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## Physician Retention Strategies in Small Military Treatment Facilities

Stacey Sherrice Amos  
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# Walden University

College of Management and Technology

This is to certify that the doctoral study by

Stacey S. Amos

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Walden University  
2021

Abstract

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by

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MS, National Resource Strategy, National Defense University, 2021

MBA, Webster University, 2015

MSN, Uniformed Services University of the Health Sciences, 2007

BSN, Tuskegee University, 1997

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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November 2021

## Abstract

During a time of increasing physician shortages, health care leaders must identify successful physician retention strategies. Health care leaders are concerned with physician retention, as a lack of physicians minimizes patient access to care. Grounded in the stakeholder theory, the purpose of this qualitative multiple case study was to explore strategies health care leaders in small military treatment facilities in rural areas use to improve physician retention. The participants were five health care leaders from different Army military treatment facilities located in rural areas throughout the continental United States who had more than four months of experience in physician shortages and retention strategies. Data were analyzed from semistructured interviews and Army health care policies using Yin's five-step data analysis process. Six themes emerged: competitive pay, hiring and onboarding improvements, authorization for more staff, staff recognition, offering training/education opportunities, and providing physicians with administrative time. A key recommendation is for health care leaders to assess physician well-being as a routine institutional performance metric and provide physicians with tools for self-calibration, self-care promotion resources, and resilience training. The implications for positive social change include the potential to create availability and shorter wait times for appointments, minimize the number of patients in military treatment facilities lost to providers in the private sector network, and improve physician and patient satisfaction.

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## Section 1: Foundation of the Study

An estimated 65% of rural U.S. counties lack adequate health professional work forces due in part to poor employee retention. Rural managers with poor recruiting practices have an increase in employee resignations that result in more financial losses for their health care facilities that already have smaller budgets due to their rural locations (Lee & Nichols, 2014). Health care leaders who increase opportunities for personal development of employees decrease administrative work and reduce recruiting and replacement costs (Jongbloed et al., 2017). Health care leaders who identify effective strategies to improve physician retention may create more appointment availability and shorter appointment wait times and decrease the number of providers in military treatment facilities losing customers to providers in the private sector network.

### **Background of the Problem**

The World Health Organization identified physician recruitment and retention in rural areas as two main reasons for the workforce crisis in the health care industry (Verma et al., 2016). Lee and Nichols (2014) found that failure to establish effective recruitment and retention strategies had a drastic effect on retaining physicians in rural areas. According to Lee and Nichols (2014), \$150,000 to \$200,000 are lost per year per physician from onboarding. Shanafelt and Noseworthy (2017) stated that the costs for replacing a physician are estimated to be two to three times the physician's annual salary. Lee and Nichols (2014) concluded that every hiring action and termination resulted in more financial losses for health care facilities that have smaller budgets due to their locations.

There was no research specific to retention strategies for small military treatment facilities in rural areas. My study results showed that physician and patient satisfaction affect the retention of strong and fully capable physicians. I based my findings on the discovery of successful strategies used by health care leaders from small military treatment facilities. My identification of best practices in physician retention will potentially benefit other small military facilities throughout the United States.

### **Problem and Purpose**

The Healthcare Association of New York State found that 86% of hospital chief executive officers (CEOs) in rural areas rank retention of physicians as a major issue (Terry & Brown, 2016). In 2019, the Association of American Medical Colleges (AAMC) estimated a shortage between 37,800 and 124,000 physicians by 2034 (2021). The general business problem is that some rural clinics are unable to retain physicians due to location (Weinhold & Gurtner, 2018). The specific business problem is that some health care leaders of small military treatment facilities in rural areas in the United States lack strategies to improve physician retention.

The purpose of this qualitative multiple case study was to explore strategies some health care leaders of small military treatment facilities in U.S. rural areas use to improve physician retention. The targeted population comprised five health care leaders who successfully improved physician retention in small rural military treatment facilities throughout the continental United States. Health care leaders who used successful physician retention strategies will contribute to social change by improving job

satisfaction and patient satisfaction for physicians, soldiers, family members, and retirees in the military community.

### **Population and Sampling**

I used purposive sampling to select five health care leaders in small military treatment facilities in the United States. Each participant must have had a leadership position for a minimum of four to six months and be involved in the management and the physician hiring process. I gathered a broad array of data by reviewing Army doctrine and by interviewing participants who met the criteria via telephonic interviews.

### **Nature of the Study**

Qualitative researchers generate theories and are interested in how people interpret their experiences, while quantitative researchers use data to test theories (Merriam & Tisdell, 2016). Qualitative research is based on nonnumerical data expressed by words, while quantitative and mixed methods researchers generate and utilize numeric data (Gog, 2015). I did not select a mixed methods approach, which is a combination of qualitative and quantitative methods. Mixed methods researchers focus on controlled randomized selection and interpretation of numerical data based on measurement and statistical processes (Stahl et al., 2019). Quantitative research was not appropriate for my study because the focus was on identifying strategies for retaining physicians in rural health care organizations, not on using assumptions and ideas to test hypotheses (see Holloway & Galvin, 2017).

I considered four research designs for use in a qualitative study on physician retention strategies in rural military treatment facilities: (a) narrative, (b) phenomenology,

(c) ethnography, and (d) case studies (Gog, 2015). Narrative researchers use stories based on participants' personal lives for finding and exploring problems (Willis et al., 2016), so the narrative design would not be useful in identifying physician retention strategies.

Phenomenological research would not have been useful for identifying successful retention strategies because my focus was not on capturing and sharing what is meaningful to a person who experienced a phenomenon (Willis et al., 2016).

Ethnography research is subjective and involves observing participants' cultures and reactions to common situations (Kian & Beach, 2019), but this study required obtaining and exploring factual evidence, not opinions. Although both single and multiple case studies are useful in deciding what, how, and why things happen and decisions are made (Gog, 2015), I chose the multiple case study because I needed to review several cases to fully understand the best retention strategies military leaders use; findings from a single case study are not as reliable.

### **Research Question**

RQ: What strategies do health care leaders in small military treatment facilities in rural areas use to improve physician retention?

### **Interview Questions**

1. What strategies have you used to increase physician retention in your organization?
2. How did you assess the effectiveness of your strategies for improving physician retention in your organization?

3. What key obstacles did you encounter when implementing the strategies for improving physician retention?
4. How did you address those key obstacles to implementing the strategies for improving physician retention?
5. What initiatives have external stakeholders provided to assist in improving physician retention in your military treatment facility?
6. What are some examples of poor physician retention strategies that caused your physicians to leave your organization in the past?
7. How have the physician retention strategies you implemented played a role in reducing physician burnout within your organization?
8. How has the potential for physician promotion improved physician retention within your organization?
9. How did your physician retention strategies affect the promotion of a positive work-life balance for your physicians in your military treatment facility?
10. What other information would you like to add regarding physician retention in your facility?

### **Conceptual Framework**

The conceptual framework I used for this study was the stakeholder theory created by Freeman in 1984. Scholars and managers use the stakeholder theory to understand the relationships and performance outcomes between firms and their stakeholders (Jones et al., 2018). According to Freeman (1984), business leaders are responsible for shareholders and stakeholders such as employees, customers, suppliers,

creditors, and competitors. Stakeholders are described as individuals or groups who can either affect or be affected by the actions of the organization (Freeman, 1984).

Organizations are defined as a politico-economic group of stakeholders who influence management practices (Frooman, 1999). Stakeholders are individuals or groups who have a specific interest in the survival or success of the organization and often provide support to leaders (Näsi, 1995).

Organizational leaders depend on stakeholders for survival, fulfillment of goals, success, and providing resources (Miles, 2017). To be successful, organizational leaders need the support of stakeholders. An organizational leader's flexibility level is based on the power of the stakeholder (Meutia & Febrianti, 2017). Stakeholders can influence the development of innovation because of their resources and access (Newth, 2016). I used the data obtained during literature reviews to support my study findings. The feedback obtained from rural health care stakeholders provided the lens for identifying various strategies to improve physician retention in the military community.

### **Operational Definitions**

*Burnout:* Burnout refers to emotional exhaustion employees experience in a workplace (Amanullah et al., 2017).

*Military treatment facilities:* Military treatment facilities include facilities that provide health care to military members and their families (Breeze, et al., 2019).

*Physician retention:* Physician retention is the act of retaining physicians (Asefzadeh et al., 2020).

*Primary care continuity:* Primary care continuity is continuous quality primary care management (Mehta et al., 2016).

*Rural clinic:* A rural clinic is a clinic located in areas which have less than 500 inhabitants (Weinhold & Gurtner, 2014).

*Urban clinic:* An urban clinic is a clinic located in areas which have at least 500 inhabitants (Weinhold & Gurtner, 2014).

*Work-life balance:* Work-life balance is the balance between work and free time (Hsu et al., 2019).

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

#### **Assumptions**

Assumptions are scientifically weak ideas that researchers accept to be true (Flage & Askeland, 2020). The purpose of my study was to evaluate successful strategies for retaining physicians. I identified three assumptions during my study. First, I assumed that all physicians could be retained in organizations by offering monetary compensation. The second assumption was that there is a relationship between leadership opportunities for physicians and physician retention. My final assumption was that study subjects would respond truthfully.

#### **Limitations**

According to Theofanidis and Fountouki (2018), limitations are defined as potential study weaknesses or imposed restrictions that are out of the researchers' control. One major limitation with interviews is that participants may be reluctant to share negative information about an organization for fear of retaliation. A second limitation is

that individuals may not have much time available for interviews, which may limit the information shared, in this case on physician retention strategies. The final limitation for this study was the potential for communication or technological issues with conducting telephonic interviews.

### **Delimitations**

Delimitations are factors that limit the scope and boundaries of a study. Delimiting factors are factors controlled by the researcher to ensure the aims and objectives of the study are achievable (Theofanidis & Fountouki, 2018). My main intent for this study was to evaluate successful strategies for retaining physicians in small rural military treatment facilities. There are three delimitations I applied to my study. The first delimitation was to only interview military leaders at small military facilities. The second delimitation was to only review strategies that involved physicians and exclude midlevel care providers and support staff. The final delimitation was to only conduct interviews in the continental United States and exclude military health care facilities overseas.

### **Significance of the Study**

Effective physician retention strategies may increase appointment availability, provide shorter appointment wait times, and decrease the number of patients seeking care from private sector versus military treatment facility providers. A decrease in physician turnover may contribute to improving physician and patient satisfaction for beneficiaries in the military community. A reduction in physician turnover may also save the government from paying more money to civilian health care providers, which will result in more health care resources and lower health care costs to military beneficiaries.



Military service members, their family members, and retirees will receive better care at lower costs.

### **Contribution to Business Practice**

Organizational leaders who identify efficacious strategies to improve physician retention may have a direct effect on reducing the prediction of a 20% physician shortage over the next two decades. Rural hospitals incur costs of approximately \$150,000 to \$200,000 per year per physician from onboarding and replacement costs. Rural managers with poor recruiting practices and small budgets have an increase in employee resignations that result in more losses for their health care facilities due to their locations (Lee & Nichols, 2014). Health care leaders who increase opportunities for personal development may decrease administrative work and reduce recruiting and replacement costs (Jongbloed et al., 2017).

### **Implications for Social Change**

The World Health Organization identified physician recruiting and retention in rural areas as two of the leading contributors to the workforce crisis in the health care industry (Verma et al., 2016). Organizational leaders who increase primary care resources in rural communities may improve access to care and prevent hospital admissions. During my literature searches, I was unable to find any references discussing physician retention strategies in small military treatment facilities. Physician leaders who create effective retention strategies may increase appointments, reduce appointment wait times, and prevent the loss of patients to civilian network providers. A decrease in physician turnover may contribute to a positive social change for beneficiaries by improving access

to care through physician continuity, strengthening doctor–patient relationships, and increasing physician and patient satisfaction in the military community.

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

The purpose of this literature review was to expose the growing shortage of physicians and to identify successful strategies and procedures for retaining physicians in rural health clinics. The databases used in the Walden Library included ProQuest, MEDLINE, CINAHL, ScienceDirect, ABI/INFORM, Emerald Insight, and SAGE Journals. I initially searched the databases using keywords and phrases including *physician retention*, *physician shortage*, *physician turnover*, and *rural clinics*, which helped in identifying additional themes that included *physician leaders*, *physician burnout*, *physician hiring*, *work-life balance*, *work stress*, *stakeholder theory*, *research assumptions*, *research limitations*, and *research delimitations*. I searched for peer-reviewed journals with references dated in the last five years. I occasionally selected older references if current resources were unavailable. Over 120 (75%) of the sources were peer-reviewed journal articles and books that provided me with an understanding of the causes of physician shortages and different strategies for retaining physicians.

An estimated 65% of rural U.S. counties lack adequate health professional work forces due to poor employee retention. Lee and Nichols (2014) made a prediction of a 20% physician shortage over the next 2 decades. According to Lee and Nichols (2014), hospital leaders have been losing as much as \$150,000 to \$200,000 each year due to the onboarding and training costs associated with the first three years of physician employment. Physician recruiting and retention in rural areas are two of the leading

contributors to the workforce crisis in the health care industry (Verma et al., 2016).

Health care leaders continue to have shortages in health care personnel, which force them to focus on recruitment and retention strategies. Stakeholders are direct and indirect contributors to the overall success of leaders and their organizations.

### **Stakeholder Theory**

A better understanding of stakeholder interests, characteristics, and positions in a network can lead to positive outcomes, which include improved resource allocation and stronger communication between the leadership and stakeholders (Kok et al., 2015). The stakeholder theory indicates business leaders are responsible for shareholders and stakeholders such as employees, customers, suppliers, creditors, and competitors (Freeman, 1984). Stakeholders have the power to influence the development of innovation due to their resources and access (Newth, 2016). The stakeholder behavior and reputation of organizational leaders are two of the main factors that determine positive outcomes regarding corporate social responsibility and financial performance. Ultimately, leaders are the stakeholders who are responsible for the overall success of organizations (Adamska et al., 2016). Successful leaders learn to incorporate the six general principles of the stakeholder theory throughout their business operations.

According to Retolaza et al. (2019), the six general principles of the stakeholder theory are the following: (a) value creation, (b) human complexity, (c) purpose, (d) interconnection, (e) cooperation, and (f) reciprocity. The value creation principle is the foundation of any business. The human complexity principle states that because human nature is complex, complexity is normal. The purpose principle relates to the need for

every business to serve a purpose. The interconnection principle shows that stakeholders have common interests, and a business process can be developed to satisfy all stakeholders. The cooperation principle supports the strategy on stakeholders' abilities to cooperate and respond to society's needs and improve the quality of life. The reciprocity principle proves how new challenges and conflicts can improve the business's value creation.

The value creation principle serves the purpose of providing customers with products or services that solve a problem (Schaltegger et al., 2017) and is the most appropriate principle for the purpose of identifying effective strategies for physician retention. According to Schaltegger et al. (2017), businesses require contributions from several stakeholders such as employees, suppliers, and customers to secure jobs, bills for services, and sustainable products. Sustainability researchers emphasized the need for real and effective solutions to business problems. Stakeholder relationships are important to consider when creating solutions as well as understanding the needs and expectations of stakeholders.

The stakeholder theory may assist health care leaders in making changes at the organization and policy level to promote health (Kok et al., 2015). Scholars and managers use the stakeholder theory to understand the relationships and performance outcomes between firms and their stakeholders (Jones et al., 2018). Historically, health care leaders have worked with social networks, communities, media, and policy makers. Organizational health care changes include program adoption, implementation, and maintenance. Leaders of health promotion organizations must understand the importance

of each stakeholder, strengthen relationships through communication strategies, and recognize the need for taking coercive actions (Kok et al., 2015).

Organizational leaders can use the stakeholder theory to understand that stakeholder relationships are reciprocal and prioritized by the organizational mission, roles and role obligations, organizational culture and climate, professional interests and obligations, and societal expectations. According to Werhane (2000), leaders who prioritize stakeholders help organizations clarify organizational priorities so that every person, group, or other organization is equally important as a stakeholder. Leaders may prioritize stakeholder claims by examining the organization's purpose and mission, ranking who has legitimate claims and who is needed for the mission and the survival of the organization. Leaders may also prioritize stakeholders by evaluating their power to influence the organization, the legitimacy of the stakeholder's relationship to the organization, and the urgency of the stakeholder's claim on the organization. Health care leaders may use the stakeholder theory to provide a moral framework for evaluating stakeholder relationships, organizations, and missions and their value-creating activities (Werhane, 2000).

Organizational leaders typically use health care innovations such as guidelines, procedures, treatments, and programs. Health care innovations may have a limited impact on health service delivery and outcomes unless they are appropriately implemented. According to Majid et al. (2018), stakeholders use intervention mapping as a process to develop interventions through six steps: assess needs and barriers, establish objectives, select theory-informed interventions, design and pilot test the intervention, implement

and assess the effectiveness of the intervention, and evaluate the impact of the intervention. Most stakeholders provide input on preestablished programs and interventions versus being involved in the development of interventions (Majid et al., 2018). Selecting an effective implementation process may assist with establishing optimal health care services and outcomes.

### **Alternative Theories and Models**

#### ***Competing Values Framework***

While the stakeholder theory indicates the organizational leader's dependency on stakeholders (physicians) for survival, fulfillment of goals, success, and providing resources (Miles, 2017), the competing values framework may specifically address leadership challenges with a focus on leadership development. The competing values framework encompasses leadership, organizational culture, and strategy for addressing organizational challenges. Executive leaders and management are best equipped to identify and cope with conflicts, miscommunications, and misunderstandings of leader and management organizational goals (Lindquist & Marcy, 2016). Competing demands and views reflect different values and different cultures, which could negatively affect an organization. Leaders who can recognize and appreciate these different values and cultures have a better understanding of how to handle tension, conflict, and miscommunication (Lindquist & Marcy, 2016). The focus of my study was to identify successful strategies that contribute to physician retention. The competing values framework supports improving leadership and organizational cultures versus improving

physician satisfaction, job satisfaction, and providing opportunities for physician professional development.

### ***Path Goal Theory***

Although researchers may use the stakeholder theory to hold stakeholders responsible for the overall success of organizations (Adamska et al., 2016), researchers can use the path goal theory to assist in identifying the leadership style that is most appropriate to resolve each situation. According to Adamska et al. (2016), the four styles of the path goal theory are directive, supportive, participative, and achievement-oriented leadership. Directive leadership consists of a leader who commands with clear intent and expects compliance by his or her followers. Supportive leadership shows a leader who is concerned with creating positive relationships and climates. Participative leadership refers to a leader seeking feedback from their employees prior to making a decision. Finally, achievement-oriented leadership refers to a leader who develops potential and performance by setting goals for their followers (Amin et al., 2017).

The focus of my study was to identify successful strategies that contribute to physician retention in small military treatment facilities in rural areas. The path goal theory shows improvements in organizational performance by applying the most effective leadership style to each situation such as improving physician satisfaction, job satisfaction, and providing opportunities for physician professional development (Amin et al., 2017). I did not choose the path goal theory because my focus was strategies for retaining physicians and not leadership behavior.

### ***Performance Prism Model***

The performance prism model shows performance through learning, processes, innovation, customers, and stakeholders. The performance prism model involves the contribution and participation of stakeholders in organizational performance improvement (Baumann & Bonner, 2017). According to Akgun and Oztas (2017), the unification of stakeholders, employees, and suppliers was found to strengthen individuals within the organization. Most importantly, the performance prism model begins with stakeholders, not strategies, and takes all the stakeholders of a business into consideration. The model includes several dimensions: stakeholder satisfaction, strategies, capabilities, processes, and stakeholder contribution.

Akgun and Oztas (2017) identified stakeholder satisfaction as the first dimension and involves the identification and understanding of stakeholder needs. Leaders may determine the effectiveness of the second dimension by assessing the level of strategy implementation and the clarity of communication throughout the organization. Leaders may also measure the effectiveness of the third dimension by examining product development and managing the organization. Capacities involve the competencies and skills required by the organization. Finally, leaders may use the stakeholder contribution to emphasize the need for organizations to contribute to stakeholders and for stakeholders to contribute back to the organization.

According to Severgnini et al. (2018), researchers use the performance prism model to identify the most relevant stakeholders, what their desires are, and what the organizational leaders expect from the stakeholders. Researchers use the stakeholder



theory to gain a better understanding of stakeholder interests, characteristics, and positions in a network that may lead to positive outcomes, which include improved resource allocation and stronger communication between the leadership and stakeholders (Kok et al., 2015). However, identification of strategies to retain physicians was the purpose of my study, not identification of what stakeholders can contribute to the organization.

## **Physician Retention Themes**

### ***Physician Shortages***

The AAMC (2021) estimated that by 2034, the United States would have a loss of 37,800 to 124,000 physicians. The costs associated with replacing a physician include recruitment, onboarding, lost patient care revenue during recruitment, and relocation. Shanafelt and Noseworthy (2017) found that the costs for replacing a physician are estimated to be 2 to 3 times the physician's annual salary. Organization and practice climate are factors to consider in whether physicians stay engaged or experience burnout. Health care organizational leaders prevent burnout in other physicians by promoting engagement to reduce physician shortages (Shanafelt & Noseworthy, 2017).

### ***Effects of Physician Burnout on Physician Shortages***

Over 60% of primary care physicians report high levels of burnout in the United States (Willard-Grace et al., 2019). According to Chirico (2017), physician shortages may result in time constraints during doctor-patient interactions and increase physician workloads, which may lead to physician burnout and stress. Physicians who experience burnout are prone to objectifying patients, being less empathetic, and feeling less

accomplished. Burnout syndrome may also result in medical errors, malpractice, and increase physician turnover. If physician shortages are not addressed, they can have a negative impact on work performance and result in low-quality patient care (Chirico, 2017). Although reducing physician burnout may assist with retention, health care leaders will still need to evaluate other causes to develop and maintain effective long-term retention strategies (Willard-Grace et al., 2019).

The causes of shortages include physical/infrastructural, professional, educational, social-cultural, economic, and political issues (Weinhold & Gurtner, 2014). According to MacQueen et al. (2017), work hours and lifestyle were found to play vital roles for physicians who left or were considering leaving underserved areas. The majority of physicians in underserved areas also felt a unique connection to their surrounding communities. Personal background, educational factors, and economic incentives may also influence the physician's decision on a practice location (MacQueen et al., 2017). International physician shortages are attributed to rural and/or urban maldistribution and emigration (Al-Shamsi, 2017).

### ***Rural Physicians***

According to Cortez et al., (2019), approximately half of the world's population live in rural areas. Only a quarter of the rural population is cared for by the total inventory of doctors. The major workforce shortages of doctors result from the increase in population health needs and the lack of trained doctors. Countries such as the United States and the United Kingdom maintain a 25%–27% inventory of foreign doctors

working in their countries. More specifically, Phillips et al. (2016) found that there is a lack of female rural physicians to care for female patients who prefer women physicians.

According to Phillips et al. (2016), more rural female physicians plan for long-term rural careers than male physicians. Several key facilitating factors such as flexible work schedules and supportive staff, significant others, and other family members contributed to job satisfaction among female physicians. Leaders in rural clinics should take the needs of families into consideration when recruiting and retaining physicians. Communities were also encouraged to provide childcare with extended hours as another strategy for supporting female physicians' longevity, satisfaction, and success (Phillips et al., 2016).

Levesque et al. (2018) found that less than 8% of the physician population in Canada practices in rural areas, while 19% of Canadians live in those areas. Financial incentives and the establishment of regional medical campuses are two strategies health care leaders in Canada use to recruit physicians. Exposing medical students to rural environments during medical school had a positive impact on their intentions to practice in rural areas. Various recruitment factors are associated with attracting physicians to a particular environment such as type of practice, spousal input, quality of life, and opportunities for teaching and training (Levesque et al., 2018).

### ***Team-Based Health Service Models***

The development and implementation of team-based health service models that support health education and prevention are economically sustainable. The models also promote active community engagement and participation and are essential in reducing

shortages of quality health care in rural areas (Auerbach et al., 2013; Petterson et al., 2015; Weinhold & Gurtner, 2014). Some factors that could substantially decrease the physician shortage are: (a) the role expansion for advanced practice registered nurses (APRNs) and physician assistants (PAs), (b) an increase in support staff who perform key functions in the new models, (c) rewarding providers for population health management, and (d) larger panel sizes versus face-to face visits with providers (Auerbach et al., 2013; Petterson et al., 2015). The use of APRNs and PAs are a low-cost solution for rural health shortages (Adams & Markowitz, 2018).

According to Hariharan (2015), as physician shortages increase, officials are employing more midlevel care providers (PAs and APRNs). The reasons for this shift include an expanding aging population and more insured patients coupled with limited physician work hours and fewer medical students specializing in primary care. In outpatient clinics, midlevel care providers initially see patients and then assume responsibility for follow-up care. In emergency departments, the APRNs and physicians team up to evaluate patients and then the APRNs are responsible for follow-up care and disposition (Hariharan, 2015). Other approaches for reducing physician shortages include increasing the pool of medical school applicants and introducing telemedicine in remote areas (Al-Shamsi, 2017).

### ***University Programs for Physician Recruitment***

Crouse and Golden (2016) explained that 20 years ago, two previous deans of the University of Wisconsin, School of Medicine and Public Health (UWSMPH) and the Medical College of Wisconsin, discovered a growing physician shortage in rural

Wisconsin. The UWSMPH faculty and staff identified that students from disadvantaged areas had less competitive applications than applicants from more advantaged areas. The faculty created the Rural and Urban Scholars in Community Health program to assist applicants from disadvantaged areas in enhancing their applications to make them more competitive. The UWSMPH faculty was able to increase their class sizes by 26 students a year through the four-year Wisconsin Academy for Rural Medicine. Students worked with mentors in community-based rural clinics and hospitals. The Wisconsin Hospital Association, the Rural Wisconsin Council on Medical Education and Workforce, the Wisconsin Medical Society, and the Wisconsin Academy of Family Physicians all established programs to increase the number of residency positions (Crouse & Golden, 2016).

The United States, Australia, and Canada have used strategies such as increasing rural emphasis during medical school and residency, financial incentives, and legislative funding to increase the number of rural residency training programs (Parlier et al., 2018). Assefa et al. (2017) found that health care leaders in Ethiopia sought to expand medical education programs by increasing enrollment limits, opening new medical schools, and introducing new teaching approaches. Several factors should be considered and evaluated to improve physician recruitment such as increasing the capacity of medical schools, admitting large numbers of medical students, health care organizations' absorbing new medical graduates, and strengthening the quality of medical education (Assefa et al., 2017).

According to Assefa et al. (2017), the major issues that should be considered when placing large numbers of students into medical programs include the number of classrooms, patient flow, instructors, library, and information technology resources. Overwhelming medical instructors causes job dissatisfaction, increased workloads, and a loss of instructor motivation. Increasing medical school classes can be effective as long as a mutual trust and cooperation exists between medical schools, professional associations, professionals, and the government. Al-Shamsi (2017) discovered that medical student performance in undergraduate medical programs does not predict post-graduate school performance and an overloaded undergraduate curriculum may cause burnout, low competency, and a loss of motivation in medicine.

According to Marcin et al. (2015), there are several technological advances to assist in addressing clinician shortages by improving access to care. Telemedicine by primary care physicians may be a potential solution for improving access to care by providing more patient- and family-centered care, increasing efficiencies, enhancing the quality of care, and addressing projected shortages in the clinical workforce. The benefits of telemedicine include improved patient access to care, increasing physician capabilities, and increased efficiencies and cost-savings in care (Marcin et al., 2015).

### ***Physician Turnover***

Lu et al. (2017) defined physician turnover intention as the probability that a physician will leave their job in a certain amount of time. Turnover intention was identified as one of the leading predictors of turnover behaviors. In the United States, turnover costs are estimated to be as much as 5% of the total annual operating budget (Lu

et al., 2017), which has been estimated at two to three times a physician's annual salary (Underdahl et al., 2018). Physician turnover creates financial crises in health care organizations, threatens patient safety, disrupts access to care, and negatively affects institutional profitability. Physician replacement costs include expenses associated with recruiting, onboarding, and lost revenue during the recruitment, relocation, and orientation of the new provider (Underdahl et al., 2018). Turnover intention has several causes, which include burnout, low income, lack of support, poor working conditions, ineffective human resource management practices, and low opportunities for promotion or career advancement (Lu et al., 2017).

### ***Physician Job Satisfaction***

According to Underdahl et al. (2018), physician job satisfaction is threatened by demands for increased productivity, nursing shortages, regulatory requirements, medical errors, and challenges with information technology. The administrative burden of technology causes physicians to invest twice the time on electronic health records than they spend face to face with their patients (Underdahl et al., 2018). Wen et al. (2018) conducted a study in China on primary care doctors and found that improving job satisfaction, promotion, and job safety is crucial for reducing turnover retention. Leaders of the Chinese government were encouraged to increase their financial investments in less-developed primary care facilities and to reform incentives for improving job satisfaction among primary care doctors (Wen et al., 2018). Aside from physician job satisfaction, researchers have also linked turnover intent to the work environment (Underdahl et al., 2018).

### ***Physician Turnover Rates***

Approximately one in five U.S. physicians intend to reduce clinical work hours in the next year and one in fifty plan to leave medicine in the next two years (Sinsky et al., 2017) . According to Stoller et al. (2017), medical careers typically start off as highly structured to highly variable as physicians transition from medical school to residency to a fellowship. Academic careers involve challenges such as taking on organizational committees, the assumption of new administrative roles, or receiving a research grant. The six personal attributes that are associated with physicians having dream careers include ensuring a positive alignment between organizational and personal goals, optimizing self-awareness, developing resilience, adapting to change, acknowledging serendipitous events, and building strong relationships. The possession of these six conditions and attributes may greatly affect the intent of physicians to leave organizations (Stoller et al., 2017).

The first personal attribute associated with a physician having a dream career is ensuring alignment, which includes the awareness of the organizational leaders' values, the physician's role in the organization, and understanding their own strengths and weaknesses (Stoller et al., 2017). The second condition of optimizing self-awareness involves recognizing personal characteristics and behaviors versus how others view them (Luft & Ingham, 1961). The third condition of navigating through tough times and setbacks means developing resilience or the acceptance of reality, the realization that life has meaning, and the ability to improvise (Coutu, 2002). The fourth condition of recognizing and accepting change with enthusiasm is a positive personal attribute that



may lead to well-executed change initiatives. The fifth condition of physicians carefully identifying and analyzing serendipitous events such as life events or unplanned opportunities, early on, may lead to positive personal outcomes. The final attribute associated with a dream career is developing relationships and embracing the roles of mentor and mentee may substantially contribute to a decrease in physician turnover (Stoller et al., 2017).

### ***Faculty Mentoring and Coaching Programs***

Faculty development of formal mentoring and coaching programs such as the Staff and Coaching Mentorship Program at the Cleveland Clinic assisted with educating faculty members on how to teach physicians to optimize self-awareness, resilience, and developing relationships. Results of the program showed increases in engagement, resilience, and daily coaching skills of physicians. Participants also reported moderate to significant increases in networking relationships (Stoller et al., 2017). There is also a two-day leadership development course for faculty and chief residents. The curriculum includes a session on teaching chief residents how to craft a dream career by having the faculty share the elements and requirements for a dream career (Farver et al., 2016). Addressing the establishment of a dream career for physicians may improve job satisfaction, and reduce burnout and physician turnover (Stoller et al., 2017).

### ***The Effects of Physician Turnover in the Organization***

According to Fibuch and Ahmed (2015), employee turnover can substantially increase costs regarding hiring, training, and productivity. The costs of hiring new physicians include job announcements for open positions, travel, interviews, and moving

expenses. Loss of productivity includes low productivity by the departing physician and loss of access to care during new physician training and orientation (Fibuch & Ahmed, 2015). Knight et al. (2017) discovered when physicians leave clinical practice, the vacancy disrupts the continuity of care resulting in less-than-optimal health outcomes and an increase in the use of health care services. Continuity of care with primary care physicians is associated with improved diagnoses identification, preventive care, patient satisfaction, and treatment compliance, which may indirectly result in reduced health care costs, health care services, and mortality. Patients who lost their family physicians and a loss in access, reported a lower satisfaction with care and a loss of trust, which is associated with avoidable hospital admission for ambulatory-care-related conditions (Knight et al., 2017).

Physician turnover may lead to a decrease in use of primary care, an increased need for specialty, urgent, and emergency department care, and increased spending resulting from the recruitment and training of new physicians (Sabety et al., 2021). Work stress has also been associated with turnover intentions in physicians (Roy et al., 2017). Physician job satisfaction plays an important role in quality of care and physician turnover with regards to the difficulty health care leaders have in retaining physicians in rural medical facilities (Tosun & Ulusoy, 2017). According to Gazelle et al. (2014), decreasing physician turnover may also be accomplished by improving work-life balance by supporting successful interventions for burnout, such as mindfulness training, specifically through discussion groups. Discussion groups and cognitive-behavioral therapy can be a means for promoting self-reflection and awareness. Cognitive-

behavioral therapy is driven by diagnosis and is a goal-oriented method for assisting with coping that causes physicians to question their negative thoughts. Assisting physicians with establishing professional development and reaching their highest potential are vital in reducing burnout (Gazelle et al., 2014).

### ***Physician Burnout***

Hamidi et al. (2018) indicated that burnout is a significant contributor to physician turnover. Amanullah et al. (2017) defined burnout as emotional exhaustion, cynicism, and characterized as a stigma for physicians. Shanafelt and Noseworthy (2017).indicated that burnout may influence quality of care, patient safety, and patient satisfaction. Physician burnout is also linked to physician turnover and professional work effort. Shanafelt et al. (2015b) conducted a survey on the satisfaction with work-life balance and burnout rates of 6,880 U.S.-physicians between 2011 and 2014. The number of physicians who experienced at least one symptom of burnout, increased by nearly 10% from 2011 to 2014.

Azam et al. (2017) conducted a study on the causes and effects of burnout in physicians in 14 countries and found that they are interrelated. The relationship between colleagues and patients was a significant contributor to burnout. The physicians experienced burnout because they felt that they were not members of a cohesive team, a lack of communication, dissatisfaction with doctor-patient relationships, working with incompetent team members, and dealing with problematic patients. Female physicians held multiple work and family roles. Younger physicians were more prone to burnout because they received larger workloads and odd shifts (Azam et al., 2017). Identifying

strategies to prevent and treat burnout is an important goal for improving physician job satisfaction and quality patient care (Amanullah et al., 2017).

### ***Consequences of Excessive Workloads***

Paolo et al. (2017) listed excessive workload, stress, and burnout as causes for an increase in medical errors. Approximately 40-50% of physicians experience burnout. Excessive workloads have been linked to hypertension, cardiovascular events, metabolic syndromes, and work-related accidents. Stress management programs are one method for enhancing physician quality of life, thereby preventing and treating burnout. Practice programs specializing in mindfulness, communication, and self-awareness may reduce occupational stress and improve job satisfaction. Programs such as these assist physicians in recognizing stress and mitigating detrimental effects (Paolo et al., 2017), which may lead to the reduction of physician turnover.

### ***Individual-Directed Approaches***

According to Klevos and Ezuddin (2018), individual-directed approaches are the most effective strategies for decreasing physician burnout rates. Individual interventions include mindfulness-based stress reduction techniques, communication skills and self-confidence-based educational interventions, exercise, or a combination of them all. Physicians who dealt with their burnout individually accepted more personal ownership of their situation; however, physicians who sought organizational assistance had longer lasting effects than those who faced their burnout alone. The researchers reviewed four domains of resiliency, emotional, mental, spiritual, and physical, which allow physicians to cope with the consequences of burnout on an individual basis. The emotional

techniques involved stress management courses where instructors focused on individual-based relaxation classes and cognitive behavioral and patient-centered therapy.

Physicians who participated in self-care workshops and patient-centered therapy at the institutional level reduced emotional exhaustion. In addition to emotional domains, mental domains are important and include mindfulness (Klevos & Ezuddin, 2018).

Mindfulness is a self-directed strategy of calming the mind and relaxing the body (Klevos & Ezuddin, 2018). Six studies conducted on mindfulness training in health care professionals over a period of two to eight weeks showed a significant decrease in physician burnout. Finally, aerobic exercise decreased depression, indirectly, by reducing stress. Strategies such as reducing work hours and providing a flexible provider schedule to support physician personal needs may improve work-life balance (Shanafelt et al., 2016).

During a randomized trial at the Mayo Clinic in 2012, researchers discovered that providing physicians with one hour of protected time every other week to meet with colleagues to discuss topics related to the experience of physicians improved well-being and reduced burnout (Shanafelt et al., 2016). Physicians tend to be vulnerable to overwork based on high levels of educational debt, their desire to do everything for their patients, unhealthy role modeling by peers, and the normalization of work hours during orientation. Flexibility and work-life integration are two important aspects for improving physician well-being. Allowing physicians, the flexibility to start their workdays earlier/later or to work longer or shorter hours may assist physicians in reducing their total work effort (Shanafelt et al., 2016).

### ***Physician Job Satisfaction***

Job satisfaction is the extent of how positive a person feels about their job. Job satisfaction in health care organizations may lead to several predictions of job-related behaviors (Coplan et al., 2018), commitment may also affect employee job satisfaction and burnout (Tosun & Ulusoy, 2017). Factors such as income and a good work-life balance may improve physician job satisfaction (Savageau et al., 2016; Witt, 2017). A large percentage of physicians rated total compensation, benefits packages, and CME benefits as factors for retention (Savageau et al., 2016). Continuously monitoring physician job satisfaction is an important role of health care leaders (Waddimba et al., 2016).

Jongbloed et al. (2017) defined job satisfaction as a constellation of feelings about various facets of a job. The researchers found that job satisfaction is needed for optimal functioning and quality care. Opportunities for personal development, professional accomplishments, control over work content and harmony between colleagues and support personnel may affect physician job satisfaction. Another important factor in physician job satisfaction is the balance between work and private hours, patient appreciation, and income (Jongbloed et al., 2017). Building a reasonable work hour policy may improve the well-being of physicians and decrease their intent to leave (Tsai et al., 2016).

### ***Initiatives to Decrease Physician Dissatisfaction***

According to Casalino and Crosson (2015), factors such as income and work conditions may affect physician behavior. Work conditions include work hours, work

pace, organizational culture, negative patient outcomes, and administrative obstacles. There was strong evidence that dissatisfied physicians were more likely to work less, leave medicine, and discourage others in becoming physicians. Crosson and Casalino (2015) conducted a study in 2013 and found electronic health record (EHR) implementation, concerns with practice sustainability, increasing work volume, income preservation, barriers to high-quality care, and regulatory burden as major contributors to lowering physician satisfaction. There were several suggestions for decreasing physician dissatisfaction such as reducing workflow and documentation requirements, improving EHR systems, and constructing a set of principles to improve physician-hospital relationships (Crosson & Casalino, 2015).

#### ***Physician-Based Leader Development and Empowerment Workshops***

According to Maza et al. (2016), leaders of the Clalit Health Services in Israel developed and implemented a workshop called IMPACT. IMPACT is an intensive workshop designed to improve physician leader self-development and personal empowerment. Personal empowerment is believed to increase job satisfaction, strengthen leadership, and improve the performances of physician leaders. Maza et al. (2016) conducted a survey of over 250 physician leaders who completed IMPACT courses from 2013 to 2015. The program consisted of courses focused on theoretical knowledge, experiential learning, practical tools, deep personal exercises, and simulations through both group and individual work. The workshop positively contributed to the physician leaders' perceptions of their managerial capabilities (Maza et al., 2016).

Work-life and psychosocial issues such as esteem, social support, and social conflicts with staff were identified as major contributors to physician dissatisfaction (Pedrazza et al., 2016). According to Tziner et al. (2015), physicians are required to deal with several demands such as clinical, academic, and administrative demands. Demands can result in negative interactions with patients, an overload of tasks, and an increase in mental stress. Treating physician stressors and burnout is pertinent in preventing dissatisfaction and turnover intentions. Researchers propose that structural and organizational levels of treatment should be used to reduce stress. Structural changes in health care can reduce hospital costs, decrease overload, and improve service to patients. Organizational levels refer to long work hours and chronic stress that increase burnout and decrease physician resources. A strategy such as opening a gym and providing tools for coping with stress can decrease burnout and physician turnover intention (Tziner et al., 2015).

### ***Work Stress***

Lu et al. (2017) identified work stress has a major influence on job satisfaction. Work stress is defined as an employee's reaction to physically or mentally threatening workplace characteristics. High levels of work stress may make employees unhealthy, unmotivated, less productive, unsafe, or negatively affect job performance through increased absences or turnover. Trouble falling asleep because of work was a significant predictor of physician turnover intention. Work-family conflict is another stressor which occurs when physicians have difficulty balancing the pressure of work and family.



Additional work characteristics include night shifts, a lack of control over work hours, and unpredictable scheduling requirements.

Tsai et al. (2016) conducted a study in Taiwan on the effects of work hours and turnover intention. The first finding of the study was that physicians in Taiwan, age 35 or more, worked considerably more hours than U.S. physicians. The average work hours, among study subjects, were close to 60 hours per week, yet over 200 of the physicians surveyed worked nearly 90 hours per week. Second, there was a significant correlation between work hours and turnover intention. Researchers were concerned by the effects of long work hours on physician health and well-being, physician intention to leave, and the administrative costs and decrease in physician continuity of care resulting from physician losses. Hospital managers and government officials should take a more active role in building and setting reasonable work hour regulations.

Savageau et al. (2016) identified the highest-rated retention factor among providers as work-life balance, followed by support staff, operational support, information technology, support for professional development, and compensation (Savageau et al., 2016). Frequency and pay for on-call services were two factors found to contribute to either the satisfaction or dissatisfaction of rural physicians. Leaders who provide access to clinic technology such as telehealth were significant contributors to job satisfaction. Work-life balance for physicians is an important factor to incorporate into health care workforce planning (Witt, 2017). Medical organizational leader involvement may positively affect turnover intention, burnout, and job satisfaction by creating an

understanding of the relationship between physician well-being and job satisfaction (Dyrbye et al., 2016).

### ***Nine Strategies for Promoting Physician Well-Being***

Shanafelt and Noseworthy (2017) identified nine strategies for promoting physician well-being. One important strategy is to acknowledge burnout as a real issue. The suggested dimensions of physician well-being that require assessment include the following: (a) burnout, (b) engagement, (c) professional satisfaction, (d) fatigue, (e) emotional stress/health, and (f) various aspects of well-being. Physician leaders should make assessing physician well-being as a routine institutional performance metric and learn to provide physicians with tools for self-calibration, self-care promotion resources, and resilience training. The resources should be comprehensive and address work-life balance, exercise/fitness, sleep habits, diet, personal financial health, relationships, hobbies, and preventive medical care. Leadership from the highest level of the organization is key in making progress on physician well-being (Shanafelt & Noseworthy, 2017).

### ***Physician Leadership***

Sanford (2016) defined physician leadership as leaders who have the ability to better support their organizations. Educating physicians for leadership roles may result in improved quality of care and safety for patients. Professional development is one of the most common retention factors among providers (Savageau et al., 2016). According to Herd et al. (2016), physicians play formal and informal roles in creating an environment

for improved practices and organizational performance. Health care leaders and managers must work to improve leadership competencies to remain effective in their organizations.

Physician leadership has a direct effect on the professional satisfaction and well-being of physicians (Shanafelt & Noseworthy, 2017). In a 2013 study on 2800 Mayo Clinic physicians, a one-point increase in the leadership score was associated with a 3.3 decrease in the likelihood of burnout and a 9% increase in physician satisfaction (Shanafelt et al., 2015a). According to Shanafelt and Noseworthy (2017), selecting the right leaders will result in promoting individual and organizational health. Leaders should possess the ability to listen, engage, develop, and lead other physicians. Physician leaders must be assessed on whether they are successful in organizational performance objectives as well as how well their employees think they lead. They must also be able to recognize the potential for leadership within the physicians on their team and what motivates them.

The American College of Obstetricians and Gynecologists concluded that physician leaders need education in understanding transformation and change, creating effective teams, and understanding costs. The findings supported the need for future investments in physician leadership programs that may assist in developing the skills needed to lead effectively (Fernandez et al., 2016). Development-oriented leadership is associated with employee competence, job satisfaction, and effectiveness. Ultimately, development-oriented leadership is described as a process for providing employees with opportunities to grow and develop knowledge and skills (Stromgren & Eriksson, 2017). The leadership qualities of physician leaders have a significant impact on the well-being and job satisfaction of physicians. Selecting and training strong potential physician and

frontline leaders are necessary for the success of health care organizations (Shanafelt et al., 2016).

### ***Strategies for Physician Hiring***

According to Oppel et al. (2017), staffing shortages are commonly associated with nurse and physician job satisfaction. Staffing shortages may lead to negative consequences for remaining employees such as extended work hours, an increase in medical errors, and a reduction in patient safety and access to care. Time-related stress and high workload may also negatively impact patient-provider relations. Temporary staffing, a short-term solution to physician shortages, was negatively associated with patients' views of what they considered to be quality care. Clinicians are less likely to show warmth and support when interacting with patients, which ultimately led to employee burnout and job dissatisfaction.

### ***Physician Leaders' Roles in the Hiring Process***

Physician leaders have an important role in the hiring process. Leaders may implement strategies such as searching for candidates from similar practice areas, boosting financial incentives, or allowing new hires to select their own care teams (Anonymous, 2021). Russell and Brannan (2016) found that it is important to assess both emotional and social intelligence during the interview process. Employers have a tendency to use informal recruitment channels for high-degree (managerial, professional, and specialist) jobs versus low-degree (administrative and support) jobs. Employer branding is defined as the functional, economic, and psychological benefits provided by the employer and the difference in firm characteristics versus their competitors. Human

resource managers use employee branding to attract and retain the best potential employees (Russell & Brannan, 2016).

According to Oppel et al. (2017), Strategic Human Resource Management is a recent method used for reducing clinical staffing shortages and improving patient satisfaction. It is defined as long-term human resource planning which involves the extent to which organizations invest in the recruitment, management, and retention of personnel. Researchers conducted a study and determined that Strategic Human Resource Management leads to higher job satisfaction, organizational commitment, and reduced turnover intention.

Retention begins with the initial applicant contact during the recruitment phase (Wolter et al., 2015). The CEO can develop marketing and recruiting strategies, interview all promising candidates, and support the recruitment teams' financial incentives (Lee & Nichols, 2014). The human resource manager should be involved with planning, resourcing, recruitment, selection, rewarding, and retention. Typically, they are not included in the actual interviewing selection process in military treatment facilities. Fully understanding the practices employed by civilian corporate human resource managers and adjusting the current scope of military departments can assist in the hiring and retention of more quality personnel (Patrichi, 2016).

### ***Physician Recruiting Programs***

According to Opoku et al. (2015), several programs are available for assisting with recruiting new physicians. The J-1 visa waiver program eliminates the two-year requirement for international students to return to their home countries in exchange for

three-year agreements to work in health professional shortage areas. There are also scholarships and loan repayments for primary care physicians with the same three-year agreements. Participants concluded that both programs would be more beneficial if the obligatory time were increased (Opoku et al., 2015). Rural physician training programs may increase the percentage of graduates choosing primary care practices in rural areas (Wendling et al., 2016).

According to Morken et al. (2018), there are several family medicine residency programs used for increasing the number of rural physicians. The 1-2 Rural Training Track Family Residency Program has students complete their first year of residency in an urban environment and the second year in a rural setting. The family medicine residency programs have resulted in encouraging over 70% of graduates to practice in rural areas. Fleming and Sinnott (2018) found that by increasing the number of rural medical students and providing early exposure to rural practice will attract students from urban environments.

Gramer (2015) suggested that digital media be incorporated into the recruitment process for hiring physicians. As his first of four guidelines to augment physician recruitment, Gramer listed assisting medical practices with recruitment by building a strong foundation on social media websites such as Facebook, LinkedIn, Twitter, and job sites. Gramer's second guideline was to internally connect to the outside by encouraging employees to network between the organization's web page and other social media sites. Gramer's third guideline was to captivate physician applicants with a clear job description, personalize the organization, provide information on research, and network

with the surrounding medical community. Finally, Gramer's fourth guideline was to encourage staff to share information and speak freely about the organization within the community (Gramer, 2015). Information technology is a major contributor to the recruitment and retention of physicians throughout the world.

### **Transition**

Currently, there is no research specific to retention strategies in small military treatment facilities in rural areas. Section 1 contains discussions on several factors that led to an increase in physician shortages and a decrease in physician retention throughout the U.S. such as physical/infrastructural, professional, educational, social-cultural, economic, and political issues (Weinhold & Gurtner, 2014). I described how medical organizational leader involvement can positively affect turnover intention, burnout, and job satisfaction by creating an understanding of the relationship between physician well-being and job satisfaction (Dyrbye et al., 2016). In Section 2, I discussed the details of my research study by identifying strategies that health care leaders may use to improve physician retention in small military health treatment facilities in rural areas. I restated my purpose and then discussed the roles of the researcher and participants, as well as explicated the research design and method. Section 3 contains a presentation of my findings, applications to professional practice, implications for social change, and recommendations for future research.

## Section 2: The Project

In Section 2, I discuss the details of my project for identifying strategies that health care leaders may use to improve physician retention in small rural military treatment facilities in the United States by reiterating my purpose and reviewing the roles of both researcher and participants. I detail my selected research method and design, present my chosen population and sampling method, and discuss the importance of an informed consent and conducting ethical research. Finally, I identify my tool of choice for data collection and my data collection technique, organization, and data analysis procedures.

### **Purpose Statement**

I conducted a qualitative multiple case study to explore strategies some health care leaders of small military treatment facilities in U.S. rural areas use to improve physician retention. The targeted population comprised five health care leaders who were successful in improving physician retention in five small military treatment facilities located in rural areas throughout the continental United States. Health care leaders who use successful physician retention strategies may contribute to social change by improving physician job satisfaction and patient satisfaction for physicians, soldiers, family members, and retirees in the military community.

### **Role of the Researcher**

A researcher has many roles in qualitative research. As a researcher, I respected the rights of the participants while maintaining a nonjudgmental attitude (see Karagiozis, 2018). Ultimately, subjectivity of the researcher, with minimized bias, is what shapes the



outcomes and interpretation of the findings (Karagiozis, 2018). During interviews, researcher engagement plays an influential role in the quality of interactions (Karagiozis, 2018). Marshall and Rossman (2016) stated that successful qualitative research depends on the interpersonal skills of the researcher. Qualitative researchers must possess qualities such as awareness and sensitivity to ethical issues, develop trustful relationships with participants, acknowledge individuality, and understand the perspectives of the participants in the study. Aside from interpersonal skills, researchers must also have a solid plan for conducting the literature review (Karagiozis, 2018).

According to Price (2009), researchers who have a good understanding of the literature may advance the development of policies and protocols, strategies for practice development, research design, and the creation of articles for publication or conference presentation. A strategic approach to planning search terms can assist with organizing the search and with defending the interpretation of what is already known (Price, 2009). I reviewed several articles using key terms such as *physician retention*, *physician shortages*, *physician turnover*, and *physician job satisfaction*. I reviewed the abstract of each article and limited most of the articles to copyrights ranging from years 2016-2021. Systematic reviews and meta-analyses, and exhaustive literature reviews must be reproducible (McKeever et al., 2015). Making sense of the different categories of literature helps with understanding articles and their respective purposes (Price, 2009).

I have over 20 years of experience working in small and large military treatment facilities. In one of my previous positions, I was a team member involved in the hiring process for civilian providers in a small rural military treatment facility. My role in the

process included reviewing applicant resumes and selecting which applicants to interview. I was also a member of the interview panel, which would score and select applicants based on their resumes and interviews. The team often had difficulty with hiring new physicians and difficulty in keeping the current physicians.

The researcher's role in ethics is to ensure that the well-being of all participants is preserved throughout the research process by following the principles of ethical standards such as the *Belmont Report* (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979; Stockley & Balkwill, 2013). According to Miracle (2016), the *Belmont Report* is an ethical framework that consists of three principles, which include respect for participants, beneficence, and justice. Respect for persons involves the two ethical concepts of autonomy and the requirement of additional protection for vulnerable participants. Beneficence requires the principles of doing no harm, increasing benefits, and decreasing potential harm. Finally, justice requires equality and fairness to all participants, which includes mitigating bias.

Chenail (2011) explained that researchers are required to identify strategies to mitigate bias in their studies. There are several factors that are associated with researcher bias that include the researchers' beliefs and thoughts, lack of experience or education in conducting the field research, poor interviewing methods, and the researcher's experience or knowledge of the topic. One way to identify the potential for bias is to conduct a pilot study. I conducted two interviews prior to my doctoral mentoring courses to test the type of answers elicited from my research questions. Another method to prevent bias is to

interview the investigator, which will aid the researcher in developing empathy for research participants and identifying any bias or ethical concerns (Chenail, 2011).

According to Jacob and Furgerson (2012), the creation of an effective interview protocol may assist the researcher in obtaining quality information from their study participants. There are several strategies to assist with ensuring the interview runs smoothly, such as making good connections with the study participants, creating a script prior to the interview, using a recording device to assist with maintaining eye contact, and actively listening. Researchers should write expansive questions that will allow the interview to flow freely and the participant an opportunity to present new information. Chang (2014) defined member checking, another method for increasing credibility and trust in qualitative research, as sharing information, themes, and conclusions with study participants. Allowing the participants to review the transcript and to discuss preliminary findings are both effective methods of member checking (Chang, 2014). Finally, the researcher achieves data saturation when new information produces little to no change in the themes established through data collection, which indicates additional interviews are not required (Tran et al., 2016).

### **Participants**

The participants must meet eligibility criteria for consideration in the study. I used purposive sampling to select participants in U.S. Army deputy command positions who were physician hiring experts assigned to small military treatment facilities. Each participant had to be in their leadership position for a minimum of four months and involved in the management and hiring of physicians. According to Miguel et al. (2018),

purposive sampling is used to make well-informed selections that meet specific requirements and maximize the chances of finding the most appropriate subjects in qualitative research. I used shared affiliation and military medical networks in the Army to gain access to participants. I accomplished initial contact and established working relationships through emails and telephonic communication along with providing a brief description of the purpose of the study to each subject.

Participants answered research questions that I developed according to physician retention themes I uncovered during my literature review. I remained aware of the climate of the interviews and how the participants reacted to my questions. I avoided taking notes during interviews, which could have been distracting to the interviewee (see Rosenthal, 2016). I digitally recorded the interviews and transcribed them. I offered participants an opportunity to discuss my interpretation of the interviews once the transcriptions were completed (van der Graaf et al., 2017).

## **Research Method and Design**

### **Research Method**

Researchers use qualitative research to explore and understand problems by providing a holistic perspective. Quantitative and mixed methods research are conducted in more structured environments and use standardized surveys and experiments to collect numeric data and determine relationships between variables and outcomes (Gog, 2015; Rutberg & Bouikidis, 2018). I did not choose a mixed methods approach, because mixed methods researchers focus on controlled, randomized selection and analysis of numerical data based on measurement interpretation and statistical processes (Stahl et al., 2019). I

chose a qualitative approach to explore strategies for retaining physicians by gathering information on participant experiences instead of using assumptions and ideas to test hypotheses (see Holloway & Galvin, 2017). An interview is a research tool that allows researchers flexibility based on the discovery of new information during the research process (Rutberg & Bouikidis, 2018). The interviews assisted me in obtaining successful strategies for physician retention from other Army health care leaders.

### **Research Design**

For this qualitative study on physician retention in rural military treatment facilities, I compared and contrasted four research designs: narrative, phenomenology, ethnography, and case studies. Narrative researchers use stories based on participants' personal lives to find answers to explore problems (Willis et al., 2016), and the narrative approach would not have been helpful in identifying strategies because my plan was to interview health care leaders with successful physician retention strategies and identify common themes. Phenomenological researchers focus on capturing and sharing what is meaningful to a person who experienced a phenomenon (Willis et al., 2016), which would not have helped me to identify successful retention strategies because my research was not focused on emotion. Ethnography research is subjective and involves observing participants' cultures and behaviors (Kian & Beach, 2019), while completing my study required obtaining and exploring factual evidence, not opinions. Case study researchers investigate what, how, and why things happen (Gog, 2015). I chose a multiple case study because it provided a thorough representation of a phenomena and contributed to the

body of knowledge (see Choudhary & Sangwan, 2019) needed to establish strategies for improving physician retention.

According to Sarvimaki (2015), the narrative design is a method for researchers and their subjects to put their past and current experiences into words. Experiences are shared during interviews or other forms of communication. Stories may be holistically or categorically analyzed. Holistic analysis incorporates the whole story, while categorical analysis extracts certain sections. Researchers use content analysis to examine the storyteller's viewpoint, while form analysis focuses on the words and emotions created by the story. The narrative design is used to determine why people make the decisions they make and why they feel the way they do (Sarvimaki, 2015).

Phenomenological research is defined by experiences and emotions (Willis et al., 2016). Glover and Philbin (2017) defined phenomenological research design as a process that enables researchers the ability to accurately describe a person's lived experience. Researchers who use phenomenological research are interested in those who either experienced or were involved with the research topic. Phenomenology was not appropriate for my study due to the potential for bias. Phenomenological researchers are reluctant in prescribing specific techniques or steps to address the issue because those actions can harm the integrity of the phenomenon (Glover & Philbin, 2017).

Mol et al. (2017) describe ethnography as a research design used to observe behaviors, cultures, beliefs, language, and ideas shared by groups and communities. Researchers use ethnography for describing group behaviors or conflicting issues such as cultural learning, inequality, or cognition. Researchers typically embed themselves within

the focal community for the purpose of observation and to take notes on the group's daily lives and interactions to identify patterns and themes. Ethnography presents several challenges such as the need of long periods of time for data collection, the potential for narrative versus scientific writing, and researcher lack of involvement during data collection within the community (Mol et al., 2017). Ethnography is a study of cultures and did not meet the purpose of my study.

According to Harwati (2019), researchers use case study designs to examine exploratory, explanatory, or descriptive single or multiple cases over a period of time. A single case study involves reviewing only one case, while a multiple case study involves two or more cases. Investigators use exploratory case studies to define questions and hypotheses, while explanatory case studies are used to explain how a particular phenomenon occurred. Researchers use descriptive case studies to identify participants categorized as experts to provide data to answer research questions (Harwati, 2019). I conducted a multiple case study to gain a deeper understanding of which retention strategies are successful in small military treatment facilities. I ensured data saturation was achieved by the use of appropriate open-ended questions and the absence of new themes or collection of new data during interviews.

### **Population and Sampling**

According to Emerson (2015), researchers are expected to randomly sample eligible participants within a community; however, this method can be demanding and drain resources. The non-probability sampling method is a recommended approach for recruiting stakeholders. The identification of community-based outcomes research

participants usually involves one of the following four non-probability sampling methods: (a) convenience, (b) snowball, (c) respondent-driven, and (d) purposive sampling. The snowball sampling method involves the use of a referral approach of those who meet specific criteria in a network or community (Emerson, 2015). Convenience sampling is a quick and effective method for identifying participants based on existing relationships but may limit generalizability and result in homogeneous sampling (Valerio et al., 2016).

Convenience sampling is also considered biased and should not be considered as representative of the population (Farrokhi & Mahmoudi-Hamidabad, 2012). Respondent driven sampling is used to identify hidden and vulnerable populations but requires training and may involve bias (Valerio et al., 2016). The sample method that best suited my study was the purposive sampling method. According to Apostolopoulos and Liargovas (2016), researchers use purposive sampling to select a predetermined target group comprised of experts on an issue. The strengths of purposive sampling include the ability to identify expert participants with similar characteristics and knowledge. The main limitation with purposive sampling is the potential for bias in selecting participants

I used purposive sampling to select five participants in deputy command positions in the United States Army assigned to small military treatment facilities with experience in physician hiring. Each participant must have had a leadership position for a minimum of 4 to 6 months and be involved in the management and the physician hiring process. Originally, I selected four participants; however, I changed the number to five to increase the probability of data saturation. I gathered a broad array of data by interviewing



participants assigned to rural military treatment facilities throughout the United States via telephonic interviews. I ensured data saturation occurred by identifying when new information produced little to no change or meaningful information in the themes established during data collection (Tran et al., 2016).

### **Ethical Research**

Research ethics committees ensure that researchers follow appropriate ethics guidelines based on the principles of the Declaration of Helsinki and the Nuremberg Code, when writing research proposals (Reid et al., 2018). Common ethical challenges that researchers encounter in qualitative research with respect to study subjects include withdrawal from the study, anonymity, and confidentiality (Ngozwana, 2018). Guidelines for researchers' ethical behavior include principles of beneficence (do good), nonmaleficence (do no harm, respect for autonomy (self-determination), and equity (treat fairly). The Belmont Report, another ethical framework, consists of three principles which include respect for participants, beneficence, and justice. (Miracle, 2016) The principles are used as guides to encourage researchers to anticipate potential ethical dilemmas which may present themselves at any time throughout the study. Study participants are expected to exercise judgment based on the validity of the study versus previously established relationships with researchers (Reid et al., 2018).

Following the approval from the Walden University IRB to commence data collection, I identified each respective deputy commander responsible for physician hiring to conduct interviews via their military treatment facility public websites. I obtained permission from the respective deputy commander responsible for hiring within

each facility by providing a Subject Recruitment Letter. I also provided a consent form (see Appendix), which briefly explained the purpose of the study and ensured the confidentiality of each participant. I built rapport with the interviewees by communicating with them prior to the interviews and made myself available to answer any of their questions. I informed the participants of their rights to withdraw from the study, either telephonically or by email, at any time without consequences. There were no incentives for participation, and I will store all data for at least five years to ensure the confidentiality of all participants. The Walden University IRB approval number was 11-25-20-0574615.

Roth and von Unger (2018) defined confidentiality as researcher awareness of the identities of study participants and protection of their identities. To maintain confidentiality, each participant was assigned a code (A thru E for each deputy commander) when transcribing and translating data. Prior to conducting telephonic interviews, I asked each participant for their permission to record the interview. Challenges for researchers while attempting to think and behave ethically, include maintaining integrity, upholding autonomy when obtaining consent, managing multiple roles, and avoiding harm to all parties when disseminating findings (Reid et al., 2018).

### **Data Collection Instruments**

I was the primary data collection tool. The data collection process consisted of a semistructured interview with open-ended questions. I created questions that were easy to understand, free from information bias, and appropriate to the participants' levels of education. The order of the interview questions influences the answers, so the questions

should be organized from easy to more difficult, general to specific, and factual to abstract (Thomas et al., 2018). While face-to-face interviews allow interviewers to observe the participant's body language (Ellis, 2016), COVID-19 pandemic restrictions forced me to conduct my interviews telephonically.

Validity is proven when an instrument measures what it is purposed to measure and contains questions that are articulated in such a way that the interviewee understands the purpose of the question. Validity is established when the instrument is created (Thomas et al., 2018). I conducted two practice interviews with two deputy commanders at other military treatment facilities to test the validity of my questions. As advised by Thomas et al. (2018), I performed member checking by reviewing the transcript and discussing preliminary findings with each participant to ensure accuracy and revise, as needed. I also used Army documents relevant to physician recruitment and retention in methodological triangulation to further validate my interview findings. The four appendices and their respective locations were the consent form (see Appendix), interview protocol, and the subject recruitment letter.

### **Data Collection Technique**

Interviewers must listen carefully to the answers that the participants give and verify whether their answers provide the information required to answer the research question (van de Wiel, 2017). I recorded and transcribed each interview verbatim with the exception of any comments that would break participant confidentiality. The interview protocol consisted of a brief overview of the study, the main questions, transitions between questions, and a conclusion, which includes thanking the participant.

A reliable interview protocol assists researchers in obtaining rich qualitative data and will facilitate the interview process (Yeong et al., 2018). I conducted transcript reviews by discussing my interpretation and conclusions based on the participants' interviews and recordings .

Advantages of interviews include the potential for collecting in-depth and rich data and allows interviewers the ability to clarify questions during interviews (Cypress, 2018). Interviews allow questions to be clarified and rephrased if there is any confusion. Disadvantages of interviews include poor data collection when conducted by an interviewer who lacks prior interviewing experience (Ellis, 2016). Interviews may also be prone to bias based on interviewers influencing outcomes by giving participants subtle clues which may lead to participants answering questions the way they believe the interviewer wants them to answer (Cypress, 2018). Another disadvantage is the ease of deviating from the role of interviewer to interviewee, once a researcher begins to present his or her own ideas or beliefs on a topic (Ellis, 2016).

### **Data Organization Technique**

Case study documents may be stored electronically as PDFs (Yin, 2018). I transferred the interview recordings to digital files, along with the transcripts and stored them on my personal computer. Common themes were identified and documented based on key topics. I identified common themes through data analysis and briefly defined each theme, and documented evidence supporting the theme (Clark & Veale, 2018). I will securely store the data for five years.

## Data Analysis

Data analysis consists of gathering and organizing data, arranging the data into themes, and presenting data through figures, tables, or discussion. According to Yin (2018), the five-step data analysis process includes compiling data, disassembling data, reassembling data, interpreting data, and making conclusions. I used Yin's five-step data analysis process to organize data to identify connections using the research question. After establishing a data record, the next step is to disassemble the data and interpret the data by coding (Durodola et al., 2017). Coding is defined as making sense of the interview transcripts, observations, and literature review using themes (Cypress, 2018). I reassembled data to create themes and identify various codes to form an idea as suggested by Durodola et al. (2017) and Cypress (2018).

Researchers create themes by making sensible judgments on what is important in the data (Cypress, 2018). The last two steps consist of interpreting the data and coming up with a conclusion (Durodola et al., 2017). I used a voice recorder to record the interviews. I listed a frequency of codes to identify the most common answers and used those answers to formulate themes. I read and highlighted the interview transcripts and categorized them under commonly identified codes/themes in a chronological order. Once I reviewed and verified the interview transcripts, I used triangulation to prove the credibility of my study.

Cypress (2018) describes triangulation as a technique used to prove the credibility of a qualitative research and reduce misinterpretation. Triangulation involves verifying credibility by analyzing and cross-checking the consistency of data collected at different

times through different sources. I used methodological triangulation in my study.

According to Fusch and Ness (2015), methodological triangulation involves using more than one data collection method such as interviews and relevant Army doctrine to correlate data. Triangulation proves validity by exploring different angles of the same phenomenon. Methodological triangulation ensured that my data was rich in depth.

### **Reliability and Validity**

#### **Reliability**

Reliability is defined as the ability to replicate previous research and reach the same conclusions (Krawczyk et al., 2019). Reliability requires consistent and careful research practices to establish the stability of the findings (Mohajan, 2017).

Dependability, an element of reliability, consists of the researcher's ability to demonstrate a logical, clearly documented, and traceable research process (Nowell et al., 2017). Dependability is defined as the ability of knowledgeable researchers to relate the findings to the identified themes (Cypress, 2017), which I established through the creation of accuracy by data reduction and re-evaluation of identified themes, as recommended by Krawczyk et al. (2019).

#### **Validity**

Validity is the state of being justifiable, relevant, meaningful, logical, and adhering to the principles of being sound, just, and well founded (Yin, 2018).

Three methods used in judging the validity of research are credibility, transferability, and confirmability. Credibility is defined as the accurate and truthful depiction of the participant's lived experience (Cypress, 2017). Researchers use accuracy, an attribute of

credibility, to assist in increasing the accuracy of findings and conclusions. I established accountability and accuracy through adequate documentation and a thorough review of the evaluation process; as suggested by Liao & Hitchcock, 2018. Triangulation involves verifying credibility by analyzing and cross-checking the consistency of data collected at different times through different sources (Cypress, 2018).

Transferability is the degree by which the data can be transferred or generalized to other settings. I achieved transferability by describing research context and assumptions that are central to the study, as recommended by Krawczyk et al. (2019). Researchers are required to provide thorough descriptions to allow other researchers the ability to transfer data (Nowell et al., 2017). Confirmability is achieved when researchers are able to demonstrate that all conclusions are valid. I established confirmability through data saturation to ensure that readers will be able to reach the same conclusions given similar circumstances as suggested by Ellis (2019). Confirmability requires that credibility, transferability, and dependability are all established (Nowell et al., 2017).

Data saturation occurs when new information produces little to no change in the themes established through data collection (Tran et al., 2017). According to Fusch and Ness (2015), researchers agree that several measures of data saturation are needed such as no new themes or coding identified during the interview process and whether there is an ability to replicate the study. During interviews, it is best to ask multiple interviewees the same questions. The number of interviewees is not as important as the quality of the interview questions and the depth of the data (Fusch & Ness, 2015). I identified strategies for physician retention through investigation, data analysis, and questioning all findings

throughout the entire research process, while ensuring data saturation was achieved during the data collection phase by use of consistent research techniques until no new themes were identified.

### **Transition and Summary**

Section 2 contains the details of my research study for identifying strategies that health care leaders may use to improve physician retention in small rural military health treatment facilities. I started by redefining my purpose and then discussed the roles of the researcher and participants. I chose a qualitative patient-centered approach because my focus was on hearing the experiences and strategies used by my participants for retaining physicians in rural military health care organizations. I conducted a multiple case study. Multiple case studies assist in deciding what, how, and why things happen, and decisions are made (Gog, 2015), which helped me gain a deeper understanding of which physician retention strategies can be used at small rural military treatment facilities.

I selected the purposive sampling method as my recruitment strategy. One strength of purposive sampling includes the ability to identify participants with similar characteristics and knowledge (Apostolopoulos & Liargovas, 2016). I discussed the importance of an informed consent and conducting ethical research. I chose a semistructured interview as my tool of choice for data collection. I reviewed the interview transcripts and identified common themes discovered during data organization and analysis. Finally, I selected methodological triangulation to enhance the veracity and accuracy of my data interpretation and dependability of my study. Section 3 will contain



a presentation of my findings, applications to professional practice, implications for social change, and recommendations for future research.

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

#### **Introduction**

The purpose of this qualitative multiple case study was to explore strategies some health care leaders of small rural military treatment facilities use to improve physician retention. Five health care leaders responsible for physician management in small military treatment facilities throughout the United States participated in the study. Each deputy or physician leader equivalent answered a series of 10 questions pertaining to physician retention in their organization. The questions included issues and topics such as obstacles to strategy implementation, external stakeholder initiatives, poor physician retention strategies, physician burnout, physician promotion potential, and promotion of a positive work-life balance. Several successful physician retention strategies were identified during the interview process.

Physician retention strategies included implementing initiatives such as Medical Officer of the Day (MOD), pay raises/retention bonuses, hiring and onboarding improvements, appealing to Human Resource Command for more staff, consistency with evaluations/awards, alternate work schedules, and offering training/education opportunities. The deputies addressed several limitations to strategy implementation such as the inability to receive additional staff from Human Resource Command, a lack of competitive salaries compared to those in the civilian network, and the need for an accurate assessment of the number of providers and support staff required to meet health care missions. All deputies felt that consistent communication with the health care team,

staff recognition, and leaders advocating for the team were the most effective strategies for improving physician retention.

### **Presentation of the Findings**

The research question was “what strategies do health care leaders in small military treatment facilities in rural areas use to improve physician retention?” I used a qualitative data analysis to identify six physician retention strategy themes, which included offering physicians competitive pay, hiring and onboarding improvements, requesting authorization for more staff, staff recognition, offering training/education opportunities, and providing physicians with administrative time. Five health care leaders provided informed consent via email and answered 10 open-ended interview questions regarding physician retention strategies. The participants shared their physician retention strategies and experiences from each of their respective military health care organizations. I transcribed all interviews and identified common themes throughout the interview transcripts.

I discovered six themes during my pre- and poststudy literature reviews. I verified credibility through methodological triangulation by analyzing and cross-checking the consistency of data collected during interviews and through different sources collected throughout my study. During literature review and interviews, the six themes that emerged included hiring and onboarding improvements, offering physicians competitive pay, requesting authorization for more staff, staff recognition, professional development opportunities, and providing physicians with administrative time.

## **Hiring/Onboarding Process Improvement**

According to Alperin (2020), approximately 70% of physicians change jobs within their first two years on the job. To improve recruitment strategies, physician recruiters should identify whether the reasons for turnovers are financial compensation, location, career advancement, or work-life balance. Financial incentives for recruitment include malpractice insurance, relocation allowance, educational loan repayment, retirement plans, and sign-on bonuses. Social recruiting by email and telephone is a highly effective recruiting strategy (Alperin, 2020). One deputy mentioned using a recruitment coordinator in the past and how helpful it was in attracting physicians. Selecting the right mentor also plays an important role in physician retention (Alperin, 2020).

Several deputies in my study mentioned experiences with physicians who did not fully understand their roles in their organizations and resigned less than a year after they were hired. Landi (2021) suggested pairing new physician hires with mentors and mailing out hospital newsletters and welcome letters from CEOs as effective ways to begin retention prior to the new physician's start date. It is important for physician leaders to keep communication lines open and address any new employee concerns immediately during the first 180 days (Landi, 2021).

Hemker and Solomon (2016) discussed a CEO at Palomar Health in California providing onboarding and mentorship to new physicians to reduce burnout and enhance engagement. The CEO's first phase of onboarding included pairing new physician hires with mentors to offer tours, answer questions, and provide resources as needed. The

CEO's second phase of onboarding involved an information technology representative providing a facility tour and instruction on the electronic health record. The final phase of onboarding included a mandatory orientation session. The physicians met with key players in the network and learned about the organization's mission, culture, and medical staff values (Hemker & Solomon, 2016). In Army treatment facilities, deputy commanders for clinical services or physician leaders would function in the CEO role of hiring officials for physicians. The physician leader's ability to communicate, assist in recruiting talent, and providing adequate financial incentives is vital to physician hiring and retention (Boothman & Hickson, 2021).

### **Competitive Pay**

The deputies all mentioned the importance of competitive pay and how it can either positively or negatively affect physician job satisfaction. Asghari et al. (2020) found that several physicians rated financial incentives as an important factor in the recruitment and retention of physicians. Kao et al. (2018) conducted a study on physicians' perceptions of pay fairness on job satisfaction, turnover intention, and personal health. They found the perception of pay fairness is based on objective and subjective considerations. Objective considerations include whether the person's pay is equal to other physicians with similar skills and experience in the external job market. Subjective considerations include whether a physician's pay is based on their contributions to the organization. Employees who are satisfied with their pay are more likely to be satisfied, outperform their peers, and less likely to look for other

employment. Higher incomes were consistently associated with an increased perception of pay fairness (Kao et al., 2018).

The deputies also mentioned the discrepancy in physician salaries between civilian and military organizations. Gray and Grefer (2012) found that physician salaries offered at military health care facilities are much less than civilian facilities. In the military, salary caps exist for new and existing civilian primary care physicians employed in either rural or urban military health care organizations. Military physician pay is based on rank and/or specialty. The military physician leaders interviewed during my study had concerns with the salary limitations placed on potential physician hires and existing physician employees at military treatment facilities.

The deputies also mentioned the difficulty military health care leaders have in matching physician salaries offered by civilian health care leaders; however, military physicians, who retire after 20 years, are eligible for military retirement compensation for the rest of their lives (Gray & Grefer, 2012). The lower salaries offered to military and civilian physicians have caused military physician leaders to lose qualified providers. If pay is a primary concern for a physician, a civilian physician will refuse a position based on lower wages and a military physician will eventually leave the military to seek a higher paying civilian position.

### **Additional Staff**

Several of the deputy participants voiced their concerns with burnout and staffing shortages, which has increased even more since the COVID-19 pandemic. Dinibutun (2020) found that physicians deal with many issues, on a regular basis such as a lack of

administrative time and social support at work, looking out for the health and well-being of others, patient complaints, and managing death and illness. According to Oppel et al. (2017), staffing shortages are commonly associated with nurse and physician job satisfaction. Staffing shortages may lead to negative consequences such as extended work hours, increased medical errors, and threatened patient safety and access to care for the remaining employees. Garcia et al. (2020) found that burnout could lead to patient wait time increases, physician turnover, and decreases in quality care. Physician turnover resulting from burnout was estimated to cost approximately \$4.6 billion on a national scale. At an organizational level, the annual cost was estimated at \$7,600 per physician. Burnout is an issue that extends from physicians to the support staff (Han et al., 2019).

According to Draper (2018), members of the Government Accountability Office were asked to conduct an assessment on the Veterans Affairs Medical Centers' (VAMCs) process for determining the number of physicians and support staff needed to care for patients. The Veterans Health Administration is responsible for VAMCs; however, they delegated the determination of staffing levels down to the VAMCs. The Government Accountability Office assessment team found that VAMCs previously used physician staff workgroups to determine the number of physician and support staff needed by examining the relationship between provider workloads, productivity, and the patient population (Draper, 2018). Identifying and determining physician burnout levels are important for maintaining quality health services, employee well-being, and job satisfaction (Dinibutun, 2020).

## **Professional Development and Staff Recognition**

Retention issues result from suboptimal salaries and benefits, heavy workloads, poor work environments, and a lack of access to professional development opportunities (Mohamad et al., 2016). Several deputies mentioned sending physicians to schools and conferences as a strategy for physician retention. As a result of physician shortages and military budget cuts, physician leaders have been forced to frequently deny such requests. Olson et al. (2019) found that supporting physicians in establishing professional development and reaching their highest potential are vital in reducing burnout. Also, preparing physicians for leadership roles may result in improved quality of care and safety for patients. According to Denis and van Gestel (2016), health system performance studies show that strong clinical leadership will drive improvement efforts and initiatives. Organizational leaders who engage, seek input, educate, mentor, and recognize physicians for their contributions will reduce physician burnout and improve job satisfaction (West et al., 2018).

Jongbloed et al. (2017) defined job satisfaction as a constellation of feelings about various facets of a job. Job satisfaction is needed for optimal functioning and quality of care. Opportunities for personal development, professional accomplishments, control over work content and harmony between colleagues and support personnel may affect physician job satisfaction. According to Asghari et al. (2020), opportunities such as professional development will increase physician interest in rural practice and the lack of professional development may be a deterrent.



Professional development such as providing opportunities for clinical and nonclinical learning experiences related to medical procedures, community engagement, and leadership training are desired retention factors among providers (Parlier et al., 2018). Professional competence is achieved through life-long learning and required for evidence-based medical practice. Physician topics needed for continuing professional development include team building, administration, and electronic health records for providing optimal patient care (Lindsay et al., 2016). Physicians use methods such as reading journals, attending continuing medical education conferences, and participating in workshops focused on updating skills and learning new techniques (Amit, 2013). Physicians need administrative time for maintaining professional development, medical documentation, and team/leadership meetings.

### **Administrative Time**

Members of the American Medical Association found that a minimal decrease in workload can reduce physician burnout. They identified four strategies to address physician burnout which include increasing standardization, decreasing redundancy, consolidating data, and reducing interruptions (Berg, 2021). Stevens et al. (2020) conducted a study on a small sample of otolaryngology resident physicians and found that two hours of protected, nonclinical time were associated with clinically meaningful decreased burnout and increased well-being.

One deputy commander provided weekly administrative time for his physicians by assigning a provider to be the “Medical Officer of the Day”. During those assignments, physicians only saw acute care patients, focused on population health, and

caught up on administrative tasks. Shanafelt et al. (2016) found that providing physicians with the option to adjust their professional work efforts by tailoring their hours to meet both personal and professional obligations may help individual physicians recover from burnout. A short-term goal of appropriately distributing job roles and using non-physician staff to assist with administrative requirements may lower physician workloads (Dinibutun, 2020). To be successful, organizational leaders need the support of all stakeholders (Meutia & Febrianti, 2017) in meeting the health care mission.

### **Stakeholder Theory**

Organizational leaders depend on stakeholders for survival, fulfillment of goals, success, and providing resources (Freeman, 1984). According to Cho et al. (2020), high quality care and patient safety are two primary concerns of health care stakeholders. The two categories of health care stakeholders are internal and external. Internal stakeholders include health care employees. External stakeholders for military treatment facilities include installation commanders, commanding generals, network providers, and patients. An important internal stakeholder that several deputies mentioned was the human resource department. The human resource team assists with hiring, onboarding, and offering appropriate financial incentives. Several of the deputies had established collaborative relationships with commanders within the community.

One deputy described how an installation commander and commanding general prevented his hospital from being downsized to a clinic. External stakeholders assist military health care leaders with maintaining and requesting additional staff. Another deputy shared how his installation commander created a wellness initiative which

provided the clinical staff with weekly administrative time for professional development. Stakeholders can influence the development of innovation because of their resources and access (Newth, 2016). To be successful, organizational leaders need the support of stakeholders (Meutia & Febrianti, 2017). Effective physician retention strategies should be shared and applied throughout small military treatment facilities to prevent the loss of production and promote patient satisfaction and physician well-being.

### **Applications to Professional Practice**

Tawfik et al. (2019) found that the average physician in the United States faces many factors that may lead to burnout, such as juggling a busy work schedule, experiencing intense patient interactions, making tough decisions, and adapting quickly to new technologies. Physician burnout threatens a health care leader's ability to achieve their organizational mission. Garcia et al. (2020) found that burnout could lead to increases in patient wait times, physician turnover, and decreases in quality care. The six physician retention strategy themes I identified, which included competitive pay, hiring and onboarding improvements, requests for more staff, staff recognition, offering more training/education opportunities, and providing physicians with administrative time, address various causes of physician burnout and turnover.

Waddimba et al. (2016) found that the implementation of effective physician retention strategies may assist with decreasing practitioner distress by preventing patient dissatisfaction, suboptimal care, surgical errors, and turnover. According to Sabety et al. (2021), poor hiring practices, staff shortages, and too many administrative requirements could potentially cause physician turnover, which may lead to decreased productivity,

quality of care, and an increase in the recruitment and training of new physicians. Physician job satisfaction plays an important role in quality of care and physician turnover with regards to the difficulty health care leaders face in retaining physicians in rural medical facilities (Gu et al., 2019). Managing job satisfaction by ensuring the implementation of these six retention strategies is critical to assisting health care leaders with achieving organizational success.

### **Implications for Social Change**

Physician retention, in rural areas, is threatened by the migration of physicians from rural to urban health care facilities. The migration has a direct effect on the quality and quantity of available health care services in rural areas (Mohammadiaghdam et al., 2020). Data from rural areas in the United States typically show relatively poor health outcomes (Kippenbrock, 2017). Organizational leaders who increase primary care resources in rural communities could potentially improve access to care and prevent hospital admissions. During my literature review, I was unable to find any references mentioning physician retention strategies in rural military clinics. The creation of physician retention strategies to address hiring and onboarding practices, appropriate financial incentives, adequate staffing, employee recognition, educational opportunities, and more administrative time may improve physician retention and indirectly improve patient health care outcomes.

Effective physician retention strategies could potentially create more appointments and minimize the migration of patients in military treatment facilities to civilian hospitals and clinics. Health care policymakers and planners should identify and

address the various financial and working conditions that force physicians to leave rural health care organizations (Mohammadiaghdam et al., 2020). A decrease in physician turnover may contribute to physician job satisfaction and patient satisfaction, which may result in a positive social change for beneficiaries by improving access to care through physician continuity and strengthening doctor–patient relationships within the military community.

### **Recommendations for Action**

I identified six effective physician retention strategies, which included offering physicians competitive pay, hiring and onboarding improvements, requesting authorization for more staff, staff recognition, offering training/education opportunities, and providing physicians with administrative time. The results of this study should be reviewed by military health care administrators, government health care officials, family practice physicians, and commanders in rural areas. The information presented in this study may assist military health care administrators with creating, implementing, and enforcing physician retention strategies that will result in job satisfaction, appointment availability, and safe, high quality patient care in rural military health care organizations. I will disseminate my findings to the Defense Health Agency, who could share the strategies with various military health care organizations, administrators, and beneficiaries.

### **Recommendations for Further Research**

I identified several limitations during my research. Researchers identify potential study weaknesses, which are limitations out of the researchers' control (Theofanidis &

Fountouki, 2018). One limitation with interviews was the inability to interview all the deputy commanders for clinical services (DCCS) or hospital administrators responsible for managing physicians in the Army, Air Force, Navy, and Coast Guard. All of my participants were Army health care leaders. A second limitation could be the amount of time available for interviews, which may limit the information shared. The final limitation was the inability to conduct interviews in person due to travel restrictions resulting from the COVID-19 pandemic.

All five interviews were conducted telephonically and may have limited my ability to build genuine rapport and observe non-verbal expressions. The lack of depth with telephonic interviews may have also created difficulty in establishing a lasting impression (Marshall, 2021). Future researchers should include participants in all military branches who may have additional physician retention strategies or experiences with physician turnover. Face-to-face interviews help researchers obtain a better grasp of non-verbal cues and to build rapport with participants (Marshall, 2021). Future researchers should also conduct their interviews in person.

### **Reflections**

I started this DBA journey believing it would be a simple process. Based on my previous experiences, I thought I had a good idea of the types of strategies I would identify. Walden University's DBA program has been the most challenging program I have experienced, compared to my other four educational degree programs. The faculty has high expectations for their students and conduct thorough review processes which may be used to help students succeed. During this journey, I completed a two-year deputy

position in VA, a two-year command in Germany, got married, and completed War College. At times, I have had issues with time management and making numerous revisions to my work. I have learned so much and I am so appreciative of the attention to detail and professionalism of the Walden University DBA faculty.

I believe my findings may provide military hospital administrators with new strategies and best practices that are not currently being implemented across all military branches. My DBA journey has helped me grow academically and in my own ability to implement strategies that I will use to improve the next health care organization. My research on physician retention is beneficial to me. Additionally, I believe it will also be beneficial to military hospital administrators and health care beneficiaries throughout the U.S. military health system.

### **Conclusion**

The findings of this study prove that medical organizational leader involvement may positively affect turnover intention, burnout, and job satisfaction by creating an understanding of the relationship between physician well-being and job satisfaction. Physician work-life balance is an important factor to incorporate into health care workforce planning. I have shared the experiences of five military health care leaders, responsible for the management of physicians, who identified several successful physician retention strategies and issues within their organizations. Throughout the interviews, all five participants mentioned the importance of establishing a positive work-life balance in physicians. There was strong evidence that dissatisfied physicians were more likely to work less, leave medicine, and be unlikely to encourage others to become

medical providers. Health care leaders should make assessing well-being a routine institutional performance metric and learn to provide physicians with tools for self-calibration, self-care promotion resources, and resilience training. Leadership from the highest level of the organization is key in making progress on physician well-being.



## References

- Adams, E. K., & Markowitz, S. (2018). Improving efficiency in the health-care system: Removing anticompetitive barriers for advanced practice registered nurses and physician assistants. *The Hamilton Project*.  
[https://www.hamiltonproject.org/assets/files/AM\\_PB\\_0620.pdf](https://www.hamiltonproject.org/assets/files/AM_PB_0620.pdf)
- Adamska, A., Dabrowski, T. J., & Grygiel-Tomaszewska, A. (2016). The resource-based view or stakeholder theory: Which better explains the relationship between corporate social responsibility and financial performance? *Eurasian Journal of Business and Management*, 4(2), 1-16.  
<https://doi.org/10.15604/ejbm.2016.04.02.001>
- Akgun, M., & Oztas, S. (2017). The performance prism model and stakeholder satisfaction dimension. *Journal of Applied Research in Finance and Economics*, 3(1), 1-9. <http://jarfe.org>
- Alperin, P. (2020). Effectively recruiting and retaining physicians: A strategic approach for 2020. *Physician Leadership Journal*, 7(2). <https://www.physicianleaders.org/>
- Al-Shamsi, M. (2017). Addressing the physicians' shortage in developing countries by accelerating and reforming the medical education: Is it possible? *Journal of Advances in Medical Education & Professionalism*, 5(4), 209-212.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5611431/pdf/JAMP-5-210.pdf>
- Amanullah, S., McNally, K., Zelin, J., Cole, J., & Cernovsky, Z. (2017). Are burnout prevention programs for hospital physicians needed? *Asian Journal of Psychiatry*, 26, 66-69. <https://doi.org/10.1016/j.ajp.2017.01.009>

- Amin, N. A. N., Wuen, C. H., & Ismail, A. (2017). Leadership style desired by youth in Asia. *Journal of Management Development*, 36(10), 1206–1215.  
<https://doi.org/10.1108/JMD-01-2017-0028>
- Amit, K. G. (2013). Continuous professional development for physicians. *Medunab*, 16(2), 71-76. <https://doi.org/10.29375/issn.0123-7047>
- Anonymous. (2021). Hiring & retaining clinical staff. *Medical Economics*, 98(1), 11–12.  
<https://www.medicaleconomics.com/view/top-challenges-2021-4-hiring-and-retaining-clinical-staff>
- Apostolopoulos, N., & Liargovas, P. (2016). Regional parameters and solar energy enterprises: Purposive sampling and group AHP approach. *International Journal of Energy Sector Management*, 10(1), 19-37. <https://doi.org/10.1108/ijesm-11-2014-0009>
- Asefzadeh, S., Rafiei, S., Ranjbar, M., Kazemifar, A., & Akbari, S. (2020). Influencing factors on physicians' retention in training hospitals of Qazvin University of Medical Sciences in 2017-2018. *Journal of Evidence Based Health Policy, Management & Economics*, 4(1), 23-31.  
<https://doi.org/10:18502/jebhpme.v4i1.2554>
- Asghari, S., Kirkland, M. C., Blackmore, J., Boyd, S., Farrell, A., Rourke, J., Aubrey-Bassler, K., Godwin, M., Oandasan, I., & Walczak, K. (2020). A systematic review of reviews: Recruitment and retention of rural family physicians. *Canadian Journal of Rural Medicine*, 25(1), 20-30.  
[https://doi.org/10.4103/CJRM.CJRM\\_4\\_19](https://doi.org/10.4103/CJRM.CJRM_4_19)

- Assefa, T., Mariam, D. H., Mekonnen, W., & Derbew, M. (2017). Health system's response for physician workforce shortages and the upcoming crisis in Ethiopia: A grounded theory research. *Human Resources for Health, 15*(1), 86-96. <https://doi.org/10.1186/s12960-017-0257-5>
- Association of American Medical Colleges. (2021, June 11). *AAMC report reinforces mounting physician shortage*. <https://news.aamc.org/news-insights/press-releases/aamc-report-reinforces-mounting-physician-shortage>
- Auerbach, D. I., Chen, P. G., Friedberg, M. W., Reid, R., Lau, C., Buerhaus, P. I., & Mehrotra, A. (2013). Nurse-managed health centers and patient-centered medical homes could mitigate expected primary care physician shortage. *Health Affairs, 32*(11), 1933-1941. <https://doi.org/10.1377/hlthaff.2013.0596>
- Azam, K., Khan, A., & Alam, M. T. (2017). Causes and adverse impact of physician burnout: A systematic review. *Journal of the College of Physicians and Surgeons-Pakistan: JCPSP, 27*(8), 495-501. <https://www.jcpsp.pk/archive/2017/Aug2017/10.pdf>
- Baumann, M. R., & Bonner, B. L. (2017). An expectancy theory approach to group coordination: Expertise, task features, and member behavior. *Journal of Behavioral Decision Making, 30*(2), 407-419. <https://doi.org/10.1002/bdm>
- Berg, S. (2021). *4 approaches to cut physician's mental workload and burnout*. American Medical Association. <https://www.ama-assn.org/practice-management/physician-health/4-approaches-cut-physicians-mental-workload-and-burnout>

- Boothman, R. C., & Hickson, G. B. (2021). Time to rethink physician leadership training? *Physician Leadership Journal*, 8(2), 41–46.  
<https://www.physicianleaders.org/>
- Breeze, J., Bowley, D. M., Combes, J. G., Baden, J., Rickard, R. F., DuBose, J., & Powers, D. B. (2019). Facial injury management undertaken at US and UK medical treatment facilities during the Iraq and Afghanistan conflicts: A retrospective cohort study. *BMJ Open*, 9(11), 1-9.  
<https://doi.org/10.1136/bmjopen-2019-033557>
- Casalino, L. P., & Crosson, F. J. (2015). Physician satisfaction and physician well-being: Should anyone care? *Professions & Professionalism*, 5(1), 1-8.  
<https://doi.org/10.7577/pp.954>
- Chang, D. F. (2014). *Increasing the trustworthiness of qualitative research with member checking*. Paper presented at the American Psychological Association 2014 Convention. <https://doi.org/10.1037/e530492014-001>
- Chenail, R. J. (2011). Interviewing the investigator: Strategies for addressing instrumentation and research bias concerns in qualitative research. *The Qualitative Report*, 16(1), 255-262. <http://www.nova.edu>
- Chirico, F. (2017). Combatting the shortage of physicians to alleviate work-related strain. *Journal of Health and Social Sciences*, 2(3), 239-242.  
<https://doi.org/10.19204/2017/cmbt1>

- Cho, I., Lee, M., & Kim, Y. (2020). What are the main patient safety concerns of health care stakeholders: A mixed-method study of Web-based text. *International Journal of Medical Informatics*, *140*, 1-7.  
<https://doi.org/10.1016/j.ijmedinf.2020.104162>
- Choudhary, K., & Sangwan, K. S. (2019). Multiple case study analysis and development of an interpretive structural model for greening of supply chains in Indian ceramic enterprises. *Management of Environmental Quality: An International Journey*, *30*(6), 1279-1296. <https://doi.org/10.1108/MEQ-11-2018-0196>
- Clark, K. R., & Veale, B. L. (2018). Strategies to enhance data collection and analysis in qualitative research. *Radiologic Technology*, *89*(5), 482-285.  
<http://www.radiologictechnology.org/content/89/5/482CT.extract>
- Coplan, B., McCall, T. C., Smith, N., Gellert, V. L., & Essary, A. C. (2018). Burnout, job satisfaction, and stress levels of PAs. *Journal of the American Academy of Physician Assistants*, *31*(9), 42-46.  
<https://doi.org/10.1097/01.jaa.0000544305.38577.84>
- Cortez, L. R., Guerra, E. C., Dantas da Silveira, N. J., & Noro, L. R. A. (2019). The retention of physicians to primary health care in Brazil: Motivation and limitations from a qualitative perspective. *BMC Health Services Research*, *19*(1), 1-5. <https://doi.org/10.1186/s12913-018-3813-3>
- Coutu, D. L. (2002). How resilience works. *Harvard Business Review*, *80*(5), 46-55,  
<https://hbr.org/2002/05/how-resilience-works>

- Crosson, F. J., & Casalino, L. P. (2015). Physician dissatisfaction in the United States: An examination. *Professions & Professionalism*, 5(1), 1-9.  
<https://doi.org/10.7577/pp.926>
- Crouse, B., & Golden, R. N. (2016). A strategic approach to addressing the rural Wisconsin physician shortage. *WMJ: Official Publication of The State Medical Society of Wisconsin*, 115(4), 210-211.  
<https://www.wisconsinmedicalsociety.org/professional/wmj/>
- Cypress, B. (2017). Rigor or reliability and validity in qualitative research: Perspectives, strategies, reconceptualization, and recommendations. *Dimensions of Critical Care Nursing*, 36(4), 253-263. <https://doi.org/10.1097/DCC.0000000000000253>
- Cypress, B. (2018). Qualitative research methods: A phenomenological focus. *Dimensions of Critical Care Nursing*, 37(6), 302-309.  
<https://doi.org/10.1097/DCC.0000000000000322>
- Denis, J. L., & van Gestel, N. (2016). Medical doctors in healthcare leadership: theoretical and practical challenges. *BMC Health Services Research*, 16(2), 45-56.  
<https://doi.org/10.1186/s12913-016-1392-8>
- Dinibutun, S. R. (2020). Factors associated with burnout among physicians: An evaluation during a period of COVID-19 pandemic. *Journal of Healthcare Leadership*, 12(1), 85-94. <https://doi.org/10.2147/JHL.S270440>
- Draper, D. A. (2018). Veterans health administration: Steps taken to improve physician staffing, recruitment, and retention, but challenges remain. *GAO Reports*, 1-12.  
<https://www.gao.gov/products/gao-18-623t>

- Durodola, O., Fusch, P., & Tippins, S. (2017). A case-study of financial literacy and wellbeing of immigrants in Lloydminster, Canada. *International Journal of Business and Management*, 12(1), 37-50. <https://doi.org/10.5539/ijbm.v12n8p37>
- Dyrbye, L. N., West, C. P., Richards, M. L., Ross, H. J., Satele, D., & Shanafelt, T. D. (2016). A randomized, controlled study of an online intervention to promote job satisfaction and well-being among physicians. *Burnout Research*, 3(3), 69-75. <https://doi.org/10.1016/j.burn.2016.06.002>
- Ellis, P. (2016). The language of research (part 11) – research methodologies: Interview types. *Wounds UK*, 12(4), 104-106. <https://www.wounds-uk.com>
- Ellis, P. (2019). The language of research: Understanding the quality of a qualitative research paper. *Wounds UK*, 15(1), 110-111. <https://www.wounds-uk.com>
- Emerson, R. W. (2015). Convenience sampling, random sampling, and snowball sampling: How does sampling effect the validity of research? *Journal of Visual Impairment and Blindness*, 109(2), 164-168. <https://doi.org/10.1177/0145482X1510900215>
- Farrokhi, F., & Mahmoudi-Hamidabad, A. (2012). Rethinking convenience sampling: Defining quality criteria. *Theory & Practice in Language Studies*, 2(4), 784-792. <https://doi.org/10.4304/tpls.2.4.784-792>
- Farver, C. F., Smalling, S., & Stoller, J. K. (2016). Developing leadership competencies among medical trainees: Five- year experience at the Cleveland Clinic with a

chief residents' training course. *Australasian Psychiatry*, 24(5), 499-505.

<https://doi.org/10.1177/1039856216632396>

Fernandez, C. S. P., Noble, C. C., Jensen, E. T., & Chapin, J. (2016). Improving leadership skills in physicians: A 6-month retrospective study. *Journal of Leadership Studies*, 9(4), 6-16. <https://doi.org/10.1002/jls.21420>

Fibuch, E., & Ahmed, A. (2015). Physician turnover: A costly problem. *Physician Leadership Journal*, 2(3), 22-25. <https://www.physicianleaders.org>

Flage, R., & Askeland, T. (2020). Assumptions in quantitative risk assessments: When explicit and when tacit? *Reliability Engineering and System Safety*, 197(1) 1-9. <https://doi.org/10.1016/j.ress.2020.106799>

Fleming, P., & Sinnot, M. (2018). Rural physician supply and retention: Factors in the Canadian context. *Canadian Journal of Rural Medicine*, 23(1), 15-20. <http://www.cjrm.ca>

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Frooman, J. (1999). Stakeholder influence strategies. *Academy of Management Review*, 24(2), 191-205. <https://doi.org/10.2307/259074>

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *Qualitative Report*, 20(9), 1408-1416. <https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=2281&context=tqr>

Garcia, L. C., Shanafelt, T. D., West, C. P., Sinsky, C. A., Trockel, M. T., Nedelec, L., Maldonado, Y. A., Tutty, M., Dyrbye, L. N., & Fassiotto, M. (2020). Burnout, depression, career satisfaction, and work-life integration by physician



race/ethnicity. *JAMA Network Open*, 3(8), 1-13.

<https://doi:10.1001/jamanetworkopen.2020.12762>

Gazelle, G., Liebschutz, J. M., & Riess, H. (2014). Physician burnout: Coaching a way out. *Journal of General Internal Medicine*, 30(4), 508-513.

<https://doi.org/10.1007/s11606-014-3144-y>

Glover, R., & Philbin, M. (2017). Leaping-in and leaping-ahead: A hermeneutic phenomenological study of being-responsible in psychotherapeutic supervision. *Counselling & Psychotherapy Research*, 17(3), 240-247.

<https://doi.org/10.1002/capr.12127>

Gog, M. (2015). Case study research. *International Journal of Sales, Retailing & Marketing*, 4(9), 33-41. <http://www.ijstrm.com>

Gramer, J. (2015, May 1). Digital engagement for physician recruiting. *AAOS Now*, 35.

<https://www.aaos.org/aaosnow/2015/may/managing/managing4/>

Gray, B. M., & Grefer, J. E. (2012). Career earnings and retention of U.S. military physicians, *Defence and Peace Economics*, 23(1), 51-76.

<https://doi.org/10.1080/10242694.2011.562371>

Gu, J., Zhen, T., Song, Y., & Xu, L. (2019). Job satisfaction of certified primary care physicians in rural Shandong Province, China: A cross-sectional study. *BMC Health Services Research*, 19(1), 893-898.

<https://doi.org/10.1186/s12913-019-3893-8>

Hamidi, M. S., Bohman, B., Sandborg, C., Smith-Coggins, R., de Vries, P., Albert, M. S., Murphy, M. L., Welle, D., & Trockel, M. T. (2018). Estimating institutional

physician turnover attributable to self-reported burnout and associated financial burden: A case study. *BMC Health Services Research*, 18(1), 1-8.

<https://doi.org/10.1186/s12913-018-3663-z>

Han, S., Shanafelt, T. D., Sinsky, C. A., Awad, K. M., Dyrbye, L. N., Fiscus, L. C., Trockel, M., & Goh, J. (2019). Estimating the attributable cost of physician burnout in the United States. *Annals of Internal Medicine*, 170(11), 784–790.

<https://doi.org/10.7326/M18-1422>

Hariharan, S. (2015). Using advance practice registered nurses and physician assistants to ease physician shortage. *Physician Leadership Journal*, 2(3), 46-51.

<https://www.physicianleaders.org>

Harwati, L. N. (2019). Ethnographic and case study approaches: Philosophical and methodological analysis. *International Journal of Education*, 7(2), 150-155.

<https://doi.org/10.7575/aiac.ijels.v.7n.2p.150>

Hemker, R. A., & Solomon, L. A. (2016). Building a physician culture for healthcare transformation: A hospital's leadership challenge. *Frontiers of Health Services Management*, 32(3), 3–14.

<https://doi.org/10.1097%2F01974520-201601000-00002>

Herd, A. M., Adams-Pope, B. L., Bowers, A., & Sims, B. (2016). Finding what works: Leadership competencies for the changing healthcare environment. *Journal of Leadership Education*, 15(4), 217-233. <https://doi.org/1012806/V15/I4/C2>

Holloway, I., & Galvin, K. (2017). *Qualitative research in nursing and healthcare* (4th ed.). Wiley Blackwell.

- Hsu, Y., Bai, C., Yang, C., Huang, Y., Lin, T., & Lin, C. (2019). Long hours' effects on work-life balance and satisfaction. *BioMed Research International*, Article 5046934. <https://doi.org/10.1155/2019/5046934>
- Jacob, S. A., & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report*, 17(42), 1-10. <https://nsuworks.nova.edu/tqr/vol17/iss42/3/>
- Jones, T. M., Harrison, J. S., & Felps, W. (2018). How applying instrumental stakeholder theory can provide sustainable competitive advantage. *Academy of Management Review*, 43(3), 371-391. <https://doi.org/10.5465/amr.2016.0111>
- Jongbloed, L. J. S., Cohen-Schotanus, J., Borleffs, C. C., Stewart, R. E., & Schonrock-Adema, J. (2017). Physician job satisfaction related to actual and preferred job size. *BMC Medical Education*, 17(1), 86-94. <https://doi.org/10.1186/s12909-017-0911-6>
- Kao, A. C., Jager, A. J., Koenig, B. A., Moller, A. C., Tutty, M. A., Williams, G. C., & Wright, S. M. (2018). Physician perception of pay fairness and its association with work satisfaction, intent to leave practice, and personal health. *Journal of General Internal Medicine*, 33(1), 812-817. <https://doi.org/10.1007%2Fs11606-017-4303-8>
- Karagiozis, N. (2018). The complexities of the researcher's role in qualitative research: The power of reflexivity. *International Journal of Interdisciplinary Educational Studies*, 13(1), 19-31. <https://doi.org/10.18848/2327-011X/CGP/v13i01/19-31>

- Kian, M., & Beach, D. (2019). Implications of ethnography research method in educational and health studies. *Social Behavior Research and Health*, 3(2), 419-427. <https://doi.org/10.18502/sbrh.v3i2.1788>
- Kippenbrock, T. (2017). Nurse practitioner leadership in promoting access to rural primary care. *Nursing Economic\$,* 35(3), 119-125.  
<http://www.nursingeconomics.net>
- Klevos, G. A., & Ezuddin, N. S. (2018). Discussion: Burning brightly, not burning out. *Physician Leadership Journal*, 5(3), 45-51. <https://www.physicianleaders.org>
- Knight, J. C., Mathews, M., & Aubrey-Bassler, K. (2017). Relation between family physician retention and avoidable hospital admission in Newfoundland and Labrador: A population-based cross-sectional study. *Canadian Medical Association Journal*, 5(4), 746-751. <https://doi.org/10.9778/cmajo.20170007>
- Kok, G., Gurabardhi, Z., Gottlieb, N. H., & Zijlstra, F. R. H. (2015). Influencing organizations to promote health: Applying stakeholder theory. *Health Education & Behavior: The Official Publication of the Society for Public Health Education*, 42(1), 123-132. <https://doi.org/10.1177/1090198115571363>
- Krawczyk, P., Maslov, I., Topolewski, M., Pallot, M., Lehtosaari, H., & Huotari, J. (2019). Threats to reliability and validity of mixed methods research in user eXperience. 2019 IEEE International Conference on Engineering, 1-7.  
<https://doi.org/10.1109/ICE.2019.8792676>
- Landi, H. (2021). COVID-19 is exacerbating physician retention and burnout: Here are some tips to address it. *FierceHealthcare*.

<https://www.fiercehealthcare.com/tech/covid-19-exacerbating-physician-retention-and-burnout-here-are-some-tips-to-address-it>

- Lee, D. M., & Nichols, T. (2014). Physician recruitment and retention in rural and underserved areas. *International Journal of Health Care Quality Assurance*, 27(7), 642-652. <https://doi.org/10.1108/IJHCQA-04-2014-0042>
- Levesque, M., Hatcher, S., Savard, D., Kamyap, R. V., Jean, P., & Larouche, C. (2018). Physician perceptions of recruitment and retention factors in an area with a regional medical campus. *Canadian Medical Education Journal*, 9(1), 74-83. <http://www.cmej.ca>
- Liao, H., & Hitchcock, J. (2018). Reported credibility techniques in higher education evaluation studies that use qualitative methods: A research synthesis. *Evaluation and Program Planning*, 68(1), 157-165. <https://doi.org/10.1016/j.evalprogplan.2018.03.005>
- Lindquist, E., & Marcy, R. (2016). The competing values framework: Implications for strategic leadership, change and learning in public organizations. *International Journal of Public Leadership*, 12(2), 167-186. <https://doi.org/10.1108/IJPL-01-2016-0002>
- Lindsay, E., Wooltorton, E., Hendry, P., Williams, K., & Wells, G. (2016). Family physicians' continuing professional development activities: current practices and potential for new options. *Canadian Medical Education Journal*, 7(1), 38-46. <https://doi.org/10.36834/cmej.36671>

- Lu, Y., Hu, X., Huang, X., Zhuang, X., Guo, P., Feng, L., Hu, W., Chen, L., Zou, H., & Hao, Y. (2017). The relationship between job satisfaction, work stress, work-family conflict, and turnover intention among physicians in Guangdong, China: A cross-sectional study. *BMJ Open*, 7(5), 1-12.  
<https://doi.org/10.1136/bmjopen-2016-014894>
- Luft, J., & Ingham, H. (1961). The Johari window. *Human Relations Training News*, 5(1), 1-7. <http://www.tavinstitute.org/humanrelations/news.html>
- MacQueen, I. T., Maggard-Gibbons, M., Capra, G., Raaen, L., Ulloa, J. G., Shekelle, P. G., Miale-Lye, I., Beroes, J. M., & Hempel, S. (2017). Recruiting rural healthcare providers today: A systematic review of training program success and determinants of geographic choices. *Journal of General Internal Medicine*, 33(2), 191-199. <https://doi.org/10.1007/s11606-017-4210-z>
- Majid, U., Kim, C., Cako, A., & Gagliardi, A. R. (2018). Engaging stakeholders in the co-development of programs or interventions using intervention mapping: A scoping review. *PLOS ONE*, 13(12), 1-18.  
<https://doi.org/10.1371/journal.pone.0209826>
- Marcin, J. P., Rimsza, M. E., & Moskowitz, W. B. (2015). The use of telemedicine to address access and physician workforce shortages. *Pediatrics*, 136(1), 202-209.  
<https://doi.org/10.1542/peds.2015-1253>
- Marshall, C., & Rossman, G. (2016). *Designing qualitative research*. SAGE Publications.
- Marshall, S. (2021, June 21). *Telephone vs. in-person interviews: Advantages and disadvantages*. Recruiter.com.

<https://recruiter.com/i/telephone-vs-in-person-interviews-advantages-and-disadvantages/>

Maza, Y., Schechter, E., Eizenberg, N. P., Segev, E. G., & Flugelman, M. Y. (2016). Physician empowerment programme: A unique workshop for physician-managers of community clinics. *BMC Medical Education*, *16*(1), 1-6.

<https://doi.org/10.1186/s12909-016-0786-y>

McKeever, L., Nguyen, V., Peterson, S. J., Gomez-Perez, S., & Braunschweig, C. (2015). Demystifying the search button: A comprehensive PubMed search strategy for performing an exhaustive literature review. *Journal of Parenteral and Enteral Nutrition*, *39*(6), 622-635. <https://doi.org/10.1177/0148607115593791>

Mehta, P. P., Santiago-Torres, J. E., Wisely, E., Hartmann, K., Makadia, F. A., Welker, M. J., & Habash, D. L. (2016). Primary care continuity improves diabetic health outcomes: From free clinics to federally qualified health centers. *The Journal of the American Board of Family Medicine*, *29*(3), 318-324.

<https://doi.org/10.3122/jabfm.2016.03.150256>

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Meutia, I., & Febrianti, D. (2017). Islamic social reporting in Islamic banking: Stakeholders theory perspective. *SHS Web of Conferences*, *34*(1), 1-8.

<https://doi.org/10.1051/shsconf/20173412001>

- Miguel, S., Psarra, S., & O'Brien, J. (2018). Social and physical characterization of urban contexts: Techniques and methods for quantification, classification, and purposive sampling. *Urban Planning*, 3(1), 58-74. <https://doi.org/10.17645/up.v3i1.1269>
- Miles, S. (2017). Stakeholder theory classification: A theoretical and empirical evaluation of definitions. *Journal of Business Ethics*, 142(1), 437-459. <https://doi.org/10.1007/s10551-015-2741-y>
- Miracle, V. A. (2016). The Belmont Report: The triple crown of research ethics. *Dimensions of Critical Care Nursing*, 35(4), 223-228. <https://doi.org/10.1097/DCC.000000000000018>
- Mohajan, H. K. (2017). Two criteria for good measurements in research: Reliability and validity. *Annals of Spiru Haret University*, 17(4), 59-82. <https://doi.org/10.26458/1746>
- Mohamad, A., Hiba, K., Yara, M., Rami, Y., & Jinane, A. R. (2016). Upscaling the recruitment and retention of human resources for health at primary healthcare centres in Lebanon: A qualitative study. *Health & Social Care in The Community*, 24(3), 353-362. <https://doi.org/10.1111/hsc.12210>
- Mohammadiaghdam, N., Doshmangir, L., Babaie, J., Khabiri, R., & Ponnet, K. (2020). Determining factors in the retention of physicians in rural and underdeveloped areas: a systematic review. *BMC Family Practice*, 21(1), 216-218. <https://doi-org/10.1186/s12875-020-01279-7>
- Mol, A. M., Silva, R. S., Rocha, Á. A., & Ishitani, L. (2017). Ethnography and phenomenology applied to game research: A systematic literature review. *Revista*



*De Sistemas E Computação (RSC)*, 7(2), 110-127.

<http://www.revistas.unifacs.br/index.php/rsc>

Morken, C., Brukch-Meck, K., Crouse, B., & Traxler, K. (2018). Factors influencing rural physician retention following completion of a rural training track family medicine residency program. *Wisconsin Medical Society*, 117(5), 208-210.

<https://www.wisconsinmedicalsociety.org>

Näsi, J. (1995). *Understanding stakeholder thinking*. LSR-Julkaisut Oy.

National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research*. U.S. Department of Health and Human Services.

Newth, J. (2016). Social enterprise innovation in context: Stakeholder influence through contestation. *Entrepreneurship Research Journal*, 6(4), 369-399.

<https://doi.org/10.1515/erj-2014-0029>

Ngozwana, N. (2018). Ethical dilemmas in qualitative research methodology: Researcher's reflections. *International Journal of Educational Methodology*, 4(1), 19-28. <https://doi.org/10.12973/ijem.4.1.19>

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1-13. <https://doi.org/10.1177/1609406917733847>

Olson, K., Marchalik, D., Farley, H., Dean, S. M., Lawrence, E. C., Hamidi, M. S., Rowe, S., McCool, J. M., O'Donovan, C. A., Micek, M. A., & Stewart, M. T.

- (2019). Organizational strategies to reduce physician burnout and improve professional fulfillment. *Current Problems in Pediatric and Adolescent Health Care*, 49(12), 100-114. <https://doi.org/10.1016/j.cppeds.2019.100664>
- Opoku, S. T., Apenteng, B. A., Lin, G., Chen, L., Palm, D., & Rauner, T. (2015). A comparison of the J-1 Visa waiver and loan repayment programs in the recruitment and retention of physicians in rural Nebraska. *The Journal of Rural Health*, 31(3), 300-309. <https://doi.org/10.1111/jrh.12108>
- Oppel, E., Winter, V., & Schreyogg, J. (2017). Evaluating the link between human resource management decisions and patient satisfaction with quality of care. *Health Care Management Review*, 42(1), 53-64. <https://doi.org/10.1097/HMR.0000000000000087>
- Paolo, G., Montemurro, D., Rossi, A. P., Troise, C., Palermo, C., Amati, D., Rivetti, C., D'Arienzo, M., Romani, G., & Ragazzo, F. (2017). Lack of application of the European Work Time Directive: Effects on workload, work satisfaction, and burnout among Italian physicians. *Italian Journal of Medicine*, 11(2), 159-163. <https://doi.org/10.4081/itjm.2017.714>
- Parlier, A. B., Galvin, S. L., Thach, S., Kruidenier, D., & Fagan, E. B. (2018). The road to rural primary care. *Academic Medicine*, 93(1), 130-140. <https://doi.org/10.1097/acm.0000000000001839>
- Patrichi, M. E. (2016). General military human resource management and Special Forces human resource management: A comparative outlook. *Journal of Defenses Resource Management*, 6(2), 75-82. <http://www.jodrm.eu>

- Pedrazza, M., Berlanda, S., Trifiletti, E., & Bressan, F. (2016). Exploring physicians' dissatisfaction and work-related stress: Development of the PhyDis scale. *Frontiers in Psychology, 7*(1), 1238-1247.  
<https://doi.org/10.3389/fpsyg.2016.01238>
- Petterson, S. M., Law, W. R., Tran, C., & Bazemore, A. W. (2015). Estimating the residency expansion required to avoid projected primary care physician shortages by 2035. *The Annals of Family Medicine, 13*(2), 107-114.  
<https://doi.org/10.1370/afm.1760>
- Phillips, J., Hustedde, C., Bjorkman, S., Prasad, R., Sola, O., Wendling, A., Bjorkman, K., & Paladine, H. (2016). Rural women family physicians: Strategies for successful work-life balance. *The Annals of Family Medicine, 14*(3), 244-251.  
<https://doi.org/10.1370/afm.1931>
- Price, B. (2009). Guidance on conducting a literature search and reviewing mixed literature. *Nursing Standard, 23*(24), 43-49.  
<https://doi.org/10.7748/ns.23.24.43.s48>
- Reid, A., Brown, J. M., Smith, J. M., Cope, A. C., & Jamieson, S. (2018). Ethical dilemmas and reflexivity in qualitative research. *Perspectives on Medical Education, 7*(2), 69-75. <https://doi.org/10.1007/s40037-018-0412-2>
- Retolaza, J. L., Aguado, R., & Alcaniz, L. (2019). Stakeholder theory through the lenses of Catholic social thought. *Journal of Business Ethics, 157*(2), 969-980.  
<https://doi.org/10.1007/s10551-018-3963-6>
- Rosenthal, M. (2016). Qualitative research methods: Why, when, and how to conduct

- interviews and focus groups in pharmacy research. *Currents in Pharmacy Teaching and Learning*, 8(4), 509-516. <https://doi.org/10.1016/j.cptl.2016.03.021>
- Roth, W., & von Unger, H. (2018). Current perspectives on research ethics in qualitative research. *Forum: Qualitative Social Research*, 19(3), 1-12. <https://doi.org/10.17169/fqs-19.3.3155>
- Roy, A., van der Weijden, T., & de Vries, N. (2017). Relationships of work characteristics to job satisfaction, turnover intention, and burnout among doctors in the district public-private mixed health system of Bangladesh. *BMC Health Services Research*, 17(1), 1-11. <https://doi.org/10.1186/s12913-017-2369-y>
- Russell, S., & Brannan, M. J. (2016). “Getting the right people on the bus”: Recruitment, selection and integration for the branded organization. *European Management Journal*, 34(2), 114-124. <https://doi.org/10.1016/j.emj.2016.01.001>
- Rutberg, S., & Bouikidis, C. D. (2018). Focusing on the fundamentals: A simplistic differentiation between qualitative and quantitative research. *Nephrology Nursing Journal*, 45(2), 209-212. <https://www.annanurse.org/>
- Sabety, A. H., Jena, A. B., & Barnett, M. L. (2021). Changes in health care use and outcomes after turnover in primary care. *JAMA Internal Medicine*, 181(2), 186-194. <https://doi.org/10.1001/jamainternmed.2020.6288>
- Sanford, K. D. (2016). The five questions of physician leadership. *Frontiers of Health Services Management*, 32(3), 39-45. <https://doi.org/10.1097/01974520-201601000-00006>

- Sarvimaki, A. (2015). Healthy ageing, narrative method and research ethics. *Scandinavian Journal of Public Health, 4*(3), 57-60.  
<https://doi.org/10.1177/1403494814568597>
- Savageau, J. A., Cragin, L., Ferguson, W. J., Sefton, L., & Pernice, J. (2016). Recruitment and retention of community health center primary care physicians post MA health care reform: 2008 vs. 2013 physician surveys. *Journal of Health Care for the Poor and Underserved, 27*(3), 1011-1032.  
<https://doi.org/10.1353/hpu.2016.0106>
- Schaltegger, S., Horisch, J., & Freeman, R. E. (2017). Business cases for sustainability: A stakeholder theory perspective. *Organization & Environment, 32*(3), 191-212.  
<https://doi.org/10.1177/1086026617722882>
- Severgnini, E., Cardoza Galdaméz, E. V., & de Oliveira Moraes, R. (2018). Satisfaction and contribution of stakeholders from the performance prism model. *Brazilian Business Review (Portuguese Edition), 15*(2), 120-134.  
<https://doi.org/10.15728/bbr.2018.15.2.2>
- Shanafelt, T. D., Dyrbye, L. N., West, C. P., & Sinsky, C. A. (2016). Potential impact of burnout on the US physician workforce. *Mayo Clinic Proceedings, 91*(11), 1667-1668. <https://doi.org/10.1016/j.mayocp.2016.08.016>
- Shanafelt, T. D., Gorringer, G., Menaker, R., Storz, K. A., Reeves, D., Buskirk, S. J., Sloan, J. A., & Swensen, S. J. (2015a). Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clinic Proceedings, 90*(4), 432-440.  
<https://doi.org/10.1016/j.mayocp.2015.01.012>

Shanafelt, T. D., Hasan, O., Dyrbye, L. N., Sinsky, C., Satele, D., Sloan, J., & West, C. P.

(2015b). Changes in burnout and satisfaction with work- life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clinic Proceedings*, 90(12), 1600-1613. <https://doi.org/10.1016/j.mayocp.2015.08.023>

Shanafelt, T. D., & Noseworthy, J. H. (2017). Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout.

*Mayo Clinic Proceedings*, 92(1), 129-146.  
<https://doi.org/10.1016/j.mayocp.2016.10.004>

Sinsky, C. A., Dyrbye, L. N., West, C. P., Satele, D., Tutty, M., & Shanafelt, T. D.

(2017). Professional satisfaction and the career plans of US physicians. *Mayo Clinic Proceedings*, 92(11), 1625-1635.  
<https://doi.org/10.1016/j.mayocp.2017.08.017>

Stahl, N., Lampi, J., & King, J. R. (2019). Expanding approaches for research: Mixed methods. *Journal of Developmental Education*, 42(3), 28-30.

<https://ncde.appstate.edu>

Stevens, K., Davey, C., & Lassig, A. A. (2020). Association of weekly protected nonclinical time with resident physician burnout and well-being. *JAMA Otolaryngology–Head & Neck Surgery*, 146(2), 168.

<https://doi.org/10.1001/jamaoto.2019.3654>

- Stockley, D., & Balkwill, L. (2013). Raising awareness of research ethics SoTL: The role of educational developers. *Canadian Journal for the Scholarship of Teaching and Learning*, 4(1), 1-8. <https://doi.org/10.4018/978-1-61350-510-6.ch012>
- Stoller, J. K., Sikon, A., & Schulte, E. E. (2017). A perspective on crafting a dream medical career. *OD Practitioner*, 49(1), 35-41. [http://www.realtimestrategicchange.com/wp-content/uploads/2019/11/OD-Practitioner-vol49no1-all\\_pages.pdf](http://www.realtimestrategicchange.com/wp-content/uploads/2019/11/OD-Practitioner-vol49no1-all_pages.pdf)
- Stromgren, M., & Eriksson, A. (2017). Leadership quality: A factor important for social capital in healthcare organizations. *Journal of Health Organization and Management*, 31(2), 175-191. <https://doi.org/10.1108/JHOM-12-2016-0246>
- Tawfik, D. S., Profit, J., Webber, S., & Shanafelt, T. D. (2019). Organizational factors affecting physician well-being. *Current Treatment Options in Pediatrics*, 5(1), 11-25. <https://doi.org/10.1007/s40746-019-00147-6>
- Terry, R., & Brown, N. (2016). Growing your own: Hospital recruitment and retention. *Physician Leadership Journal*, 3(2), 44-48. <https://www.physicianleaders.org>
- Theofanidis, D., & Fountouki, A. (2018). Limitations and delimitations in the research process. *Perioperative Nursing*, 7(3), 155-163. <https://doi.org/10.5281/zenodo.2552022>
- Thomas, D. B., Oenning, N. S. X., & de Goulart, B. N. G. (2018). Essential aspects in the design of data collection instruments in primary health research. *Revista CEFAC*, 20(5), 657-664. <https://doi.org/10.1590/1982-021620182053218>

- Tosun, N., & Ulusoy, H. (2017). The relationship of organizational commitment, job satisfaction and burnout on physicians and nurses? *Journal of Economics & Management*, 28(2), 90-111. <https://doi.org/10.2236/jem2017.28.06>
- Tran, V., Porcher, R., Falissard, B., & Ravaud, P. (2016). Original article: Point of data saturation was assessed using resampling methods in a survey with open-ended questions. *Journal of Clinical Epidemiology*, 80(1), 88-96.  
<https://doi.org/10.1016/j.jclinepi.2016.07.014>
- Tran, V., Porcher, R., Tran, V., & Ravaud, P. (2017). Predicting data saturation in qualitative surveys with mathematical models from ecological research. *Journal of Clinical Epidemiology*, 82(1), 71-78.  
<https://doi.org/10.1016/j.jclinepi.2016.10.001>
- Tsai, Y., Huang, N., Chien, L., Chiang, J., & Chiou, S. (2016). Work hours and turnover intention among hospital physicians in Taiwan: Does income matter? *BMC Health Services Research*, 16(1), 1-8. <https://doi.org/10.1186/s12913-016-1916-2>
- Tziner, A., Rabenu, E., Radomski, R., & Belkin, A. (2015). Work stress and turnover intentions among hospital physicians: The mediating role of burnout and work satisfaction. *Journal of Work and Organizational Psychology*, 31(3), 207-213.  
<https://doi.org/10.1016/j.rpto.2015.05.001>
- Underdahl, L., Jones-Meineke, T., & Duthely, M. (2018). Reframing physician engagement: An analysis of physician resilience, grit, and retention. *International Journal of Healthcare Management*, 11(3), 243-250.  
<https://doi.org/10.1080/20479700.2017.1389478>



- Valerio, M. A., Rodriguez, N., Winkler, P., Lopez, J., Dennison, M., Liang, Y., & Turner, B. J. (2016). Comparing two sampling methods to engage hard-to-reach communities in research priority setting. *BMC Medical Research Methodology*, *16*(1), 146-156. <https://doi.org/10.1186/s12874-016-0242-z>
- van der Graaf, P., Forrest, L. F., Adams, J., Shucksmith, J., & White, M. (2017). How do public health professionals view and engage with research? A qualitative interview study and stakeholder workshop engaging public health professionals and researchers. *BMC Public Health*, *17*(1), 1-10. <https://doi.org/10.1186/s12889-017-4896>
- van de Wiel, M. W. J. (2017). Examining expertise using interviews and verbal protocols. *Frontline Learning Research*, *5*(3), 112-140. <https://doi.org/10.14786/flr.v5i3.257>
- Verma, P., Ford, J. A., Stuart, A., Howe, A., Everington, S., & Steel, N. (2016). A systematic review of strategies to recruit and retain primary care doctors. *BMC Health Services Research*, *16*(1), 126-150. <https://doi.org/10.1186/s12913-016-1370-1>
- Waddimba, A. C., Scribani, M., Krupa, N., May, J. J., & Jenkins, P. (2016). Frequency of satisfaction and dissatisfaction with practice among rural-based, group-employed physicians and non-physician practitioners. *BMC Health Services Research*, *16*(1), 613-627. <https://doi.org/10.1186/s12913-016-1777-8>
- Weinhold, I., & Gurtner, S. (2014). Understanding shortages of sufficient health care in rural areas. *Health Policy*, *118*(2), 201-214. <https://doi.org/10.1016/j.healthpol.2014.07.018>

- Weinhold, I., & Gurtner, S. (2018). Rural-urban differences in determinants of patient satisfaction with primary care. *Social Science & Medicine*, 212(1), 76–85.  
<https://doi.org/10.1016/j.socscimed.2018.06.019>
- Wen, T., Zhang, Y., Wang, X., & Tang, G. (2018). Factors influencing turnover intention among primary care doctors: A cross-sectional study in Chongqing, China. *Human Resources for Health*, 16(1), 1-11.  
<https://doi.org/10.1186/s12960-018-0274-z>
- Wendling, A. L., Phillips, J., Short, W., Fahey, C., & Mavis, B. (2016). Thirty years training rural physicians: Outcomes from the Michigan State University College of Human Medicine rural physician program. *Academic Medicine*, 91(1), 113-119. <https://doi.org/101097/ACM.0000000000000885>
- Werhane, P. H. (2000). Business ethics, stakeholder theory, and the ethics of healthcare organizations. *Cambridge Quarterly of Healthcare Ethics*, 9(2), 169-180.  
<https://doi.org/10.1017/s0963180100902044>
- West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: contributors, consequences, and solutions. *Journal of Internal Medicine*, 283(6), 516–529.  
<https://doi-org/10.1111/joim.12752>
- Willard-Grace, R., Knox, M., Huang, B., Hammer, H., Kivlahan, C., & Grumbach, K. (2019). Burnout and health care workforce turnover. *The Annals of Family Medicine*, 17(1), 36-41. <https://doi.org/10.1370/afm.2338>
- Willis, D. G., Sullivan-Bolyai, S., Knafl, K., & Cohen, M. Z. (2016). Distinguishing features and similarities between descriptive phenomenological and qualitative

description research. *Western Journal of Nursing Research*, 38(9), 1185-1204.

<https://doi.org/10.177/0193945916645499>

Witt, J. (2017). Physician recruitment and retention in Manitoba: Results from a survey of physicians' preferences for rural jobs. *Canadian Journal of Rural Medicine*, 22(2), 43-53. <http://www.cjrm.ca>

Wolter, N., Tarnoff, S. L., & Leckman, L. (2015). Recruiting and retaining physician leaders. *Healthcare*, 21(2), 1-6. <https://doi.org/10.1016/j.hjdsi.2015.08.009>

Yeong, M. L., Ismail, R., Ismail, N. H., & Hamzah, M. I. (2018). Interview protocol refinement: Fine-tuning qualitative research interview questions for multi-racial populations in Malaysia. *Qualitative Report*, 23(11), 2700-2713.  
<https://tqr.nova.edu>

Yin, R. K. (2018). *Case study research: design and methods* (7th ed.). Sage.

## Appendix: Interview Questions

1. What strategies have you used to increase physician retention in your organization?
2. How did you assess the effectiveness of your strategies for improving physician retention within your organization?
3. What key obstacles did you encounter when implementing the strategies for improving physician retention?
4. How did you address those key obstacles to implementing the strategies for improving physician retention?
5. What initiatives have external stakeholders provided to assist in improving physician retention in your military treatment facility?
6. What are some examples of poor physician retention strategies that caused your physicians to leave your organization in the past?
7. How have the physician retention strategies you implemented played a role in reducing physician burnout within your organization?
8. How has the potential for physician promotion improved physician retention within your organization?
9. How did your physician retention strategies affect the promotion of a positive work life balance for your physicians within your military treatment facility?
10. What other information would you like to add regarding physician retention in your facility?