

Theories Underpinning Leadership and Management Preparation for Nursing Students: A Scoping Review

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ABSTRACT

Background: A nursing leader must be holistic, addressing both patient care and the well-being of the nursing team. Such skills require diligent awareness and understanding. Theories exist to guide and define different approaches to leadership, ensuring work efficiency and quality patient care in clinical settings. Understanding existing leadership and management theories can help nursing students adapt and grasp how leadership can be flexible and dynamic in clinical settings. This paper aims to review existing theories on leadership and management, assessing their applicability to student nurses in clinical wards to better prepare them for leadership and managerial roles.

Methods: This scoping review delves into classical and modern leadership and management theories using various research databases. The research team would examine their relevance, effectiveness, and challenges in real-world implementation, particularly in nursing practice for students and professionals.

Results: Transactional and transformational styles of leadership have shown a positive influence on nurses, job performances, however, the effectiveness of every theory is dependent on many factors, such as culture, work environment, and resources available.

Conclusion: Different intrinsic and external factors may influence the effectiveness of the existing leadership and management theory. It is however important and relevant to nursing students to be aware to better prepare themselves for leadership and management roles before their transition into becoming registered nurses or leaders.

Keywords: Leadership; Management; Nursing theory; Nursing; Students; Education

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INTRODUCTION

Nursing leaders must adopt a holistic approach, addressing both patient care and the well-being of the nursing team (1). In today's increasingly complex and dynamic healthcare environments, characterized by rapid technological advancements, evolving patient demographics, interprofessional collaboration, and persistent resource constraints, the demands on effective leadership are more pronounced than ever. Effective decision-making, accountability, and role modeling are essential qualities of nursing leaders and managers, directly influencing the effectiveness of care and patient satisfaction in clinical settings. Maintaining a crucial balance between emotional intelligence and logical reasoning is vital when addressing patient care deficits and supporting nurses' professional and personal needs (2). Furthermore, effective communication and active involvement in team welfare foster a positive team dynamic and morale, mitigating conflicts that could compromise patient care quality. In the ward setting, nurse managers must establish achievable goals and strategically allocate resources to facilitate effective care integration and ensure operational efficiency (3).

As the healthcare landscape continues to evolve, the role of nursing students as future leaders becomes unequivocally critical. They are not merely future clinicians but will be pivotal in shaping healthcare delivery, leading patient care teams, advocating for system improvements, and fostering healthy work environments. However, a notable gap often exists in traditional nursing education, which, while proficient in clinical skill development, frequently provides limited formal training in leadership and management theories (4). This gap can leave aspiring nurses ill-equipped to navigate the multifaceted challenges of clinical practice and take on essential leadership roles upon graduation.

This highlights the pressing need for a comprehensive understanding of diverse leadership and management theories. These theories provide a foundational framework, offering structured approaches and diverse tools for aspiring and current nursing leaders to anticipate challenges, make informed decisions, adapt to various situations, and inspire their teams (5). Understanding these theoretical underpinnings moves beyond anecdotal experience, enabling nursing students to adapt to the flexible and dynamic nature of leadership in complex clinical practice, ultimately promoting

efficiency and quality patient care in clinical settings.

Aims and Objectives

This paper aims to review existing leadership and management theories relevant to nursing students in clinical ward settings. It explores the implications and relevance of these theories for nursing students' transition to registered nurses. The paper outlines classical and modern theories and their relevance to nursing care management in clinical settings.

METHODS

This review employed a narrative synthesis approach, a method particularly suited for synthesizing findings from diverse studies, including both qualitative and quantitative research, that may not be amenable to statistical meta-analysis. A narrative synthesis allows for a comprehensive descriptive summary and interpretation of the literature, focusing on understanding the nuances, relationships, and contexts of the included studies to address the review's broad research questions. While our process involved systematic steps typical of robust literature reviews, the primary aim was not to map the entire breadth of existing literature or identify precise gaps in a comprehensive, exhaustive manner characteristic of a scoping review. Instead, we focused on synthesizing the findings of relevant studies to provide a rich, interpretive account of leadership and management theories in nursing.

To systematically characterize the diverse studies included within this narrative synthesis, we utilized the SPIDER tool. Although SPIDER is often associated with systematic reviews of qualitative and mixed-methods research, its structured framework proved invaluable for organizing and presenting the key elements of our heterogeneous body of literature. This adaptation allowed us to clearly define and categorize the attributes of each study, providing a transparent basis for our subsequent narrative synthesis.

The sample consisted of diverse groups, including healthcare workers, nurse managers, public sector employees, and logistics professionals, reflecting a broad range of contexts where leadership and management theories are applied. The Phenomenon of Interest was the application and relevance of classical and modern leadership and management theories, particularly concerning their impact on team dynamics, organizational

effectiveness, and the preparation of nursing students. The Design across the included studies varied, encompassing empirical research, theoretical explorations, and literature reviews. The Evaluation focused on the effectiveness of different leadership and management approaches, as well as the challenges and implications of their implementation. The Research type predominantly involved qualitative inquiries, focusing on understanding the nuances of leadership and management through theoretical frameworks and descriptive analyses.

Search Strategy

We utilized PubMed, ScienceDirect, and Scopus databases to select articles addressing the research questions. Our search strategy employed relevant keywords such as "leadership," "management," "theory," and "nurse." Boolean operators, namely AND, OR, and NOT, were strategically used to dictate the logical relationships between these search terms, allowing for the precise expansion or narrowing of our search results. Building upon these primary terms, MeSH indexing in databases like PubMed further refined the search by encompassing related terms such as healthcare administration and organization, effectively using an "OR" function for related concepts.

The initial search generated 1198 citations. Our inclusion criteria specifically focused on the publication years 2018-2023 to ensure the inclusion of the most current and relevant literature reflecting recent developments in leadership and management theories within nursing. After intensive screening, applying these inclusion criteria, and removing duplicates, this number was reduced to 143 papers. These remaining papers then underwent full-text analysis to ascertain their relevance and validity in addressing the research aim, which resulted in 10 articles deemed eligible for inclusion within the review. The full screening process is presented in the PRISMA framework shown (**Figure 1**).

Screening and Agreement Process

The screening process involved several systematic steps to ensure the relevance and quality of included studies, while minimizing bias. Initially, the content and focus of potentially relevant studies were discussed among the research team to ascertain their applicability in enhancing nursing students' preparation for leadership and management in clinical settings.

Following this initial screening, mutual consensus guided the inclusion of studies. To actively mitigate selection bias, a rigorous further screening was conducted using the PRISMA framework (**Figure 1**), ensuring transparency and reproducibility in the study selection. After applying the 'Critical Appraisal Skills Program' (CASP) for systematic quality assessment, all filtered articles were compiled and charted using Microsoft Word software to facilitate organized analysis. Throughout this process, frequent communication and discussions among the research team were maintained, with multiple reviewers independently assessing papers to reduce individual bias and provide diverse perspectives. Agreement regarding the inclusion of studies in the review was diligently sought and confirmed until a complete consensus was reached among all reviewers. This collaborative approach, combined with the structured appraisal and charting, ensured the robustness and consistency of the selection process.

Data Extraction

The extracted data from selected articles are systematically organized into themes, identified by author, year of publication, sample size, study design, and skills identified within each study (refer to **Table 1**). This structure enables systematic analysis and comparison of findings and content, facilitating discussion based on similarities for further analysis.

Narrative Synthesis Process

For this review, a narrative synthesis approach was intentionally chosen to systematically compile, summarize, and explain the findings from each of the selected articles. This method was particularly suited to your review because it allows for a comprehensive understanding of the diverse contexts and qualitative data present across the included studies, moving beyond a sole reliance on statistical results.

The process began with data extraction, where key information from each article was systematically organized into themes as detailed above. Following extraction, the data synthesis phase focused on developing narrative and descriptive accounts. This approach emphasizes the rich insights derived from participants' perspectives and study contexts, providing a deeper understanding of the complex interactions and relationships relevant to your research question. By synthesizing these diverse accounts, the review aims to offer a holistic perspective on

leadership and management theories in nursing. The synthesized results, providing an overview

and summary of the selected articles, are also presented clearly in **Table 1**.

Figure 1: PRISMA framework of extracted articles for scoping review

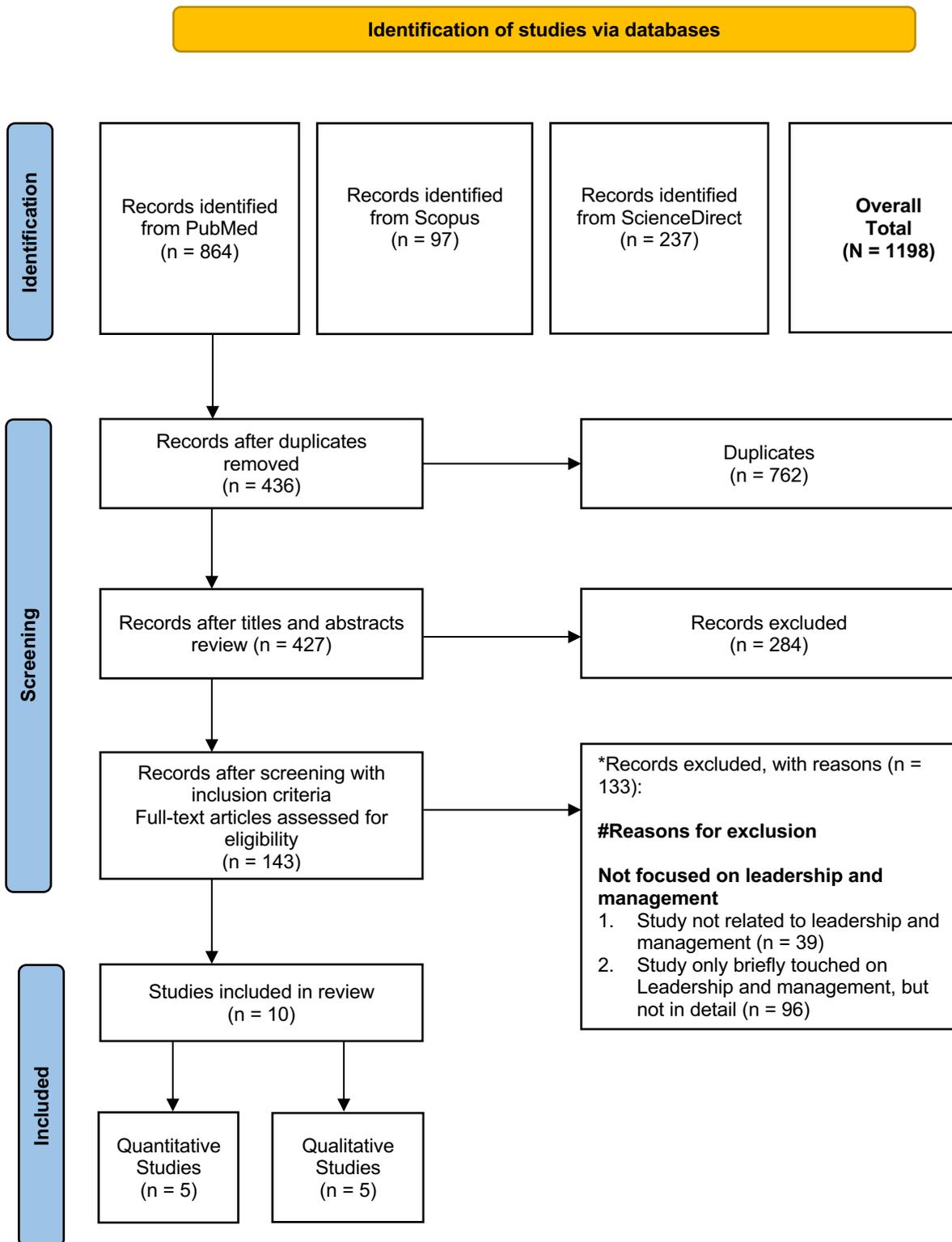


Table 1: Summary of Included Reviewed Papers

No.	Author & Year	Aims and Objectives	Sample and Settings	Key Findings
1.	Qian, J., Li, X., Wang, B. et al (2018)	Address research gap by using the role theory to explain how supervisors' goal-focused leadership influences employees' voice behavior and the conditions under which supervisors' have maximum impact on employee voice.	Sample: 197 employees and immediate supervisors from a logistics company located in northern China Setting: Business School, Beijing Normal University	Positive association between goal-focused leadership and employees' voice behavior that was mediated by leaders' omission of reward and punishments. Goal-focused leadership influences employee voice and highlight how coworkers can buffer the negative effect of ineffective managerial reward and punishment omission.
2.	Benmira, S., & Agboola, M. (2021)	Explore the evolution and available literatures on the classical and modern leadership theories.	Settings: Mayo Clinic Healthcare, London, UK	Leadership theory is a dynamic phenomenon and continues to change over time. New leadership theories were consequently formulated in an attempt to deal with the new reality of organizations and business, resulting in newer and more relevant definitions of leader, follower and situation.
3.	Anglin, A. H., Kincaid, P. A., Short, J. et al (2022)	Trace the origins and development of specific role theories by defining central constructs to bring clarity to the conceptual ambiguities between various role theories and key concepts.	Setting: Neeley School of Business, Department of Entrepreneurship and Innovation	Role theory is effective in a variety of research domains, including entrepreneurship, human resource management, organizational behavior, and strategic management. Five most prominent research themes in the management literature: roles and identity, work-nonwork interface, biases and stereotypes, career life cycles, and ethics and other-oriented behavior.
4.	Nene SE. (2022)	To understand the nurse managers' leadership roles in mPHCs.	Sample: 15 nurse managers Settings: mPHCs, situated in Gauteng province, in the West Rand	Three themes emanated: confusion of leadership roles with management roles, confusion of leadership roles with clinical roles and confusion of leadership roles with resources management roles.
5.	Parreira, P., Santos-Costa, P., Neri, M. et al (2021)	Analyze the optimum care delivery methods with several underlying methods-management theories and theoretical nursing concepts.	Settings: Nursing School of Coimbra	Structural aspects, nature of care, target population, resources, and philosophy of the institution impacts the management style and needs in the hospital. Care conceptualization is also highlighted by considering the different methods of managing task, patient, nursing team and individuals.
6.	Thanh, N. H., & Quang, N. (2022)	Examines the relationship between transformational leadership, transactional leadership, and laissez-faire leadership concerning engagement to work and performance of public sector employees	Sample: 325 leaders and civil servants in the provincial public sector in Vietnam Setting: Ho Chi Minh National Academy of Politics, Hanoi, Vietnam	Leadership styles are closely related to employee engagement. The level of an employee's engagement to work depends largely on leadership style.
7.	Usman M, Ghani U, Cheng J. et al (2021)	investigated the effects of participative leadership on employees' workplace thriving and helping	Sample: 244 healthcare workers Setting: Healthcare sector	Participative leadership predicted employees' workplace thriving and helping behaviors. The leader's behavioral integrity strengthened

		behaviors among frontline workers as well as examining the moderating role of a leader's behavioral integrity in strengthening the relationship between participative leadership, and employees' workplace thriving and helping behaviors.	of Khyber Pakhtunkhwa (KPK) Province in Pakistan	the relationship between participative leadership and employees' thriving and moderated the relationship between participative leadership helping behaviors.
8.	Hussain, S. T., Abbas, J., Lei, S. et al. (2017)	Examines the role of transactional leadership in creating the organizational creativity through knowledge sharing behavior between employees and leaders.	Sample: 300 respondents Settings: private telecom in Islamabad and Rawalpindi	Transactional leadership and knowledge sharing have positive relationship with creativity, and knowledge sharing is mediating the role between transactional leader and organizational creativity.
9.	Shala, B., Prebreza, A., & Ramosaj, B. (2021)	Explore leaders-managers of different styles who work in the same company, have similar tasks but different jobs and to distinguish between them in terms of success, work achieved in relation to others and work in general.	Settings: University of Pristina	There are factors that influence the identification of leadership styles. These factors should be analyzed by management, in order to create the possibility of intervention through work programs and action plans to increase the level of recognition as a factor of organizational success at work. Job satisfaction greatly affects the effectiveness of the leader's work in placing him or her in the appropriate context
10.	Alzoubi, M. M., Hayati, K. S., Rosliza, A. (2019)	provide a foundation on which research on Total quality management approach (TQM) can be built and to identify the predictors of successful TQM in the health-care context.	Settings: University Putra Malaysia, UPM Serdang, Malaysia	Total quality management approach in health care has positive effects on the health care system with the integration of continuous quality improvement, education and training, patient focus/satisfaction top management commitment and teamwork.

Characteristic of Studies

Study Design

The studies included in this review exhibited a variety of study designs, reflecting the diverse approaches to exploring leadership and management theories. Predominantly, the review incorporated theoretical analyses and literature reviews, which provided foundational insights into classical and modern theories. Empirical studies were also included, utilizing quantitative and qualitative methods to investigate the practical application and impact of different leadership styles and management approaches across various organizational settings. These studies ranged from surveys and case studies to observational research, contributing to a comprehensive understanding of how leadership and management theories manifest in real-world

contexts. The diversity in study design allowed for the exploration of both the theoretical underpinnings and the practical implications of these theories, enhancing the depth and breadth of the review.

Study Participants

The reviewed studies included a diverse range of participants: 197 logistics employees and supervisors in China, 15 nurse managers in South Africa, 244 healthcare workers in Pakistan, 325 leaders and civil servants in Vietnam, 300 telecom respondents in Pakistan, and individuals across various academic settings in the UK, Portugal, Kosovo, and Malaysia. This broad spectrum reflects the wide applicability of leadership and management theories across different sectors and regions.

RESULTS

Mechanism of Leadership and Management at The Workplace

While the symbiotic relationship between leaders and followers is fundamental to achieving shared objectives within any organization, its manifestation in healthcare, particularly regarding patient care, warrants a critical lens. López-Medina (6) rightly highlights the necessity of leaders guiding followers towards common goals and the importance of this understanding for effective teamwork, even amidst conflict. However, the complexity of healthcare environments, where the "primary objective is to provide optimal patient care while ensuring safety and satisfaction" often introduces unique challenges to this dynamic. The notion of "effective followership" (7) as crucial for sustaining leadership, fostering independent work, and critical thinking in the absence of formal supervision, while valuable, may oversimplify the power dynamics and hierarchical structures prevalent in many healthcare settings. A more critical perspective would explore how organizational culture, professional autonomy, and potential power imbalances might impede or enhance genuine followership, moving beyond an idealized view to consider the realities of clinical practice.

Differentiation Between Leaders and Managers Within the Ward

The distinction between leadership and management, while conceptually clear, often becomes blurred in the dynamic context of a healthcare ward. Scammell (8) asserts that leadership emphasizes vision-building and inspiration, contrasting it with management's focus on supervising daily operations. However, this neat differentiation may not fully capture the reality of nursing roles. In practice, nurses frequently embody both leadership and management functions simultaneously, particularly those in senior or charge nurse positions. A critical perspective would question whether this conceptual separation adequately prepares nurses for roles that inherently demand both visionary guidance and meticulous operational oversight. It also invites consideration of how a rigid adherence to this dichotomy might inadvertently limit a nurse's professional development or create artificial boundaries in a role that inherently requires integrated competencies. Furthermore, the notion that managers solely focus on operations potentially

undermines the strategic impact that effective resource allocation and task delegation have on patient outcomes and staff well-being.

Classical Theories on Leadership

Classical leadership theories offer foundational insights but warrant critical appraisal when applied to the complex realities of contemporary nursing practice. Kurt Lewin's framework, encompassing autocratic, democratic, and laissez-faire styles, provides a valuable starting point for understanding distinct leadership approaches. However, its application in clinical settings reveals significant nuances. The autocratic style, while seemingly efficient in emergencies and capable of boosting short-term productivity (9), risks stifling team engagement, creativity, and long-term motivation (10). This can be detrimental in healthcare, where critical input from frontline staff is vital. Conversely, the democratic approach, laudable for fostering teamwork and creativity (11), faces the practical challenge of being time-consuming in fast-paced clinical environments where immediate decisions are often required (12). The laissez-faire style, while potentially empowering for highly skilled and self-motivated teams, carries substantial risks of conflict and reduced productivity if adequate guidance is lacking (13), a dangerous prospect in a patient-centered environment where clear direction is paramount. True empowerment, in this context, requires a foundation of clear expectations, robust support systems, and proactive oversight that a purely hands-off approach may not provide.

The behavioral theory of leadership, also known as style theory, offers a more optimistic perspective by positing that leadership skills are not merely innate but can be "acquired, cultivated, and honed through learned behaviours" (14). This provides a valuable framework for student nurses, suggesting that competencies can be developed through "structured instruction and observational learning" (15). Nevertheless, a critical analysis extends beyond simple emulation. While identifying desirable leader behaviors is crucial, this theory's primary focus on what leaders do can sometimes neglect the vital why and when. It may not fully account for the nuanced impact of organizational culture, specific team dynamics, or the unique demands of a given clinical situation on the effectiveness of a particular behavior, thus requiring a deeper understanding of context for successful application.

Finally, role theory is particularly relevant for student nurses entering complex healthcare teams. It posits that each team member typically assumes a defined role influenced by their "education, experience, and abilities" (16), emphasizing the fulfillment of designated responsibilities with necessary support from others. This structured approach aims to "clarify expectations and responsibilities," ultimately contributing to "enhancing efficiency and effectiveness in patient care" (17). While the benefits of clear roles for team functionality and patient safety are undeniable, a critical perspective must also consider potential limitations. An overemphasis on predefined roles might inadvertently lead to a lack of flexibility, inhibit cross-functional collaboration, or stifle initiative when situations demand stepping outside one's designated duties. In rapidly evolving clinical environments, rigid adherence to roles could impede agile responses to unforeseen challenges or prevent team members from contributing skills that lie beyond their formal description. It is therefore crucial for managers and leaders, while recognizing unique skills, to also foster an environment that encourages fluid support and shared accountability beyond strict role boundaries.

Modern Theories of Leadership: A Critical Analysis of Contemporary Paradigms

Modern leadership theories offer more nuanced perspectives on leader-follower dynamics, moving beyond the simpler typologies of classical approaches. However, their application within complex healthcare environments warrants critical examination. The transformational leadership style, for instance, champions the inspiration of followers to prioritize collective over individual interests, leveraging charisma and enthusiasm to motivate teams toward shared objectives (18). While its emphasis on fostering team cohesion and vision is highly appealing for healthcare's collaborative demands, a critical view must acknowledge potential limitations. The reliance on individual leader charisma can make its effectiveness highly variable and difficult to sustain or replicate across different contexts or leadership transitions. Furthermore, the focus on inspiring beyond personal interests might inadvertently downplay the legitimate individual needs and well-being of nurses who are often under immense pressure.

In contrast, the transactional leadership style operates on an exchange principle, where followers' complete tasks in anticipation of

specific rewards, motivating teams through incentives and corrective actions (19). While this structured approach can be highly effective for ensuring compliance and driving performance, particularly in routine tasks requiring clear targets, its critical appraisal reveals potential drawbacks in a dynamic healthcare setting. The emphasis on a "strict management framework" to ensure "fair and efficient distribution of rewards directly tied to work efficiency" might foster a mechanistic environment that overlooks intrinsic motivation, professional autonomy, and the complex, often unquantifiable, aspects of patient care. Over-reliance on extrinsic rewards could inadvertently discourage innovation, spontaneous collaboration, or engagement in tasks not directly tied to incentives, potentially limiting adaptability in unforeseen clinical situations.

Finally, the participative leadership theory, akin to democratic principles, emphasizes shared decision-making and collaborative problem-solving, which aims to give every team member a voice is lauded for fostering trust, boosting morale, and encouraging skill development, potentially leading to stronger long-term collaboration and improved retention rates (20). This approach is highly relevant for empowering nursing teams and leveraging diverse expertise. However, a critical perspective must balance these benefits against practical challenges. In fast-paced clinical environments or during crises, achieving full consensus can be time-consuming and potentially impractical. While participation is valuable, the ultimate responsibility for critical decisions remains with the designated leader, and the theory must account for how leaders navigate situations where consensus is elusive or time-critical decisions are necessary, without undermining the participatory spirit. The effectiveness of this style is also heavily reliant on the team's maturity, skill level, and willingness to engage constructively.

Classic Management Theories: Enduring Principles and Critical Limitations

Classic management theories, while foundational in their contributions, offer distinct perspectives on organizational efficiency and human motivation that warrant critical examination in the context of modern healthcare.

Henri Fayol's Administrative Theory established a comprehensive framework built upon five core management functions: planning, organizing, commanding, coordinating, and controlling (21). Rooted in psychology, this theory underscores

management's critical role in achieving organizational effectiveness and proposed 14 widely applicable principles designed to cultivate managerial skills. While Fayol's systematic approach to delineating management functions remains influential for understanding organizational structure, a critical perspective highlights its inherent limitations in dynamic and complex environments like healthcare. The emphasis on "commanding" and a top-down hierarchy might stifle autonomy and innovation among highly skilled nursing professionals. Furthermore, the universal applicability of his 14 principles, while theoretically appealing, may oversimplify the diverse cultural and operational nuances present across different healthcare settings or specialties, potentially leading to rigid implementations that fail to adapt to contextual demands.

Concurrently, Max Weber's Bureaucratic Theory centers on organizing tasks through standardized regulations and established procedures (22). This approach emphasizes clear delegation of labor, responsibilities, resources, a structured hierarchy, and formal selection processes (23). The theory's focus on task specialization, aiming to align duties with qualifications and competencies for optimized team efficiency (24), could theoretically promote effective and organized operations in a clinical ward. However, while clear structures and specialized roles are crucial for safety and accountability in nursing, an uncritical application of pure bureaucracy risks fostering rigidity, depersonalization, and a lack of responsiveness to emergent patient needs. The heavy reliance on rules and hierarchy can impede communication, slow decision-making, and create an environment resistant to change, potentially hindering the adaptable and human-centered care required in modern healthcare.

In contrast to these more structural theories, Elton Mayo's Behavioral Theory of Management profoundly highlights the crucial role of psychological and social factors in motivating teams and enhancing work environments (25). Mayo famously contended that social relationships and group norms can be powerful motivators, sometimes even outweighing purely financial or environmental incentives. This approach prioritizes the cultivation of trust, rapport, and effective social interaction among team members and between employees and managers, aiming to foster greater collaboration and success. His theory further underscores the importance of recognizing individual differences and appreciating unique team dynamics as vital

components in cultivating workplace satisfaction and productivity. While Mayo's shift from purely scientific management to recognizing the "human element" was revolutionary, a critical view notes that his theory, largely based on the Hawthorne studies, has been critiqued for methodological flaws and for potentially understating the impact of economic incentives and power dynamics. Nonetheless, its enduring contribution lies in emphasizing the critical role of social cohesion, informal groups, and employee well-being—factors that are undeniably central to fostering a positive and productive nursing environment.

Modern Management Theories: Strategic Tools and Their Nuances in Practice

Modern management theories offer advanced frameworks for leading teams and processes, providing managers with tools to navigate complex internal and external factors influencing organizational success. However, their application requires a nuanced understanding of their strengths and limitations, particularly within the dynamic healthcare landscape.

The quantitative approach to management, leveraging statistical and mathematical methods, empowers managers to objectively assess team performance, efficiency, and delegation strategies through rigorous data analysis (26). This methodology presents a robust tool for nursing managers to assess competency levels, identify training requirements, and contribute to accurate task execution, ostensibly preventing errors and upholding high standards of patient care. While the precision and objectivity offered by quantitative analysis are undeniable assets for evidence-based decision-making and resource allocation in healthcare, a critical perspective acknowledges its potential pitfalls. An over-reliance on metrics can lead to a reductionist view of complex human interactions and patient care, potentially overlooking qualitative aspects like empathy, team morale, or the intrinsic value of care that are not easily quantifiable. It also risks creating a "numbers-driven" culture that prioritizes measurable outputs over holistic patient outcomes or staff well-being, especially if performance indicators are narrowly defined.

The contingency approach, in contrast, asserts that the effectiveness of any management style is inherently dependent on specific organizational circumstances (27). This perspective correctly highlights the necessity for managers to adopt flexible and adaptive strategies, critically analyzing relevant factors and challenges to select

the most fitting management approach (28). In a clinical ward environment, this means management style would ideally be influenced by environmental factors, resource availability, and unique patient needs. While the contingency theory's emphasis on adaptability is highly valuable in the unpredictable nature of healthcare, a critical point is that it offers guidance on what to consider, but less on how managers can develop the agility and diagnostic skills to consistently make the 'right' choice in complex, rapidly evolving situations. Furthermore, constantly shifting approaches might lead to perceived inconsistency, potentially confusing staff or hindering the development of a stable organizational culture if not managed with transparent communication and clear rationale.

Finally, Total Quality Management (TQM) is posited as a framework driven by customer satisfaction and continuous improvement involving all team members, emphasizing client-focused strategies, effective communication, and disciplined activities to enhance quality and productivity while reducing costs (29). In healthcare, TQM's value is evident in systematically gathering patient feedback to identify specific areas for improvement, allowing for targeted enhancements and proactive error prevention (30). However, a critical examination of TQM in healthcare reveals challenges. While patient feedback is crucial, defining "customer satisfaction" solely in commercial terms can oversimplify the multi-faceted nature of healthcare outcomes, which involve complex clinical, ethical, and human elements beyond mere service delivery. Implementing TQM effectively requires significant organizational commitment, cultural shifts, and often substantial resources, which may not always be readily available in constrained healthcare systems. Moreover, a relentless focus on cost reduction, if not carefully balanced, could inadvertently compromise the quality of care or lead to staff burnout, despite the theory's intentions.

DISCUSSION

Relevance to Nursing Student's Future Role as Leaders and Managers

Nursing theories provide guidance for nursing students, helping them understand different leadership styles and management approaches. Effective leadership enhances nurses' ability to assess patient needs, leading to improved care delivery and better health outcomes (31).

Continuous learning and skill development are essential for nurses, aligning with the Code of Professional Conduct, which emphasizes adopting evidence-based practices. Strong leadership in nursing has been associated with higher patient satisfaction, lower hospital readmission rates, and improved health outcomes (32). Ultimately, this leads to better mortality rates and enhanced quality of care, benefiting both patients and healthcare teams under effective leadership.

Understanding different leadership approaches helps student nurses transition into their roles as registered nurses, allowing them to prepare both physically and mentally through theoretical knowledge. By demonstrating initiative and commitment to learning through evidence-based research, student nurses can enhance their competency and leadership abilities. Additionally, developing leadership skills early on reduces the resources and time required to train newly registered nurses (33).

Additionally, a scoping review of 10 studies on leadership styles and nurses' job satisfaction found that Transformational Leadership had the most positive impact. This leadership style focuses on coaching, guiding, and empowering nurses, leveraging their strengths and competencies while addressing their feedback and concerns (34).

Conversely, the Laissez-faire leadership style was deemed the least effective, as it left nurses feeling directionless without adequate guidance or support. This lack of structure resulted in challenges with goal setting and decision-making, ultimately hindering team efficiency and patient care.

Challenges in Implementing Theories into Practice

Despite the guidance provided by leadership theories, various factors—such as culture, experience, religion, and motivation—can influence the effectiveness of developing student nurses into strong leaders. Maslow's hierarchy of needs suggests that individuals must fulfill their physiological, safety, social, esteem, and self-actualization needs to reach their full potential. This applies to aspiring student nurses, as meeting these needs supports their growth into effective leaders (35). Additionally, cultural background, ethnicity, and upbringing play a significant role in shaping leadership styles. Differences in backgrounds may lead to biases, favoritism, trust issues, and miscommunication when interacting

with individuals from diverse cultural backgrounds, compared to those who share similar experiences and perspectives.

Practical Recommendations for Student Nurses

For student nurses to truly grasp and apply leadership and management theories, several practical recommendations are crucial. Firstly, they need early and integrated exposure to diverse theories throughout their nursing education, moving beyond just theoretical lectures to understanding how different leadership styles, like transformational, transactional, and participative, manifest in real-world scenarios. This understanding should be reinforced through case-based learning and high-fidelity simulations that challenge them to apply these theories in realistic ward dynamics with varying resources. Such experiential learning, followed by thorough debriefing, is essential for developing adaptability. Secondly, mentorship and strong role modeling from experienced nurse leaders and managers can provide invaluable insights, allowing students to witness theoretical concepts in practice and develop their own leadership identity. Finally, fostering self-assessment and reflective practices will enable students to identify their strengths and growth areas, while explicit teaching and practice of effective communication and delegation skills will equip them to lead and manage diverse healthcare teams (36).

Implications for Nursing Curriculum Development

The insights gathered highlight significant implications for evolving nursing curricula to better prepare students for leadership roles. Leadership and management content should become a mandatory and progressive thread woven throughout the entire nursing program, rather than being confined to a single course. This necessitates a shift towards experiential learning opportunities, increasing clinical placements where students can take on informal leadership roles and engage in decision-making within multidisciplinary teams (37). Furthermore, interprofessional education (IPE) should be integrated, allowing nursing students to collaborate with other healthcare professionals, which is vital for understanding team dynamics in a complex environment. The curriculum must also emphasize adaptability and contextual application, teaching students to critically assess situations and adjust their leadership approach accordingly. Lastly, integrating quality improvement (QI) and patient safety principles

directly into leadership modules will ensure that future nurses are prepared to lead initiatives that enhance patient care and mitigate risks.

Areas for Future Research

To further strengthen leadership and management education in nursing, several areas warrant future research. Longitudinal studies are needed to track the leadership development of nursing students from their academic years into their early careers, providing insights into the long-term impact of educational interventions. Research should also focus on rigorously evaluating the effectiveness of specific pedagogical approaches, such as high-fidelity simulation, gamification, or mentorship programs, in cultivating specific leadership competencies. Exploring the impact of emerging technologies like virtual reality (VR) and artificial intelligence (AI) on creating immersive leadership learning environments is another promising avenue. Furthermore, investigating cross-cultural perspectives on nursing leadership could reveal unique best practices applicable across different healthcare systems. Finally, developing robust methodologies to measure the direct link between student leadership training and actual patient outcomes would provide concrete evidence of the value of such education, and exploring the role of informal leadership development through peer interactions could inform strategies for fostering a supportive learning environment.

CONCLUSION

In summary, various leadership and management theories provide valuable guidance for individuals preparing to lead in diverse healthcare settings. Given that each student nurse has a unique background, cultural exposure, and experiences, it is essential for them to develop self-awareness by recognizing their strengths and limitations.

This self-awareness plays a crucial role in shaping competent and effective leaders who can confidently manage teams upon transitioning into registered nursing roles. By demonstrating professionalism and leadership competency, student nurses can foster positive team dynamics, promote collaboration, and enhance patient care and satisfaction within the ward.

LIMITATIONS

This review, while providing a comprehensive overview of leadership and management theories relevant to nursing students, has several

limitations. Firstly, the search strategy, though utilizing key databases like PubMed, ScienceDirect, and Scopus, was restricted to English-language publications from 2018-2023. This may have excluded valuable research published in other languages or prior to the specified timeframe, potentially introducing publication and temporal bias. Secondly, the final inclusion of only ten studies, despite a rigorous screening process, may limit the breadth and generalizability of the findings. The heterogeneity of these studies, varying in sample size, study design, and settings, further complicates the synthesis of a unified perspective. Additionally, the narrative synthesis approach, while effective for exploring theoretical concepts, lacks the statistical rigor of a meta-analysis, potentially limiting the quantification of the strength of evidence. Finally, the focus on theoretical applications, without direct observation or empirical testing of these theories within actual clinical settings involving nursing students, restricts the understanding of practical implementation and effectiveness. Therefore, the findings should be interpreted with consideration of these limitations, and further research is needed to explore the practical application and contextual factors influencing the implementation of these theories.

CONFLICT OF INTEREST

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AUTHOR CONTRIBUTIONS

HZ: conducted the database search, screening and extracted the data for the scoping review, prepare extract data for the review procedure and has primary responsibility in writing this review.

KM: provided HZ with feedback and supervision to improve the quality and provide guidance in the methods and results section of the article. KM participated in proofreading this review.

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