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DISTINCTIVE FEATURES OF MANAGEMENT SCIENCE IN NURSING AND THE ESSENCE OF MANAGEMENT COMPETENCIES

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Abstract

This article examines the distinctive features of management science in nursing and explores the essence of management competencies within the healthcare system. In modern healthcare, the role of nurses is closely linked not only to patient care but also to managerial and organizational responsibilities. Therefore, the study of management science in nursing, the development of leadership skills, and the formation of professional competencies are of significant importance. The article analyzes the core functions of nursing management, the specific characteristics of the management process in nursing practice, and the key management competencies required of contemporary nurse leaders. The findings highlight the crucial role of management knowledge in ensuring effective healthcare delivery and improving the quality of medical services.

Keywords: nursing, management science, nursing management, management competencies, healthcare system, nurse leader

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Introduction

In recent years, reforms implemented within the healthcare system have identified the improvement of healthcare quality as a primary objective. Within this context, the role of nursing has become increasingly significant, as nurses are healthcare professionals who maintain direct and continuous interaction with patients and represent a critical component of the care and treatment process. At the same time, modern healthcare institutions require nurses to function not only as care providers but also as active participants in management and organizational processes.

Nursing management represents a systematic process aimed at planning, organizing, coordinating, and controlling nursing activities in order to ensure the quality and effectiveness of healthcare services. The application of management science to nursing practice enables healthcare institutions to optimize workflows, efficiently utilize human resources, and improve patient outcomes. Consequently, nursing management has emerged as a distinct field of scientific and practical importance.

Management competencies are defined as a combination of knowledge, practical skills, professional abilities, and personal attributes required to successfully perform managerial functions. In nursing practice, these competencies encompass teamwork, decision-making, effective communication, problem-solving, and the ability to manage stress in complex clinical environments. Nurse leaders who possess well-developed management competencies contribute significantly to the stability, efficiency, and overall performance of healthcare organizations.

The object of this study is the management process in nursing practice, while the subject of the research focuses on the distinctive features of management science in nursing and the content and essence of management competencies. Through systematic theoretical analysis, the article seeks to clarify the conceptual foundations of nursing management.

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The main aim of this article is to identify the distinctive characteristics of management science in nursing and to substantiate the essence of management competencies from a scientific perspective. To achieve this aim, the following objectives were defined:

- to analyze the concept of nursing management;
- to examine the role and importance of management science in nursing practice;
- to identify and characterize the main types of management competencies.

Literature Review

Issues related to management in nursing are widely discussed in scientific research aimed at improving healthcare systems. In academic literature, management science is commonly examined through the lens of general management principles, with particular emphasis on its application within healthcare settings. The management process is typically described through core functions such as planning, organizing, leadership, and control, each of which acquires specific characteristics in nursing practice.

International studies conceptualize nursing management as an integral component of healthcare systems. Research findings consistently emphasize that nurses' involvement in management activities is directly associated with healthcare quality, patient safety, and the effectiveness of medical teams. In particular, the professional preparation of nurse leaders and their possession of management knowledge are regarded as key factors in ensuring organizational stability and high-quality care delivery.

The concept of management competencies has been extensively addressed in the literature and is generally defined as a set of knowledge, skills, and personal qualities that enable professionals to organize their work effectively. In nursing, these competencies include communication skills, leadership ability, analytical thinking, problem-solving, rapid and well-founded decision-making, and team

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management. Scholarly sources emphasize that the development of these competencies is essential for nurses' professional growth.

In addition, studies highlight the distinctive nature of nursing management, which is characterized by a high level of responsibility related to human life and health. As a result, nursing management extends beyond purely organizational tasks and incorporates ethical, psychological, and social dimensions. This multifaceted character demonstrates the complexity of management science within the healthcare sector.

Research further indicates that the study of management principles has become increasingly important for nurses in modern healthcare systems. Factors such as increasing workload, expanding team-based care, and rising expectations regarding service quality underscore the need to integrate management education into nursing training programs. Accordingly, the incorporation of management science into nursing education is widely supported from both theoretical and practical perspectives.

Overall, the literature review demonstrates that issues related to nursing management and the development of management competencies remain highly relevant. While existing studies provide a solid theoretical foundation, they also indicate the need for deeper exploration of the practical dimensions of nursing management. For this reason, the present article places particular emphasis on a systematic analysis of these issues.

Main Part

1. Distinctive Features of Management Science in Nursing

Management science in nursing constitutes an essential component of the healthcare system and plays a crucial role in ensuring the effectiveness of healthcare service delivery. Although nursing management is grounded in general management theories, it differs significantly from management in other fields in terms of its scope, responsibilities, and ethical implications. These differences

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primarily stem from the fact that nursing practice is directly connected to human life and health.

In nursing, management decisions must prioritize continuity of care and patient safety. Every organizational or managerial decision may directly influence clinical processes as well as patients' physical and psychological well-being. For this reason, accuracy, accountability, and professional responsibility represent fundamental principles of nursing management. Errors in managerial decision-making may lead to decreased quality of care and adverse patient outcomes.

One of the defining characteristics of nursing management is its strong focus on the human factor. Nurses operate in continuous interaction with patients, their families, and multidisciplinary healthcare teams. Consequently, effective nursing management requires not only organizational skills but also a deep understanding of psychological and interpersonal dynamics. Consideration of patients' emotional states and the cultivation of constructive professional relationships within healthcare teams are central responsibilities of nursing management.

Nursing management is also carried out in highly dynamic and often unpredictable working environments. Although healthcare institutions operate according to established plans and protocols, unexpected situations such as emergencies, sudden increases in patient volume, equipment malfunctions, or staff shortages frequently arise. In such circumstances, nurses are expected to demonstrate flexibility, rapid decision-making, and the ability to adapt to changing conditions.

Another distinctive feature of nursing management is the coordination of team-based activities. Nurses collaborate closely with physicians, allied health professionals, and support staff. Within this framework, management functions such as planning, coordination, delegation, and supervision are particularly important. Clear role distribution and effective coordination contribute to improved efficiency and enhanced accountability within healthcare teams.

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Ethical responsibility represents a further defining aspect of management science in nursing. Nursing practice is governed by principles of medical ethics and professional deontology, which must be consistently upheld within the management process. Ethical decision-making in nursing management safeguards patient rights, strengthens trust in healthcare services, and reinforces professional integrity. As a result, nursing management encompasses not only administrative functions but also ethical and moral accountability.

In summary, management science in nursing is characterized by its human-centered orientation, high level of responsibility, dynamic working conditions, and strong ethical foundations. These features underscore the importance of management science as an integral component of professional nursing education and practice.

2. Essence and Structure of Management Competencies

Management competencies represent one of the key determinants of effectiveness in nursing practice. This concept encompasses a comprehensive set of knowledge, practical skills, professional abilities, and personal attributes required for the successful implementation of management activities. In nursing, management competencies are important not only for nurses occupying formal leadership positions but also for those engaged in routine clinical practice, as managerial decision-making is an integral part of daily professional activities.

One of the fundamental components of management competencies is theoretical knowledge related to management principles. This includes an understanding of planning, organizing, coordinating, and controlling professional activities. Possession of such knowledge enables nurses to structure their work systematically, define priorities, and monitor task performance. Insufficient theoretical preparation in management may result in disorganization, inefficiency, and reduced quality of care delivery.

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Practical skills constitute another essential component of management competencies. In nursing practice, these skills are developed through real-life professional experience and continuous engagement in clinical and organizational processes. Activities such as effective time management, organization of patient care, maintenance of medical documentation, and coordination of team-based work require well-developed management skills. Over time, these skills are strengthened through experience and reflective practice.

Personal attributes play a significant role in the structure of management competencies. Qualities such as responsibility, discipline, initiative, and resilience to stress directly influence the effectiveness of management activities. Nursing practice often takes place in demanding and high-pressure environments, which require a high level of emotional stability and self-control. A lack of these personal qualities may hinder effective management and negatively affect professional performance.

Communication competence occupies a central position in nursing management. Nurses must establish effective communication with patients, their families, and members of the healthcare team. Clear, accurate, and timely communication ensures continuity of care and prevents misunderstandings within clinical settings. In the management process, well-developed communication skills contribute to the formation of a positive psychological climate within the team and enhance collaboration.

Decision-making competence is another critical aspect of management competencies. Nursing practice frequently involves situations that require prompt and responsible decision-making. In such circumstances, the nurse's ability to assess situations objectively, apply analytical thinking, and assume responsibility for outcomes is of paramount importance. The development of decision-making competence enhances professional autonomy and strengthens nurses' authority within the healthcare team.

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In addition, leadership and motivational abilities are integral elements of management competencies. Nurse leaders must be capable of guiding teams toward common goals, maintaining staff motivation, and fostering professional engagement. Motivation serves as a key element of the management process, as it directly influences work efficiency and job satisfaction. These competencies contribute to the creation of a supportive and productive working environment within healthcare institutions.

Overall, management competencies constitute an inseparable component of nursing practice, and their development is a critical aspect of professional preparation. Nurses who possess well-developed management competencies are better equipped to organize healthcare services effectively and to contribute meaningfully to the advancement of the healthcare system.

3. Role and Significance of Management Competencies in Nursing Practice

The role of management competencies in nursing practice is reflected in their direct influence on the effectiveness and quality of healthcare service delivery. In modern healthcare systems, nurses function not only as clinical practitioners but also as key organizational actors within healthcare institutions. Consequently, the possession of management competencies has become an essential component of professional nursing practice and significantly affects nurses' daily responsibilities.

In nursing practice, management competencies enable the systematic organization of work processes. Activities such as patient admission, care planning, implementation of medical procedures, and documentation require coordinated and well-structured management approaches. Nurses who effectively apply management skills are able to allocate time rationally, prioritize tasks, and maintain continuity in patient care. This, in turn, contributes to increased operational efficiency within healthcare institutions.

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Management competencies play a critical role in ensuring patient safety. Many potential risks in healthcare settings arise from inadequate organization, poor communication, or insufficient supervision. Effective management of clinical processes—including adherence to medication administration protocols, proper use of medical equipment, and compliance with sanitary and hygienic standards—depends largely on management oversight. Well-developed management competencies reduce the likelihood of errors and contribute to the protection of patients' health and well-being.

Team-based care represents another domain in which management competencies are of substantial importance. Nursing practice is inherently collaborative, involving close interaction with physicians, allied health professionals, and support staff. Through effective management competencies, responsibilities are clearly distributed, coordination is strengthened, and accountability within the team is enhanced. A well-organized healthcare team functions more efficiently, which positively affects the overall quality of medical services.

Management competencies are particularly valuable in stressful and complex clinical situations. Healthcare environments frequently involve emergencies, increased patient volume, and heavy workloads. In such circumstances, nurses with strong management competencies are better prepared to assess situations accurately, establish priorities, and make timely decisions. This ability helps maintain order and stability within clinical settings, even under challenging conditions.

The practical significance of management competencies is also evident in nurses' professional development. Nurses who possess these competencies are more capable of evaluating their own performance, identifying areas for improvement, and engaging in continuous professional growth. Management competencies foster professional independence and prepare nurses for future leadership roles within healthcare organizations.

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In summary, management competencies play a multifaceted role in nursing practice by enhancing healthcare quality, ensuring patient safety, improving team performance, and supporting professional development. Their integration into both nursing education and clinical practice is therefore essential for the effective functioning and sustainable development of healthcare systems.

4. Development and Enhancement of Management Competencies in Nursing

The development and enhancement of management competencies in nursing represent a key priority for modern healthcare systems. Increasing demands for healthcare services, the growing complexity of clinical processes, and heightened expectations regarding service quality require nurses to possess not only clinical expertise but also well-developed management competencies. For this reason, the formation of management competencies should be viewed as a continuous and systematic process.

Education plays a central role in the development of management competencies in nursing. The inclusion of management-related subjects within nursing education programs provides students with foundational knowledge of management principles and processes. Concepts such as planning, organizing, leadership, and control form the theoretical basis for future professional activities. These foundational competencies serve as a platform for further development through practical experience.

Practical training and clinical exposure are essential for strengthening management competencies. During clinical placements, students and practicing nurses gain firsthand experience with real-world management situations. Observing organizational workflows, participating in team-based activities, and assuming responsibility for specific tasks contribute to the development of practical management skills. Such experiences enable nurses to apply theoretical knowledge in authentic clinical contexts.



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Self-directed learning and continuous professional development also play an important role in enhancing management competencies. Nurses are expected to engage in lifelong learning by regularly updating their knowledge and reflecting on their professional performance. Critical self-assessment, analysis of professional challenges, and the adoption of innovative management approaches support ongoing competency development and professional maturity.

Training programs and professional development courses further contribute to the advancement of management competencies. Through workshops, seminars, and continuing education programs, nurses gain exposure to contemporary management strategies, leadership models, and effective communication techniques. The application of acquired skills in clinical practice enhances overall performance and contributes to the optimization of management processes within healthcare institutions.

Institutional support and leadership encouragement are additional factors influencing the development of management competencies. Supportive work environments that promote initiative, professional autonomy, and motivation enable nurses to realize their full potential. Recognition and encouragement from organizational leadership foster engagement and contribute to sustained professional growth. As a result, improved management competencies positively affect institutional performance and service quality.

Overall, the development of management competencies in nursing requires an integrated approach that combines education, practical experience, continuous learning, and organizational support. The effective implementation of this approach contributes to the preparation of competent and adaptable nursing professionals capable of meeting the evolving challenges of healthcare systems.

5. Challenges in Nursing Management and Strategies for Their Resolution

The effective organization of management activities in nursing practice is often accompanied by a range of challenges. These challenges arise from the

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complexity of healthcare systems, high workload demands, workforce-related issues, and insufficient development of management competencies. Identifying these challenges and determining appropriate strategies to address them is essential for improving the effectiveness of nursing management.

One of the most common challenges in nursing management is the uneven distribution of workload. In many healthcare institutions, nurses are required to perform multiple tasks simultaneously, which can lead to decreased efficiency, physical and emotional exhaustion, and professional burnout. Excessive workload negatively affects decision-making and increases the risk of errors in patient care. To address this challenge, effective planning, task delegation, and monitoring mechanisms must be strengthened within management processes.

Another significant challenge is the insufficient level of management knowledge and skills among nursing staff. While nurses may possess strong clinical competence, they may encounter difficulties in coordinating team activities, making managerial decisions, or resolving conflicts. This situation highlights the need for systematic development of management competencies through education, training, and continuous professional development programs.

Communication-related issues also represent a major challenge in nursing management. Ineffective communication among healthcare team members can result in misunderstandings, conflicts, and disruptions in care continuity. Poor information exchange may compromise teamwork and negatively influence patient outcomes. Enhancing communication competencies and establishing clear communication channels within healthcare institutions are essential strategies for overcoming this challenge.

Stressful working conditions further complicate nursing management. Emergency situations, high patient volumes, time pressure, and the emotional demands of patient care create a stressful environment for nurses. Inadequate stress management can impair judgment and reduce management effectiveness. Addressing this challenge requires psychological support mechanisms, the

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promotion of healthy work environments, and the implementation of staff motivation and well-being programs.

An important strategy for overcoming challenges in nursing management is the adoption of evidence-based and scientifically grounded management approaches. The application of contemporary management models, continuous improvement of education systems, and integration of innovative practices contribute to more effective management outcomes. Additionally, the use of modern technologies and digital tools can support organizational efficiency and decision-making processes.

In conclusion, challenges in nursing management are multifaceted and require a comprehensive and systematic approach. Through timely identification of problems and implementation of targeted strategies, it is possible to enhance nursing management effectiveness, improve healthcare service quality, and support the sustainable development of healthcare institutions.

Methods

This study employed a qualitative theoretical and analytical approach. The research was based on a systematic review and analysis of scientific literature related to nursing management and management competencies within healthcare systems. Relevant academic sources, including textbooks, peer-reviewed journal articles, and educational materials, were examined to identify key concepts, theoretical frameworks, and practical perspectives on nursing management.

Methods such as comparative analysis, synthesis, and generalization were used to evaluate existing theoretical positions and to determine the distinctive features of management science in nursing. The collected information was analyzed to define the structure, role, and significance of management competencies in nursing practice. This methodological approach allowed for a comprehensive and structured examination of the topic.

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Conclusion

Management science occupies a vital position in nursing practice and plays a decisive role in ensuring the effectiveness and quality of healthcare services. In modern healthcare systems, nurses are required to perform not only clinical functions but also managerial and organizational roles, which necessitate the development of well-defined management competencies.

The findings of this study demonstrate that management science in nursing is characterized by a human-centered approach, a high level of responsibility, dynamic working conditions, and strong ethical foundations. Management competencies—comprising theoretical knowledge, practical skills, communication abilities, decision-making capacity, and personal attributes—are essential for effective nursing practice and professional growth.

Furthermore, the development of management competencies contributes significantly to patient safety, team coordination, and the optimization of healthcare processes. Continuous education, practical training, institutional support, and the application of evidence-based management approaches are key factors in strengthening these competencies.

In conclusion, the integration of management science into nursing education and professional practice is essential for enhancing healthcare quality and supporting the sustainable development of healthcare systems. Future efforts should focus on the systematic advancement of management competency development among nursing professionals.

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