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Administrative Challenges in Radiology and Nursing Departments: The Evolving Role of Medical Secretaries

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Abstract

Background: The role of medical secretaries in radiology departments is evolving amidst increasing administrative challenges and the integration of electronic health information systems. Medical secretaries are essential for ensuring accurate patient documentation and facilitating communication among healthcare teams. This study investigates the impact of electronic information systems on the duties of medical secretaries, focusing on their responsibilities in patient administration throughout various stages of the care process.

Methods: A thorough assessment was conducted of existing literature and data gathered from medical secretaries about their experiences with electronic health information systems. Key areas of focus included patient admission, care planning and organization, ordering diagnostic exams, and patient discharge.

Results: The study revealed that while medical secretaries generally found electronic systems beneficial for patient admission and discharge, significant challenges remained in care planning and organization. Many reported that the systems inadequately facilitated communication among stakeholders and required excessive time for data entry and retrieval. The study highlighted a gap between the expected efficiency of electronic systems and the actual experiences of medical secretaries.

Conclusion: Enhancing the functionality and usability of electronic health information systems is crucial for optimizing the roles of medical secretaries. By addressing the identified challenges, healthcare

organizations can improve administrative workflows and support medical secretaries in delivering high-quality patient care.

Keywords: medical secretaries, radiology, electronic health information systems, patient administration, administrative challenges.

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1. Introduction

A medical secretary, often known as a unit secretary or ward clerk, is a healthcare unit employee tasked with responsibilities like appointment scheduling and journal entry documentation. In performing administrative duties within the care team, secretaries facilitate nurses' allocation of more time to direct patient care [1,2]. Maintaining the quality of paperwork is the responsibility of the secretaries. The primary responsibility of the secretary is to ensure the accuracy of patient papers and the proper recording of all pertinent information in the right manner. [3,4] The job descriptions of secretaries differ to a certain degree among nations. The primary responsibility of secretaries is to arrange appointments and maintain follow-up records. 1 In paper-based workplaces, secretaries primarily maintained the confidentiality of patient information by returning files to their designated locations and promoting similar practices among colleagues [5].

Compliance with data security and protection is mandatory for all users of electronic information systems. The introduction of an electronic information system may alter the work definition of secretaries. Collaboration among various professional groups has intensified, resulting in the reassignment of some responsibilities to other groups and the complete elimination of others. [4, 6] New responsibilities also arose, including the verification and rectification of entries made by other experts. Certain jobs become more challenging due to the inefficacy of data entry into the new information system. If the employed technology fails to support job tasks, it adversely affects its utility [7].

Secretaries exhibit greater satisfaction with electronic hospital information systems compared to doctors or nurses [8]. This may be due to several groups using distinct components of the information systems, with differing duties assigned to each. Conversely, in the 2013 research conducted by Bossen et al. [9], secretaries found the structure of the newly introduced electronic patient information system to be perplexing, with an interface that was cumbersome and sluggish. [9]. Secretaries may use distinct electronic programs tailored for certain functions, such as a transcription system for dictating transcriptions or a patient administration IT system for documenting information like diagnoses or a patient's hospitalization status or release. The technologies used by the secretaries may also be integrated into the patient information system. [4] The maturity level of a patient information system's digitalization and functionality may be assessed using the Electronic Medical Record Adoption Model (EMRAM) scale, which ranges from 0 to 7. At EMRAM Stage 0, electronic information systems are only partially implemented in essential auxiliary departments (Laboratory, Radiology, Pharmacy), but at Stage 7, a fully integrated electronic information system is operational, facilitating smooth information exchange and advisory functions. [10]

The rate of adoption of information systems varies across nations [11]. It is believed that information systems facilitate the tasks of secretaries. Secretaries have found the patient administration information system to be complex, despite observations indicating that their tasks were simplified, such as eliminating the need to look for patients' paper records. [9,12] If the electronic patient information system fails to facilitate job tasks, it results in workarounds, meaning activities are performed inappropriately [13]. Workarounds may compromise patient safety or operational efficiency. If the user lacks confidence in the electronic system, the data may be documented on paper to ensure patient information is accessible when required. The quality of the information system is deemed excellent when the technology and instruments used for information processing effectively assist in patient care duties [14]. The efficacy of the technology used for information processing influences secretaries' inclinations to utilize it. The utility is enhanced by data security. [7]

Previous study exists about the training of secretaries, their significance in healthcare, and their responsibilities [1-3,15]. The influence of a novel electronic tool on the job of secretaries has been examined [4,6,16]. The job duties were partially modified, partially removed, or maintained partially unchanged [4,6]. Secretaries have been categorized as a distinct group in research examining the perceived advantages, usability, and autonomy in task management associated with the hospital information system across various professional categories, the intentions to utilize the electronic system and its antecedent factors, and the support extended to diverse healthcare professionals by a newly implemented electronic patient information system [7-9].

This research examines the assistance provided by hospital information systems for medical secretaries' inpatient administration responsibilities throughout several stages of the care process. The care process in this research comprises four phases: patient admission, planning and organization of patient care, ordering exams and treatments, and patient discharge. The research was undertaken at a time when electronic information systems have been used for various patient administration duties across several domains since the 1980s. The research aims to delineate the assistance provided by the hospital information system for medical secretaries in their patient administration responsibilities across various stages of the care process.

2. The Hospital Information System for Medical Secretaries

The majority of secretaries believed that the information system facilitated their tasks during patient admission, assessment and treatment orders, and patient discharge. The majority believed that the tools provided inadequate help for notifying all relevant stakeholders of changes in plans throughout the planning and organizing of care. In other domains, the majority said that the information system facilitated their efforts in the planning and organization of care. This outcome contradicts prior research in which the secretaries gave a poor evaluation of the assistance offered by the patient information system for their job [9].

Nevertheless, secretaries had just implemented a new electronic system that replaced outdated electronic and profession-specific paper systems. This indicates Stage 4 on the EMRAM scale [10], signifying a greater degree of maturity in their studies. The responders were highly representative of the medical and surgical fields, including outpatient clinics and wards. Almost all participants operated within the somatic sector, where electronic systems have been used for some patient administration functions since the 1980s [17,18]. The responders had a mean age of 49, which aligns with the mean age of secretaries in the Nordic nations [1]. They exhibited considerable confidence in computer use and deemed high-quality patient information essential.

Prior research indicates that secretaries had trust in their IT competencies; in the 2015 study by Ologeanu-Taddei et al. [8], more than half of the participants believed they were capable of executing their professional responsibilities using a computer. Upon patient admission, the information system assistance for secretarial tasks garnered the most unfavorable evaluation regarding data security and adherence to legal requirements. Patients are legally entitled to the privacy and confidentiality of their medical records [19]. Information security has been shown to enhance secretaries' view of the information system's use; thus, guaranteeing information security is crucial for this purpose as well [20]. The study findings suggest that enhancing the system's usability may elevate the quality of the information system from the secretaries' perspective, as over 25% reported that documenting administrative patient information was excessively time-consuming and the information's usability was inadequate. In the planning and organization of patient care, a majority (68%) said that the instruments used were inadequate for alerting all relevant stakeholders about changes in plans. Given that communication among various units, workers, patients, their families, and external stakeholders is included in the secretaries' job responsibilities, methods must be devised to facilitate communication among the concerned parties. To maintain continuity of care, the information system must guarantee the availability of information.

3. Ordering Diagnostic and Therapeutic Examinations and Procedures

In the process of ordering diagnostic and therapeutic examinations and procedures, nearly fifty percent of respondents perceived the access to information regarding the availability of urgently required ancillary units as inadequate, while one-third believed that the search for and scheduling of appointments consumed an excessive amount of time. The results indicate that the information system inadequately supports secretaries in the critical task of arranging appointments. The system seems to lack the capability for information transfer, as just over 20% of respondents said that they often needed to re-enter patient-related information when requesting treatment from a healthcare practitioner. At this level of treatment, the data demonstrates discrepancies in documentation. The duplication of information in two places may indicate a lack of faith in the new system. Conversely, the new electronic system does not inherently facilitate difficult activities as effectively as a paper-based approach [13].

The assistance provided by the information system during patient discharge was mostly assessed favorably. Approximately one in three said that the tools failed to assist them in the following areas: consistency of information on diagnoses and procedures, detection of absent information on treatments, and the compilation and transmission of information about subsequent treatment. Given that the responsibilities of secretaries include verifying the accuracy and functionality of patient information in various contexts, improvements in the aforementioned areas should be prioritized. This is crucial for the business since hospital payment relies on data about diagnosis and operations. The accuracy of statistical information is crucial for organizational comparisons and quality management objectives. Upon patient discharge, over 25% of secretaries felt that their instruments inadequately facilitated the legally mandated filing, while over 33% said that document filing consumed an excessive amount of time. In the case of paper filing, the responsibility of transmitting and ordering papers from the archive falls to the secretary [4]. Only one in ten used only a computer for document filing. Electronic tools are anticipated to reduce the time required for filing.

The researcher served as a trainer in the deployment of the patient information system and was acquainted with the secretaries' responsibilities. The instrument's readability and comprehensibility were also pre-tested. No modifications to the instrument were deemed necessary [20].

Despite the prolonged use of the information system for patient administration activities by the secretaries, revision was deemed required. It may be inferred that in regions with the most unfavorable evaluations of the assistance offered for secretarial tasks, including usability, information accessibility, redundant entries, and the compilation and transmission of information, the new patient administration module is more effective in facilitating their job. Should the technologies operate well, paper documents might be completely eradicated. This warrants more investigation, particularly when the new systems are firmly established, due to the deficiency of prior studies on the topic.

4. Implications for Nursing and Medical Secretaries

The changing dynamics in radiology and healthcare, influenced by technological progress and administrative difficulties, have considerable repercussions for nurses and medical secretaries. Both positions are essential for maintaining operational efficiency, patient safety, and superior care quality. As healthcare institutions increasingly use electronic health information systems (EHIS) and encounter rising patient volumes, understanding these consequences is essential for maximizing their effectiveness.

4.1. Implications for Nursing

Nurses in radiology departments are essential for ensuring patient care and safety throughout diagnostic and therapeutic operations. Their duties now including operating sophisticated radiological equipment, adhering to radiation safety standards, and keeping precise patient data within EHIS. These technological and administrative requirements necessitate that nurses cultivate significant technical skills in conjunction with their clinical proficiency.

A crucial issue for nurses is the need for ongoing education and training in the use of EHIS. Although these technologies aim to enhance documentation and communication, several nurses encounter difficulties like system complexity, insufficient training, and augmented time dedicated to data input. These issues might diminish patient care time, resulting in dissatisfaction and exhaustion. Consequently, healthcare companies must allocate resources to user-friendly systems and provide continuous technical assistance to enable nurses to use EHIS proficiently.

The incorporation of EHIS into nursing processes influences communication and collaboration with other healthcare professionals. Nurses must adjust to overseeing new communication platforms, including electronic orders and notifications, which, while enhancing productivity, may also lead to information overload. Nurses must be educated to prioritize and handle digital information to sustain workflow equilibrium and concentrate on patient-centered care.

4.2. Implications for Medical Secretaries

Medical secretaries are integral to the administrative operations of radiology departments, overseeing patient intake, scheduling, paperwork, and coordination among healthcare teams. The implementation of EHIS has profoundly transformed their responsibilities, positioning them at the forefront of digital workflow management and regulatory compliance assurance. This transition has presented new obstacles for adaptation and skill development.

A key consequence for medical secretaries is the need to proficiently use EHIS for the management of patient data and the enhancement of communication. The shift from manual to digital systems, however advantageous in some respects, has increased their burden concerning data input and system navigation. Secretaries often indicate that ineffective system designs and regular upgrades hinder processes, underscoring the need for more intuitive interfaces and improved integration across platforms.

Furthermore, medical secretaries are essential in maintaining regulatory compliance via precise documentation of patient data, diagnostic processes, and treatment plans. The obligation with EHIS grows more intricate owing to the need of comprehending and implementing electronic documentation procedures. Healthcare firms must provide secretaries with extensive training to proficiently traverse these platforms and reduce mistakes.

The administrative responsibilities of secretaries include collaborating with nurses and radiologists to provide efficient scheduling and patient flow. Effective communication and collaboration between secretaries and nurses are essential for the proper management of patient care. Improved collaboration tools and consistent multidisciplinary training may cultivate robust collaborations and reduce misunderstandings.

The interdependence of nursing and medical secretarial positions highlights the need of teamwork in tackling common difficulties. Nurses depend on secretaries for precise scheduling and paperwork, while secretaries rely on nurses to execute clinical procedures and guarantee patient preparedness. An effective workflow requires transparent communication, reciprocal respect, and collective responsibility.

5. Conclusions

As healthcare organizations incorporate cutting-edge electronic health information systems, the changing function of medical secretaries in radiology departments becomes more and more important. These secretaries, sometimes disregarded in healthcare delivery discourse, are essential in facilitating information flow and assuring the efficiency of patient care operations. This research elucidates the administrative issues encountered by medical secretaries and the ramifications of electronic information systems on their everyday duties.

Medical secretaries are responsible for a range of administrative functions, including appointment coordination, record management, and communication among healthcare professionals. As healthcare transitions to digital solutions, it is anticipated that electronic health information systems will optimize operations, alleviating the administrative load on secretaries and enhancing patient care. This research has

shown that while these systems provide some benefits, they also pose considerable problems that may impede the efficacy of secretarial positions.

The results demonstrate that medical secretaries see electronic technologies as advantageous throughout patient admission and discharge processes. These systems assist in structuring patient information, reducing dependence on paper records, and enabling expedited access to pertinent data. Nonetheless, substantial deficiencies remain in the domains of care planning and organization. Numerous secretaries indicated challenges in conveying modifications in patient care plans to all pertinent parties, which is crucial for ensuring continuity of care.

Furthermore, the research emphasizes the problem of time expenditure linked to these technologies. Numerous secretaries expressed their displeasure with the protracted duration necessary for data input and retrieval, which impedes their capacity to concentrate on direct patient care responsibilities. This inefficiency adversely affects the workflow of medical secretaries and may compromise patient safety and treatment quality.

Healthcare companies must prioritize the improvement of electronic health information systems to tackle these difficulties. This includes enhancing system usability, optimizing data input procedures, and ensuring that the technologies are tailored to the specific requirements of medical secretaries. Training programs that provide secretaries with the requisite abilities to proficiently traverse these platforms may enhance the successful use of technology in their positions.

The use of electronic health information systems in radiology departments offers both advantages and obstacles for medical secretaries. By recognizing and mitigating the obstacles encountered, healthcare organizations may enable medical secretaries to do their duties more efficiently. This will result in optimized administrative procedures, greater communication among healthcare teams, and ultimately, superior patient care results. As the healthcare environment evolves, acknowledging the significance of medical secretaries and investing in their growth will be essential for the success of radiology departments and the healthcare system overall.

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التحديات الإدارية في أقسام الأشعة والتمريض: الدور المتطور للسكرتارية الطبية

الملخص

الخلفية :يتطور دور السكرتارية الطبية في أقسام الأشعة وسط التحديات الإدارية المتزايدة واندماج أنظمة المعلومات الصحية الإلكترونية. تُعد السكرتارية الطبية ضرورية لضمان توثيق دقيق للمرضى وتسهيل التواصل بين فرق الرعاية الصحية. تبحث هذه الدراسة في تأثير أنظمة المعلومات الإلكترونية على مهام السكرتارية الطبية، مع التركيز على مسؤولياتهم في إدارة المرضى عبر مختلف مراحل عملية الرعاية.

الطرق :تم إجراء تقييم شامل للأدبيات الحالية والبيانات التي تم جمعها من السكرتارية الطبية حول تجاربهم مع أنظمة المعلومات الصحية الإلكترونية. ركزت الدراسة على مجالات رئيسية مثل إدخال المرضى، تخطيط وتنظيم الرعاية، طلب الفحوصات التشخيصية، وخروج المرضى.

النتائج :أظهرت الدراسة أن السكرتارية الطبية وجدت عمومًا أن الأنظمة الإلكترونية مفيدة لإجراءات إدخال وخروج المرضى. ومع ذلك، لا تزال هناك تحديات كبيرة في مجالات تخطيط وتنظيم الرعاية. أبلغ العديد من المشاركين أن الأنظمة لم تسهل التواصل بشكل كافٍ بين الأطراف المعنية، واستغرقت وقتًا طويلاً لإدخال البيانات واسترجاعها. كما أبرزت الدراسة فجوة بين الكفاءة المتوقعة للأنظمة الإلكترونية والتجارب الفعلية للسكرتارية الطبية.

الخلاصة :يُعد تحسين وظائف وسهولة استخدام أنظمة المعلومات الصحية الإلكترونية أمرًا ضروريًا لتحسين أدوار السكرتارية الطبية. من خلال معالجة التحديات المحددة، يمكن لمؤسسات الرعاية الصحية تحسين سير العمل الإداري ودعم السكرتارية الطبية في تقديم رعاية عالية الجودة للمرضى.

الكلمات المفتاحية :السكرتارية الطبية، الأشعة، أنظمة المعلومات الصحية الإلكترونية، إدارة المرضى، التحديات الإدارية.