Awareness, Challenges and Influencing Factors of Record Appraisal Practices: Perspectives of Heads of Medical Record Departments in Private Hospitals in Malaysia

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ABSTRACT

Record appraisal is a critical process in records management used to evaluate the value of the records for retention, legal compliance or disposal to optimize storage and accessibility. In the healthcare sector, this process is vital as records support legal evidence, patient care decisions and regulatory adherence. Despite its importance, low staff awareness and challenges hindered the effectiveness of record appraisal. This study aimed to assess staff awareness from the perspective of Heads of the Medical Records Department, examine the challenges that hindered the effectiveness of record appraisal and identify the factors influencing the awareness and effectiveness of record appraisal practices in the healthcare sector within Malaysia context. This study was conducted using an exploratory qualitative case study, utilizing semi-structured interviews with the two Heads of the Medical Records Department from two selected healthcare institutions. The collected data were analyzed thematically to identify patterns and emerging themes. The findings revealed that while the Heads of Department demonstrated a high level of awareness in the record appraisal practices, there is a significant awareness gap among the general practitioners, who often view record management as a departmental rather than a shared responsibility. The study further identified the challenges that hindered the effectiveness of record appraisal practices in the healthcare sector which included resource and staffing constraints, policy and procedural issues, organizational and inter-departmental frictions as well as technical and external pressure. The findings also revealed a new emergent theme which referred to the factors influencing the awareness of record appraisal practices in the healthcare sector. It included organizational, environmental and technological factors. Practically, this study recommended the development of comprehensive training, providing sufficient resources and infrastructure as well as reviewing and updating policies and procedures. The recommendations are made based on the findings to improve the awareness and effectiveness of record appraisal practices in the healthcare sector.

Keywords: Record appraisal, awareness, influencing factors, challenges, healthcare

INTRODUCTION

Records are essential organizational assets that document transactions, support decision-making and provide evidence of accountability regardless of whether they exist in physical or digital form. In the healthcare sector, records play such an important role in the business operation process and service delivery where records are generated throughout the delivery of healthcare services and used for both administrative and clinical purposes. Every aspect of healthcare activities requires the creation of records as evidence of daily transactions. According to Marutha (2018), the survival of any formal organization, regardless of its type, depends on proper record management practices. Record appraisal is a fundamental activity in the process of

record management and this study focused specifically on appraisal practices in the healthcare sector. Record appraisal refers to the process of examining and evaluating the records to identify and decide the retention period. This involved the action of deciding the value of the records to justify preservation in the long term (Mills, 2005).

In the context of healthcare, records provide evidence that extends beyond documenting organizational activities and also provide essential evidence to support patient care and clinical decision-making. Every diagnostic, treatment plan and patient file must be retained according to the value that the records hold, ensuring the information is available when needed and avoiding unnecessary storage of obsolete records. According to Nora Aslinda et al. (2020), decision-making in the healthcare sector is complex and high-stakes. This underscores that healthcare decision-making relies heavily on evidence, highlighting the importance of continuous and effective record appraisal to support informed decisions and accountability within healthcare organizations. Hence, this study was conducted to assess staff awareness through the lens of Heads of the Medical Records Department, examine the challenges that hindered the effectiveness of record appraisal and identify the factors that influenced the awareness and effectiveness of record appraisal practices in the healthcare sector within Malaysia context.

PROBLEM STATEMENTS

A primary concern in the literature is low awareness of record appraisal practices, as Nur Nadia Fatma et al. (2022) emphasized in their findings on awareness in the record management process. In addition, Kashaija (2019) indicated that appraisal practices were ineffective due to poor awareness, insufficient resources and inconsistent application of guidelines.

In the healthcare context, this issue was supported by Nora Aslinda et al. (2020), who indicated that factors affecting record management in university hospitals include poor staff knowledge and inadequate record professionals. According to Ime et al. (2024), 78% of respondents indicated that the lack of trained staff in healthcare settings was referred to as a constraint to achieving effective record management.

Furthermore, current literature highlights issues with unclear standardized appraisal practices. A common issue in record appraisal practice was the lack of specific guidance on appraisal practices (Netshakuma, 2020). Based on Afolayan and Olowolaju (2024), the healthcare sector in Nigeria faced issues in the management of patient medical records due to a lack of effective retention policy and disposal schedules. This was supported by Ime et al. (2024), who emphasized the need for standardized policies and procedures for managing the records.

Finally, organizational ambiguity surrounding the record disposal process arises from limited resources and inadequate policies (Schellnack-Kelly, 2022). According to Arhaim et al. (2023), while appraisal is meant to determine a record's long-term value, the study found that records are often kept for a short period such as above 12 months and 62% of respondents in the hospital were not aware of who should be responsible for authorizing the record disposal process.

Research Objectives

- To assess the level of staff awareness of record appraisal practices in healthcare practice.
- To examine the challenges of effective record appraisal activities among staff in healthcare practice.
- To identify the organizational, environmental and technological factors influencing staff awareness and record appraisal practices.

LITERATURE REVIEW

This section discussed record appraisal and its related empirical studies, supported by previous literature. It included a review of the foundation of record appraisal to provide a comprehensive understanding of record appraisal, the record appraisal process and an overview of record appraisal in the healthcare sector.

Foundation of record appraisal

Record appraisal refers to the process of distinguishing records of continuing value from those of no value so that the latter may be eliminated (National Archive of the UK, 2022). The records that exist in the organization may vary depending on the nature of the content and context of the document which is finally categorized into the type of record. The value of the records created in an organization may be separated into two categories which include primary value and secondary value. The definitions of record appraisal may be defined variously depending on the perspective of the scholars. For example, according to Marutha (2018), record appraisal refers to the process of analysis of all records in the organization to determine their administrative, historical, legal and fiscal value while Ngoepe and Nkwe (2018) defined appraisal as a process of separating chaff from the wheat. However, despite the variations in the record appraisal definitions, the main outcome of the record appraisal is the decision on what to keep based on its value (Mojapelo & Maleka, 2023).

According to Backman (1996), records should be appraised at a series level in which a group of records under the same category, sharing common provenance, functional purpose and characteristics, rather than the intensive item-by-item analysis. This is to enhance scalability and consistency across the recordkeeping organizational system. This method aligned with the macro-appraisal model theory developed by Terry Cook (1990) which prioritizes functional context, enabling the disposition of record series. Examples of the record series may include correspondence files, policy documents and financial documents. Record appraisal practices do provide benefits to the organization such as mitigating problems related to storage and improving the efficiency of the organization in managing the records (Mojapelo and Maleka, 2023).

Record appraisal process

The record appraisal in the organization involved a meticulous process that needs to be completed in adherence to the standard, guidelines and best practices of the organization. As mentioned by Backman (1996), the record managers or the archivists must identify the value of the records for the appraisal process. The identification of the value can be done through several categories of questions which include “When were the records created?”, “Why was the record created?” “What is in the record” and “Who created the record”. These groups of questions enable the records manager or archivist to identify the value of the record and thus proceed with the next record appraisal process.

According to Kashaija (2019), findings from her study indicate seven (7) common procedures in the record appraisal process which include:

Formulation of the appraisal team

The formulation of the appraisal team should consist of archivists, record managers or other office stakeholders to ensure a strong and balanced opinion on each series proposed.

Identify the record to be appraised

The appraisal team must meticulously identify the record to be appraised based on its value which can be determined based on the principles of provenance and original order.

Adherence to regulations, standards and best practice

Team members should adhere to regulations, standards and best practices related to the record appraisal, retention and disposal schedule to avoid the risk of processing the wrong record which must be retained for current use.

Identify resources available

Each identified record needs to be stored in a convenient location where the records can be maintained in good condition, prioritizing the environmental factors such as temperature, storage racks and others.

Record value determination

The appraisal team must identify the value associated with the selected record to further determine and justify the business activities that led to the creation of such records. This is particularly important to ensure that the primary value of the records is maintained within the organization.

Agreement

An agreement between the creating agency and the archival institutions must be reached before the appraisal process is conducted.

Appraisal form

Upon agreement on the selected record from both parties, appraisal forms need to be completed to execute the appraisal process. This form serves as evidence for future reference.

The National Archive of the UK (2022) stated that the effective record appraisal process can only exist within an effective life-cycle record management that maintains several principles which include proper provenance of the record, organizing and controlling records by series based on function and applying document and file handling procedures.

Record appraisal in the healthcare sector

The execution of record appraisal in the healthcare sector refers to one of the critical processes in developing proper record management in the healthcare sector (Marutha, 2018). Unlike traditional discrete lifecycles, record appraisal in healthcare must be conducted as a continuum process in which continuous identification and assessment occur from the record creation to disposal. The management of the record in healthcare must be at the top of the prioritization. As indicated by the Malaysian Medical Council (2006), records in healthcare, especially the medical record, may not serve as legal documents, but they are indeed useful in the case of a court hearing where solid evidence needs to be presented to support the process. Hence, the appraisal process of the records in healthcare is particularly significant to ensure record value and meticulous retention are determined and set to ensure the records are available when needed.

In the study conducted by Marutha (2018), they examined the appraisal implementation in Limpopo healthcare facilities, finding systematic identification of medical record categories for retention alongside an electronic indicator aligning the retention periods with record value. However, despite the appraisal execution, no record disposal has occurred since the establishment of the hospital, resulting in congested storage filled with backlog documents. This revealed a critical disconnect in which while appraisal identified the value of the records, the interrelated processes such as record retention and record disposal remained unimplemented without robust official guidelines, standards as well as a complete record appraisal implementation plan.

According to the National Archive of the UK (2022), the conduct of record appraisal ensures the organization adheres to and complies with legislation, the easy conduct of destruction of records that contain no value and the smooth operation of the organization. In the Malaysian context, the conduct of record appraisal requires the healthcare institution to comply with legislation such as the Personal Data Protection Act 2010 (PDPA), adhere to the National Archive of Malaysia disposal schedule through a formal application process, with alignment of the best practice of healthcare. This results in the healthcare sector smoothing its operation, reducing costs and increasing efficiency in records retrieval.

METHODOLOGY

This study was conducted using an exploratory qualitative case study. Ugwu and Eze (2023) emphasized that qualitative studies aim to better understand ideas, opinions or experiences by gathering and analyzing non-numeric data. Ryan et al. (1992) described case studies as an approach for describing practice and exploratory case studies were conducted to explore the reasons for a particular practice. Hence, this study was conducted

to identify the level of awareness of record appraisal practices among staff through the lens of HODs and examine the challenges and influencing factors that could affect the awareness and effectiveness of record appraisal practices in the healthcare sector.

A purposive sampling technique was employed involving individuals with heavy involvement in the record management process in their day-to-day business operations and extensive experience. Individuals were selected as respondents based on the relevance of their backgrounds to the research objective (Makwana et al., 2023). The population for this study comprised the Heads of the Medical Record Department (HODs) from two (2) different private hospitals in Malaysia. The HODs were chosen as the key expert informants as they oversaw the overall management of the unit including all the processes related to record management and were directly involved in the creation, maintenance, appraisal and disposal of records.

This study applied the semi-structured interview as the research instrument and allowed for in-depth exploration based on the responses provided by the population. Monday (2019) defined an interview as a conversation between two people to collect relevant information to obtain findings on the research. The semi-structured interviews were conducted using an interview guide developed based on the research objectives. Open-ended questions were used to encourage informants to provide detailed descriptions of their experiences and insights.

Data collection procedures

Data collection in this study was conducted through a systematic and structured procedure to ensure methodological rigor and ethical compliance. The data collection process consisted of the following steps:

Obtained permission and approval

Prior to data collection, approval was obtained from the faculty's ethics committee. This process ensured that the study adhered to established ethical guidelines and protected the rights and welfare of all informants.

Selection of informants

Selected informants, such as the Head of Department were contacted to obtain approval to conduct an interview. Those informants then received an invitation as well as the official letter outlining the purpose of the interview, the process and how confidentiality would be maintained. Lastly, informed consent was provided to those who agreed to take part in the interview before the data collection was conducted.

Scheduling and setting of interviews

Interview sessions were scheduled at dates and times that were mutually agreed upon by the informants and the researcher. Interviews were conducted face-to-face and online, depending on the informants' accessibility and preferences.

Interview session

Upon the selection of date, time and method, the interview sessions began with a brief introduction, reconfirming informed consent and seeking permission to record the conversation. Semi-structured interview questions were used to guide the discussion, ensuring that all relevant aspects of the study were addressed while allowing flexibility for probing and follow-up questions. Each interview lasted approximately 60 to 120 minutes.

Language

The interview was conducted in English as the main language. Nevertheless, informants were free to switch to their preferred language (such as Bahasa Malaysia) during the discussion and the interviewer adjusted accordingly.

Recording and transcription

With the informants' consent, all interview sessions were audio-recorded for transcription purposes. The researcher transcribed each interview verbatim to ensure accuracy during data analysis. To maintain confidentiality, informants' names and identifying information were anonymized through the use of codes and pseudonyms throughout the transcription process.

Data management and storage

All collected data, including audio recordings and transcribed documents were securely stored in digital storage accessible only to the researcher. Data were managed in accordance with ethical guidelines to ensure confidentiality, data integrity and protection against unauthorized access.

Data analysis

The analysis of this study referred to an organization and the data collected were analyzed using ATLAS.ti and presented in thematic analysis. Thematic analysis is a systematic approach to examining data with the specific goal of discovering, characterizing, explaining and providing evidence for as well as establishing connections between different findings (Sandhiya & Bhuvaneswari, 2024). According to Sirwan et al. (2025), this type of analysis provides flexibility and accessible approaches, ideal for researchers aiming to identify patterns of meaning without being constrained by specific epistemological commitments. Braun and Clarke (2008) emphasized the seven (7) steps of doing thematic analysis in the study which included:

Familiarization with the data

The data from the interview session were transcribed into text to ease the analysis process. Any important information or ideas were jotted down to ensure all thoughts and observations were included in the findings and relevant to the overall study.

Generating initial code

Systematic coding was conducted by highlighting and coding segments that were relevant to the study. The code was used as a guide to identify a feature that was of interest.

Software

In addition to that, this process involved the utilization of tools such as ATLAS.ti, depending on the researcher's familiarity and suitability. This tool helped the researcher ensure systematic and rigorous analysis of the data.

Searching for themes

All generated codes were reviewed to develop a broader theme. The theme was developed to address the research question. This was done through the use of visual aids like mind maps to help develop a systematic approach and organize the codes into themes and sub-themes.

Reviewing potential themes

Reviewing the themes was conducted in two stages or levels which included reviewing the labels of the coded data extracts in level 1. This involved checking if the themes worked in relation to the coded extracts. Level 2 involved the researcher reviewing at the level of the entire dataset. This involved considering if the themes worked in relation to the entire dataset. Once the review process had been completed, the themes were further refined to ensure that they accurately presented the data and that each theme was consistent and distinct from other themes.

Defining and naming themes

Each developed theme was defined comprehensively in relation to the research questions and named with a concise label for ease of identification. The themes were further explained with a complete description to help in communicating the themes to others.

Writing up

A narrative account was written to explain the story of the data which included a detailed description of each theme and how it related to the research questions. Data extracted were used to illustrate each theme to provide compelling evidence and the findings were related to the existing literature and theoretical frameworks.

Validity and Reliability

Lincoln and Guba (1998) emphasized four (4) strategies to ensure the trustworthiness and research rigor in qualitative research which included credibility, transferability, dependability and confirmability. In this study, the researcher implemented three (3) strategies out of four (4) strategies which include:

Transferability

A thick description was provided, thoroughly describing the research context, informants and methods which allowed readers to evaluate the similarities between their context and the study, enabling them to judge the applicability and relevance of findings to their own setting or situations (Sirwan, 2024).

Dependability

Audit trails of the research process were properly documented including the decisions made and changes in methodologies or analysis. This was to ensure transparency and enhance the understanding of the research process (Sirwan, 2024).

Confirmability

A confirmability audit was conducted and the completed transcript was shared with the informants to confirm the findings and interpretation of the data (Sirwan, 2024).

Ethical considerations

Ethical approval from the ethics review committee from respected university was received prior to the data collection process. In addition to that, all informants received the Participant Information Sheet explaining the study's purpose, procedures, voluntary participation, right to withdraw and data confidentiality assurances before providing written consent.

RESULT AND DISCUSSION

This section discussed the results and findings from the data collected through the interview process and data analysis. The discussion was based on the objective of the study which aimed to assess the level of awareness of record appraisal practices among staff and the challenges hindering the effectiveness of record appraisal practices within the healthcare sector.

Level of awareness of record appraisal practices among staff in the healthcare sector

The findings indicated a distinction in the level of awareness of record appraisal practices between the HODs, Medical Record Department staff and general practitioners. Based on the interviews, it was found that HODs demonstrated a high level of awareness through their explanations of the definition, processes and practical implementation of record appraisal. In addition, based on their perspective and observation, MRD staff also

showed a high level of awareness of record appraisal practices due to the day-to-day operation and continuous training on record management practices. The interviewees further demonstrated their understanding and awareness by providing detailed explanations of how the record retention schedule is applied in the conduct of the record appraisal process. Both interviewees confirmed that their hospitals adhered to the Ministry of Health's retention guidelines in conjunction with their respective hospital policies. The retention periods identified during the interviews are presented in Table 1.

Table 1: Retention Period

Types of Record	Retention Period
Psychiatric records	Permanent
Mortuary logbook	Permanent
Obstetric records	25 Years
Paediatric records	Until the age of 18 + 7 years
Normal cases	7 years
Medical certificate	3 years
Prescriptions	2 years
Data statistic report	1 years
Non-clinical report	2 years
Annual report	10 years
Medico-legal cases	7 years after case closed

The discussion further explored the record disposal practices implemented by the two healthcare institutions. The findings revealed that while Hospital 1 conducted limited disposal activities which only involved the disposal of medical certificates and prescriptions and other records were transferred to secondary external storage, Hospital 2 conducted the disposal process in compliance with established procedures and with the approval of the Board of Directors. Although both hospitals followed the MOH's retention schedule, differences in disposal implementation indicated that organizational governance and internal approval shape how appraisal activities are conducted.

Although both interviewees demonstrated a high level of awareness due to their direct involvement and extensive responsibilities in record management activities, the findings also revealed a lack of awareness among general practitioners such as nurses, doctors and others. This finding was based on the perception and observation of the HODs, which was due to the perception that record management practices and tasks were solely the MRD's responsibility. Consequently, general practitioners tended to have limited involvement and understanding of record appraisal practices. This gap aligned with the findings from the previous study which reported a low level of awareness of record appraisal among staff in organizations. Nur Nadia Fatma et al. (2022) and Kashaija (2019) emphasized that insufficient staff knowledge led to ineffective and awareness of record appraisal practices. The distinction in awareness between the HODs, MRD staff and general practitioners reflects the division of responsibilities within the hospital. As record appraisal is primarily managed by the MRD, general practitioners may have perceived it as outside their professional responsibilities. Consequently, awareness became concentrated among the MRD staff only instead of being shared across organizations. This finding suggested that record appraisal should be promoted as a shared organizational rather than a specialized administrative function.

These findings related to the Knowledge-Attitude-Practice (KAP) theory (1950) which referred to the central concept for understanding awareness. Linking to this theory, high awareness was demonstrated by both Heads of the Medical Record Department, representing their knowledge and positive attitudes toward the practices of record appraisal in the healthcare sector. However, the low awareness among general practitioners in the healthcare sector influenced attitudes and practices, contributing to issues such as incomplete documents and a lack of cooperation between departments. In relation to this theory, progressive learning and clear communication increase the level of knowledge related to record appraisal practices in the healthcare sector.

Due to the limited awareness identified and observed among general practitioners, several enhancement strategies were suggested to increase awareness of record appraisal practices within the healthcare sector. The findings revealed that awareness could be enhanced through multiple channels which included the distribution of Standard Operating Procedures (SOPs) via email, staff briefings, audit and departmental huddle meetings. These methods were suitable to be conducted as they provide traceable communication, allowing the staff to refer back to the information when necessary. In addition, informal methods could also be used such as verbal communication. However, this method could be inefficient as staff tended to forget it over time. The findings also highlighted the importance of providing proper training for all categories of staff, regardless of their positions and departments to ensure a consistent level of awareness and understanding of record appraisal practices throughout the healthcare institutions.

Challenges hindering the effectiveness of record appraisal practices in the healthcare sector

The findings indicated that several challenges hindered the effectiveness of record appraisal practices in the healthcare sector. Firstly, constraints related to resources and staffing were identified as the most critical challenges. Based on the findings, inadequate manpower, time constraints and financial restrictions hindered the implementation and enhancement of record appraisal practices in hospitals. The reliance on manual processes for record screening line by line rather than using Terry Cook's Macro Appraisal Model made the appraisal process time-consuming and might have negatively affected staff well-being. In addition, heavy workloads were described as a significant challenge as the MRD staff were often required to perform non-record-related tasks, leaving them with insufficient time to conduct record appraisal practices. Furthermore, limited physical storage space makes pre-disposal screening impractical within the MRD. Staff were also required to manage large volumes of both paper and electronic records simultaneously resulting in duplicated effort and increasing the risk of inconsistencies. These findings were consistent with those of Netshakuma (2020), Kashaija (2019), Marutha (2018) and Schellnack-Kelly (2022), which cited insufficient resources as a major obstacle to effective record appraisal.

The second challenge related to policy and procedural issues. The findings revealed that uncertainty derived from the medico-legal cases often required retaining records beyond the prescribed retention period. Apart from that, issues such as missing information, physical damage or loss of records required additional and time-consuming procedures such as police reports and incident reports to be conducted. Next, lack of clear guidelines for digital record appraisal and disposal posed a challenge to effective record appraisal practices. The insufficient policies which referred to the unavailability of guidelines prevented the staff from conducting record disposal through the system leading to over-retention. In addition to that, disparities were observed in the implementation of policies between private and government hospitals. Private hospitals often faced financial constraints and had to consider multiple organizational factors such as approval from the top management in the implementation of the policies, whereas government hospitals generally experienced more direct adoption of the policy. The findings also indicated that existing SOPs and policies were outdated and required periodic review and revision to ensure that the guidelines remained current, practical and relevant to be followed in the record appraisal practices. These issues showed strong evidence based on previous studies where Netshakuma (2020), Schellnack-Kelly (2022), Mojapelo and Maleka (2023) and Nur Nadia Fatma et al. (2022) also mentioned unclear and outdated policies and procedures for record appraisal as challenges. The reluctance to dispose of the digital record due to a lack of official guidelines might resulted in storage congestion (Canning & Jailant, 2025).

In addition, organizational and interdepartmental frictions emerged as another challenges effecting the effectiveness of record appraisal activities. One interviewee emphasized that resistance to change among general practitioners, particularly senior doctors and nurses, had hindered the full implementation of the electronic record management system. Another interviewee highlighted the issue of incomplete documentation by doctors. This was the most critical issue faced by the MRD staff. Communication barriers arising from professional hierarchies and lack of cooperation between clinical departments and the MRD were also reported to hinder the effectiveness of record appraisal practices. These findings could be justified based on Hagen et al. (2019), who also noted that communication breakdown and misaligned expectations from both internal and external parties were challenges to effective record appraisal.

Lastly, the technical and external pressures compounded the difficulties in the effectiveness of record appraisal practices. System disruptions occasionally led the hospital to revert to manual processes in managing the records. This issue resulted in increased workload, fragmented operations and potential reputational damage. Although reliance on the technical aspect could be beneficial in enhancing operational activities, it could also expose it to vulnerabilities such as system downtime. Apart from that, poor optimization of mobile applications through user interface principles was one of the technical challenges. As for external pressure, it was stressed that compliance pressure from external parties, such as regulatory authorities and accreditation and licensing requirements was often difficult to meet due to internal resource limitations. Further limitations related to external pressure included the ambiguous requests from external parties in medico-legal cases. This created uncertainty in record appraisal decisions because the purpose of the request was unclear.

These findings related to Donaldson's Contingency Theory of Structural Adaptation to Regain Fit (SARFIT) by Lex Donaldson (1987) where this theory mainly explained and emphasized the challenging elements. Based on the findings, challenges such as insufficient resources which included manpower, budget and storage and interdepartmental frictions such as communication barriers and unclear procedures, represented a poor fit state that hindered the overall performance and effectiveness of record appraisal practices in the healthcare sector. The emergence of the new theme, influencing factors such as organizational, environmental and technological factors may have represented an attempt to increase the fit, thus providing more positive performance and influencing change adoption in the healthcare settings.

The findings indicated that these identified challenges were interconnected, where limited resources reduced the chances and availability of staff training and insufficient training resulted in low awareness. Similarly, lack and outdated policies created uncertainty during record appraisal decisions, thus leading to over-retention of records. To conclude, focusing solely on improving awareness without addressing the challenges such as resource, policy and technological limitations might not be sufficient to improve the level of awareness.

Factors influencing the awareness and effectiveness of record appraisal in the healthcare sector

Factors influencing staff awareness of record appraisal practices emerged as a new theme identified from the interviewees' responses. These factors were categorized into three sub-themes which included organizational, environmental and technological factors. Firstly, organizational factors comprised several elements that contributed in enhancing staff awareness of record appraisal practices. One of the key elements identified was progressive learning, whereby both interviewees reported receiving proper external training, internal inductions and departmental checklists. Another important element was interdepartmental collaboration within the hospital which influences staff awareness of record appraisal practices through cooperation between departments. This collaboration was particularly evident in coordination with the Information Technology (IT) department for the system-based appraisal process and in joint development of cross-departmental SOPs. In addition, hospital support was identified as a significant factor in promoting awareness of record appraisal practices among healthcare staff. Such support included the development of up-to-date policies and procedures as well as organizational effort to enhance and strengthen staff understanding of record management practices within the healthcare sector. Furthermore, organizational factors also encompassed storage efficiency which could be achieved through the digitalization of records. The adoption of digital records helped reduce reliance on physical storage and reduce storage limitations within the MRD.

Moving on to the next factor, which referred to the environmental factor that primarily comprised legislative elements that guided record appraisal practices within the healthcare sector. Both hospitals reported complying with the regulatory requirements established by the Malaysian Medical Council, the Ministry of Health and the National Archives of Malaysia. These regulatory requirements provided the fundamental standards and guidelines that govern record appraisal practices and contributed to enhancing staff awareness by establishing clear requirements and expectations.

Lastly, the technological factors included the availability of an electronic record system, technology integration and sufficient cloud storage. Both interviewees confirmed that their respective hospitals utilized electronic record systems, namely Trakcare and Care21 to manage the records from their creation to the final

lifecycle, disposal. In addition to that, it was noted that Hospital 1 is currently in the process of enhancing its system through integration with the Ministry of Health's system which required them to build the system utilizing JavaScript Object Notation (JSON) as required by the MOH. The integration promises further efficiency in the future. Lastly, sufficient cloud storage. Adequate cloud storage enabled the hospital to reduce the retention period of physical records by facilitating the storage of digital records, thereby mitigating storage constraints within the MRD.

These emergent factors demonstrated their significance in supporting staff awareness and understanding of record appraisal practices within the healthcare sector. The findings suggested that awareness was not solely based on the theory of record appraisal, but was also influenced by the organizational context, regulatory compliance and technological infrastructure. Together, these factors created an environment that facilitates more effective implementation of record appraisal practices within healthcare sectors.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the study examined the level of awareness through the lens of HODs, challenges hindering the effectiveness of record appraisal practices in the healthcare sector. Based on the data collection process, the three main objectives were achieved which helped to understand the current level of awareness between HODs, MRD staff and general practitioners from the perspective of the HODs as well as identify challenges and factors influencing the awareness and effectiveness of record appraisal practices in the healthcare sector.

Table 2: Summary of the Results

Research Objectives	Themes	Findings
RO 1	Level of awareness	• Head of Department: High level of awareness • MRD staff: High level of awareness (HODs' perspective) • General practitioners: Low level of awareness (HODs' perspective
RO 2	Challenges	• Staff and resource constraints • Policy and procedural issues • Organizational and interdepartmental frictions • Technical and external pressure
RO 3	Influencing factors	• Organizational factors • Environmental factors • Technological factors

Based on the findings, several recommendations for improvement could be made by healthcare institutions and policymakers which include:

Develop comprehensive and continuous learning

Comprehensive and continuous learning through several approaches such as training should be provided across all healthcare staff, not limited to the MRD's staff only. This is because the process of creating the records involves input from across departments and at the end of the process, the MRD needs to ensure the completeness of the documents, maintain the integrity, confidentiality and privacy of the records. Hence, it is particularly important for all staff, regardless of position and department, to receive comprehensive training related to the record management practices which includes the importance of efficient record management, record retention, proper documentation and regulatory compliance.

Provide adequate sources and infrastructure

An effective and efficient record appraisal practice in the healthcare sector also depends on the availability of the resources and infrastructure provided to support the process in the healthcare sector. Top management should provide more detailed attention to the needs of the MRD in terms of manpower and budgetary

allocations. The processes involved within record management are indeed a lot which need to be conducted with the support of sufficient resources and infrastructure. This is to ensure the process can be conducted systematically and efficiently without jeopardizing staff's well-being. Increasing staffing allocations will reduce individual workloads, allowing staff adequate time to conduct record appraisal.

The budgetary allocations are also very important to be considered for the enhancement of the record management process. In addition, prioritization of a fully digital record-keeping system could also be considered. This could be indicated as an effort to reduce the work pressure that requires the management of both paper and digital records in the current practices. The transition to a fully digitalized record-keeping system may enhance efficiency, consistency and reduce the workload.

Review and update policies and procedures

Policies, SOPs and guidelines are fundamental in guiding the record appraisal process in the healthcare sector. Up-to-date guidelines are essential to ensure that record appraisal practices comply with current regulations, retention periods and established record disposal processes. Clear guidelines on the disposal of digital records are urgently needed to mitigate the over-retention of digital records within the system. In addition, clear protocols for external parties requesting records are needed to address medico-legal uncertainties that result in delays in record appraisal and retention. These protocols should be well-informed and clearly communicated to both parties to ensure a comprehensive understanding. Lastly, policymakers may develop or update national guidelines that can be adapted and adopted by both the private and government sectors. These guidelines should be sufficiently flexible to accommodate differences in resource availability, operational disparities, technological capabilities, organizational structures and more.

LIMITATIONS AND FUTURE RESEARCH

The limitation of only two healthcare institutions being selected to conduct the study may have posed a limitation to this study. This resulted in findings on structures, policies and operational processes that may not have been generalizable to all healthcare organizations. Additionally, data were collected primarily through the interview session, where the responses may have been subjective and based on individual perceptions, memory and willingness to provide rich, detailed and sensitive information. This could have affected the accuracy of the findings. Moreover, the data collection period may also have posed a limitation of the study. This was due to the fact that data were collected within less than six months and may have resulted in an incomplete representation of evolving practices and seasonal variations in healthcare operations.

Based on the limitations of this study, several recommendations can help improve future research. Firstly, future studies should expand the scope of the research by involving a larger number of healthcare institutions across different regions and healthcare settings such as public hospitals, private hospitals, university hospitals, specialist centers and clinics. Future research should also include doctors, nurses, administrative personnel and other relevant staff to obtain direct experience and insight into record appraisal practices. A broader sample and populations would enable the researcher to conduct comparative research on record appraisal across those contexts and obtain direct experiences from different kinds of populations. The next recommendation is on longitudinal studies. Future research may be conducted in longitudinal studies to examine how record appraisal practices evolve, including changes in record appraisal practices over time, policy changes, technological advancements or organizational changes. A longer data collection may provide better insight and understanding of the changes in staff awareness, implementation practices and effectiveness of record appraisal practices within the healthcare sector.

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