs. Ethnographic

researchers are required to invest in extensive field time (Yin, 2014). However, because of time limitations for this research, ethnographic research was not practical. Researchers use narrative studies to focus on the experiences of individuals (Gockel, 2013). A narrative study was not appropriate for my study because the focus was on successful business strategies, rather than personal life experiences. Researchers choose phenomenological studies to concentrate on clarity of meaning and lived experiences of individuals to increase knowledge of the studied phenomenon (Yin, 2014). A phenomenological study was not appropriate for my research because the focus was not on a specific phenomenon. The grounded theory is designed to combine the construction of theory with social research to produce a robust and perceptive theory to potentially test hypotheses grounded in research (Kenny & Fourie, 2014). I did not choose the grounded theory because I was not testing a hypothesis or seeking to substantiate numeric data. I concluded that a qualitative multiple case study was most appropriate for my study. Therefore, I used a multiple case study to explore the strategies rural hospital administrative leaders use to recruit and retain ED physicians.

Research Question

What recruitment and retention strategies do rural hospital administrative leaders use to recruit and retain ED physicians?

Interview Questions

1. What is your role in recruiting and retaining physicians for your ED?

2. What recruitment and retention strategies do you use to maintain physician coverage in your ED and how have these strategies contributed to your success?
3. What approaches have you taken to overcome impediments or barriers to implementation of your recruitment and retention strategies?
4. What are the internal factors which have aided or hampered recruitment and retention of ED physicians?
5. What are the external factors which have aided or hampered recruitment and retention of ED physicians?
6. What role have governmental entities or programs played in your recruitment and retention efforts?
7. What measures do you use to monitor, update, or change recruitment and retention strategies to ensure on-going staffing of ED physicians?
8. What else can you share about strategies that contribute to successful recruitment and retention of rural ED physicians?

Conceptual Framework

The conceptual framework for my study was strategic human resource management (STRHRM). Fombrun, Tichy, and Devanna (1984), along with Beer, Spector, Lawrence, Mills, and Walton (1984), laid the groundwork for the STRHRM model. The authors of *Strategic Human Resource Management*, and *Managing Human Assets*, respectively, introduced their works nearly simultaneously in 1984, propagating the concept of STRHRM. STRHRM is an approach to personnel management in which

advocates place specific emphasis on recruiting and retaining personnel in a systematic way (Fombrun et al., 1984). The STRHRM process includes describing the vacancy, attracting candidates, assessing applicant suitability, and selecting employees (Beer et al., 1984). Development of relationships between employers and employees is a primary goal of STRHRM (Fombrun et al., 1984). STRHRM is a vehicle used to improve the use of human resources by developing common work goals between organizations and employees (Trebble, Heyworth, Clarke, Powell, & Hockey, 2014). Implementation of STRHRM, as applied to this study, facilitated exploration and understanding of strategies for recruiting and hiring the best applicant for the job, resulting in operational and economic benefits to the organization and employee.

Operational Definitions

I have provided the following definitions, which are health care and human resource management specific, to give clarity to my study.

Emergency department (*ED*): The section of a health care facility that is staffed and equipped to provide rapid and appropriate emergency care to people afflicted with sudden and acute illness, or critical care to severe trauma victims (Baker & Dawson, 2013).

Emergency medicine: Screening, stabilization, and appropriate transfer of patients presenting to hospitals for emergency medical care (Rosenbaum, 2013).

Human resource management (*HRM*): The process of hiring and developing employees so that they become and remain valuable assets in the organization (Schuler & Jackson, 2014).

Recruitment: The human resource process of identifying, securing, and developing a pool of job applicants (Ratna & Chawla, 2012).

Retention: The actions untaken to encourage professionals to maintain employment with the organization for extended periods (Ratna & Chawla, 2012).

Rural: Relatively small, scattered clusters of the population with poorly developed, fragile economic infrastructures and substantial physical barriers to health care (Douthit et al., 2015); a population of fewer than 500 inhabitants per square kilometer (Weinhold & Gurtner, 2014).

Strategic human resource management (STRHRM): Proactive and on-going management of the recruitment and retention process to ensure the best applicants are selected, hired, and maintained in an atmosphere of mutual reward (Bal, Bozkurt, & Ertemsir, 2013).

Urban: A population of 500 inhabitants or more per square kilometer (Weinhold & Gurtner, 2014).

Assumptions, Limitations, and Delimitations

I have outlined certain assumptions, limitations, and delimitations in my study. Assumptions include items believed to be true that may affect the study outcome (Yilmaz, 2013). Limitations are potential weaknesses of the study or details that limit the study scope (Merriam, 2014). Delimitations include study boundaries (Simon & Goes, 2013). I have illuminated potential weaknesses through the explanations presented in this section, and I have provided a means by which to validate the quality of the research. The data sources for my research included semistructured interviews and collected

documents. The intent was to lessen the risk of bias by initiating relevant discussions, and by ensuring openness and transparency of the data.

Assumptions

Assumptions are logical ideas, perceived as true, which guide the study (Simon & Goes, 2013). Several such assumptions underscored my research effort. I assumed that the interview sample represented rural hospital administrators in Mississippi who had successfully recruited and retained ED physicians. I assumed that participants would verify that recorded responses to interview questions reflected intended meanings or expressed perceptions. I also assumed that research participants would be able to internalize and understand questions asked, convey their opinions and experiences through a semistructured interview technique, and accurately construct truthful accounts of these experiences. Finally, I assumed that research participants would review the draft representation of information and data collected and provide feedback to minimize the inclusion of my personal beliefs, prejudices, and experiences in the interpretation of participant statements.

Limitations

Limitations in qualitative research are weaknesses within the research that are virtually impossible to control (Merriam, 2014). Several limitations underscored my research effort. It was not feasible to interview every rural hospital administrator operating an ED in Mississippi. Therefore, I did not transfer findings to every rural hospital ED. The travel and time allocation required were also limitations to my research. There were more than 300 miles between my home and various interview sites. The

difficulty inherent in performing research through an unbiased lens also fostered a barrier to arriving at realistic and beneficial findings because my personal views could have prejudiced the outcome

Delimitations

Delimitations are characteristics arising from limitations in the study scope because of decisions to include or exclude information in context with the research (Simon & Goes, 2013). Delimitations define the research boundaries (Merriam, 2014). Three delimitations applied to my study. I included a purposeful selection of five participants in the research. An additional delimitation involved restricting my study to successful rural hospital ED administrators in central Mississippi. The final delimitation was careful scheduling and time management to facilitate conducting interviews, analysis, coding, and required follow-up.

Significance of the Study

Contribution to Business Practice

Health care best practices are constantly evolving (Huber, 2013). My study may add to scholarly research and literature addressing the lack of strategies in the arsenals of hospital administrators, which stagnates efforts to recruit and retain rural ED physicians. My study and evaluation of recruitment strategies are important to understanding the business implications involved in recruiting and retaining rural ED physicians.

Implications for Social Change

My study may have positive implications for social change, because it may facilitate the improvement of human conditions specific to accessing emergency care, as

well as enhancing the quality of life in rural areas devoid of adequate emergency medical care. The implications for positive change include the potential to provide insight into shared staffing difficulties confronting rural ED administrative leaders, and the identification of benchmarks and strategies to enhance recruitment efforts in other rural emergency care settings. Ultimately, my study may yield sustainable recruitment and retention strategies and a training model to replicate in other rural hospital ED settings.

A Review of the Professional and Academic Literature

The purpose of my literature review was to explore research sources addressing recruitment and retention of physicians, with a focus on those working in rural EDs. The objectives of my literature review were to provide context for the issues surrounding rural ED physician recruitment and retention, strategies used, and developing trends. I conducted my literature review to establish a conceptual and academic underpinning for the proposed study by providing an analysis and synthesis of the body of peer-reviewed and academic research relating to my research question. Based on my research question, I addressed the issue of implementing successful strategies to recruit and retain ED physicians in rural hospital settings.

The problem of attracting physicians to areas of dire need has reached a crisis point, especially in rural areas in the United States (Collins, 2016). Rural connotations often generate distasteful or scary notions, depending on the speaker or writer, and the audience. Weinhold and Gurtner (2014) stated that the term *rural* evokes wide-ranging images and associations, from small settlements to large unoccupied terrains, dependence on agriculture, severe living conditions, and secluded areas. Regardless of how they are

classified, significant shortages of needed physicians exist in rural areas in many nations and regions (Wang, Su, Zuo, Jia, & Zeng, 2013). Unfortunately, the lack of rural physicians is an international problem.

Liu, Dou, Zhang, Sun, and Yuan (2015) stated that the issue of insufficient numbers of health care workers had reached debilitating margins throughout the world. Wang et al. (2013) agreed, stating that a shortage of skilled health care providers exists in rural areas worldwide. This shortage hampers progress and leads to inequalities in rural health outcomes (Liu et al., 2015). Representatives of the Institute of Medicine issued a clarion call in 2006 about the lack of specialty-trained emergency care physicians (Casaletto et al., 2013). Researchers have confirmed that this call rings loudest in designated rural areas.

Administrators of rural hospitals face a long-standing problem of insufficient numbers of physicians to staff their EDs (Baker & Dawson, 2015). Bragard et al. (2015) attributed stressful work environments, coupled with difficult, isolated working conditions, and schedule overload for the gulf between supply and demand. Even though rural EDs are common, they are under-researched, often laden with controversy, and excluded from large regional studies because of deficient staff and technology (Baker & Dawson, 2013). The problem is particularly acute in Mississippi, which trails the nation in physician-to-patient ratio (Association of American Medical Colleges, 2015). Based on an overview of the American Association of Medical Colleges (2015) State Physician Workforce Data Book, Mississippi was the state with the least practicing physicians at 184.7 patients per physician. Insufficient numbers of rural physicians deter maintenance

of operations and financial stability of affected rural hospitals and their EDs (Baker & Dawson, 2014). Ultimately, inadequate availability of rural ED physicians hampers continuity of care and receipt of adequate reimbursement to sustain operations.

Researchers have widely published the negative effect of diminished operations and finances in clinical environments. However, the literature includes minimal information about the underlying causes of insufficient numbers of rural ED physicians. The dearth of physicians in rural EDs results from the absence of sustainable strategies and understanding of other contributing factors (Li, Scott, McGrail, Humphreys, & Witt, 2014). Baker and Dawson (2014) stated that fragmented evidence consist primarily of descriptive studies of individual hospitals. Li et al. (2014) also stressed the lack of empirical evidence about current retention strategies and the influence they have on actual rural practice. It is the consensus of these writers that identification, isolation, and focus on the multifaceted issues at play are problematic, yet necessary.

The study of causes and potential solutions to the problem of insufficient numbers of ED physicians warrants further examination. Therefore, in my qualitative case study, I sought to acquire an understanding of the intricacies involved. I have shared plausible ideas for enhanced marketing strategies, process improvements, and overall quality of care garnered from participants and the literature. Potentially, these efforts have laid the groundwork for successfully addressing the dilemma faced by hospital administrators striving to recruit and retain ED physicians in rural communities.

In Section 1, I have provided clarification of basic terms and identified research sources and search words. I have also provided a discussion of themes prominent in my

research. Presentation of these themes from the perspective of academic researchers, and as they relate to the conceptual framework for my study, completes the literature review.

Definition of Terms

The definition of *rural* is not uniform across the research (Baker & Dawson, 2013). Aydin, Yaris, Dikici, and Igde (2015) agreed that there is no internationally accurate definition for *rural areas*. Farmer, Kenny, McKinstry, and Huysmans (2015) also identified considerable variations in the discussion and definition of the term *rural* through their research efforts. Factors such as distance from larger population hubs, local primary industries, or commuting patterns form the basis of rural health service classifications (Baker & Dawson, 2013). Variables such as population size and density, distance from urban areas, the concentration of workforce compared to population, and official classifications in given areas also define *rural areas* (Aydin et al., 2015). The lack of a standard definition for the term rural hinders research efforts.

Baker and Dawson (2013) concluded that although clear and consistent definitions for rural areas are needed, rural EDs share characteristics that make them a distinct type of emergency care entity. Aydin et al. (2015) stated that these rural EDs are alike, yet different from larger EDs. Shared characteristics include the frequent presentation of patients who have suffered injuries, significant roles of registered nurses, and limited technological capabilities (Baker & Dawson, 2013). For purposes of my study, I primarily included studies in which the authors specifically used the term *rural* as a primary focus of their studies.

Title Searches, Articles, Research Documents, and Journals

I collected reference material from 77 sources for the literature review, of which 67 (87%) were peer reviewed, and 71 (92%) of the total sources had a publication date 5 years or less from my anticipated Chief Academic Officer (CAO) completion date.

I used Walden University Library databases to access research materials. These databases included: ABI/INFORM Global, Academic Search Complete/Premier, Business Source Complete/Premier, Dissertations and Theses: Full Text, EBSCOhost, Emerald Insight, Google Scholar, ProQuest Central, ProQuest Health and Medical Complete, Health Sciences: A SAGE Full-Text Collection, MEDLINE, Management and Organization Studies, Sage Publications. I also searched government websites and databases.

Key search terms included *case study*, *emergency department*, *emergency medical services*, *emergency medicine*, *human resource management*, *managerial skills*, *medical students*, *mixed methods research*, *multiple case research design*, *physician recruitment*, *physician retention*, *primary health care*, *research design*, *research methods*, *rural*, *rural health*, *rural physicians*, *rural practice*, *qualitative research*, *quantitative research*, *single case research design*, *strategic human resource management*, *strategy*, and *student perception*.

The articles selected for review included those with relevance to the research question, conceptual framework, and methodology. I have addressed recruitment and retention strategies for rural ED physicians. I also explored the role of medical schools, negative perceptions of rural practice held by potential clinical recruits, factors affecting

the propensity of clinicians to work in rural settings, and current trends in rural physician placement.

The subsequent review of the literature resulted in the identification of four themes prevalent in the identification and placement of physicians in rural EDs. They are (a) barriers to accessing ED care in rural areas, (b) factors that affect physician rural practice preference, (c) recruitment and retention strategies, and (d) trends and outcomes in rural ED physician coverage. The literature review began with an overview of the conceptual framework for my study.

Strategic Human Resource Management

STRHRM was the conceptual framework for my study. HRM refers to systems designed to improve the use of human resources and resulting productivity by developing relationships and employment goals between organizations and their employees (Kaufman, 2015). This process becomes strategic when using it supports the achievement of organizational goals with the foundation of a theoretical context, such as universalist theories, best practices, contingency systems, resource-based systems, transactional approaches, and staff working practices (Trebble et al., 2014).

Between 1985 and 2015, STRHRM evolved into an essential part of business research and practice (Kaufman, 2015). Bal et al. (2015) stated that HR managers increasingly include the procedures and purposes of HRM in the strategic operation of organizations. Shuler and Jackson (2014) pointed to HRM as the means through which HR managers and academicians actively consider how their work contributes to organizational success.

Fombrun et al. (1984), along with Beer et al. (1984), laid the groundwork for the STRHRM model in their books *Strategic Human Resource Management* and *Managing Human Assets,* respectfully. In the first book, *Strategic Human Resource Management,* Fombrun et al. (1984) stated that aligning the business structure and HR system is critical to successful implementation of the organization's objectives. Kaufman (2015) defined *strategy* as the plan developed to facilitate achievement of a company's mission. Kaufman (2015) also indicated that an HR system includes the process of choosing a candidate, devising a reward structure, developing staff, and evaluating employees. Managers must develop an integrated organizational structure while dealing with external economic, political, and cultural forces (Kramer, 2015). Managers can use the STRHRM model as a guide to integration of significant factors within and without the business.

In the second book *Managing Human Assets,* Beer et al. (1984) extended the view of HR beyond the narrow scope of the HR department. Instead, Beer et al. (1984) considered HRM to be a unified organization-wide system, involving decisions and actions that affect the relationship between management and employees. Beer et al. (1984) identified the HR manager as the person responsible for aligning strategy, staff, and company policies. By contrast, upper management sets policies to govern the development and implementation of personnel activities.

The authors of both books spoke to the need for adjustments to the strategic approach commonly taken to HRM in the early 1980s (Kaufman, 2015). Beer (2015) agreed with Kaufman's (2015) assessment of the founding principles of HRM but added that HRM research should be developed to ensure that HRM models do not focus solely

on short-term performance to the detriment of long-term liquidity. Cascio (2015) also expanded on the works of Fombrun et al. (1984) and Beer et al (1984)., stressing that both authors set forth objectives to influence academic thought and conceptualization, and altered how managers set priorities and ultimately reach decisions. Essentially, two themes permeate both works, taking a strategic approach to the design and operation of employment systems, and recognizing that employees are not merely hired hands or short-term expenses to be curtailed, but rather are long-term and valued assets of the company (Kaufman, 2015). A common thread running through the works cited previously is the need to strategically place and retain employees who are appropriate fits for the organization.

Beardwell and Holden (1997) applied the word *strategic* to the concept of HRM within the context of addressing organizational HR needs. As such, STRHRM is a systematic approach to recruitment and selection, including a description of the vacancy, attraction of viable applicants, assessment of applicants, and employee selection (Beardwell & Holden, 1997). Bal et al. (2015) agreed, stating that the focus of STRHRM is the implementation of strategic change that enables the organization to compete in the marketplace. For purposes of my study, STRHRM is an extension of HRM, so I have used the terms interchangeably.

Two broad connotations are typically present in the literature addressing STRHRM. In the first view, the emphasis is on HRM as an organizational strategy focused on employee commitment, whereas in the second, HRM is a theoretical model used to explore how employees relate to management, and each other, in the operation of

the organization (Boxall, 1993). I determined that the latter view aligns closest with the conceptual basis for my study. Lengnick-Hall, Lengnick-Hall, Andrade, and Drake (2009) also supported the notion of HRM as an HR subfunction, in which the manager focuses on individuals and small groups on the one hand, and overseeing the overall organizational system on the other. Managers use HRM to balance attention to individual employees with organizational goals.

Since 1984, seven STRHRM themes have emerged in the literature (Lengnick-Hall et al., 2009). They are:

1. Evaluating identified methodological issues.
2. Looking at contingency relationships (viewing organizations as contingencies and competing frameworks) and ways to achieve the best fit between HR activities and desired outcomes.
3. Shifting from focus on management of people to creation of strategic contributions.
4. Understanding the elements and structure of the HR system.
5. Expanding the scope of STRHRM outside of the organization.
6. Achieving STRHRM implementation, management, and monitoring.
7. Measuring outcomes of STRHRM.

Recruitment of personnel is also a fundamental component of STRHRM in the literature. Beardwell and Holden (1997) described STRHRM as a recruitment tool that facilitates staff assignments. Kramer (2014) agreed, suggesting that STRHRM links the policies and practices of management to business outcomes. Jackson, Schuler, and Jiang

(2014) added that in STRHRM, the multiple activities involved form a cohesive system designed to maximize benefit to the organization and employee. Employers also need to focus on the relationship between recruitment and retention of staff.

Recruitment theory, which is used to examine recruitment history and processes, is embedded in the STRHRM concept. The anchor for the STRHRM process includes considering the role of individual mindsets, employees preferences, and experiences in leading people to the decisions they reach about career choice, selection of specialty, and selection of specific employers (Winston & Walstad, 2006). The importance these factors have on ultimate career choice, as related to recruiting individuals likely to be successful in various professions, is foundational to recruitment theory (Winston & Walstad, 2006). In like measure, the STRHRM concept involves examination of factors affecting the recruitment process and selection of employees (Beardwell & Holden, 1997). These factors are both internal and external to the organization.

Winston and Walstad (2006) posited that the study of career decisions based on age, stage of professional development, gender, and discipline forms the basis of recruitment theory. Winston (2001) listed work experience, commitment to service, salary and benefits, ethnicity, and gender as dominant recruitment factors. Winston and Walstad (2006) also pointed to recruitment theory research about external factors that influence recruitment success, including family, friends and peers, teachers and counselors, and role models. As demonstrated previously, significant agreement exists in the literature regarding the positive role of STRHRM in the recruitment and selection of employees.

However, despite its acceptance among HR professionals, STRHRM is not without detractors. Boxall (1993) expressed concern about the difficulty of adequately defining HRM. Boxall (1993) was equally concerned about the vast and varied hub of so-called HRM experts who tend to focus on individual, rather than corporate approaches to HRM. Jiang, Lepak, Hu, and Baer (2012) concluded that STRHRM is positively related to financial performance because employers use incentives to encourage desired employee behavior and to build a strong employee pool, but the authors warned that further research efforts are needed to clarify the relationship. A similarly troubling problem centers on the question of which dependent variables (e.g. job satisfaction, employee commitment, and trust in management) most affect the success of HR management efforts within the company (Boxall, 1993). Trebble et al. (2014) stated that although HRM practices had been positive in job planning, rewards and remuneration, and quality assurance, criticism of associated processes and indicators, leadership, data validity, and quality of local information systems has some basis in fact. These researchers questioned the validity and effectiveness of HRM.

Despite questions and problems with HRM, there was available documentation of valid applicability and great potential at the time of this study. Trebble et al. (2014) suggested that identification and development of the most appropriate HRM model per organization increases value to the organization. Boxall (1993) added two significant ways in which HRM has relevance. First, a model of management behavior in employment relations not offered by any other discipline is present in the HRM scheme, as evidenced by the development of critical analytical frameworks and provision of sound

theory (Boxall, 1993). Second, a serious challenge to the preference of an industrial relations platform as the superior model for recruitment efforts has developed through the HRM model (Boxall, 1993). There is substantial evidence in the literature verifying that managers can use HRM processes to recruit and retain valuable employees.

Fombrun et al. (1984) observed that the relationship between the organization and employee rests somewhere along a continuum with conflict, command, and control on one end, and cooperation, participation, and commitment on the other end. The use of STRHRM encourages companies to use best fit and integration as mechanisms to improve performance, regardless of where they are on the continuum (Fombrun et al., 1984). Proponents also found that the company's movement up the continuum by redesigning systems to incorporate human capital practices that facilitate, rather than impede participation, is advanced through STRHRM (Fombrun et al., 1984). Beer et al. (1984) also recognized and ordered employment relationships along a continuum, but placed primary emphasis on the importance of high commitment and self-managing work systems. Problems common to traditional company structures having distinct management-employee designations are significant, especially when compared to companies with integrated personnel components (Beer et al., 1985). Development of common goals among employers and employees is a critical component of STRHRM.

Case study research based upon the STRHRM model was appropriate for my study. STRHRM served as the ideal conceptual model because I used a semistructured interview technique and document collection to explore strategies leading to successful recruitment and retention of ED physicians in rural hospitals. Consideration of the factors

contributing to selection and placement decisions made by employers and candidates was a critical part of my study.

HRM is relevant to placement and performance management of specialty-based physicians, including ED practitioners. Validation ensues from a resource-based perspective based on the status of applicants as valuable, limited in availability, and nonsubstitutable (Trebble et al., 2014). Almutawa, Muenjohn, and Zhang (2016) added that employees are priceless, singular, and nonexchangeable, representing the most valuable resource available to organizations seeking to achieve competitive advantage. Schuler and Jackson (2014) concluded that the vast array of challenges confronted by companies as they strive to develop practical approaches to HRM are overcome using the contextualized prototype of the 21st century HRM model.

The supply of rural ED physicians sufficient to meet patient needs is a function of organizations in search of the best practitioner aligning with the expectations of applicants in search of placement (Trebble et al., 2014). As such, issues involving recruitment and retention, increased clinical rotations in rural hospitals, medical school training, medical student perceptions about working in rural areas, and the role the government should play warrant equal and strategic attention (Hewak & Luong, 2014). To understand this process, rural hospital ED administrators, medical schools, governmental entities, healthcare scholars and community activists must be determined to identify strengths, weaknesses, opportunities, and threats about recruitment and retention issues (Lee & Nichols, 2014). A unified and strategic approach by all involved entities is

required to rectify the problem of insufficient numbers of rural ED physicians. STRHRM is a vehicle by which to accomplish this goal.

STRHRM, as applied to my study, was used to facilitate a laser focus on strategies which result in the placement of the best applicant for the job, yielding operational and economic benefits for the organization and employee. STRHRM is instrumental in management's recognition of the need to formulate a multifaceted plan to attract, recruit, and retain personnel (Kaufman, 2015). The lack of adequate numbers of rural ED physicians is representative of a systemic problem permeating the healthcare industry and the care of patients who are part of a greater whole (Klink, 2014). Any success or failure in the structure affects the entire system. Therefore, it was my expectation that identification of practical strategies and replicable tools useful for recruitment and retention of ED physicians might result from my study.

Barriers to Accessing Emergency Department Care in Rural Areas

EDs are critical medical safety nets for rural residents. Fleet et al. (2013) suggested that rural EDs are vital gateways to the provision of emergency care. Therefore, rural EDs should be prepared to manage the gamut of health care problems typical in emergency care (Baker & Dawson, 2014). Unfortunately, access to emergency care has emerged as a serious health care threat in rural settings (Casaletto et al., 2013). Examination of barriers and action required to rectify issues regarding rural emergency care is needed.

Based on the research, the supply of rural physicians has not kept pace with demand. There is a relatively small number of residency-trained, board certified

emergency physicians practicing in rural EDs compared to their urban colleagues, and the prospect for improvement is unclear (Casaletto et al., 2013). The lack of rural emergency physicians is troubling, as examinations of the range of clinical situations rural emergency physicians confront over a 12-month period closely mirror those in urban EDs (Baker & Dawson, 2014). Patients in many rural areas do not have access to the level of care available to patients in urban emergency settings (Casaletto et al., 2013). Haggerty, Roberge, Levesque, Gauthier, and Loignon (2014) agreed, indicating that rural areas lack the full range of health services required to meet the needs of residents. It is feasible, based on these statements, that the gap between supply and demand of rural ED physicians will continue to widen unless there is intervention.

Despite shortages, rural ED staffers should be prepared to manage various problems and urgent patients (Baker & Dawson, 2014). This issue is complicated further when there are insufficient numbers of highly qualified ED physicians to care for patients. Fleet et al. (2013) indicated that the challenges faced by rural ED administrators related to maintaining pools of physicians are numerous and significant, especially as it relates to recruitment and retention. The issues at play must be addressed before the problem of inadequate rural ED physician supply can be adequately addressed.

The minimal propensity for medical students to choose rural practice is an overarching issue facing rural ED administrators. Farmer et al. (2015) stated that only 3% of students entering medical school planned to practice in rural areas, even though 19.3% of the American population lived in rural areas. In fact, 85.8% of the 212 students interviewed indicated a preference for working in an urban area instead of a rural setting

(Aydin et al., 2015). Over 75% of students questioned stated that rural settings were the most difficult of all areas to work in; therefore, working in urban areas better served their professional careers, research and educational opportunities, and prestige (Aydin et al., 2015). At the time of the study in 2015, 89.6% of students surveyed lived in urban areas, and 84.4% had lived in an urban setting most of their lives (Aydin et al., 2015). Challenges of rural practice identified by students surveyed include issues involving ineffective recruitment and retention efforts, lack of appropriate technology, sparse specialist support, and heavy reliance on ambulance transport over great distances and difficult terrain (Fleet et al., 2013). The effect that negative perceptions have on medical students regarding rural medical practice warrants further study.

Few researchers have focused on ED physicians working in rural settings. Academic centers located in urban areas have been the base for most studies in emergency medicine, with little focus on rural EDs (Drouin et al., 2015). The fact that rural emergency medical practice differs significantly from urban settings makes the lack of focus on rural areas disturbing (Fleet et al., 2013). Ideally, researchers should give increased and specific attention to the issue of rural medical practice.

Drouin et al. (2015) described some of the unique challenges facing rural EDs, including physician shortages, insufficient medical training in the use of specialized clinical procedures, and lack of consultative support. Despite the critical nature of the problem, the lack of data about the rural ED sector is staggering (Drouin et al., 2015). Further research on rural emergency care is critical given the multiplicity of challenges faced and the unmet need for care.

Researchers have suggested that the issues surrounding the lack of physicians working in rural EDs are grounded in a much larger, systemic problem, namely poor access to healthcare, at all levels, in rural settings (Drouin et al., 2015). Farmer et al. (2015) pointed out that the inequitable distribution of physicians is a widespread problem undermining universal access, and is particularly severe in rural areas. Significant differences exist in health care access between rural and urban areas, independent of the nature of care sought (Douthit et al., 2015). Distinctive staffing issues exist in rural EDs, including difficulty attracting physicians and lack of continuing education opportunities (Gardner & Schneider, 2013). Concentrated focus on the issues unique to recruiting and retaining physicians in rural markets is vital to improvement of emergency care in these areas.

Healthcare providers in rural areas find it hard to attract and retain physicians or maintain health services on par with their urban counterparts (Douthit et al., 2015). Collins (2016) concurred, stating that an on-going review and development of programs, use of workforce data, implementation of best practices, and new technological advances is required to overcome obstacles, to a degree not at issue in urban areas. Douthit et al. (2015) also attributed the lack of rural health care access to an array of factors, including cultural and financial constraints, compounded by a scarcity of services, lack of trained physicians, insufficient public transportation, and reduced availability of broadband internet services. Aydin et al. (2015) found that amenities, such as internet availability, movies, shopping centers, hotels, gymnasiums, cafes, banks, and assessable transportation are all factors making rural ED physician recruitment difficult.

Douthit et al. (2015) suggested that disparities between rural and urban health care requires an ongoing program of reform to improve the provision of services, promote recruitment and career development, increase health insurance coverage, and expand health promotion efforts. Gardner and Schneider (2013) agreed, stating that the same skills and training provided in urban areas are required for rural emergency care, but receipt of such care is often problematic because of physician shortages. The prospects for even more problems in the future loom large (Collins, 2016). Recognition of the factors that influence physician preference to work in rural areas is critical to successfully addressing identified problems.

Factors Influencing Physician Rural Practice Preference

Rural medical practitioners can positively address deficit numbers of rural medical practitioners by successfully influencing individual career choice of rural practice (Jones et al., 2013). Singh, Rawat, and Pandy (2015) found that medical students agree that rural practice is crucial, yet tend to have unfavorable attitudes about working in rural areas themselves. Hewak and Luong (2014) added that physicians are much more likely to commit to rural practice immediately after medical school, but minimal recruitment effort occurs at this critical career stage. Recruiters should place concentrated effort on attracting new graduates to rural areas to practice medicine.

Isaac, Walters, and McLachlan (2015) stressed the importance of personality in the decision to work in rural settings. Jones et al. (2013) conducted a study to assess the role of personality in rural practice preference and found six associated domains of human personality, namely high scores in openness to new experiences, amicability, and

self-confidence, with lower scores on extraversion, independence, and interception (Jones et al., 2013). Isaac et al. (2015) agreed, indicating that self-efficacy, or the expectation that one can accomplish planned goals, is also associated with the willingness of physicians to practice in rural areas. Identifying candidates for rural practice with these personality traits could result in the location and placement of physicians interested in long-term rural practice (Isaac et al., 2015; Jones et al., 2013). Rural administrators should consider the personality of prospective candidates to aid in placement of rural ED physicians.

Clinical exposure is often foundational to career decision-making among medical students. Internships are conduits to ultimate career choice (Farmer et al., 2015). Aydin et al. (2015) indicated that effective curriculums are needed to ensure that physicians experience the diversity that rural practice offers, and to plant seeds for potential future placements because apprehension about working in rural areas persists among many medical students. Aydin et al. (2015) found that rural internships lessen anxieties in medical students. Farmer et al. (2015) agreed that medical students attending school in rural communities, or who spend time in rural areas, are more likely to practice in rural areas upon graduation than their counterparts studying solely on urban campuses. Exposure to rural work rotations during medical school reduces medical student apprehension about working in rural areas.

Rural origin or predisposition to desire rural practice before medical school may also affect the tendency to choose rural medical practice (Farmer et al., 2015). Puddey, Mercer, Playford, Pougnault, and Riley (2014) found that the dual effort of recruiting

medical students with rural backgrounds and extending immersion in rural clinical training environments leads to increased acceptance of rural assignments after graduation. The likelihood of rural practice upon graduation increases proportionally based upon the length of time medical students have spent in rural areas (Farmer et al., 2015). The persistent recruitment of ED physicians with geographical roots or medical internships in rural areas is a powerful recruitment strategy.

Gorton (2015) suggested that formation of interest in rural medicine, in any specialty, starts long before medical school and is contingent upon having available medical role models in rural areas. Hogenbirk and Strasser (2015) proposed that rural childhood background could lead to actual clinical practice in rural settings. Without local role models, rural children are less likely to aspire to rural emergency practice (Gordon, 2015). Gorton (2015) and Hogenbirk and Strasser (2015) suggested that recruiters initiate contact with promising rural youth during their formative years. Recruiters should make the investment and plant the seed for future rural medical practice during the early education of rural students.

I did not find comparative data to validate the premise that early exposure to rural medical careers yields subsequent interest in rural medical careers among youth. Additionally, small sample size and variations in the definition of rurality may limit the validity of cited studies. Still, researchers found a positive connection between medical education in rural locations and the number of medical graduates who will ultimately work in rural settings (Gordon, 2015; Hogenbirk & Strasser, 2015). Therefore,

researchers should explore how medical education in rural locations affects the number of physicians who choose rural practice.

Recruitment and Retention Strategies

The assignment of responsibility for physician recruitment at rural facilities varies, depending upon the respondent. Lee and Nichols (2014) held ED administrators responsible for securing physicians to cover their rural facilities. However, Williamson (2014) held medical institutions responsible for training doctors and for directing these doctors to areas of need, including rural EDs. Crump and Fricker (2015) concluded that responsibility for implementation of recruitment and retention strategies at rural facilities is the multiorganizational responsibility of entities working in concert to address the problem. These entities include communities, governmental entities, medical facilities (Goma et al., 2014), and medical schools (Crump & Fricker, 2015). Unfortunately, the need for workable strategies to meet the need for physicians in rural EDs persists, regardless of the responsible party.

Some explorative efforts have been undertaken to advance the study of rural EDs and to address identified deficiencies, with questionable success (Williamson, 2014). Fleet et al. (2013) suggested that strategies are needed to understand and address issues involved in securing rural ED physicians. These steps include the development of a comprehensive portrait of rural EDs in each state or region, development of a management guide for EDs studied, and thorough analysis of findings over a specified period (Fleet et al., 2013). A clearer picture of current needs, examples of sound

strategies used, and existing gaps in rural emergency care could emerge from such a study.

Investigators have used both research and practical efforts to identify and address the causes of insufficient numbers of rural ED physicians. Drouin et al. (2015) launched two rural ED projects to examine and assess ED processes in rural settings. In the first project, researchers described the project in a media press release and applied survey instruments to gauge success (Drouin et al., 2015). In the second project, Drouin et al. (2015) used a prestudy survey with a structured outline and questionnaire distributed to emergency physicians who attended two Association des Medecins Durgence Du Quebec conferences. Respondents expressed eagerness to share concerns and preferences about rural medical practice (Drouin et al., 2015). Fleet et al. (2013) acknowledged the value of research efforts made by Drouin et al. (2015) to pinpoint causes and provide recourse for inadequate numbers of rural ED physicians in Quebec. Representatives of the Quebec Ministry of Health and Social Services published a revised edition of the *Emergency Department Management Guide*, and provided recommended solutions to problems highlighted by Drouin et al. (2015). Unfortunately, the Drouin et al. (2015) study did not provide an evaluation of findings and resultant implementation proposals.

Drouin et al. (2015) acknowledged that time constraints were prohibitive and negatively affected conference attendee participation. Additionally, the results were not entirely representative of rural EDs (Drouin et al., 2015; Fleet et al., 2013). Still, the research conducted by Drouin et al. (2015) at the Association des Medecins Durgence Du

Quebec conferences provide an excellent starting point for dialogue with physicians about concerns, needs, perceptions, and propensity to work in rural areas.

Gardner and Schneider (2013) advocated for the expansion of the number of rural emergency medicine recruits, development of rural resident training programs, the inclusion of emergency medicine in government repayment programs, and development of simulation training. Casaletto et al. (2013) suggested that rural emergency medicine rotations allow residents to bridge the gap between supply and demand of rural ED physicians. Viscomi, Larkins, and Gupta (2013) added that training programs should be structured to attract candidates to rural practice. It is critical that instructors offer adequate supervision and resources, provide high-quality emergency medicine clinical training, and preserve the rural experience (Casaletto et al., 2013). Each of these researchers tapped into the need to improve physician training programs to increase the availability of rural physicians.

Ossai, Azuogo, Uwakwe, and Anyanwagu (2014) affirmed that all medical students should undergo a rural-based medical education experience through the process of rural community posting like a process used in Nigeria. A positive association exists between satisfaction with rural community posting and rural practice after graduation (Ossai et al., 2014). Moodley, Fish, and Naidoo (2015) agreed, stating that medical school personnel have the greater responsibility for ensuring that graduates are not only academically skilled but are also socially vested in the communities they serve. Researchers verify that exposure to rural practice during medical school increases the likelihood that physicians will eventually chose to work in a rural setting.

However, Crump and Fricker (2016) found that preclinical medical students with initial affinities for rural practice often encounter urban disruption during training. This urban disruption refers to the sense of dislocation rural students experience when placed in urban environments for medical education (Crump & Fricker, 2015). Doherty and Couper (2016) suggested strengthening rural medical programs to include experiences comparable to those offered in urban settings to offset the sense of dislocation rural students experience. Crump and Fricker (2015) acknowledged that pre-matriculation programs designed to prepare prospective rural medical candidates for urban disruption have only been moderately successful. Still, medical students exposed to a pre-matriculation program experience a comprehensive approach to patient management and experiential learning.

Some proponents support the use of incentives as a recruitment and retention strategy for rural ED physicians. These incentives include financial inducements, mentoring, and continuing education (Verma et al., 2016). Many incentives designed to increase rural medical graduate supply have evolved, including work incentives and medical undergraduate degree programs focused specifically on rural practice (Farmer et al., 2015). The true value of proposed incentives to recruit and retain rural ED physicians will be measured over time.

Ghimire et al. (2013) posited that compensation, along with factors such as strengthening the work environment and enhancing continuing education opportunities, are vital to retention efforts. Wang et al. (2013) agreed, advocating for offers of pension plans, along with a pay scale that increases over time. Beauchamp et al. (2013) promoted

alignment of incentives with interventions aimed at securing the commitment of medical students to work in rural areas. Moran et al. (2014) listed professional networking opportunities and interactive electronic techniques as key incentives to interest physicians in rural practice where such resources might have been lacking. Myhre, Bajay, and Jackson (2015) indicated that debt repayment and financial packages are strong incentives. Shankar, Dubey, Nandy, Herz, and Little (2014) stated that housing allowances and good schools for the children of physicians are important incentives as well. Although these studies provided excellent ideas about plausible incentives, I found no studies about the cost-effectiveness or long-term benefits of suggested models.

Goma et al. (2014) indicated that paying top salaries is the most compelling incentive for recruiting and retaining physicians. Scott et al. (2013) countered, warning that little evidence exists to clarify which incentives and policies, in what combinations, are effective in increasing the supply of doctors to rural areas, or in convincing them to stay long-term. There is little evidence to support the notion that salary alone is an adequate predictor of job satisfaction or commitment to stay on the job (Goma et al., 2014). The success of incentives varies from region to region, state to state, and from physician to physician.

Bertone and Witter (2015) found that employers use a variety of financial and nonfinancial incentives to convince physicians to come to, and remain in rural areas. However, counterproductive results may occur, including nonmotivated workers staying on just because of the financial benefit (Qayum, 2014). Therefore, a balance between incentives and the social, cultural, and economic context of the offer is necessary

(Qayum, 2014). These factors are critical components to consider when offering incentive packages to prospective rural ED physicians.

Retention of physicians who initially commit to rural practice is the other side of the ED coverage coin and is as critical as recruitment to ensure adequate staffing levels. Employers typically place less emphasis on retention than on recruitment efforts (Li et al., 2014). Rabinowitz, Diamond, Markham, and Santana (2013) confirmed this problem, stating that long-term retention outcomes have not been widely studied, despite importance. Li et al. (2014) indicated that physicians practicing in rural areas are likely to leave after 2 years, creating a revolving door of sorts. Lee and Nichols (2014) agreed, highlighting the need to involve communities and local governments in retention efforts. Russell, Humphreys, McGrail, Cameron, and Williams (2013) suggested that the time is ripe for policymakers to improve the accessibility of rural areas through improved workforce retention efforts. Increasingly, researchers are recognizing that focus on retention efforts is a critical component of successful recruitment efforts.

Goma et al. (2014) suggested that managers should focus on retention activities, even as they recruit physicians. Strengthening communication and collaboration, and ensuring that incentives keep pace with inflation are tools through which to foster retention (Scott et al., 2013). Employers may limit the physician revolving door and produce stability in rural ED staffing when these retention efforts are successful.

Trends and Outlook in Rural Emergency Department Physician Coverage

There are opportunities to address rural ED staffing needs and provide quality rural emergency care. Gardner and Schneider (2013) posited unique positioning of

emergency medicine, including rural care, is needed to confront the needs of patients. Mueller, Potter, MacKinney, and Ward (2014) agreed, pointing to the use of tele-emergency capabilities in rural areas as a major opportunity to improve access to rural emergency care. Weinstein et al. (2014) stated that transformation to the use of telemedicine in rural areas is already well underway, and is likely to progressively influence rural emergency care.

Increasingly, family physicians provide emergency care. Shuster (2014) pointed to the scarcity of rural physicians as the reason general and family physicians increasingly work as generalists in the ED. Leblanc-Duchin, Murray, and Atkinson (2014) agreed that local family physicians often staff rural EDs. Peterson et al. (2013) postulated that rural family physicians adapt their scope of services to meet the requirements of their communities, which increasingly includes working in the ED. Mack, Maxwell, Hogg, and Gillies (2014) agreed, stating that general practitioners often take on broad scopes of work, including trauma care. Klink (2014) indicated that a significant percentage of emergency visits involve treatment of patients with ambulatory care-sensitive conditions familiar to family practitioners. Steadily, these family practitioners are filling the gap between emergency care needs and available board-certified ED physicians in rural settings (Klink, 2014). It follows that the provision of training and support, equipment, financial incentives, and expressions of appreciation for family physicians in rural EDs may help stem the tide of insufficient rural ED physician availability.

Shroff, Murthy, and Rao (2013) suggested that reserving post-graduate (PG) seats in medical colleges for doctors serving in rural service areas is another way of securing physicians for rural practice. The PG model appears to have been a primary reason for increased attraction of physicians and reduced rural vacancies in India (Rao et al., 2013). Under this scheme, doctors who commit to a specified number of years in a rural setting are eligible for advanced medical training at no cost (Shroff et al., 2013). I found no evidence of similar programs in the United States, but the concept warrants further study. There are concerns about the PG seating scheme, including possibilities that physicians might put forth minimal effort required to retain posts, or physicians who would otherwise disdain rural practice may accept rural assignments strictly because of the dictates of the program (Rao et al., 2013). While these concerns are valid, the PG model could solve recruitment issues in many rural EDs and has the potential for replication in other regions of the world, including the United States.

Schalkwyk et al. (2014) considered the training of physicians specifically for rural practice an educational priority. Woolley, Gupta, Murray, and Hayes (2014) pointed to evidence that rural origin, along with exposure to rural practice increases the probability of graduates practicing in rural settings. Increasingly, educators use such scholastic interventions to support recruitment and retention efforts for rural settings (Schalkwyk et al., 2014). Success derived from these educational efforts is a function of fewer students, reduced competition for instructor attention, and more opportunity for students to make clinical contributions in concrete and significant ways (Schalkwyk et al., 2014).

Physicians may be attracted to work in rural areas through the establishment of training programs that support recruitment and retention efforts.

Gupta, Manahan, Lennox, and Taylor (2013) considered programs such as the Queensland Rural Generalist Pathway as vehicles through which physician needs are increasingly addressed. The focus of these programs is provision of rural pathways for junior doctors who could be disseminated as generalists to rural areas of need after graduation (Gupta et al., 2013). Dutt, Shivalli, Bhat, and Padubidri (2015) advocated for outreach efforts to gauge career preference, propensity to work in rural areas, and incentives that could be used to motivate medical students to work in rural areas. This vital information could equip rural ED administrators with ways to address issues and correct problems, whether real or perceived, leading to improved recruitment and retention efforts.

Finally, the role of physicians in the recruitment and retention of rural ED physicians is of critical importance. Handel, Delorio, and Yackel (2014) pointed to the importance of cultivating a culture designed to train physicians to motivate the behavior of other physicians. Development of this skill set could be pivotal in efforts to recruit and retain rural ED doctors, largely through the efforts of their peers. Handel et al. (2014) identified five Ps related to physician efforts to influence peers. Specifically, Handel et al. (2014) advanced that focus on *patients*, appealing to *pride* in the medical profession, involving *physicians* in problem-solving, fattening *pocketbooks,* and granting *privileges* could increase the role of physicians in any setting. Albardiaz (2016) agreed that physician peer appraisal is needed, but argued that physician peers should develop

uniform instruments. Exploration of these principles for recruitment and retention is a worthwhile venture.

Transition

Section 1 was an introduction to the fundamental points of my study. The purpose of my qualitative case study was to explore the strategies used by rural hospital administrative leaders in Mississippi to recruit and retain physicians to staff their EDs. Five rural hospital administrators consented to participate in this study and answered open-ended interview questions designed to address the research question.

The research problem, research question, and conceptual framework are foundational to understanding the strategies used by rural hospital administrators to recruit and retain ED physicians. I explored the importance of rural emergency medical care in the context of availability and delivery of quality health care services. STRHRM, the conceptual framework for this study formed the basis for developing successful relationships between the employer and employee to achieve desired outcomes.

I have provided information on four topics that influence the employment of physicians in rural EDs in the literature review. I analyzed and synthesized these components, as they relate to recruitment and retention of rural ED physicians. In Section 2, I have provided a detailed overview of the qualitative, multiple case study method used. In Section 3, I have provided findings and recommendations derived from the review and analysis of conducted interviews.

Section 2: The Project

In Section 1, I provided a background of the problem and research purpose, along with evidence that significant recruitment and retention issues exist in rural hospital EDs. In Section 2, I have included the purpose statement, role of the researcher, identification of participants, the research method and design, population and sampling, ethical research, data collection instruments, data collection technique, data organization technique, data analysis, and reliability and validity of my study. In Section 3, I have provided my presentation of findings, applications to professional practice, implications for social change, recommendations for action and further research, reflections, conclusions, references, and appendix.

Purpose Statement

The purpose of my qualitative multiple case study was to explore the strategies that rural hospital administrative leaders use to recruit and retain ED physicians. The research population included five rural Mississippi ED administrators, from five hospitals, with demonstrated success recruiting and retaining ED physicians. Study findings may contribute to social change by providing a replicable recruitment and retention model that facilitates stable and efficacious emergency care for rural patients, with concomitant benefits to patients' families and communities.

Role of the Researcher

Shields and Rangarjan (2013) stated that the role of qualitative study researchers is to serve as the primary data collection instrument. Yilmaz (2013) proposed that

qualitative researchers provide in-depth descriptions of the studied phenomenon from the perspective of the participant. Yin (2014) established that the researcher has the challenging duty to serve as the designer of the study, as well as collector, analysist, and presenter of information. In my qualitative case study, I compiled data from rural hospital administrators regarding successful ED physician staffing strategies. I analyzed the data and have presented findings that provide an understanding of the studied phenomenon.

In qualitative research, the investigator uses an interview protocol to standardize procedures in all interviews (Baille, 2015; Leonidaki, 2015). Jacob and Furgerson (2012) stressed the importance of creating an interview protocol built on the research question, that is used to guide the interview process. I used a semistructured interview technique to gather information from participants and maintained full control of the interview process. I used an interview protocol (Appendix) to guide the process and to ensure consistency and applicability to the research question.

The researcher aims to understand the phenomenon studied by capturing and communicating participant experiences, in his or her words, through observation and interviews (Yilmaz, 2013). Berger (2015) stated that the researcher should carefully monitor biases, beliefs, and personal experiences about the research topic to balance preconceived notions with objective findings. The Belmont Report presents principles for demonstrating respect for human research subjects (Brakewood & Poldrack, 2013). I have completed the National Institute of Health (NIH) web-based training course, *Protecting Human Research Participants* (Certificate Number: 1720188), demonstrating my knowledge of the research process and ethical behavior. I am also a former rural

hospital administrator. I am also a former member of the Mississippi Rural Hospital Alliance, a statewide organization created to support hospital administrators' efforts to facilitate medical care in rural communities. These resources and experiences reinforced my ability to interact effectively with research subjects.

Anderson and Hartzler (2014) stated that prior beliefs or experiences can influence research interpretation and evaluation. Because of my former role as a rural hospital administrator, I have a great interest in, and connection to, the topic. In addition, I have functioned in the same capacity as participants (though in different and unrelated facilities). For those reasons, I identified assumptions and biases at the onset of my study. Researchers use member checking to verify that their interview interpretations are accurate (Patton, 2015; Yilmaz, 2013). I used member checking to allow participants to verify my interview interpretations. Reflexivity is the acknowledgment that researcher values, background, and experience can affect research outcomes (Cope, 2014). I used reflexivity to minimize bias and personalization.

Participants

Robinson (2014) suggested that researchers define the sample domain to identify individuals who fit specific criteria to recognize appropriate participants. Yin (2014) added that participants in qualitative studies should have experience with the subject phenomenon. Cleary, Horsfall, and Hayter (2014) agreed, stating that prospective participants should have information which specifically addressed the research question. Strass and Corbin (2015) stressed the importance of obtaining permission from participants before conducting interviews or collecting data. Brandon, Long, Loraas,

Mueller-Phillips, and Vansant (2014) encouraged the use of electronic capabilities to recruit participants.

For my qualitative multiple case study, I interviewed a purposeful random sample of five participants who had successfully implemented strategies to recruit and retain rural ED physicians. Qualitative researchers place in-depth focus on relatively small samples which are purposefully selected (Palinkas et al., 2015). In purposeful random sampling, the researcher systematizes the type of information shared and implements a random procedure to select participants (Houghton, Casey, Shaw, and Murphy, 2013). For my study, each participant (a) served as the administrator of a rural hospital with 50 beds or less, located in Mississippi, (b) operated an ED and successfully recruited and retained physicians, and (c) agreed to provide responses directly related to the research question. To ensure compliance with established criteria, I followed proper ethical procedures and avoided human rights violations. I obtained approval from the Walden Institutional Review Board (IRB) before engaging with participants (Approval Number 03-22-17-0541210).

Researchers can access participants via verbal, written, or electronic invitation, to explain the study purpose and solicit participation in the process (Yin, 2014). After receiving approval from the Walden IRB, I introduced my study to the first 20 potential participants from the list of Mississippi Rural Hospital Alliance members (Table 1), who met study criteria. I made contact by telephone, email, or U.S. mail. Potential participants had successfully implemented strategies to recruit and retain ED physicians in their facilities.

Table 1

Mississippi Rural Hospital Alliance Members

Theme	Bed size	Location
Baptist Medical Center, Attala	25	Kosciusko, MS
Baptist Medical Center, Leake	25	Carthage, MS
Baptist Medical Center, Yazoo	25	Yazoo City, MS
Baptist Memorial Hospital, Calhoun	25	Calhoun City, MS
Beacham Memorial Hospital	31	Magnolia, MS
Claiborne County Medical Center	25	Port Gibson, MS
Copiah County Medical Center	25	Hazlehurst, MS
Covington County Hospital	25	Collins, MS
Field Memorial Community Hospital	52	Centreville, MS
Franklin County Memorial Hospital	25	Meadville, MS
George Regional Hospital	50	Lucedale, MS
H. C. Watkins Memorial Hospital, Inc.	25	Quitman, MS
Highland Community Hospital	60	Picayune, MS
Jasper General Hospital	16	Bay Springs, MS
Jefferson County Hospital	30	Fayette, MS
Jefferson Davis Community Hospital	25	Prentiss, MS
John C. Stennis Memorial Hospital	25	DeKalb, MS
King's Daughters Medical Center	122	Brookhaven, MS
Lackey Memorial Hospital	25	Forest, MS
Laird Hospital	25	Union, MS
Lawrence County Hospital	25	Monticello, MS
Magee General Hospital	64	Magee, MS
Marion General Hospital	49	Columbia, MS
Montfort Jones Memorial Hospital	25	Kosciusko, MS
Neshoba County General Hospital	208	Philadelphia, MS
North Mississippi Medical Center	25	Ruleville, MS
Noxubee General Hospital	60	Macon, MS
Pearl River County Hospital	120	Poplarville, MS
Perry County General Hospital	22	Richton, MS
Scott Regional Hospital	25	Morton, MS
Sharkey-Issaquena Community Hospital	29	Rolling Fork, MS
Simpson General Hospital	35	Mendenhall, MS
South Sunflower County Hospital	46	Indianola, MS
Tallahatchie General Hospital	9	Charleston, MS
Tyler Holmes Memorial Hospital	25	Winona, MS
University of MS Medical Center-Holmes	25	Lexington, MS
Walthall County General Hospital	25	Tylertown, MS
Winston Medical Center	41	Louisville, MS
Yalobusha General Hospital	26	Water Valley, MS

I invited each potential participant to take part in my study. I explained the intent of my study and indicated that attestation of successful ED recruitment and retention strategies was a condition of participation. I explained the study purpose and sought voluntary participation. I informed potential participants that selections would be made in the order responses were received and that the first five interested respondents, meeting study criteria, would be asked to participate in my study.

I asked prospective participants to review information about my study and indicate if they agreed or declined to participate. I requested electronic, telephone or U. S. mail responses. Selected participants demonstrated alignment with the overarching research question because they were positioned to share recruitment and retention strategies successfully implemented in their rural EDs.

I contacted each of the selected participants via email or telephone to schedule interview dates and times convenient to them and to determine interview locations where privacy would by ensured. Aborisade (2013) stated that telephone interviews serve as an alternative to face-to-face interviews. Janghorban, Roudsari, and Taghipour (2014) touted the value of Skype to do interviews. I offered telephone interviews as an alternative to face-to-face interviews. I offered Skype as a third option if face-to-face or telephone interviews were not available alternatives, or were the preference of the participant.

Byrne, Brugha, Clarke, Lavelle, and McGarvey (2015) and Bernard (2013) stated that the interview process should be transparent, with participants having access to all relevant study information, including findings. Halse and Honey (2014) agreed, adding that the researcher should discuss all known potential ethical issues with participants. I

established an atmosphere of trust and honesty from the onset, clearly explaining the intended purpose of my study. I used participant consent forms to verify their agreement to participate in my study. I held information provided during semistructured interviews in strict confidence. I posed open-ended questions to allow participants to express themselves, in their words.

I conducted interviews in private settings of the participants choosing to facilitate confidentiality, as well as their comfort and convenience. I advised each participant that participation in my study was voluntary and that he or she could withdraw at any time. I focused on the establishment of mutual trust, beginning with the initial contact with participants. I also secured permission to publish study results from each participant before doing so.

I consistently recorded and digitally stored interviews on a thumb drive and external hard drive. I have stored the thumb drive, reflexivity journal, and ancillary paper notes in a locked cabinet where they will be kept for five years after study publication. I added password protection to all electronically stored data. I will erase data from the thumb drive and external hard drive and will shred paper documents five years after the publication of my study. I will use this process to protect participants from potential harm caused by privacy violations.

Research Method and Design

Researchers have the responsibility of ensuring that the selected research method and procedures, when reasonably applied, will lead to the realization of well-defined queries (Magruk, 2015). Researchers collect data in qualitative research using interviews,

focus groups, observations, public documents, and audio-visual materials (Bernard, 2013). Researchers often use qualitative methods to study health care governance strategies (Crocker et al., 2013). I conducted a qualitative multiple case study. I used interviews as my primary data source to derive answers to the following question: What recruitment and retention strategies do rural hospital administrative leaders use to recruit and retain ED physicians?

Research Method

Magruk (2015) stated it is crucial that the chosen research method and procedures if reasonably applied, lead to the accomplishment of identified goals. The qualitative research method is used to interpret and describe the purpose, leading to a deeper understanding of the subject (Crocker et al., 2014). The qualitative research method is also useful in promoting understanding of social phenomena (Yin 2013). I used a qualitative research method to conduct my research.

Qualitative researchers can garner an understanding of the studied phenomenon by compiling descriptions of participant experiences through interviews (Yin, 2014). Researchers use the interview process to ask questions that enable interviewees to give detailed responses to an extent not possible using quantitative or mixed methods (Frels & Onwuegbuzie, 2013). Curry et al. (2013) suggested that the qualitative research method is ideal for research about organizational leadership strategies in health care environments.

I used a semistructured interview technique to explore and recount the experiences of rural hospital administrative leaders charged with securing rural ED physician coverage in central Mississippi, including exploration of strategies which lead

to successful physician recruitment and retention. The use of a qualitative research method was justified for my study because I could address the research question through open-ended interview questions.

Conversely, quantitative researchers explain phenomena by gathering and evaluating numerical information (McCusker & Gunaydin, 2015). Researchers use the quantitative research method to test hypotheses or to infer results based on statistical measurements (Wagner, Hansen, & Kronberger, 2014). Moreover, quantitative researchers rely on statistical data, rather than the lived experiences of participants (Hoare & Hoe, 2013). A quantitative method was not appropriate for my study because I did not seek to test a hypothesis or substantiate numeric data.

Researchers use mixed research methods to incorporate elements of qualitative and quantitative methodologies in the same research effort to measure or test identified theories, rather than obtain individual interviewee input (Venkatesh et al., 2013). Researchers can use the mixed research method to minimize the possibility of limitations associated with a single research method (Peterson et al., 2013). Mixed-methods researchers must engage in extensive data collection, text and numeric (Mayoh & Onweugbuzie, 2015). The use of a mixed research method was not feasible because I did not seek to test a hypothesis, and did not collect quantitative data required to conduct mixed methods research.

Research Design

I used the case study design. Hoon (2013) defined *case study research* as the study of occurrences, in their actual settings, through exploration of single or multiple

cases. The overarching purpose of case study research is to explore an activity, process, or event experienced by participants, in an in-depth fashion (Watson, Wagner, & Rivers, 2013). Case study research designs are most appropriate for addressing *what* research questions (Dasgupta, 2015). For my study, I sought to address the research question through a series of *what* interview questions.

After reviewing potential research designs, I determined that a case study design was most appropriate to identify and address the problem explored in my study. I used the case study design to collect evidence and explore the problem of recruiting and retaining rural ED physicians, through the eyes and experiences of participants. I used a multiple case study to explore the strategies successful hospital administrative leaders used to recruit and retain ED physicians in rural settings.

Ethnographic studies involve exploration of specific ethnic groups and intense concentration on detail (Yin, 2014) with data presented in graphs, tables, and formulas to validate conclusions drawn (Upjohn, Atwood, Lerotholi, Pfeiffer, & Verheyen, 2013). Additionally, ethnographic researchers explore the belief system and dialect of a given society (Jansson & Nikolaidou, 2013). The ethnographic design was not appropriate for my study because I explored successful strategies used by rural hospital administrators to recruit and retain physicians, and did not focus on an ethnic group or belief system.

The narrative design includes the process of listening to a participant's story, identifying the significance of the described experience, and constructing meaning as applied to a larger societal context (Ison, Cusick, & Bye, 2014). Researchers use narrative methods to focus on the experiences of a single individual (Yin, 2014). This

information is gathered in the field using stories, journals, letters, conversations, personal items, and memories to understand how subjects develop meaning in their lives (Gockel, 2013). The narrative design did not align with the focus of my case study because I was not exploring the experiences of an individual.

I considered the use of a phenomenological approach. Phenomenological studies are used to clarify meaning and individual lived experiences, and to gain knowledge of the phenomenon (Kenny & Fourie, 2014; Yin, 2014). Researchers use the phenomenological design to assign meaning to participant experiences and expand the body of knowledge about a phenomenon by using a cycle of questions and answers (Tuohy, Cooney, Dowling, Murphy, & Sixsmith, 2013). A phenomenological design might have been appropriate for my study if I had sought to explore the lived experience of rural hospital administrators responsible for recruiting and retaining physicians for the ED. However, because the intent of my study was to explore successful rural ED recruitment and retention strategies, the phenomenological design was not appropriate.

Wagstaff and Williams (2014) defined data saturation as the process of verifying that an adequate number of participants have been interviewed to provide a comprehensive review of conceivable viewpoints. Marshall, Cardon, Poddar, and Fontenot (2013) added that researchers achieve data saturation when no additional information results from further interviews. Houghton et al. (2013) proposed the use of purposeful sampling to ensure completeness of case studies, generally termed data saturation. I did member checking with five participants until I achieved data saturation.

Population and Sampling

Robinson (2014) stated that identification of the sample population is the first step in the sampling process. Elo et al. (2014) affirmed it is important to ensure that participants are knowledgeable and able to address the research question. Hulley, Cummings, Browner, Grady, and Newman (2013) defined the target population as the kind of people most suited to the research question. The targeted population for my study was rural hospital administrators who have successfully recruit and retain ED physicians.

Qualitative researchers primarily use purposeful, quota, or convenience sampling to identify participants (Patton, 2015). Palinkas et al. (2015) posited that purposeful sampling is commonly used in qualitative research to identify and select participants in case studies. Van Der Velden and Eman (2013) stated that purposeful sampling involves choosing participants who have experience related to the research focus. Hasanpoor-Azghdy, Simbar, and Vedadhir (2014) agreed, defining purposeful sampling as the selection of individuals because they are information-rich sources who may positively contribute to the studied phenomenon. Khunlertkit and Carayon (2013) added that purposeful sampling allows researchers to actively select participants based on the relevant experience or knowledge those individuals possess.

I used random purposeful sampling to interview participants who have successfully implemented strategies for recruiting and retaining ED physicians for rural hospitals. A sample size of five is usually acceptable in case studies (Molenberghs et al., 2014). Sharp et al. (2014) agreed, indicating that between five and 25 participants are appropriate, depending on the focus of the research. Robinson (2014) suggested that

researchers choose a reasonable range from which to initiate the interview process, understanding that it is not possible to definitively assure data saturation. Marshall et al. (2013) countered, indicating that the point at which further interviews cease to produce additional information signals attainment of data saturation. I interviewed five participants and used member checking until I achieved data saturation, based on the presentation of no new information.

Thompson, Petty, and Scholes (2014) identified essential requirements for case study participants, namely knowledge and experience specific to the phenomenon, cooperation and accessibility, and the ability to effectively communicate relevant experience. Bardus, Blake, Lloyd, and Suggs (2014) agreed that expertise and knowledge are critical requirements for case study participants. Brooks and Normore (2015) added that participants should possess the potential to share new ideas or strategies.

I obtained a list of rural hospital administrators from the Mississippi Rural Hospital Alliance's public website, from which I extracted the study population. The study population consisted of five administrators of rural hospitals, 50 beds or less, located in rural areas in central Mississippi. Participants are responsible for securing and maintaining ED physician coverage and have attested to successfully doing so. I justified the selection of successful rural hospital ED administrators as the research population for my study because these individuals uniquely align with the overarching research question: What strategies do rural hospital ED administrative leaders use to recruit and retain ED physicians?

I conducted interviews in private settings of the participants choosing to facilitate confidentiality, as well as their comfort and convenience. Yin (2014) stressed the importance of interviewing in a private location to ensure confidentiality and minimize interruptions. Ritchie, Lewis, Nicolls, and Ormston (2013) indicated that giving participants reasonable control over the interview schedule and environment makes them less susceptible to distractions and more likely to share information. Marshall and Rossman (2016) agreed that the participant should feel comfortable and involved in the interview process. I interviewed each participant using a semistructured interview technique to ask open-ended questions.

Researchers use member checking to secure verification from participants that interview interpretations are accurate (Patton, 2015; Yilmaz, 2013). Stuckey (2013) encouraged allowing participants to elaborate and clarify experiences and views, post interview. After transcription of interviews, I used member checking to solicit participant examination of my interpretations and made changes as indicated.

Ethical Research

Yin (2014) stated that researchers should place emphasis on ethical and procedural research implications, including a focus on participants, peers, and stakeholders. Gibson, Benson, and Brand (2013) agreed, stressing the importance of safeguarding confidentiality and maintenance of ethical conduct throughout the research process. Gordon and Patterson (2013) posited that ethical behavior of the researcher is a major concern in qualitative research, adding that researchers must respond to situations as presented and remain flexible during the research process.

Khan, Barratt, Krugman, Serwint, and Dumont-Driscoll (2014) reported that Institutional Review Boards (IRBs) ensure the ethical treatment and protection of research participants. The Walden University IRB for Ethical Standards in Research is responsible for ensuring that research conforms to Walden's ethical standards and those imposed by U.S. regulations (Walden Research Center, 2015). Researchers must receive approval from Walden's IRB before initiating the research effort (Walden Research Center, 2015). Walden University officials use the IRB process to ensure ethical safeguards are in place to protect participants.

It is critical that researchers follow the policies and procedures set forth by the IRB thoroughly and comprehensively. These requirements include ensuring that potential participants are invited to take part in the research effort, and that informed consent is received. Bernard (2013) stated that securing informed consent from participants is a fundamental principle of research. Bhattacharya (2014) agreed, saying that research participants should sign an informed consent form before any interview or effort to question participants. It is equally important that the researcher develops informed consent forms which participants can understand (Tan, Yee-Foo, Teoh, & Tym-Wong, 2014). I received informed consent from each participant before initiating interviews to ensure each was thoroughly informed about the process.

Some degree of risk is inherent in research that involves human participants, so the researcher is responsible for identifying markers and mitigating that risk (Cronin, 2015; Vayena & Tasioulas, 2013). It is the qualitative researcher's responsibility to recognize benefits and potential risks to participants and to take steps to protect

participants (Khan, 2014). I identified potential benefits and risks of study participation on the voluntary consent form and ensured participant understanding before conducting interviews.

Marshall and Rossman (2016) advised participants to give participants the right to participate or withdraw from a research study. Randall-Arell and Utley (2014) suggested that participants should be able to withdraw via telephone, e-mail, or refusal to answer any interview question. Researchers secure informed consent and give participants the opportunity to opt out at any time to undergird an atmosphere of mutual trust in the research process (Mackenzie, Buckby, & Irvine, 2013). Therefore, I stressed the voluntary nature of my study and offered the option for participants to withdraw at any time. I made it explicitly clear that participants could withdraw from my study at any stage before the initiation of data analysis, by email, telephone request, or U.S. mail.

Upon receipt of IRB approval, I introduced the purpose of my study to potential participants and asked for voluntary participation. I explained my study purpose and clarified the usage of the Walden University doctoral research process. I also identified anticipated benefits and risks. I took these steps before requesting the voluntary informed consent of participants. I asked participants to provide informed consent before beginning interviews. I assured participants that telephone or Skype interviews could be conducted if they preferred. Upon receipt of signed consent forms, I followed up by telephone to schedule dates, times, and locations for interviews.

Koocher (2014) noted participants could interpret incentives, such as monetary gifts, as inducements. Therefore, to ensure there is no financial coercion or undue

compulsion to participate, no form of compensation should be offered (Hussein, 2015). Robinson (2014) recommended that researchers provide an explanation of potential social benefits of the research, instead of monetary incentives. I did not provide financial incentives to participants. I informed participants during the consent process that no monetary incentives would be forthcoming, but that I would provide a copy of the completed study documenting potential social benefits.

The researcher is responsible for protecting the identity of participants (Abernethy et al., 2014). Baines, Taylor, and Vanclay (2013) stressed that ensuring participant confidentiality is a fundamental principle in ethical research. Pseudonyms are often used to mask participant identity (Caballero-Gil, Caballero-Gil, & Molina-Gil, 2013). Gibson et al. (2013) suggested that the use of a coding system is an effective means of protecting the identities of participants. The researcher has ultimate responsibility for ensuring that the identities of participants are safeguarded.

I used a numbering system to ensure confidentiality of participants. I will maintain gathered data on a thumb drive, external hard drive, and on paper documents for five years after study publication, per IRB requirements. I will shred or permanently delete files after five years.

Data Collection Instruments

The researcher is typically the primary research instrument in qualitative studies (Houghton et al., 2013). Patton (2015) described the researcher as an effective data collection instrument. I served as the primary research instrument for my doctoral study.

To ensure the collection of meaningful data, my study included in-depth, semistructured interviews, with document collection as the secondary collection instrument.

Patton (2015) noted that semistructured interviews enable the researcher to compare data across cases in multiple case studies. Lampropoulou and Myers (2013) stated that the goal of interviewers is the extraction of valuable insight into the experiences of research participants. Chereni (2014) added that the qualitative researcher's primary function is facilitating dialogue with participants and making sense of research findings. I used a semistructured interview technique to place specific focus on capturing and documenting successful strategies rural hospital administrative leaders employ to recruit and retain ED physicians.

Researchers use open-ended interview questions to facilitate participant responses to predetermined questions and to allow flexibility for spontaneous discussion (Moustakas, 1994; Yin, 2014). Researchers gather perspectives from participants using an in-depth list of open-ended interview questions (Bernard, 2013). Fassinger and Morrow (2013) stressed the importance of standardizing the interview process to establish consistency. I designed research questions to garner answers to the overarching research question and uniformly asked those research questions to all participants.

Maxwell (2013) encouraged the development of an interview protocol before conducting case study research. Gioia, Corley, and Hamilton (2013) stated that investigators use interview protocols to provide a brief script, research questions, prompts, and participant contact information. Moen and Core (2013) stated that the distinguishing characteristics of case study research are the use of semistructured

interviews to elicit in-depth and rich information from participants, make observations, and review documents pertinent to the study.

The interview protocol includes the procedures that the researcher uses to guide the interview process (Yin, 2014). Researchers also use the interview protocol to provide a study overview, including human subject protections, data recording mechanisms to be used, and how data will be stored (Yin, 2014). Before initiating interviews, I provided identical consent forms to all participants. I also provided a copy of the interview protocol (Appendix).

I recorded the words of participants using a voice recognition recorder. I used an iPhone as my backup recording mechanism. Houghton et al. (2013) stressed the importance of note taking throughout the interview. I used journaling to make notes about nonverbal signals observed, including body language and other nonaudible occurrences that took place during the interview. I sought additional data sources for my study from public documents.

In addition to recording, member checking is useful for determining participant perception of how well the researcher's interpretations represent intended meaning (Yilmaz, 2013). Qualitative researchers use member checking to validate data, recognizing that multiple interpretations are possible (Moustakas, 1994). The practice of using member checking to allow participants to validate researcher interpretation of interview statements is customary in qualitative research (Patton, 2015). I gave participants the opportunity to confirm, verify, and validate my interpretation of data.

Participants were asked to provide corrections or revisions to interpretations via telephone follow-up interview.

It is important that the researcher and participants are actively involved in the interview process to ensure both derive meaning from the interview process (Patton, 2015). Giving participants the opportunity to validate data allows the researcher to ensure that data are reflective of reality, from the perspective of the participant, and are devoid of false interpretation or researcher bias (Marshall & Rossman, 2016; Yilmaz, 2013). I gave participants the opportunity to review and revise interview interpretations to mitigate unintended research bias.

Data Collection Technique

The research question I addressed in my study was: What recruitment and retention strategies do rural hospital administrative leaders use to recruit and retain ED physicians? I used semistructured interviews to conduct my research. Mojtahed, Nunes, Martins and Peng (2014) described the interview as an approach used by qualitative researchers to extract specific details about a phenomenon. Qualitative researchers collect data through audio-recorded and transcribed interviews (Yin, 2014). Bernard (2013) outlined steps researchers should undertake at the onset of interviews, including reconsideration of the study purpose, informing participants about informed consent, reviewing the interview format, specifying time allotment, and giving interviewees an opportunity to ask questions or clarify statements made. I followed this process to obtain detailed and vivid descriptions of participant feelings, thoughts, and experiences.

Interview protocols are data collection tools qualitative researchers use to guide interview activities and record interviewee information (Lewis, 2015). The interview protocol guided the interview process. I used an interview protocol to conduct interviews and collect research data (see Appendix).

Marshall and Rossman (2016) posited that researchers facilitate interviewee confidentiality by using general themes and open-ended questions and encouraging the expression of experiences, opinions, and analyses. Baškarada (2014) agreed, stating that the semistructured interview format allows the researcher to understand the participant's perspective of the research topic. Zohrabi (2013) noted that the researcher can reword questions, if needed, to facilitate participant understanding during the interview. I used open-ended questions in a semistructured interview format to garner understanding of participant viewpoints.

Irvine, Drew, and Sainsbury (2013) explained that the accuracy of research analysis is dependent on how well the data is audio-taped and transcribed. van den Hooff and Goossensen (2015) stated that recording an interview allows the researcher to use captured information to prompt recall, clarify meaning, and report with enhanced accuracy through transcription. Graham, Alderson, and Stokes (2015) listened to recorded interviews to ensure the accuracy of transcribed participant responses. Irvine et al. (2013) explained that the quality of data analysis hinged on the quality of the tape recording and transcription. I accurately captured all interview responses.

Before each interview, I checked my recorder to ensure it was working properly.

I had additional batteries if needed. I used an iPhone as a backup recorder. I stopped briefly during interviews to verify the tape recorder was functioning properly. I spoke slowly and clearly throughout each interview.

Marshall and Rossman (2016) stated that noise can disrupt an interview and lead to inaccurate transcription. Malagon-Maldonado (2014) agreed that noise can complicate the interpretation of participant responses. Becher and Wieling (2015) suggested scheduling interviews at the convenience of the participant, preferably in settings familiar and comfortable to them. I conducted interviews in settings with minimal background noises and interruptions. To the extent possible, I ensured that interview sites were private and quiet. Participants and I mutually agreed upon specific dates, times, and locations. I made privacy and convenience of participants my primary focus when scheduling and conducting interviews.

Doody and Noonan (2013) stated that interviewees might consider the interview process to be intrusive which could facilitate bias on their part. To minimize this possibility, I allowed participants to express themselves on their terms. I set aside my personal judgments and views. I also guarded against verbal or nonverbal cues or gestures which could influence participant response.

I designed interview questions to elicit responses to the research question. I asked the same questions to each participant to allow for comparability of responses. I allowed participants to address each question fully before proceeding to the next question. If responses were unclear, I repeated the question and asked for additional explanation. I asked follow-up questions if needed. I anticipated between 30 to 60 minutes for

semistructured interviews; however, I was flexible if interviews lasted less than 30 minutes or extended beyond 60 minutes. Following interviews, I transcribed carefully and verbatim to ensure the accuracy of reporting and to strengthen the validity, precision, and credibility of the study.

Thomas (2015) and Yin (2014) encouraged the employment of multiple sources, through the process of triangulation, to strengthen understanding of why and how a phenomenon occurred. The researcher's application of methodological triangulation adds credibility to the study by using multiple data collection methods to acquire and articulate a comprehensive view of the phenomenon (Cope, 2014). I employed methodological triangulation using document collection from public documents as my secondary data source.

Chapman and Clucas (2014) stressed the importance of proper etiquette to establish the relationship between the interviewer and participant. Therefore, I arrived and started on time, introduced myself and used a prepared script to reiterate the purpose of the interview. I demonstrated appropriate etiquette and maintained respectful and professional interaction throughout the interview and follow-up processes. I expressed sincere appreciation to participants after each interview.

There are marked advantages to using the interview in case study research. One significant advantage of the interview is the facilitation of face-to-face communication, enabling the formation of rapport and relationships (Irvine et al., 2013). The researcher can detect nonverbal cues, body language, and facial expressions that would not be apparent through written or audible communication alone (Irvine et al., 2013). Hence, the

researcher can clarify questions, especially if visual signs indicate the participant does not understand. Researchers can also use the interview process to start submerging themselves in collected information to analyze and interpret it (Malagon-Maldonado, 2014). Marshall et al. (2013) found that in-depth interviews provide for a clear understanding of a phenomenon, enable the researcher to capture participant perceptions and experiences, and share new ideas.

There are also disadvantages to the use of semistructured interviews as the data collection technique. Zohrabi (2013) stated that the semistructured interview process is too mechanical because participants answer questions in a fixed format, and are not allowed to express their understanding of the phenomenon. Marshall et al. (2013) stated that unskilled interviewers might find it difficult to ask sufficiently probing questions to yield appropriate data. Malagon-Maldonado (2014) pointed out that participants might unintendedly filter information based upon their interpretations of the questions posed. Mason and Ide (2014) reported that participants could be uncomfortable or feel intimidated in face-to-face settings. Participants may also unknowingly express biases about the subject matter during the interview process (Malagon-Maldonado, 2014). I determined that the advantages of using semistructured interviews as my primary data collection technique outweighed disadvantages. However, I remained cognizant of the importance of conducting ethical research throughout the process.

It is important to ensure that participation is voluntary and that participants feel free to withdraw from an interview at any point (van den Hooff & Goossensen, 2015). Patterson, McDaid, and Hilton (2015) stressed that participants must have the right to

withdraw, to any degree and at any time, during the interview process. Yin (2014) stated that the interviewer should remind participants that they are not required to answer interview questions. I asked questions in a uniform and unbiased manner. I stressed that participation was voluntary and kept the interview moving to ensure completion.

Questions should be open-ended to draw from participants' thoughts and experiences (Malagon-Maldonado, 2014). I asked open-ended interview questions, took written notes, and remained neutral to avoid influencing participant responses. I allowed all participants to ask questions or share additional information before concluding each interview. I expressed appreciation to participants at the end of the interviews and provided my contact information so they could contact me later, if needed.

Andrasik, Chandler, Powell, Humes, and Wakefield (2014) explained that the process of member checking, or allowing research participants to validate the researcher's interpretation and analysis of their responses helps the researcher to verify accurate capture of information. Lub (2015) stated that member checking helps the researcher ensure the credibility of the study. Becher and Wieling (2015) concurred, arguing that the process of member checking and verification of findings give participants the opportunity to correct any errors or misleading interpretations. I used member checking to strengthen the legitimacy and credibility of my study. I assured participants that I would provide my interpretation of their responses to research questions for their review and feedback. I retained original copies and noted, in writing, any changes participants made.

Data Organization Technique

Recommended data organization techniques include design and creation, storage, security, preservation, retrieval, data sharing, and ethical considerations of collected research data (Pinfield, Cox, & Smith, 2014). Irvine et al. (2013) stated the researcher's accurate formatting, labeling, and categorization of interview notes facilitate efficient organization of data. Fluk (2015) posited that the research log is useful to document the research effort, record keywords, or create a reflexivity journal of thoughts that could potentially foster bias. McNeil, Small, Lampkin, Shannon, and Kerr (2014) stated that researchers use the research log to document conversations with participants. Wilson (2014) agreed, saying that researchers use a log to record emphatic interactions with participants noted during interviews. I maintained a research log identifying participants by a pseudonym, with dates and times of interviews. I also documented themes which emerged from interviews.

I will keep the thumb drive containing research data, reflexivity journal, and ancillary paper notes in a locked cabinet for five years. I have password protected all electronically stored data. I will permanently erase data from the thumb drive and external hard drive, and shred paper documents five years after the publication of my study.

Data Analysis

The purpose of my study was to explore the strategies that rural hospital administrators use to recruit and retain ED physicians. I used technology to analyze, interpret, and derive meaning from my research study. I used a methodological

triangulation approach to strengthening understanding about strategies successful rural ED administrators use to recruit and retain physicians. Methodological triangulation allows the researcher to map and explain data richness using multiple data collection sources (Malagon-Maldonado, 2014; Marshall & Rossman, 2016). Zakari, Hamadi, and Salem (2014) agreed, adding that methodological triangulation from interviews and collected documents can augment thoroughness and innovation. The data sources I used were open-ended interviews and document collection.

Borrego, Foster, and Froyd (2014) identified the conceptual framework of a research work as the connector of literature, methodology, and findings. Kaufman (2015) considered STRHRM a major component of business research and practice. Trebble et al. (2014) identified STRHRM as the primary system administrators use to improve the use of human resources and increase productivity through the development of relationships and employment goals between the organization and employee. I used STRHRM as the conceptual framework for my study.

I used STRHRM to interpret the meaning of collected data about key themes that emerged through interviews, related to successful recruitment and retention of rural ED physicians. I also used STRHRM to bridge strategy and human resource management, and to emphasize efforts to integrate the focus on implementing strategic change. I developed a unified and deliberate approach to addressing the problem of insufficient numbers of rural ED physicians using STRHRM.

I conducted interviews to obtain responses from participants. I asked participants to respond to open-ended questions during scheduled interviews. If instances arose in

which participants were inaccessible in person, I conducted interviews by telephone. Aborisade (2013) identified telephone interviews as a viable alternative to face-to-face settings.

I designed research questions to explore successful strategies used by rural hospital administrators to identify, recruit, and retain physicians to work in their EDs. I tape-recorded participant responses. Becher and Wieling (2015), Houghton et al. (2013), and Malagon-Maldonado (2014) indicated that notes can be taken to document observations made during interviews. I took notes and transcribed participant responses.

Campbell, Quincy, Osserman, and Pedersen (2013) stated that using coding schemes for semistructured interview data is a useful transcribing tool. Garfield, Hibberd, and Barber (2013) explained that themes emerge by using NVivo 11 for data analysis. Jafari, Dunnett, Hamilton, and Downey (2013) stated that NVivo 11 enables the researcher to delve into participant realities, and adds rigor and validity to the research study. Raaijmakers et al. (2013) identified coding as the major instrument used to organize and analyze data. I imported participant interviews into NVivo 11 for coding and analysis.

I assigned a unique numerical code to each participant to distinguish among subjects and to ensure confidentiality of identities. I used NVivo 11 to link interview responses to the themes that emerged during the interviews. I coded participants with alpha-numeric indicators, beginning with P1. I protected the identities of participants.

Forber-Pratt, Aragon, and Espelage (2014) used grouping, reducing, clustering, and theme description to create textural-structural descriptions for each interview

transcript. Similarly, Carter and Baghurst (2014) promoted the use of the modified van Kaam method of data analysis for case studies. Researcher use of the modified van Kaam data analysis method allows the researcher to dissect themes (Carter & Baghurst, 2014). Jafari et al. (2013) stressed the importance of researchers immersing themselves in the collected data to enhance the research effort.

I used the modified van Kaam method (Moustakas, 1994), in conjunction with NVivo 11 to analyze interview responses, taking the following steps:

1. Construction of interview transcripts.
2. Listing and grouping of preliminary data.
3. Reduction or elimination of redundant data.
4. Creation and clustering of core themes.
5. Validation of data.
6. Construction of textural descriptions.
7. Construction of structural descriptions.
8. Description of textural-structural meaning (Moustakas, 1994)

I used data analysis results to address the research question: What strategies do rural hospital administrative leaders use to recruit and retain ED physicians? I sent interview interpretations to participants, by U. S. mail or email, to facilitate member checking. I asked participants to review interpretations and provide feedback in a 5-10-minute follow-up telephone interview. I determined the extent to which participants addressed the research question by cross-checking transcriptions against my reflexivity journal. By doing so, I identified weaknesses or biases in the research and drew

conclusions from my research efforts. I carefully reread all notes and transcripts, listened to audio recordings, and reflected upon research observations and experiences. These measures increased the validity and credibility of the research process. I meticulously documented all research steps taken.

Data interpretation was the next phase of data analysis for my research study. Hoflund (2013) found that researchers begin to organize and interpret data as they complete and transcribe interviews. Yin (2014) stated that data interpretation is a critical research component because meaning emerged from this step. Thomas (2015) posited that researchers can add value and meaning to data, based upon their interpretation and level of understanding. Data interpretation was a function of my understanding of compiled data. I laid the foundation for data interpretation by documenting thoughts, observations, and comments during and after each interview.

Saldana (2013) described qualitative data analysis as a recursive, liberal, monotonous, inductive, and holographic process conducted and attested to by the researcher. Seidel and Urquhart (2013) stated that the data analysis process culminates in the production of research results, presentation of findings, and attainment of the study conclusion. Findings emerge from a larger set of data and ideas (Buchanan, 2013; Thomas, 2015). I sought to facilitate the improvement of human conditions specific to emergency medical care and improved quality of life in rural areas lacking adequate emergency care through my findings. I culminated the data analysis phase of my research study with the revelation of results and outcomes. I have presented findings that

supplement the body of knowledge about successful rural ED physician recruitment and retention strategies in Section 3.

Reliability and Validity

Establishment of reliability and validity of data is critical in qualitative research (Houghton et al., 2013). Boesch, Schwaninger, Weber, and Scholz (2013) added that the goal of social science is the revelation of causes foundational to observed social phenomena. Morse (2015) and Yilmaz (2013) agreed, stating that the researcher should address validity and reliability in the design, development, analysis, and report phases of the research effort.

In qualitative research the term *dependability* replaces the term *reliability*; and, *credibility*, *trustworthiness*, and *authenticity* replace the word *validity* (Yilmaz, 2013). Titze, Schenck, Logoz, and Lehmkuhl (2014) described the conceptualization of reliability and validity in qualitative research as trustworthiness, rigor, and quality. Henriksen, Polonyi, Bornsheuer-Boswell, Greger, and Watts (2015) identified trustworthiness, or reliability, as the essential component of qualitative research analysis. Reliability and validity are critical elements of qualitative research and I ensured both in this research study.

Reliability

In qualitative research, the term *dependability* replaces *reliability* (Yilmaz, 2013). Researchers use member checking and audits to ensure dependability (Marshall & Rossman, 2016). Yin (2014) described member checking as an investigator's candid assessment of participant responses to certify understanding of the meaning of individual

responses to interview questions. Moustakas (1994) stated that the systematic compilation of data helps the investigator address reliability. Researchers affirm reliability and dependability by undertaking liberal documentation of procedures and protocol, and by using member checking of data interpretation (Frels & Onwuegbuzie, 2013). The use of member checking and verification afforded my participants to correct any necessary changes in my interpretations.

Siddiqui and Fitzgerald (2014) suggested that the researcher ask participants to review how their interview statements have been interpreted and indicate if corrections or modifications are needed. Andrasik et al. (2014) stated that member checking gives research participants the opportunity to verify the accurate capture of data. To accomplish member checking, I conducted an analysis of collected data and gave participants the chance to review my interpretations and provide feedback.

Whisenhunt et al. (2014) stated that using a journal to record pertinent information and personal reactions at various stages of the research process provides an excellent audit trail. Fluk (2015) and Bernard (2013) also suggested maintaining a journal to record relevant information and individual responses at various stages of the research as an audit trail. I employed an audit trail to ensure dependability of research findings. I used a reflexivity journal to clarify and lessen the inclusion of my personal ideas or biases in the research, increasing the dependability of findings.

Validity

Validity refers to how accurately findings and conclusions are analyzed and expressed (Marshall & Rossman, 2016). Qualitative researchers seek to ensure that

results are accurate in the view of the investigator, participants, and readers (Yilmaz, 2013). Lub (2015) agreed, asserting that validity is the process of determining if study findings are accurate from the perspective of the researcher, participants, and readers. The concepts of credibility, transferability, and saturation define the validity of a research study.

Credibility. Cope (2014) described credibility as the truth of the research data or the participant's assessment, understanding, and interpretation of data as presented by the researcher. Lub (2015) stated that credibility is assured through direct communication between the researcher and participants to accurately capture participants' perceptions and experiences regarding the subject matter. Bell (2013) suggested that making sure findings are plausible and credible are strategies researchers used to attain validity. I added credibility to my study by interviewing participants with shared experiences who independently shared individual experiences.

Yilmaz (2013) stated that member checking helps researchers determine how closely findings represent participant perceptions and intended meaning. Andrasik et al. (2014) concluded that member checking enables participants to validate that the researcher correctly interprets and analyzes provided information. Credibility is also enhanced through member checking because it affords the opportunity for participants to change misstatements or misleading interpretations (Becher & Wieling, 2015). I used member checking to ensure that my interpretation and summation of interview data accurately reflects the experiences and intended communication of participants.

Transferability. Transferability is the ability to apply study findings to other groups or settings in qualitative research (Cope, 2014). To achieve transferability, the researcher must sufficiently describe the research context and incorporate the research purpose into the writing (Koch, Niesz, & McCarthy, 2014.) Houghton et al. (2013) added that the reader makes judgments regarding transferability based on the original research context. Therefore, to ensure transferability, the researcher must go beyond external validity and demonstrate the appropriateness of the study when applied to different settings (Burchett, Dobrow, Lavis, & Mayhew, 2013). I have carefully described the context and clarified the purpose of my study to facilitate transferability.

Williamson, Nichols, and Lamb (2015) argued that the size and selective nature of the research sample undermines use by other populations, though findings might apply to populations with similar characteristics. Therefore, to ensure transferability to the greatest degree possible, I used interviews and transcribed documents to give rich descriptions in Sections 2 and 3 of my study. The research process included focused sampling and an exhaustive outline of assumptions, limitations, and delimitations. I provided sufficient context to facilitate transferability of my study by other researchers and readers.

Confirmability. Confirmability denotes the researcher's capacity to verify that presented data represents the responses of participants rather than the views or biases of the researcher (Cope, 2014). The researcher must precisely describe the steps and methodologies in a study to establish confirmability (Erlingsson & Brysiewicz, 2013). Confirmability also enhances the truthfulness of a study (Cope, 2014). Houghton et al. (2013) posited that respondents are best positioned to judge the trustworthiness of

research and authenticity of conclusions reached. I have detailed the actions and methodology used I my study to establish confirmability.

Yin (2014) described member checking as the process of assessing participant responses to verify that the researcher understands the meaning participants ascribe to interview responses. To ensure confirmability, the researcher should record interviews, transcribe them into text, and analyze transcription (Erlingsson & Brysiewicz, 2013). After recording and transcribing interviews, I provided an opportunity for participants to check the validity of my interview interpretations to ensure I accurately represented their responses and meaning.

Black, Palombaro, and Dole (2013) defined reflexivity as the process of identifying personal biases through journaling to promote confirmability. Dupin, Larsson, Dariel, Debout, and Rothan-Tondeur (2015) suggested that researchers use a journal during data collection to enhance confirmability. Researchers should begin reflexivity journaling at the beginning of the study to monitor and disclose biases and to record decisions relevant to the methodology (Hietanen, Sihvonen, Tikkanen, & Mattila, 2014). I maintained a journal to record thoughts, methodology decisions, observations, or biases, and to monitor and disclose biases that could influence the interview process or my study in general, and to reflect on subjectivity employed throughout my research process. I took these measures to minimize biases and interjection of my personal opinions.

Data Saturation. Morse (2015) defined data saturation as the building of rich data through the process of inquiry, by attending to scope and replication. Scope refers to

the comprehensive exploration of all aspects of the studied phenomenon (Morse, 2015). Replication means that data gathered from multiple participants have essential characteristics in common (Morse, 2015). In qualitative research, researchers use data saturation to weigh the validity of the findings (Finfgeld-Connett & Johnson, 2013). Researchers identify saturated data by categorical replication, thereby verifying understanding and comprehensiveness (Elo et al., 2014). I continued the interview process until data saturation was achieved.

Higginbottom, Rivers, and Story (2014) concluded that data saturation is achieved when interviews with subsequent participants do not produce new information. Bristowe et al. (2014) observed that the qualitative researcher can stop interviewing participants when additional interviews no longer provide new information about the research topic. Fusch and Ness (2015) defined saturation as the point where no additional information, codes, or themes emerges, and sufficient data has been secured to replicate the study.

I interviewed five participants and continued member checking until no new information emerged and enough data had been obtained to replicate my study. I transcribed and coded interviews within 24 hours. I continued member checking until data were saturated, as evidenced by the redundancy of information.

Transition and Summary

In Section 2, I described the purpose of my qualitative case study, which was to gather data from hospital administrative leaders who shared strategies to positively influence recruitment and retention of rural ED physicians. I also described the role of the researcher and participants. I identified my research method and design, as well as the

research population and sampling procedures. I discussed characteristics of ethical research, described the data collection technique applied, detailed the data analysis process, and identified how I achieved reliability and validity of my study. In Section 3, I have provided (a) presentation of findings, (b) application to professional practice, (c) implications for social change, (d) recommendations for action, (e) recommendations for further research, (f) reflections, and (g) conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of my qualitative multiple case study was to explore the strategies that rural hospital administrative leaders used to recruit and retain ED physicians. I conducted semistructured interviews with five hospital administrators responsible for recruitment and retention of ED physicians for their rural facilities. I compiled data from participant responses, along with related peer-reviewed articles and public documents. In Section 3, I have included (a) an introduction to the study, (b) presentation of the findings, (c) applications to professional practice, (d) implications for social change, (e) recommendations for action, (f) recommendations for further research, (g) reflections, and (h) conclusion. The findings I have presented may affect business practices by supplementing scholarly research addressing strategies rural hospital administrators use to foster successful recruitment and retention of ED physicians. I may also influence social change through these findings by facilitating improvement in human conditions specific to the availability of emergency care, while enhancing the quality of life in rural areas devoid of adequate emergency services.

Presentation of the Findings

The research question for this study was: What recruitment and retention strategies do rural hospital administrative leaders use to recruit and retain ED physicians? I used qualitative data analysis to identify four major themes outlined in Section 3. Cronin (2015) described multiple case studies as foundational for exploratory research in real-life work environments of participants. Five participants provided informed consent

and answered open-ended interview questions related to the research question. I transcribed recorded interviews into verbatim text. I typed transcriptions in word processing files and used NVivo 11 to facilitate the analysis process.

The five participants in this study have demonstrated success recruiting and retaining ED physicians for their rural hospitals. I secured additional data for triangulation through public records retrieved from the Mississippi Rural Hospital Alliance website. Member checking took place after the formation of my initial data interpretations, which led me to conclude that gathered data reflected the strategies participants used to recruit and retain rural ED physicians. The subsections that follow contain a detailed report of the thematic findings which emerged through research data collection.

I considered discussions of the thematic findings in context with STRHRM, which was the conceptual framework for this study. Beer et al. (1984) indicated that the STRHRM process includes a description of vacancies, the attraction of candidates, assessment of applicant suitability, and ultimate selection and retention of employees. The development of relationships between employers and employees is a primary goal of STRHRM administrators (Fombrun et al., 1984). The STRHRM framework can be used to facilitate strategic change so that the organization can compete in the marketplace (Bal et al., 2015). I sought to determine how participants implemented STRHRM principles, and strategically used relationship building to maintain sufficient ED physician staff levels. I identified four major themes and have provided explanations about how they relate to existing literature and the conceptual framework.

I associated strategies participants use to recruit and retain ED physicians with the STRHRM focus of placing and keeping the best candidate for the job. Participant responses largely support using both in-house and contracted resources, incentives, and development of family environments as strategies to recruit and retain rural ED physicians. Eight themes have emerged in the literature regarding STRHRM development, implementation, and management (Lengnick-Hall et al., 2009). Four of these themes were prominent in participant responses about their recruitment and retention efforts. Associated themes were (a) evaluating issues, (b) identifying best practices, (c) expansion to external recruiting and retention pools, and (d) achievement of goals. I have indicated below how findings are consistent with published peer-reviewed literature and STRHRM principles.

Theme 1: Challenges to Maintaining Rural Emergency Department Coverage

Table 2

Theme 1: Challenges to Maintaining Rural Emergency Department Coverage

Theme	References	Frequencies
Challenges to maintaining rural ED coverage	Underlying issues	20
	Insufficient availability of ED physicians	8
	Multiple roles of physicians	7
	Technological concerns	13
	Financial constraints	7

I found consensus in the literature espousing the critical state of emergency care in rural America. Fleet et al. (2013) suggested that rural EDs are critical access points to the provision of emergency care. Baker and Dawson (2014) said rural EDs should be equipped to manage the breadth of rural emergency care needs. Casaletto et al. (2013) indicated that researchers should confront the challenges that impede adequate rural emergency care. For Theme 1, *Challenges to Maintaining Rural Emergency Department Coverage*, I actualized triangulation by incorporating documentation from the literature review to support thematic evidence, related to underlying issues, insufficient availability of ED physicians, multiple roles of physicians, technological concerns, and financial constraints.

Underlying issues. Rural ED administrators should be prepared to manage the gamut of health care problems typical in emergency care, and the physician is the catalyst (Baker & Dawson, 2014). Unfortunately, availability of emergency care has emerged as a serious health care threat in rural areas (Casaletto et al.,2013). The unbalanced distribution of physicians undermines universal access to care (Farmer, et al., 2015). Truly, EDs are essential, often understaffed and under-researched, clinical lifelines for rural residents.

An overarching issue facing rural ED administrators is the minimal propensity of medical students to select rural practice. Medical students surveyed agreed that rural practice is crucial, yet tend to have unfavorable attitudes about working in rural areas themselves (Singh, 2015). Aydin et al. (2015) found that the lack of amenities, such as internet availability, cultural and entertainment outlets, and assessable public

transportation, make attracting physicians to rural areas problematic. Only 3% of medical students surveyed expressed interest in working in a rural setting (Farmer et al., 2015), whereas more than 75% of those students stated that rural settings were the most difficult of areas to work in (Aydin et al., 2015). Indeed, Stevens (2016) posited that there is a special art to working and living as an ED physician in the rural United States. The problem rural hospital that administrators face as they strive to manage their EDs is magnified by the lack of interest many physicians have about working in rural areas.

Distinctive challenges are associated with rural ED administration. The unique challenges rural ED that administrators face include physician shortages, insufficient medical training in the use of specialized clinical procedures, and lack of consultative support (Drouin et al., 2015). The lack of rural health care access can be attributed to an array of factors, including cultural and financial constraints, scarcity of resources, insufficient numbers of trained physicians, and limited availability of broadband services (Douthit et al., 2015). Recognition of the factors that impede recruitment and retention of physicians to work in rural EDs is critical to successfully addressing identified problems.

It is especially challenging to consistently provide critical and timely emergency care in rural areas (Sterling et al., 2016). It is also difficult to strategically place and retain physicians who work well in rural EDs (Kaufman, 2015). Consequently, patients in many rural areas do not have access to the level of care available to patients in urban emergency settings (Casaletto, 2013). Participants consistently echoed experiences with these underlying issues during interviews.

Participants generally agreed that maintaining continuous, high-quality ED care in rural hospitals is a momentous task. P1 confirmed that consistently providing rural ED care is very challenging. P2 said "whoever they actually send us, we kind of actually have to take it and try to make things work." P4 added that managing a rural ED in an underserved area is tough. P5 indicated that managing the ED as a stand-along facility is extremely difficult, often forcing rural administrators to join networks or outsource the ED.

One of the five participants interviewed mentioned efforts exerted, or difficulty experienced identifying physicians interested in working in their EDs. P5 said "residents from a nearby metropolitan area cover some shifts at our facility." He did not, however, discuss any efforts to hire any of these residents directly.

Insufficient Availability of ED Physicians. The demand for rural physicians has outpaced the supply, based on the research. Rural ED administrators face myriad issues related to staffing their rural EDs (Casaletto, 2013). Fleet et al. (2013) indicated that the inability of rural administrators to maintain sufficient physician pools highlights the need to focus strategically on recruitment and retention. Baker and Dawson (2014) expressed concern about the lack of rural emergency physicians, even though the need for care equals the need in urban areas. Casaletto (2013) agreed, stating that there is a relatively small number of residency-trained, board-certified emergency physicians practicing in rural EDs compared to their urban colleagues. It is conceivable, based on these statements, that intervention is required to narrow the gap between rural ED physician supply and demand.

Two of the five participants interviewed underscored the issue of securing and maintaining physicians interested in working in a rural ED market. P2 said "being a small town, we do not have our own physicians, per se to actually fill in the emergency room." P2 added that money is the greatest barrier to securing and maintaining a sufficient pool of ED physicians. P4 indicated that he struggles with a lack of eligible providers in the area to cover the ED. P4 also said that securing ED physicians for his rural facility, without help, is a near impossible feat.

Multiple Roles of Physicians. Douthit et al., (2015) pointed out that rural ED physicians often feel overworked and underpaid. The dearth in the number of physicians available to care for rural patients often forces available physicians to simultaneously care for ED, acute care, and other patients while on duty (Aydin, 2015). While the number of patient contacts may be less than in urban practice, other factors such as the requirement to commit large blocks of time and the scope of work involved, makes working in rural EDs unattractive to many physicians (Mack et al., 2014). Recruitment and retention of sufficient numbers of rural ED physicians are required to break the cycle of inadequate numbers of ED physicians and overworking of those who serve in rural facilities.

Two of the five participants interviewed indicated that ED physicians fulfill multiple clinical roles in their facilities. P1 said "the ER physician is also the hospitalist for the hospital." P1 also stated that the requirement that the physician work in multiple areas of the hospital impedes recruitment and retention efforts. P4 indicated that the ED physician in his facility also serve as the hospitalist, taking care of patients on the floor.

However, P4 did not indicate if assigning multiple roles to physicians has been problematic.

Technological Concerns. Baker and Dawson (2013) posited that the technology in rural hospitals is typically deficient when compared to urban facilities. Fleet et al. (2013) agreed, stating that the lack of sufficient technology hinders efforts to recruit and retain physicians for rural facilities. Small and rural hospitals continue to lag in the implementation and management of technology, especially mandated electronic health records (Adler-Milstein et al., 2015). Concerns persist that barriers, such as finances, training, and physician apprehensions, inhibit adoption and use of advanced technology in rural hospitals (Gabriel, Hibberd, & Barber, 2014). Even though conversion to electronic health records was mandated by 2014 for all hospitals, the expense and training required, along with physician reluctance to learn the new technology, are major obstacles for some rural ED administrators.

Two of the five participants interviewed indicated that the requirements of electronic health record implementation have hindered their ability to recruit and retain physicians. P1 said "the biggest issue we run into is the electronic records." P1 also said that ED physicians complain about having to treat ED patients, take care of admitted patients, and manage computer input requirements of the electronic health record system. P2 stated that the physicians who work in his ED are often accustomed to working on other electronic health record systems, and it is sometimes difficult to get them acclimated to his system. P2 also indicated that his ED physicians frequently complain that they spent more time working on the computer than they do with patients. P2

indicated that he is pressured to ensure physicians accurately complete electronic health records so that the hospital can receive reimbursement.

Financial Constraints. The financial costs associated with running a small rural ED are significant, especially given the typically low patient loads (Groth, House, Overton, & DeRoo, 2013). The inability to hire physicians to generate operational revenue further diminishes receipt of finances needed to recruit and retain physicians, perpetuating a cycle of financial insufficiency (Baker & Dawson, 2014). Douthit et al. (2015) also found that financial constraints are a major factor attributing to the lack of rural health care access. It is critical that rural hospital administrators have available funds to attract and keep physicians to address the ED physician shortage.

Four of the five participants interviewed indicated the lack of funds was foundational to the issues they face recruiting and retaining ED physicians. P1 complained that it is difficult to pay the additional fees charged by ED physicians to function in multiple roles in his facility, including the ED. P2 stated that everything comes back to money, and larger facilities can afford to pay more to attract ED physicians to their facilities. P4 said his inability to pay extreme salaries and hourly rates hampers his ability to secure ED physicians on his own. P5 said "sometimes we have to pay a doctor $350 bucks an hour to get them to come from Texas to work in our ER."

Theme 2: Recruitment Strategies

Table 3

Theme 2: Recruitment Strategies

Theme	References	Frequencies
Recruitment strategies	Candidates with rural backgrounds	5
	Incentives	14
	Training programs	15
	External factors	7
	Other recruitment strategies	15

Farmer et al. (2015) indicated that rural origin or predisposition to desire rural practice before students enter medical school affects the tendency to choose rural medical practice. Medical students with rural backgrounds are five times more likely to commit to rural practice than those from urban areas (Hewak & Luong, 2016). The likelihood of rural practice after graduation increases proportionally based on the length of time medical students have spent in rural areas (Farmer et al., 2015). For Theme 2, *Recruitment Strategies*, I actualized triangulation by incorporating documentation from the literature review to support thematic evidence, related to identifying candidates with rural backgrounds, incentives, training programs, external factors, and other recruitment strategies.

Identifying Candidates with Rural Background. Identifying medical students with rural backgrounds is an effective recruitment strategy for placement of rural ED physicians (Farmer et al., 2015). Hogenbirk and Strasser (2015) proposed that rural

childhood background is a major precursor to successfully peaking interest that results in rural medical practice. The likelihood of rural practice after graduation increases in proportion to the length of time medical students have spent in rural areas (Farmer et al., 2015). These researchers suggested that planting seeds for rural medical practice in youth during their formative years is a worthwhile investment. Researchers need to explore any connection between medical education provided in rural locations and the number of physicians choosing rural practice.

I found no comparative data to support the premise that early exposure to rural medical careers yields subsequent interest and placement in rural practice among youth. Moreover, small sample sizes and varying definitions of rurality potentially limit the validity of cited studies. Still, evidence in the literature suggests a positive connection between medical education in rural areas and ultimate rural medical placements (Gordon, 2015; Hogenbirk & Strasser, 2015). Therefore, the relationship between medical training site and choice of medical practice should be explored further.

Recruitment of ED physicians with geographical roots in rural areas of Mississippi is a powerful inducement to practice in the state, as evidenced by the enactment of the Mississippi Rural Physicians Scholarship Program (MRPSP). In 2007, the Mississippi Legislature authorized the MRPSP, creating a unique longitudinal program to identify rural college students aspiring to return to their roots to practice medicine (Helseth, 2014). Appropriations are roughly $1.2 million annually to fund 40 scholarships (Bein, 2011). Participants receive academic enrichment, mentoring, and financial support for medical school, then commit to work in a rural Mississippi

community with a population of less than 20,000 (Helseth, 2014). Programs such as the MRPSP have the potential to close the gap between supply and demand of physicians in rural Mississippi, including ED medicine, and may potentially be replicable in other areas facing similar shortages in rural ED physician availability. Tenacious recruitment of ED physicians with geographical roots or medical internships in rural areas is a powerful recruitment strategy.

None of the five participants interviewed said that identifying candidates with rural backgrounds or education is a priority or factor in the placement of ED physicians in their facilities. Moreover, none of the five participants interviewed expressed intent to explore the feasibility of identifying and pursuing medical students with rural backgrounds. However, use of programs, such as the MRPSP, may provide an avenue for identifying and establishing linkages with participating rural medical students committed to serving in rural areas of Mississippi after graduation.

Incentives. Substantial support exists in the literature for the use of incentives as a recruitment strategy for rural ED physician placement. Proponents of STRHRM also advocate for identification and placement of mutually agreeable benefits or rewards. Administrators have offered financial inducements, mentoring, and continuing education as incentives to recruit rural ED physicians.

Goma et al. (2014) posited that paying top salaries is the most compelling incentive for recruiting physicians. Bertone and Witter (2014) agreed, indicating that employers use a variety of financial and nonfinancial incentives to convince physicians to come to rural areas. Beauchamp et al. (2013) promoted the alignment of incentives and

interventions to secure rural physician commitments. Wang et al. (2013) advocated for offers of pension plans with pay scales that increase over time to recruit rural ED physicians. Professional networking and interactive electronic techniques are excellent incentives to offer potential ER physicians (Beauchamp et al., 2013). Debt repayment and other financial packages are also strong incentives (Myhre et al., 2015). Shankar et al. (2014) added that housing allowances and good schools for children of physicians are important incentives as well. An array of incentives, in differing combinations, are available for consideration by rural hospital administrators trying to recruit physicians to their EDs.

Four of the five participants interviewed stated that they use incentives in the form of astronomical hourly rates, with each indicating that doing so is financially burdensome. P1 said "we've had to increase our reimbursement to them." P2 said that he uses the availability of advanced technology in the ED as a drawing card, though he acknowledged that the cost of doing so is significant. P2 added that he tries to accommodate ED physician efforts to provide quality patient care by implementing policies, procedures, and protocols, and by providing needed equipment and medications. P4 said his ability to pay the competitive rates required for ED physician placement is problematic. P5 stated that his contract group sometimes pays $350.00 an hour to physicians from Texas.

Training Programs. Aydin et al. (2015) stated that exposure to rural work rotations for training reduces apprehension about working in rural areas after graduation. Farmer et al. (2015) agreed, indicating that immersing medical students in rural clinical

training environments leads to increased acceptance of rural assignments, post-graduation. Gardner and Schneider (2013) found that development of rural resident programs and inclusion of emergency medicine in governmental repayment programs are strategies that lead to expanded numbers of ED physician recruits. Casaletto et al. (2013) suggested that rural emergency medicine rotations provide the training residents need to prepare for work in rural markets. None of the five participants interviewed mentioned the role physician training plays in the recruitment of physicians for their rural EDs. However, implementation of training programs such as those proposed by researchers in the field could be key to preparing physicians to thrive in rural EDs.

External Factors. Researchers have identified several factors influencing physician choice of rural assignments, with perceptions of the community and spousal/family perspectives topping the list. Lee and Nichols (2014) stressed the importance of garnering the input and commitment of the rural community to help recruit rural physicians. ED physicians may be attracted to rural areas when the positive attributes of the community are inviting and appropriately communicated (Mack et al., 2014). Winston and Walstad (2006) stressed the importance of considering the needs of the family when recruiting physicians. Potter, Mueller, Mackinney, and Ward (2014) noted that securing spousal satisfaction is important. Myroniuk, Adamiak, Bajaj and Myhre (2015) also concluded that understanding and catering to the spouse's perspective is critical in rural physician recruitment.

Three of the five participants interviewed mentioned the importance of stressing the attributes of the hospital or promoting the community during the recruitment process.

P2 said "I review the applicants that actually come through our facility, and of course naturally, just like any other interview process, you want to make sure that what they're sending you is, you know, is going to be able to meet your demands here and they're the right fit." P3 said that he uses word of mouth to publicize that the hospital provides a cooperative workplace. P5 indicated that he meets with recruits over dinner, provides a hospital tour, and discusses the benefits of working at the hospital.

Other Recruitment Strategies. Lee and Nichols (2014) held ED administrators responsible for securing physicians to cover their rural facilities. However, Williamson (2014) said that medical schools are responsible for training doctors and for directing these doctors to areas of need, including rural EDs. Crump and Fricker (2015) concluded that responsibility for identifying and implementing recruitment strategies is the multiorganizational responsibility of hospitals, medical schools, communities, and governmental organizations working together. Based on my research, the assignment of responsibility for hospital physician recruitment varies, depending upon the respondent.

During my research, I found that recruitment strategies used by participants differed among hospitals. Participants indicated that factors contributing to the choice of the strategy employed are determined largely by the degree of need and resources available. Staffing mechanisms also vary, depending on whether the administrator staffs the ED in-house, uses a contract group, or if the hospital is owned by or part of a network.

All the participants interviewed indicated that they use non-structured or informal recruitment strategies to meet the ED physician needs of their facilities. P1 said he relies

on the network to handle recruitment issues. P2 indicated that he tries to make all ED physicians feel that they are family and part of the community and not just a number. P3 stated he uses word of mouth to advertise the pay scale and favorable work environment at his facility. P3 said "one of the things that attracts a lot of the providers is the fact that we're a lower volume ER." P4 stated that his contracted ED group handles physician recruitment. P5 indicated that he does not have a formal recruitment process, but he does interview all candidates personally before placing them in his ED rotation.

Theme 3: Retention Strategies

Table 4

Theme 3: Retention Strategies

Theme	References	Frequencies
Retention Strategies	Specific Focus on Retention	7
	Factors Affecting Retention	13

Farmer et al. (2015) indicated that rural origin or predisposition to desire rural practice before students enter medical school affects the tendency to choose rural medical practice. Medical students with rural backgrounds are five times more likely to commit to rural practice than those from urban areas (Hewak & Luong, 2016). The likelihood of rural practice after graduation increases proportionally based on the length of time medical students have spent in rural areas (Farmer et al., 2015).

Rabinowitz et al. (2013) held that retention is a critical component of rural physician supply, but few publications regarding long-term outcomes are available.

Goma (2014) posited that although administrators place great emphasis on recruiting rural ED physicians, administrators tend to disproportionally overlook the crucial thought processes and effort required to retain doctors. Nevertheless, researchers indicate that the same effort administrators exert to recruit ED physicians to work in rural facilities is required to retain them. For Theme 3, *Retention Strategies*, I actualized triangulation by incorporating documentation from the literature review to support thematic evidence, related to specific focus on retention and factors affecting retention.

Specific Focus on Retention. Poor physician retention must be addressed to stem the tide of frequent staff turnover and unstable ED staffing in rural EDs (Viscomi et al., 2013). Based on the research, insufficient effort is typically made to proactively keep physicians on the job. To avoid frequent turnover of ED physician staff more focus should be placed on the critical role of retention to maintain rural ED physician coverage.

One of the five participants interviewed indicated that retention is a major goal initiated during the recruitment phase. P2 said "we try to make our physicians, whether they're contract or not, feel a part of the family here." P2 added that he views recruitment and retention as two phases of the same cycle. A careful review of factors influencing retention, along with focused effort, is needed to keep rural ED physicians engaged and committed.

Factors Affecting Retention. Goma (2014) identified paying top salaries as the most effective incentive for retaining physicians. Qayum (2014) stated that much support exists for the use of incentives as a retention strategy for rural ED physicians. Bertone and Witter (2014) agreed that employers use a variety of financial and nonfinancial

incentives to convince physicians to stay in rural areas. Based on the research, various factors lead to improved retention of ED physicians, including financial inducements, mentoring, and continuing education opportunities.

Goma (2014) indicated that strengthening communication and collaboration, and keeping pace with inflation, are strategies that promote retention of rural ED physicians. Wang et al. (2013) advocated for offering pension plans with pay scales that increase over time to retain ED physicians, guarding against physicians staying strictly because of the money. Lee and Nichols (2014) stressed the importance of involving communities and local governments in retention efforts. Other factors linked to successful rural ED physician retention include maintaining a cohesive and supportive work environment, fostering high satisfaction among support personnel, and providing clinical autonomy to the physician (Viscomi et al., 2013). Goma (2014) stressed the critical importance of engaging in retention efforts at the onset of recruitment activities to keep physicians on staff. Administrators may use these factors to positively influence efforts to minimize turnover by keeping ED physicians engaged and content.

There are also factors that potentially have a negative effect on ED physician retention. Researchers have found that the perceived lack of appreciation, insufficient pay, long work hours, poor on-call arrangements, and the ability to get time off for vacations or continuing education may lead to impeded retention efforts (Viscomi et al., 2013). A balance between incentives offered, and the social, cultural, and economic context of the offer is also critical (Qayum, 2014). Additionally, periodically taking the

pulse of the ED physician's level of job satisfaction may prevent or postpone staff turnover.

Two of the five participants interviewed discussed methods employed to retain ED physicians. P2 said "we want to make them feel part of the community, then naturally they're going to want to come back to us." P4 stated that a good retention strategy involves monitoring and removing ineffective physicians from the ED rotation to encourage committed physicians to stay.

Theme 4: Trends and Outlooks

Table 5

Theme 4: Trends and Outlooks

Theme	References	Frequencies
Retention Strategies	Network Ownership and ED Staffing Contracts	17
	Technology in the Rural ED	6
	Nurse Practitioners in the Rural ED	8
	Training and Rural Placement	3

Gardner and Schneider (2013) stated that the repositioning of emergency care, especially in rural areas, is critical to address patient needs. The declining availability of family physicians to provide rural ED care has fostered the need for new and innovative ways to provide these critical services (Mueller et al., 2014). Schalkwyk et al. (2014) indicated that training practitioners to provide rural ED services is an educational

priority. The use of telemedicine has also emerged as a major opportunity to improve access to rural emergency care (Shuster, 2014). These current trends are indicative of the positive outlook for expanding improvement in rural ED physician care. For Theme 4, *Trends and Outlooks*, I actualized triangulation by incorporating documentation from the literature review to support thematic evidence, related to network ownership and ED staffing contracts, the use of technology in the rural ED, nurse practitioners in the rural ED, and training and rural placement.

Network Ownership and ED Staffing Contracts. Participants in this study work at member hospitals of the Mississippi Rural Hospital Alliance, a 501 (c) 6, not-for-profit corporation established to help member hospitals succeed through cooperation and collaboration (Mississippi Rural Hospital Alliance, 2017). Two of the five participants interviewed indicated that their hospitals are network owned. Four of the five participants interviewed indicated that their ED operations are outsourced to ED management companies. Four of the five participants interviewed indicated that they are actively involved in recruitment and retention of ED physicians, with one delegating these functions to a management company representative.

P1 said “we’re part of a network now.” P1 indicated that his hospital provides ED services through participation in a network. P1 also indicated that the Mississippi Rural Hospital Alliance is developing a plan to help rural hospitals in Mississippi set up contracts with ED recruitment companies. P2 indicated that his hospital uses an ED management group. P4 stated that most rural hospitals, including the one he previously worked for, handle ED staffing in-house, using physicians, nurse practitioners, or a

combination of the two. P4 added that use of a management company does not automatically ensure on-going coverage of the ED because the company pulls from the same barrel of available physicians. P5 stated that because a larger organization owns his hospital, he does not bear the direct burden of securing ED physicians. P5 added that the organization that owns his hospital has an ED contract in place.

Use of Technology in the Rural ED. Sterling et al. (2016) indicated that timely and appropriate medical interventions are fundamental to improve health outcomes in emergency medical conditions, cautioning that ensuring ongoing care is especially critical in rural areas. Mueller et al. (2014) stated that the use of tele-emergency capabilities in rural areas is an excellent opportunity to improve access to rural emergency care. Tele-emergency programs feature the dual use of a nurse practitioner and an emergency medicine physician to improve access to emergency care in rural areas (Sterling et al., 2016). ED administrators use telemedicine capabilities to help bridge the gap between rural emergency care supply and demand, in a cost effective and clinically efficient way.

One of the five participants interviewed specifically indicated that tele-emergency services are used in his facility. P3 said "I would say the main thing is utilizing the tele-emergency with UMC to where I can utilize nurse practitioners rather than physicians." P5 indicated that he is considering the use of nurse practitioners, supported by telemedicine. Based on the research, the use of tele-emergency capabilities in rural facilities can strengthen recruitment and retention efforts.

Nurse Practitioners in the Rural ED. The delivery of quality care in the ED is emerging as one of the most important service indicators in health care delivery (Jennings, Clifford, Fox, O'Connell, & Gardner, 2015). Li et al. (2014) found that as the number of family practitioners and other physicians available to work in the ED continues to decline, researchers expect to see increasing numbers of nurse practitioners used to address the shortage. Increasing patient encounters in the ED have resulted in the adoption of service innovation models, the most prevalent of which is nurse practitioners in the ED (Jennings et al., 2015).

Three of the five participants interviewed talked about the value of nurse practitioners in the rural ED. P1 stated that as the number of family physicians available to work in rural EDs declines because of retirement or other factors, he expects to see more nurse practitioners hired. P1 also indicated that he is exploring the option of using nurse practitioners in the ED at his facility. P3 stated that he uses nurse practitioners in his ED through tele-emergency capabilities linked with physicians at a nearby facility. P3 also said that nurse practitioners ease the burden on ED physicians, who also work in other areas of the hospital. P3 expressed the view that all rural EDs would benefit from increased use of nurse practitioners who provide excellent and cost-effective care. P4 said "rural hospital administrators should consider use of nurse practitioners."

Training and Rural Placement. Farmer et al. (2015) posited that internships are conduits to ultimate career choice. Aydin et al. (2015) indicated that development and implementation of effective curriculums allow physicians to experience diverse practice experiences, including in rural settings. Handel et al. (2014) stated that cultivating a

culture in which physicians are trained to motivate the behavior of other physicians could be pivotal in pushing efforts forward to recruit and retain rural ED physicians, largely through the efforts of their peers.

Shroff et al. (2013) suggested reserving post-graduate (PG) seats in medical schools for doctors serving in rural areas to provide training and encourage rural placement. Farmer et al. (2015) agreed that medical students who attend medical school in rural areas are more likely to practice in rural areas after graduation and should be actively recruited. Medical students are less apprehensive about working in rural areas when they have been exposed to rural work rotations during training (Shroff et al., 2013). None of the five participants interviewed (0%) identified training in relation to rural placement of ED physicians.

Summary of Thematic Findings

This multiple case study involved triangulation of data sources which led to four major themes. Participants reported strategies used to recruit and retain ED physicians for their rural hospitals. Participants also identified problems involved in overcoming staffing issues at their facilities, and suggested tools useful in maintaining continuous physician coverage in their rural EDs.

Douthit et al. (2015) stated that issues surrounding emergency medicine, relative to recruitment and retention, require ongoing effort. Fleet el al. (2013) added that the lack of research about rural EDs needs to be addressed. I found that researchers' assessment of the shortage of information is accurate. The fact that none of the participants interviewed

referred to any guidance from, or knowledge of literature about rural ED physician shortages supports the premise that limited research exists.

Participants emphasized the importance of addressing factors that influence the level of success experienced in recruiting and retaining rural ED physicians. These factors include financial constraints and provision of incentives, technological issues, overcoming negative perceptions surrounding rural medical practice, and staying abreast of trends in the field of rural ED medicine. It is evident, based on responses, that participants rely heavily on network participation and contracts with outside ED management groups. The most successful strategies participants use to recruit and retain ED physicians are provision of financial incentives in the form of high hourly rates and development of a sense of family and community. Participants also said that the provision of advanced technology boosts recruitment and retention efforts. These findings tie to those in existing literature regarding effective business practice, and are supported by the STRHRM model. There are, however, additional strategies promulgated in the literature for effectively recruiting physicians that participants did not mention, including focus on candidates with rural background when recruiting rural ED physicians, and provision of nonfinancial incentives such as continuing education and housing assistance.

Li et al. (2014) highlighted the lack of empirical evidence about strategies to retain rural ED physicians, indicating the need for additional identification, isolation, and focus. Diamond et. al. (2013) confirmed the need to study retention issues more intently, stating that despite importance, long-term retention outcomes have not been widely

studied. Goma et al. (2014) suggested that managers need to focus on retention activities simultaneously with recruitment of physicians.

The lack of emphasis that participants place on retention mirrors findings in the literature. In both cases, the connection between recruitment and retention is not clearly or consistently addressed. Participants largely spoke of retention as a byproduct of recruitment, rather than as an essential component of an ongoing process. There is recognition of this tendency in the literature, but few substantive guidelines for addressing the disparity. Participants did place some emphasis on the importance of making rural ED physicians part of the community and ensuring a family environment to encourage them to stay. There was also consensus in the literature about the importance of involving ED physicians in the hospital and community, demonstrating appreciation, and avoiding low pay rates, long work ours, unreasonable on-call arrangements, and limited time off.

The researcher's application of methodological triangulation adds credibility to the study by using multiple data collection methods to acquire and articulate a comprehensive view of the phenomenon (Cope, 2014). I employed methodological triangulation by augmenting data garnered from interviews with documents collected from public sources. I also found consensus in peer-reviewed articles compiled through my literature review.

Jafari et al. (2013) stated that the use of NVivo 11 enables the researcher to delve into participant realities, and adds rigor and validity to the research study. Carter and Baghurst (2014) added that the use of the modified van Kaam data analysis method

allows the researcher to dissect themes. Researchers apply methodological triangulation to add credibility to the study through multiple data collection methods (Cope, 2014). I used NVivo 11 to analyze, interpret, and derive meaning from my research study. I incorporated the principles of the modified van Kaam data analysis method to construct transcripts, group data, identify redundancy, create and cluster themes, validate data, and construct themes. I also used methodological triangulation to add credibility to my study by including multiple data sources.

Applications to Professional Practice

In this study, I explored strategies used by rural hospital administrators to recruit and retain ED physicians for their facilities. The results of my study yielded strategies which, if developed and implemented, could facilitate the identification, placement, and retention of physicians to serve patients in rural ED departments. If rural hospital administrators consider these findings, the gaps in business practices related to recruiting and retaining ED physicians could diminish. This study may also be significant to the field of rural physician staffing, potentially contributing to the physical well-being of residents, and ultimately to the financial health of rural communities. Furthermore, the results of this study may provide actionable strategies to decrease lapses in rural ED physician coverage, increase productivity, and improve profit margins.

I interviewed five administrators of rural hospitals with 50 beds or less in central Mississippi. The participants are directly responsible for, or engaged with companies under contract, to recruit and retain rural ED physicians. The results of this study may be

of benefit to administrators of other rural hospitals tasked with maintaining ED operations by recruiting and retaining physicians.

The contributions of this research emanate from identified themes and subthemes, and provide significant clarity to the issues surrounding recruitment and retention of rural ED physicians. This research study also facilitates the understanding that recruiting and retaining rural ED physicians are cyclical, requiring that human and material resources are invested to reap critical and on-going operational stability. This study may be significant to the field of rural physician staffing, improving the health status of residents, and ultimately adding strength to local economies. Rural hospital administrators, through their business practices, exert influence over the status of emergency care and the financial viability of their communities. The hospitals they serve are major employers and contributors to the economy. Therefore, the business implications of access to practical strategies to recruit and retain ED physicians are critically important.

Implications for Social Change

The findings from this study have implications for social change, pertaining to individuals, organizations, and society, directly or indirectly, in varying degrees. Consideration of this study may lead to social change resulting from the efforts of rural administrators to recruit and retain ED physicians for their hospitals. The implications for positive social change include improvement of human conditions specific to assessing emergency care, and enhancement of the life quality of residents in rural areas devoid of appropriate emergency care. Specific impetuses for positive change may result from this study. First, insight into the shared staffing difficulties rural ED administrators face may

be provided through this study. Second, provision of the motivation to identify benchmarks which may enhance recruitment and retention efforts in other rural emergency care settings may result. Third, this study may yield a replicable training model, infused with identified recruitment and retention strategies for recruiting and retaining rural ED physicians.

Rural hospital administrators, community leaders, and rural health advocates may use research findings to expand their vital roles in assuring critical emergency care is available in the rural communities they serve. Efforts to stabilize the rural ED physician market may facilitate recognition of the critical nature of rural emergency care, and lessen disparities in the availability of ED physician services, leading to positive social change.

Recommendations for Action

I have identified specific strategies that hospital administrators use to recruit and retain ED physicians through my research findings. The results of this study should be reviewed by rural hospital administrators, ED physicians, rural health advocates, governmental officials, and interested rural residents. Rural hospital administrators may find valuable assistance for the development, implementation, and monitoring of strategies useful to ensure the on-going availability of physicians on staff in rural hospital EDs. Findings will be disseminated to participants and Mississippi Rural Hospital Alliance officials. Recipients of my final study will be encouraged to share findings with ED physicians, community rural health advocates, and concerned citizens.

Several limitations were identified in this study. Merriam (2014) indicated that research limitations are nearly impossible to control. Identified limitations may be addressed in future research, effectively minimizing, or eliminating them. Specifically, it was not feasible to interview every rural hospital administrator operating an ED in Mississippi during my study. It is likely that other researchers would also find it infeasible to interview all rural hospital administrators, given the time constraints and study restrictions involved. However, this limitation may be overcome through expanded research sampling by researchers. A second limitation identified in this study involves conducting research through an unbiased lens. This limitation can be overcome by subsequent researchers' acknowledgment that personal views could prejudice outcomes, and by bracketing and using member checking to minimize the influence personal views or experiences might have on research outcomes.

Recommendations for Further Research

Huber (2013) underscored the constantly evolving nature of health care best practices. Miron-Shatz, Shatz, Becker, Patel, and Eysenbach (2014) advocated for uniting the academic and business worlds to promote on-going, research-based knowledge. In the spirit of on-going expansion and refinement of these study findings, I recommend the following further research exploration:

- Researchers should assess current measures to maintain ED physician coverage and explore potential enhancements.

- Researchers should explore whether staffing of rural EDs is best achieved in-house, through network participation, under formal contract, or through some combination.
- Researchers should explore recruitment packages offered to ED physicians at other rural hospitals, identifying best practices.
- Researchers should explore the link between recruitment and retention of ED physicians, considering methods to strengthen physician retention at the onset of recruitment efforts.
- Researchers should explore the formation of health care taskforces, and the role these taskforces might play in the identification and monitoring of strategies to recruit and retain physicians.
- Researchers should explore problems, not covered by this study, which influence recruitment and retention of rural ED physicians.

Reflections

I started this DBA journey convinced that I would navigate the process without incident because of my writing skill and basic understanding of how recruitment and retention of rural ED physicians could and should be done. I was also oblivious to the biases I held about my research topic. I have been humbled and enlightened by this research process. Through my research efforts, I have come to recognize that I was mistaken on all fronts. I have faced challenges relative to time management and critical reviews of my work. However, because of my doctoral experience, I have learned to

recognize and mitigate my biases. I have also accepted the stark reality that there was much I did not know about recruitment and retention of rural ED physicians.

I have learned to conduct independent scholarly research, as a mentor guided me to share insights, concerns, and encouragement with peers. I have a newfound appreciation and respect for academia, and am proud to be a part of the Walden scholarly community. My perspective of doctoral level training, inclusive of the rigors involved, has evolved significantly.

I am grateful for the experience, and proud of the results, which I believe offer perspective about the importance of, and issues involved in recruitment and retention of rural ED physicians. Although I do not believe that this study had any negative effects on participants, I expect that findings will benefit and unify them around the common dilemma they face, and the potential strategies each can garner to supplement their efforts. Therefore, my study has benefited me as a scholar and advocate for rural medical care, and potentially will benefit rural ED administrators responsible for providing on-going ED physician coverage to rural citizenries in need of emergency care.

Conclusion

According to Collins (2016), the problems associated with attracting physicians to areas of desperate need has reached crisis proportions, especially in rural areas. Successful recruitment and retention of ED physicians is the life line to essential emergency care in rural communities. Unfortunately, there is a gap in the literature relative to espousal of the existing dilemma and provision of practical strategies.

Through the interview process, participants have illuminated issues related to recruiting and retaining rural ED physicians. Likewise, participants have proposed viable strategies to ensure the continuous provision of these life sustaining services through rural ED physician services. Five rural hospital administrators who work in the trenches daily to identify, hire, and retain ED physicians have provided valuable information and insight, addressing the central research question: What recruitment and retention strategies do rural hospital administrative leaders use to recruit and retain ED physicians?

Issues addressed include financial constraints, provision of incentives, overcoming technological problems, negating adverse perceptions of rural medical practice, and maintaining awareness of trends in rural ED medicine. Strategies shared included network participation, contracting ED services, fostering family environments, investing in technology, offering training and continuing education opportunities, and involving the community and governmental entities in the recruitment and retention of rural ED physicians. The importance of simultaneous focus on recruitment and retention efforts was also stressed.

Douthit et al. (2015) posited the importance of reforming recruitment and retention issues surrounding emergency medicine to resolve manifold issues. I have acknowledged the desperate need for such reformation through this study. I have also provided an overview of strategies to combat recruitment and retention issues in rural EDs through the eyes of those working on the front lines, along with researchers sharing their perspectives through scholarly literature.

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Appendix: Interview Protocol

Actions	Script
Introduction of interview process	My name is Wanda C. Fleming. I appreciate the time you have scheduled to participate in my research study. I am a doctoral student at Walden University, studying successful strategies rural hospital administrators use to recruit and retain emergency department physicians. The focus of my study is the identification of replicable benchmarks and strategies to enhance recruitment efforts in rural emergency departments. You have been selected to participate because of your successful implementation of strategies to recruit and retain emergency department physicians in your facility. The interview process will take approximately 30-60 minutes. Open-ended questions will be asked to facilitate in-depth responses from you. My aim is not to evaluate your experience, but rather to learn more about the strategies used in your facility. Your participation must be voluntary, as no compensation can offered.

Actions	Script
	You are free to withdraw from this study at any time. Pseudonyms will be used to safeguard your identity. A copy of the final study will be provided to you.
Obtain or reference Written Consent	
Ask Interview Questions	
• Be cognizant of non-verbal cues • Paraphrase questions as needed • Ask probing follow-up questions as needed to get in-depth responses	1. What is your role in recruiting and retaining physicians for your ED? 2. What recruitment and retention strategies do you use to maintain physician coverage in your ED and how have these strategies contributed to your success? 3. What approaches have you taken to overcome impediments or barriers to implementation of your recruitment and retention strategies? 4. What are the internal factors which have aided or hampered recruitment and retention of ED physicians? 5. What are the external factors which have aided or hampered recruitment and retention of ED physicians? 6. What role have governmental entities or programs played in your recruitment and retention efforts?

Action	Script
	7. What measures do you use to monitor, update, or change recruitment and retention strategies to ensure on-going staffing of ED physicians? 8. What else can you share about strategies that contribute to successful recruitment and retention of rural ED physicians?
Follow-Up Interview	
Schedule follow-up interview for member checking	I am going to transcribe the interview and will provide a summary of your responses to interview questions within three business days so that you can verify that I have accurately captured the substance of your responses. I will contact you to schedule a follow-up telephone interview to discuss any discrepancies in my transcription or in your intended meaning. You will be given the opportunity to ask questions, clarify intended meaning, or expand on provided information at that time.
Introduce follow-up interview. Set the stage for this phase of the interview process.	Today, I am asking that you identify any discrepancies in my transcription or interpretation of meaning.
Share a copy of the synthesis for each individual question.	1. What is your role in recruiting and retaining physicians for your ED? Succinct synthesis of interpretation.

Action	Script
	2. What recruitment and retention strategies do you use to maintain physician coverage in your ED and how have these strategies contributed to your success? Succinct synthesis of interpretation. 3. What approaches have you taken to overcome impediments or barriers to implementation of recruitment and retention strategies? Succinct synthesis of interpretation. 4. What are the internal factors which have aided or hampered recruitment and retention of ED physicians? Succinct synthesis of interpretation. 5. What are the external factors Which have aided or hampered recruitment and retention of ED physicians? Succinct synthesis of interpretation. 6. What role have governmental entities or programs played in your recruitment and retention efforts? Succinct synthesis of interpretation.

Action	Script
	7. What measures do you use to monitor, update, or change recruitment and retention strategies to ensure on-going staffing of emergency department physicians? Succinct synthesis of interpretation: 8. What else can you share about strategies that contribute to successful recruitment and retention of rural emergency department physicians? Succinct synthesis of interpretation:
Ask probing questions about any other information found (ensure the information relates to the research question and adheres to IRB requirements). Read each question and the interpretation, then ask: What else would you like to add?	