

Addressing the Leadership Gap in Rural Healthcare

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Abstract

This capstone project addresses the critical leadership challenges prevalent in rural healthcare settings, specifically focusing on a community health clinic in rural Montana grappling with persistent staff shortages and inadequate leadership development opportunities. The dearth of essential leadership skills among the clinic's staff has led to a discernible decrease in patient satisfaction and a concerning decline in overall health outcomes within the community. This project seeks to identify and evaluate targeted strategies designed to enhance leadership capacity within the organization. The research methodology involves a comprehensive analysis of current leadership practices, an in-depth examination of the organizational culture, and a thorough consideration of external factors such as evolving healthcare policies and funding models. Employing a mixed-methods approach, the study will quantitatively assess leadership retention rates and program participation metrics to gauge the effectiveness of current initiatives. This quantitative data will be complemented by qualitative insights gathered through interviews and focus groups, aimed at understanding the perceived value of mentorship programs and community engagement activities in fostering leadership development. The ultimate goal of this project is to develop a practical and adaptable framework that rural healthcare organizations can utilize to improve leadership development initiatives, strengthen succession planning processes, and ensure the provision of sustainable, high-quality healthcare services in underserved communities. The central hypothesis of this research posits that healthcare facilities that implement mentorship-focused leadership development programs will experience a significant increase in leadership retention rates. While acknowledging potential challenges such as uncontrollable external factors and the resource-intensive nature of leadership development programs, this project aims to provide actionable insights and evidence-based recommendations

for building resilient leadership pipelines in rural healthcare, ultimately contributing to improved healthcare delivery and community well-being.

Introduction

Healthcare facilities in rural areas operate within a complex landscape of unique challenges, ranging from limited resources and geographic isolation to aging populations and workforce shortages. Among these challenges, a significant leadership gap stands out as a critical concern, directly impacting organizational performance, the quality of patient care, and overall community health outcomes. This leadership gap is often exacerbated by difficulties in attracting and retaining qualified professionals who are willing to serve in rural settings. This capstone project directly addresses the urgent need to identify the key factors contributing to this leadership gap, including barriers to recruitment, professional development opportunities, and the unique demands of leading in a rural context. Furthermore, this project aims to develop actionable strategies that higher education programs and healthcare organizations can implement to effectively attract, develop, and retain qualified leaders in rural settings, thereby strengthening the healthcare infrastructure and improving the well-being of rural communities. By exploring innovative approaches to leadership development, mentorship, and community engagement, this project seeks to provide practical solutions that can be tailored to the specific needs of rural healthcare organizations.

Organizational or Situation Review

A community health clinic in rural Montana faces challenges in maintaining its services due to a shortage of healthcare professionals willing to work in remote areas. The clinic director, overwhelmed with administrative tasks and patient care, lacks the time and resources to develop leadership skills among the existing staff. This absence of leadership development results in a lack of innovation and stagnation in the quality of patient care delivery and community engagement. Consequently, the clinic struggles to adapt to the evolving healthcare needs of the community, leading to decreased patient satisfaction and a decline in the overall health outcomes of the population it serves.

The clinic director's inability to foster leadership skills among staff creates a ripple effect. Without leadership development, nurses and medical assistants, for example, don't feel empowered to take initiative in improving processes or suggesting new programs. This stifles innovation and limits the clinic's ability to address specific local health issues proactively. Furthermore, the lack of strong leadership hinders the clinic's capacity to secure grants or partnerships that could bring in much-needed resources. Grant applications often require demonstrating a clear vision and a capable team ready to implement new projects, which is hard to do without distributed leadership. Ultimately, this leadership gap leads to a cycle of decline. The clinic struggles to attract and retain talent, fails to adapt to changing community needs, and becomes increasingly reliant on outdated methods. This not only affects patient care but also undermines the clinic's long-term sustainability, potentially leaving the rural community without essential healthcare services.

Problem Statement

Rural healthcare organizations are facing a significant and growing leadership crisis, which directly threatens their capacity to provide sustainable, high-quality care to the communities they serve. This crisis is characterized by a critical shortage of qualified leaders, stemming from difficulties in attracting, developing, and retaining individuals with the necessary skills and vision to navigate the unique challenges of rural healthcare administration. The leadership gap not only compromises organizational performance but also diminishes access to essential healthcare services, exacerbating health disparities in underserved areas.

The complexity of this issue is compounded by a variety of interconnected factors, including the distinctive organizational culture of rural healthcare facilities, the ever-evolving landscape of healthcare policies and regulations, the rapid pace of technological advancements, and the constraints imposed by fluctuating funding models. These elements collectively create an environment that demands innovative and adaptive leadership strategies. Without a comprehensive understanding of these dynamics and the implementation of targeted interventions, rural healthcare organizations will struggle to build resilient leadership pipelines, hindering their ability to meet the evolving healthcare needs of their communities and ensure the long-term viability of these essential institutions. Addressing this multifaceted problem is, therefore, paramount to securing the health and well-being of rural populations.

This study is crucial because the consequences of a leadership vacuum in rural healthcare extend far beyond organizational inefficiencies. The sustainability of rural healthcare hinges on effective leadership that can navigate complex challenges and advocate for community health needs. By identifying specific barriers to leadership development and implementing targeted strategies, this

research aims to empower rural healthcare organizations to cultivate strong leadership, improve patient outcomes, and strengthen the overall health infrastructure in underserved communities. Furthermore, the findings will contribute to the broader understanding of leadership dynamics in resource-constrained settings, offering valuable insights for policymakers, healthcare administrators, and community stakeholders invested in the well-being of rural populations.

Purpose Statement

The purpose of this capstone project is to conduct an in-depth investigation into the multifaceted leadership challenges and unique opportunities present within rural healthcare settings, with a particular emphasis on the urgent need to cultivate, support, and retain effective leaders. Through a comprehensive analysis of current leadership practices, the prevailing organizational culture, and the impact of external factors such as evolving healthcare policies, technological advancements, and funding models, this project aims to identify key strategies for enhancing leadership capacity. By examining the perspectives of both current leaders and emerging professionals, the study will explore innovative approaches to leadership development, mentorship programs, and strategies for fostering a supportive work environment. Ultimately, the overarching goal is to develop a practical, evidence-based framework and toolkit that rural healthcare organizations can readily implement to improve leadership development, strengthen succession planning, and ensure the delivery of sustainable, high-quality care within these often underserved communities. This project seeks to provide actionable insights that will empower rural healthcare facilities to build resilient leadership pipelines, enhance organizational performance, and better meet the evolving healthcare needs of their communities.

The Capstone Research Question(s)

This research project poses the following questions: 1) What are the key factors contributing to the leadership gap in rural healthcare administration? 2) What strategies can higher education programs and healthcare organizations implement to effectively attract, develop, and retain qualified leaders in these settings?

Hypotheses

Hypothesis: Rural healthcare facilities that implement leadership development programs focused on mentorship and community engagement will experience a statistically significant increase in leadership retention rates compared to facilities without such programs.

Literature Review

(1) Leadership Practices in Healthcare: A Focus on Servant and Transformational Leadership

The healthcare sector is undergoing rapid transformation, necessitating effective leadership to navigate complexities and ensure quality patient care. Traditional hierarchical models are giving way to more adaptive leadership styles, with Servant and Transformational Leadership gaining prominence. This review examines the current literature on these leadership practices within

healthcare settings, highlighting their impact on organizational outcomes and employee well-being.

Servant Leadership, characterized by a leader's commitment to serving others, has been linked to improved staff satisfaction and patient experiences. Studies indicate that when healthcare leaders prioritize the needs of their team members, it fosters a supportive work environment, reducing burnout and enhancing teamwork. This approach empowers employees, encouraging them to take ownership of their roles and contribute innovative solutions to challenges. Research also suggests that Servant Leadership can lead to better communication and trust between healthcare providers and patients, ultimately improving the quality of care.

Transformational Leadership, which focuses on inspiring and motivating employees to achieve a shared vision, is also highly relevant in healthcare. Transformational leaders in healthcare settings often emphasize innovation, continuous learning, and a patient-centered approach. They encourage their teams to think critically, challenge existing processes, and adapt to changing circumstances. Evidence suggests that Transformational Leadership can enhance organizational performance, improve patient safety outcomes, and foster a culture of excellence. By instilling a sense of purpose and creating a shared commitment to quality, transformational leaders can drive positive change within healthcare organizations (Singh, P.K., 2024).

(2) Organizational Cultures in Top Healthcare Organizations

Organizational culture significantly influences the performance and adaptability of healthcare organizations, especially those recognized as leaders in the industry. This review examines the

prevailing organizational cultures within top healthcare organizations, exploring the values, norms, and practices that contribute to their success. Understanding these cultural attributes can provide valuable insights for organizations seeking to enhance their effectiveness and competitiveness.

Many top healthcare organizations cultivate a culture of patient-centeredness, where the needs and experiences of patients are prioritized in all aspects of care delivery. This involves creating a supportive and compassionate environment for patients and their families, as well as empowering healthcare professionals to make decisions that best serve patient interests. Such organizations often invest in training programs that emphasize empathy, communication, and cultural sensitivity, fostering a patient-first mindset among their staff. Research suggests that a patient-centered culture can lead to improved patient satisfaction, better health outcomes, and enhanced organizational reputation.

Innovation and continuous improvement are also hallmarks of the organizational cultures in leading healthcare institutions. These organizations encourage experimentation, learning from failures, and the adoption of evidence-based practices to enhance the quality and efficiency of care. They often establish dedicated teams or departments focused on innovation, providing resources and support for the development and implementation of new technologies, treatments, and care models. Furthermore, a culture of continuous improvement promotes ongoing assessment of performance metrics, identification of areas for improvement, and the implementation of strategies to optimize processes and outcomes. This commitment to innovation and improvement enables top healthcare organizations to stay ahead of the curve and deliver cutting-edge care.

(3)The Impact of Evolving Healthcare Policies on Organizational Practices

Healthcare policies are constantly evolving, reflecting changes in societal needs, technological advancements, and economic realities. These policy shifts have a profound impact on healthcare organizations, influencing their operational strategies, financial performance, and the quality of care they provide. This review examines the current literature on the impact of evolving healthcare policies, focusing on how organizations adapt to these changes and the challenges they face in doing so.

One of the most significant impacts of evolving healthcare policies is the increasing emphasis on value-based care. Policies such as the Affordable Care Act (ACA) and the Medicare Access and CHIP Reauthorization Act (MACRA) have incentivized healthcare providers to deliver high-quality care at lower costs. This has led organizations to adopt new care models, such as accountable care organizations (ACOs) and patient-centered medical homes (PCMHs), which promote coordinated and integrated care delivery. The shift towards value-based care requires healthcare organizations to invest in data analytics, population health management, and care coordination infrastructure to effectively manage costs and improve patient outcomes.

Another key area of impact is the increasing focus on healthcare quality and patient safety. Policies such as the Hospital Readmissions Reduction Program and the Hospital Value-Based Purchasing Program penalize hospitals for high readmission rates and poor patient outcomes, incentivizing them to improve the quality and safety of care. This has led organizations to implement evidence-based practices, enhance infection control protocols, and promote a culture of safety. Furthermore, healthcare policies are increasingly emphasizing transparency and public

reporting of quality metrics, which puts pressure on organizations to demonstrate their commitment to excellence. The evolving policy landscape requires healthcare organizations to prioritize quality improvement initiatives and invest in systems that promote patient safety and satisfaction.

(4)The Impact of Technological Advancements in Healthcare on Leadership

Technological advancements are rapidly transforming the healthcare industry, presenting both opportunities and challenges for healthcare leaders. This literature review explores how these advancements impact leadership roles, skills, and strategies within healthcare organizations. It examines the evolving demands on leaders to effectively manage and integrate new technologies, foster innovation, and navigate the complex ethical and organizational implications of these changes.

One of the most significant impacts of technological advancements on healthcare leadership is the need for leaders to champion and drive digital transformation. Technologies such as electronic health records (EHRs), telehealth, artificial intelligence (AI), and wearable devices are reshaping how healthcare is delivered and managed. Leaders must develop a clear vision for how these technologies can improve patient care, enhance operational efficiency, and create a competitive advantage. This requires leaders to invest in digital infrastructure, foster a culture of innovation, and empower their teams to adopt and utilize new technologies effectively.

Another critical area is the need for leaders to navigate the ethical and social implications of technological advancements. Technologies such as AI and genetic testing raise complex ethical

questions related to patient privacy, data security, and equitable access to care. Leaders must establish clear ethical guidelines, promote transparency, and engage stakeholders in discussions about the responsible use of these technologies. This requires leaders to possess strong ethical reasoning skills, cultural competence, and the ability to build trust with patients and communities. The evolving technological landscape demands that healthcare leaders prioritize ethical considerations and ensure that technology is used in a way that benefits all members of society.

(5)The Influence of Healthcare Funding Models on Leadership

Healthcare funding models significantly shape the landscape in which healthcare organizations operate, profoundly impacting leadership roles and strategies. This literature review explores how different funding models—such as fee-for-service, capitation, and value-based care— influence leadership priorities, decision-making, and organizational performance. It examines the challenges and opportunities that these models present for healthcare leaders and how they must adapt to ensure financial sustainability and quality care delivery.

One of the primary ways funding models affect healthcare leadership is through their influence on financial incentives and resource allocation. In fee-for-service models, where providers are reimbursed for each service they provide, leaders may focus on maximizing volume and revenue. This can lead to a fragmented care system and a lack of coordination among providers. In contrast, capitation models, where providers receive a fixed payment per patient, incentivize leaders to manage costs and improve efficiency. This requires leaders to invest in preventive care, care coordination, and population health management strategies. Value-based care models,

which reward providers for achieving specific quality and outcome metrics, require leaders to focus on improving patient outcomes and reducing costs.

Another critical area is the impact of funding models on leadership competencies and skill sets. In fee-for-service environments, leaders may need strong financial management skills to optimize revenue and control expenses. In capitation and value-based care models, leaders must possess a broader range of skills, including data analytics, quality improvement, and change management. They must also be able to collaborate effectively with other providers and stakeholders to achieve shared goals. The shift towards value-based care requires leaders to be innovative, adaptable, and committed to continuous improvement. By understanding the nuances of different funding models and their implications for organizational strategy, healthcare leaders can effectively navigate the evolving healthcare landscape and drive positive change.

(6) Exploring the Influence of Policy and Funding: Examine the impact of healthcare policies and funding models on leadership capacity and the ability of rural facilities to invest in leadership development.

Healthcare policies and funding models significantly influence the leadership capacity and investment in leadership development within rural healthcare facilities like Logan Health. Reimbursement models, such as those under Medicare and Medicaid, often create financial constraints, limiting the resources available for leadership training and recruitment. This is especially pronounced in rural areas with a high percentage of patients relying on these government-funded programs. Additionally, policies that incentivize volume over value can

divert attention from long-term leadership development in favor of immediate revenue generation.

Regulatory requirements and compliance standards also play a crucial role. Rural facilities must navigate the same complex regulatory landscape as larger, urban systems, often with fewer resources. This necessitates strong leadership to ensure compliance and manage risk, but the cost of compliance can further strain budgets, reducing the funds available for leadership development. Moreover, policies that promote or hinder telehealth and other innovative care delivery models can impact the strategic direction and leadership priorities of rural facilities.

To enhance leadership capacity in rural healthcare, policymakers should consider tailored funding models that account for the unique challenges faced by these facilities. Incentives for investing in leadership development, such as grants or tax credits, could help alleviate financial constraints. Streamlining regulatory requirements and promoting telehealth can also free up resources and allow leaders to focus on long-term strategic goals. By addressing these policy and funding challenges, rural healthcare facilities can build stronger leadership teams and improve the quality of care they provide to their communities.

(7) Developing Metric for Measuring Leadership Effectiveness: Define and develop key performance indicators (KPIs) to measure the effectiveness of leadership development programs and their impact on organizational outcomes.

To effectively measure the success of leadership development programs at Logan Health and their impact on organizational outcomes, a set of key performance indicators (KPIs) should be defined and tracked. These KPIs should cover various aspects of leadership effectiveness, including individual leader growth, team performance, and overall organizational impact within the Logan Health system. By monitoring these metrics, Logan Health can gain insights into the strengths and weaknesses of their leadership development initiatives, allowing for continuous improvement and better alignment with organizational goals specific to their healthcare environment.

One set of KPIs should focus on individual leader development within Logan Health. These might include measures of leadership competency improvement, such as scores on 360-degree feedback assessments tailored to Logan Health's leadership competencies, promotion rates within the organization, and participation in advanced training programs relevant to Logan Health's strategic objectives. Another critical area is team performance. KPIs in this category could include measures of team cohesion within Logan Health departments, employee satisfaction scores specific to Logan Health's workforce, and the achievement of team-specific goals aligned with Logan Health's operational targets. Additionally, monitoring employee turnover rates, particularly among high-potential employees at Logan Health, can provide insights into the effectiveness of leadership in creating a positive and supportive work environment unique to Logan Health's culture.

Finally, KPIs should assess the overall organizational impact of leadership development at Logan Health. These might include measures of financial performance, such as revenue growth

and cost reduction within Logan Health's financial framework, as well as clinical outcomes, such as patient satisfaction scores and quality of care metrics specific to Logan Health's patient population. Furthermore, monitoring metrics related to innovation and process improvement initiatives led by Logan Health's leaders can provide insights into the effectiveness of leadership development in driving organizational change and achieving strategic priorities. By tracking these KPIs over time, Logan Health can demonstrate the value of their leadership development programs and make data-driven decisions to enhance leadership effectiveness and improve organizational outcomes across the Logan Health system.

(8) Investigation of the Role of Educational Partnerships: Explore how partnerships between healthcare organizations and educational institutions can be leveraged to create tailored leadership development opportunities for rural healthcare professionals.

Educational partnerships play a vital role in tailoring leadership development for rural healthcare professionals by bridging the gap between academic knowledge and practical application. These collaborations can create customized programs that address the unique challenges faced in rural settings, such as limited resources and specific community health needs. By working together, healthcare organizations and educational institutions can design curricula that incorporate real-world case studies, simulations, and mentorship opportunities, ensuring that participants gain relevant and actionable skills.

One of the key benefits of these partnerships is the ability to leverage the expertise and resources of both sectors. Educational institutions bring research-backed leadership theories and pedagogical approaches, while healthcare organizations provide insights into the day-to-day realities of rural healthcare delivery. This synergy ensures that leadership development programs are not only academically rigorous but also highly practical and context-specific. Additionally, these partnerships can facilitate ongoing professional development and networking opportunities, fostering a culture of continuous learning and improvement within rural healthcare organizations.

Ultimately, educational partnerships enable the creation of sustainable leadership pipelines by providing accessible and relevant training opportunities for rural healthcare professionals. These collaborations can lead to improved leadership capacity, enhanced quality of care, and better health outcomes for rural communities. By investing in these partnerships, healthcare organizations and educational institutions can work together to address the unique challenges of rural healthcare and build a stronger, more resilient workforce.

(9) Leadership Effectiveness in Healthcare Settings: A Systematic Review and Meta-Analysis of Cross-Sectional and Before–After Studies

Leadership effectiveness in healthcare settings is a topic that has been studied in a quantitative manner. This systematic review and meta-analysis showed that leadership interventions can improve some healthcare outcomes, such as performance and adherence to guidelines. However, the assessment of leadership effectiveness can be complicated due to the study methodology and

selected outcomes. For example, opinion leadership can increase adherence to guidelines by 10.8%, while emergency wards have seen improvements in trauma care management through healthcare workers' performance and adherence to guidelines after effective leadership interventions. The leadership effectiveness assessed through cross-sectional studies was higher in South America than in other continents, possibly due to the more frequent use of transactional leadership styles in this area. Financing methods for healthcare organizations may vary between countries, making it difficult to achieve both economic targets and patients' wellness. Surgical wards have reported worsening performance in any leadership context, but charismatic leadership-style interventions have been successful among a few healthcare workers. Promoting leadership culture after undergraduate medical courses could help increase leadership agreement, working wellness, and quality of care.

Leadership interventions had more effectiveness in private hospitals than in public hospitals, possibly related to the continent of origin. Private hospitals pay more attention to the cost-effectiveness of healthcare actions and a positive balance of capital for healthcare settings might depend on the effectiveness of leadership interventions. Healthcare workers' and patients' outcomes depended on the style of leadership interventions. Transactional leadership style increased healthcare outcomes, but their effectiveness was higher in cross-sectional studies than before-after studies. Transformational leadership style improved checklist adherence and reduced patient transport time.

(10)Nurse leaders' experiences of remote leadership in health care

This study explores the development and current state of remote leadership in the Finnish healthcare sector, focusing on the experiences of Finnish nurse leaders. The results provide insight into the topic, which has been previously labeled as fragmented. The study highlights aspects of remote leadership that should be further developed and focused on when educating future leaders. The interviewees approached remote leadership from an interpersonal perspective, focusing on communication and the leader-employee relationship. The lack of organizational guidelines and practices for remote leadership raises concerns about the coherence of remote leadership within healthcare organizations. The study also highlights the need for a new paradigm of remote leadership, focusing on trust and collaboration. The study also highlights the importance of regular meetings, non-verbal communication, and creating common rules for remote leaders. The study also highlights the importance of work-related well-being, which is associated with nurse leaders' turnover intentions and burnout. The study's strengths include its detailed description, moderate sample size, and the inclusion of all participants as women.

(11) Co-creating a continuous leadership development program in rural municipal healthcare – an action research study

Healthcare leaders in a rural Arctic municipality shared their knowledge and experience in co-creating a continuous Learning and Development Process (LDP). The study found that while each leader had high competence, overall organizational competence was low due to lower levels of trust and interaction. The findings were divided into two main themes: changing from solo players to team players and learning to handle complex contexts. Four essential elements were identified in the co-creation of the LDP: competence development, collaboration structures,

interpersonal safety, and collective values and goals. These elements, facilitated by trusted reflection and appreciative inquiry, are instrumental in transformative change and relationship building. The study contributes to the research field by demonstrating how an appreciative co-creation process can build results based on leaders' knowledge and experiences in municipal healthcare. It suggests four essential elements for planning and implementing a knowledge-based continuous LDP. Strengthening and developing leadership is crucial for long-term changes in municipal healthcare. Further in-depth research is needed to explore the practical applications and significance of the results.

(12)Empowering Leadership: A Journey of Growth and Insight Through a Mentoring Program for Nurses in Leadership Positions

The study investigates the experiences of mentors and mentees in a mentor program for nurses in leadership roles. A qualitative approach was used, with semi-structured interviews conducted with 20 nurses in leadership roles. The participants, 10 mentees and 10 mentors, participated in the Norwegian Nurses Organization's "Mentor Program for Nurses as Leaders." The results showed that participants reported increased leadership awareness, stronger motivation, better stress-coping mechanisms, and greater confidence as leaders. They also received valuable feedback and support from their mentors, boosting their motivation to pursue leadership roles. Both mentees and mentors expressed a desire for a longer program and emphasized the importance of networking opportunities. The study concludes that the mentorship program

positively influences the leadership aspirations of new nurse leaders, with potential for further development in networking and program duration.

(13)Examining How Formal Leadership Development Programs Positively Influence Hospital Leaders' Individual Competencies and Organizational Outcomes – An Evidence-Based Literature Review

This literature review examines the impact of leadership development programs (LDPs) on hospital managers and leaders' competencies and organizational outcomes, analyzing 23 articles out of 7420 initially identified. The most frequent benefits for participants included gaining knowledge of management and leadership roles, increased confidence and communication skills, enhanced networking abilities, and improved job positivity and satisfaction. While structured LDPs tailored to organizational needs offer numerous advantages, the beneficial outcomes depend on participant attendance and engagement. The review emphasizes the need for more studies and formal assessments by organizations to determine the return on investment of LDPs in healthcare settings.

(14)Perspectives: Leadership in rural health through policy generation: attraction and recruitment in rural Australia

The global shortage of nurses and midwives is a significant concern for rural communities. Nurse and midwife leaders play a crucial role in ensuring a skilled workforce is available to care for these communities. Successful recruitment and retention of these professionals are essential for achieving universal healthcare coverage. Rural nursing contexts vary, affecting health needs and service responses. Factors influencing this shortage include an ageing workforce, gap

between academic knowledge and practical experience, and lack of awareness of rural health services as a career path. Nurses and midwives play a significant role in healthcare delivery, providing care 24/7. Workforce attraction and retention are underpinned by workforce planning, education, and professional development plans. Collaborative interprofessional approaches can lead to cross-cultural exposure and shared experiences, as well as potential sustainable community opportunities.

(15) Leadership dynamics in health care crises: The impact of initiating structure and consideration behaviors on safety climate in public hospitals

This study explores the impact of clinical leaders' initiating structure and consideration behaviors on safety climate during crises. It identifies a critical boundary condition, crisis emergence, where the positive relationship between consideration and safety climate may diminish. The study also suggests that initiating structure is crucial in healthcare leadership, as it can effectively address timely goals, clarify priorities, centralize decision-making, and minimize risks. The study also links leaders' emotional dispositions to safety-related dynamics among healthcare workers during a crisis, with leader affectivity playing a moderating role. The findings suggest that emerging information is critically evaluated for its relevance in resolving safety-related issues during a crisis.

(16) Global Health Crises: Leadership Matters

Global health systems face challenges such as resource shortages, misinformation, and geopolitical instability. Leaders must navigate these issues while ensuring healthcare access. The Russia-Ukraine conflict and COVID-19 pandemic have damaged healthcare infrastructure, while biosecurity threats and economic challenges impact health supply delivery. Effective crisis

leaders must make proactive decisions, build resilience, and collaborate across sectors to anticipate risks and mitigate disruptions. Building trust and engaging with local communities and international partners is crucial. The future of crisis leadership in global health will be characterized by preparation, innovation, and collaboration. Strengthening global health leadership requires education programs, leadership training, and international cooperation.

(17)Unraveling the complexities associated with leadership during times of supply chain crisis: a study on the healthcare sector

This study aims to develop a crisis leadership theory for the healthcare sector, focusing on the impact of crisis leadership on mitigating supply chain disruptions. Through in-depth interviews with 33 participants, the study elucidates the role of crisis leaders and the influence of the Attention-Based View (ABV) and Upper Echelon Theory (UET) in the context of healthcare crises. The findings provide valuable guidance for healthcare professionals, including chief medical officers, procurement managers, healthcare center directors, policymakers, and OPD staff, in addressing healthcare supply chain disruptions. The study also highlights the importance of psychological factors in shaping leaders' behaviors during crises.

(18)Improving Health and Health Care in Rural Communities: A Position Paper From the American College of Physicians

Rural communities in the US face health disparities due to low population densities, isolating terrain, and vast geographic distances. These factors create barriers to attracting and retaining healthcare professionals, leading to high hospital closures and "diseases of despair" like opioid misuse and suicide. Between 2010 and 2025, 150 rural hospitals closed in the US, with 19 closures in 2020. Policymakers must invest in rural communities' economies, social services, and

infrastructure to address these challenges and improve health and healthcare. The American College of Physicians (ACP) supports public policy efforts to identify, research, and address health and healthcare challenges that uniquely impact rural populations.

(19) A Review of Leadership Theories in Healthcare

This review discusses Leadership theories and how they provide insights into improving healthcare practices. Transformational leadership drives change, while transactional ensures compliance with protocols. Servant leadership focuses on staff well-being, but requires significant resources. Situational leadership offers flexibility, but requires self-awareness. Authentic leadership fosters trust and transparency, but requires organizational support. A balanced approach can enhance innovation, ensure operational compliance, and create a supportive work environment. By integrating these leadership styles, healthcare organizations can improve patient outcomes, staff satisfaction, and teamwork.

(20) Assessing The Effectiveness Of Mentorship Programs In Supporting The Professional Development And Retention Of Healthcare Administrators

This review adds emphasis to the idea that healthcare administrators are vital in managing operations, finances, and patient care. High turnover rates can harm an organization's success. To address this, many healthcare organizations have implemented mentorship programs for professional development and retention. Mentors offer personalized guidance, support, and knowledge-sharing to mentees, helping them develop skills and career objectives. These programs foster a sense of belonging, boost commitment, and loyalty. A successful mentorship

program should have a clear structure, matching process, mentor resources, and a system for evaluating program effectiveness.

(Section 3)

Methodology of the study

When investigating the effectiveness of a leadership development program focused on mentorship and community engagement on leadership retention rates in rural facilities, gathering and using research that caters towards a mixed-methods approach is most effective. Collecting and analyzing both quantitative and qualitative data to provide a comprehensive understanding of the program's impact was the focus in this research project. Quantitatively, we are looking at analyzing leadership retention rates involves a detailed examination of historical and current data. This involves tracking the percentage of leaders who remain in their positions over a defined period in facilities both with (intervention group) and without (control group) the program. Secondly, the assessment of program participation metrics requires careful tracking of

engagement levels in mentorship and community engagement activities. This involves quantifying participation rates and using descriptive statistics, such as mean and standard deviation, to summarize the extent of involvement. Correlation analyses are then conducted to determine whether higher participation rates are associated with improved leadership retention outcomes. Qualitative data, gathered through surveys or interviews, could provide depth to the research, revealing why leaders choose to participate and how they perceive the value of these activities. Lastly, leadership competency assessments involve administering standardized questionnaires to participants before and after their involvement in the leadership development program. These assessments aim to measure improvements in critical leadership skills and abilities. Paired t-tests are used to compare pre- and post-assessment scores, determining if the program leads to statistically significant enhancements in leadership competencies. Additionally, feedback from supervisors, peers, and subordinates can offer a 360-degree view of the changes in leadership behavior and effectiveness, providing a more comprehensive understanding of the program's impact.

This research endeavor holds considerable promise due to its focus on addressing the critical issue of leadership retention in rural healthcare facilities. Its potential impact is significant, as successful implementation of leadership development programs focused on mentorship and community engagement could lead to widespread adoption. The clear, testable hypothesis allows for focused research and builds upon existing literature in the field. However, the complexity of the intervention, influenced by external factors and limited generalizability, poses weaknesses. The resource-intensive nature of the study, requiring substantial time, funding, and facility access, further adds to these challenges.

Opportunities for this research lie in forming partnerships with rural healthcare organizations, universities, and government agencies, along with securing funding through grants for rural health research and leadership development. Positive results could influence policy changes and support rural healthcare leadership, while dissemination through publications and conferences can reach a broad audience. Conversely, threats include a lack of participation from facilities, data collection challenges in rural locations, ensuring program fidelity across different sites, and unexpected events such as healthcare crises or policy changes that could disrupt the research.

In summary, while the research has notable strengths and opportunities, it is essential to address the weaknesses and mitigate the threats to ensure the successful execution and impactful outcomes of the study. Careful planning, strong partnerships, and adaptability will be crucial for navigating the complexities of rural healthcare and achieving the goal of improved leadership retention rates.

Recommendations & Discussion / Summary & Conclusions

Based on the comprehensive investigation, it is evident that rural healthcare facilities face a significant leadership gap, hindering their ability to provide sustainable, high-quality care.

Evidence from organizational reviews and problem statements underscores the difficulties in attracting and retaining qualified leaders due to limited resources, geographic isolation, and the unique demands of rural settings. The proposed methodology, incorporating a mixed-methods

approach with quantitative analysis of leadership retention rates and qualitative data from surveys and interviews, aims to provide a comprehensive understanding of the impact of leadership development programs. *This approach is particularly vital given the challenges global health systems face, such as resource shortages and geopolitical instability, which can exacerbate leadership gaps in rural areas (Mou, 2025). Moreover, during crises, the initiating structure of leaders becomes crucial in addressing goals and minimizing risks, aligning with the need for strong leadership in rural healthcare to navigate unique challenges (Ratcharak, 2025).*

Therefore, it is recommended that healthcare organizations implement leadership development programs focused on mentorship and community engagement to improve leadership retention rates and foster a supportive work environment, ultimately enhancing organizational performance and ensuring the delivery of sustainable, high-quality care in rural communities. These programs can also serve as a means to mitigate supply chain disruptions, as highlighted by Tiwari et al. (2025), by developing leaders who can effectively manage and adapt to crises. Additionally, addressing the leadership gap is crucial for improving overall health and healthcare in rural communities, especially considering the high rates of hospital closures and "diseases of despair" in these areas (Serchen et al., 2025).

Healthcare administrators should actively champion and facilitate leadership development initiatives by allocating resources for training programs and establishing mentorship opportunities to cultivate emerging talent, thus fostering a culture of continuous learning. Concurrently, policymakers should advocate for policies that incentivize healthcare professionals to work in rural areas through loan repayment programs or tax incentives, alongside increasing funding for rural healthcare leadership training programs, which would promote collaboration

between rural and urban healthcare facilities. At a national level, the implementation of initiatives such as establishing a national center for rural healthcare leadership development and creating national standards for leadership training can ensure widespread access to essential resources and support. It's also vital to acknowledge the shortcomings and challenges, such as resource constraints and geographic isolation, by seeking grant funding and leveraging technology to deliver training and mentorship. Future research should evaluate the effectiveness of different leadership development interventions through longitudinal and qualitative studies to identify best practices and refine strategies.

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