Chapter-6

CROSS SECTIONAL STUDY ON EMR ADOPTION MODEL

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INTRODUCTION

Healthcare Information and Management Systems Society Analytics launched EMR Adoption Models (EMRAM) [1] in both the United States and Canada, along with Ambulatory EMR models specifically for the United States. The EMRAM consists of eight stages, serving as a framework to monitor the advancements of healthcare organizations in adopting Electronic Medical Records (EMR) [2].

Electronic Medical Records (EMRs) serve as computerized systems dedicated to collecting, storing, and presenting patient information in a legible and organized manner. They act as a crucial tool for creating comprehensive recordings and accessing clinical data for individual patients, aiming to replace the familiar, yet often paper-based, medical records. It was discerned that the global expansion of the mobile market has spurred the creation of new markets across various industries, all centered around mobile functionality [3].

The widespread implementation of EMRs in healthcare organizations. A wealth of knowledge has been accumulated regarding the factors influencing the intricate processes of implementation. the implementation of EMRs is substantial, featuring numerous competing theories and models. In the scholarly discourse.

RESEARCH OBJECTIVES

1. To assess the present status of Electronic Medical Records (EMR) adoption, including the stages based on the EMRAM Model, within hospitals in Bangalore, India.
2. To pinpoint the obstacles hindering the implementation and adoption of EMRs within these hospitals.
3. To recognize strategies for overcoming the identified barriers in the implementation and adoption of EMRs by hospitals.

RESEARCH METHODOLOGY

The research was conducted at 14 healthcare facilities in Bangalore, utilizing a descriptive cross-sectional study design. Data

collection tools included an open-ended structured questionnaire and in-depth interviews. Participants, consisting of doctors, nurses, and administrative staff from each healthcare facility, were selected through purposive sampling. Hospitals refusing to cooperate and share information were excluded based on defined criteria.

Interviews with respondents were conducted for data collection, ensuring informed consent and voluntary participation. An open-ended questionnaire was employed to gather information on demographic factors, the duration and frequency of Electronic Medical Record (EMR) use, and the barriers and facilitators of EMR adoption. To maintain confidentiality, all findings were presented without attributing names. Microsoft Excel was used for data analysis and interpretation, employing descriptive statistics such as mode, which computed frequencies and graphs.

RESULTS AND DISCUSSION

Out of 168 distributed questionnaires, 150 were completed by participants, yielding a response rate of 89%. The participants, including doctors, nurses, and administrative staff, were from diverse healthcare roles, all users of Electronic Medical Records (EMRs). The hospitals surveyed were categorized based on bed capacity, and the majority (42.8%) had a capacity of 250-500 beds. The demographic analysis revealed that most respondents were aged 31-40 years, had less than 5 years of work experience, and represented various hospital sizes. The study explored the frequency of computer usage for patient care, internet usage, EMR utilization, and the impact of training on EMR implementation. Additionally, perceptions of EMR effects and stages of EMR adoption were assessed. Barriers to adoption, including high implementation costs, inadequate IT staff, technical limitations, lack of clarity in HIT policies, lack of training, and patient security and privacy concerns, were identified. Recommendations to enhance adoption included creating awareness, providing training, offering technical support, hiring IT staff from vendors, and designing flexible EMRs. Overall, creating awareness and training to improve knowledge were identified as the most crucial suggestions to overcome adoption barriers

and enhance EMR implementation.

CONCLUSION

This study suggests a positive trend in EMR adoption in India. Identified major inhibitors include the high cost of implementation, technical limitations, and concerns related to patient privacy and security. Key suggestions to address these challenges include providing training to improve knowledge, creating awareness about EMR usage, and implementing a flexible EMR design. Some additional inhibitors mentioned by respondents include the complexity of options and entries, increased application parts for viewing patient data after EMR integration, and a preference for manual work. Respondents also offered their own suggestions for EMR adoption, emphasizing the need for simplicity, user-friendliness, quick loading times, and flexibility.

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