Assessment of Medical Record Documentation and SOAP Completeness in Outpatient Services at a Primary Health Facility

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Abstract.

Medical records are essential for clinical decision-making, continuity of care, legal compliance, and accreditation. Despite their importance, incomplete documentation remains a significant challenge in primary health care, particularly in settings that rely on manual record-keeping. This study assessed the completeness of outpatient medical records at the general polyclinic of Klinik UIN Syarif Hidayatullah Jakarta and examined patterns in outpatient service utilisation, including patient demographics, insurance coverage, and referral trends. A mixed-methods design was employed, integrating quantitative analysis of 399 outpatient medical records from January to February 2024 with qualitative data from observations and interviews. The quantitative component evaluated the completeness of SOAP documentation, patient demographics, service utilisation, and referral rates. The qualitative component investigated workflow challenges, clinician perspectives, and factors influencing documentation quality. In January, 201 outpatient visits were recorded, and in February, 198 visits occurred. Each month, more than 64% of patients were female. BPJS beneficiaries accounted for 842% of all visits, indicating they were the predominant users of the service. Referrals increased from 21 in January to 41 in February, for a total of 62. SOAP documentation was largely complete in January but declined in February, with most omissions found in the Assessment and Objective sections. Fourteen incomplete SOAP components were identified over two months, with 12 occurring in February. Although service utilisation remained stable, documentation quality varied substantially. The frequent incompleteness of the Objective and Assessment components underscores the need for improved workflow organisation, enhanced clinician training, and the adoption of electronic medical records. Regular audits and standardisation of SOAP documentation are recommended to strengthen compliance and support accreditation.

Keywords: *Medical record completeness; SOAP documentation; Outpatient services and Primary health care.*

I. INTRODUCTION

The quality of health services is a critical determinant of population health. Effective health service delivery relies on skilled professionals and the maintenance of accurate and comprehensive medical documentation. Medical records play a vital role in ensuring continuity of care, supporting clinical decision-making, facilitating institutional reporting, and providing legal protection for both patients and health facilities [1], [2], [3]. National regulations mandate that medical records be complete, accurate, and timely, and that they adhere to professional standards to support quality assurance and accreditation processes [4]. Incomplete medical records remain a persistent issue in primary health care. Previous studies have identified several ongoing challenges. First, missing documentation is frequent and can create legal risks, making it harder to defend against malpractice claims [5]. Second, unclear or vague diagnoses may compromise patient safety by reducing the accuracy of clinical decisions [6]. These challenges are exacerbated by inconsistent documentation standards and the absence of clear, enforceable guidelines [7].Third, examination findings are frequently omitted, particularly in paper-based records compared with electronic health records (EHRs), contributing to miscommunication and diagnostic errors [8], [9]. Furthermore, inconsistencies often occur in the documentation of treatments and follow-up plans.

These challenges are associated with the absence of standardised procedures and inadequate support within medical records systems [7], potentially resulting in adverse patient outcomes and increased legal risks [5]. Klinik UIN Syarif Hidayatullah Jakarta, a primary health care facility operating since 2018, utilises a computerised information system for patient registration, pharmacy services, and financial transactions. Despite this, medical records are still documented manually. Manual documentation increases the risk of incomplete records and limits the clinic's ability to systematically evaluate service quality. Although the clinic achieved *Paripurna* accreditation in December 2023, it has not performed a structured assessment of medical record completeness since accreditation, despite the importance of such assessments for quality assurance in primary health care.The lack of regular medical record reviews at Klinik UIN Syarif Hidayatullah represents a significant quality-control deficiency. Furthermore, no prior studies have evaluated the completeness of the clinic's outpatient records. Comprehensive documentation is essential for maintaining accreditation, enhancing service quality, and facilitating the transition from paper-based to electronic records. Therefore, a thorough review is necessary to assess record completeness and analyse outpatient service parameters, including patient volume, treatment types, and referral patterns. This study aims to evaluate the completeness of outpatient records at the clinic's general polyclinic and to describe key service-use indicators.

II. METHODS

This study used a mixed-methods approach, integrating quantitative analysis of outpatient records with qualitative data from observations and interviews, in accordance with health service evaluation guidelines. The research took place at Klinik UIN Syarif Hidayatullah Jakarta. All outpatient records from January to February 2024 were included through total sampling, a method appropriate for auditing clinical documentation. Records lacking key identification, duplicate entries, or those that were unreadable were excluded.Data were collected manually using a checklist based on the national medical records guideline [4] and the Accreditation Standards for Primary Clinics [10]. The evaluation focused on critical documentation elements, such as demographic data, diagnoses, treatment records, referral documentation, and the completeness of SOAP components. The review examined key documentation items, including demographic details, diagnoses, treatment records, referrals, and the completeness of SOAP components. The SOAP framework, Subjective, Objective, Assessment, and Plan, is a common way to organise clinical notes. It was created to support problem-oriented medical records and provides clinicians with a clear way to document patient visits and make decisions [11], [12], [13].

The *Subjective* part covers what the patient reports, like symptoms, changes in health, and medical history. The *Objective* part records measurable facts, such as vital signs, exam results, and test findings. The *Assessment* brings together the subjective and objective details to form the clinician's diagnosis, which can be a main or possible diagnosis. The *Plan* lists the next steps, including treatments, tests, patient education, referrals, and follow-up. Using the SOAP format helps keep clinical notes consistent and accurate, which is important for good communication among healthcare workers and for ongoing patient care [11], [12], [13].The qualitative component supplemented the quantitative findings by investigating contextual and behavioral factors influencing documentation practices. In March 2024, qualitative data were collected through non-participant observations and semi-structured interviews with physicians, nurses, and medical record staff, who were purposively selected based on their roles in the documentation process. Observations focused on real-time recording practices, workflow constraints, and staff interactions during patient care. Interviews examined perceptions of documentation responsibilities, challenges in completing SOAP components, and readiness for future adoption of electronic medical records.

III. RESULT AND DISCUSSION

Result

During the two-month study period from January to February 2024, a total of 399 outpatient visits were recorded at Klinik UIN Syarif Hidayatullah Jakarta. Table 3.1 presents a consistent monthly distribution, with 201 visits in January and 198 in February. Although the overall totals were similar, notable

differences emerged when analysed by sex and insurance category.Female patients accounted for a higher proportion of outpatient visits than male patients in both months. In January, 130 out of 201 visits (64.7%) were made by female patients, while in February, 128 out of 198 visits (64.6%) were made by female patients. This consistent gender disparity suggests that women utilise outpatient services at the clinic more frequently than men.

Table 3.1. Outpatient Visits by Month, Sex, and Insurance Type (Jan–Feb 2024)

Month	Sex	Self-Pay (Umum)	Insurance (BPJS)	Total by Sex	Total Monthly
January	Male (M)	6	65	71	
	Female (F)	16	114	130	
	Total	**22**	**179**	**201**	**201**
February	Male (M)	9	61	70	
	Female (F)	32	96	128	
	Total	**41**	**157**	**198**	**198**

Referral patterns to higher-level health facilities (FKRTL) increased significantly over the two-month period. Table 3.2 shows that the general clinic recorded 21 referrals in January, rising to 41 in February, for a total of 62 referrals. This upward trend suggests a possible shift in the clinical profile of patients, with a greater proportion of cases requiring specialised management. Multiple factors could explain this pattern, such as variations in case severity, changes in physician referral thresholds, increased adherence to referral guidelines, or seasonal fluctuations in presenting illnesses. The overall number of referrals highlights the clinic's critical function as a frontline facility, identifying cases that exceed primary care capacity and facilitating timely access to advanced diagnostic or therapeutic services.

Table 3.2. Referral Summary (Jan–Feb 2024)

Month	Number of Referrals
January	21
February	41
Total	**62**

The completeness of medical record documentation was assessed using the SOAP framework, as outlined in Table 3.3. In January, deficiencies were observed exclusively in the Plan (P) component, with two incomplete entries, while the *Subjective* (S), *Objective* (O), and *Assessment* (A) components were fully documented. In February, documentation quality decreased, resulting in 12 incomplete entries across all four SOAP components. The *Assessment* (A) component exhibited the highest number of incomplete entries (n = 6), followed by *Objective* (O) (n = 4), with one incomplete entry each in *Subjective* (S) and *Plan* (P). Over both months, the *Assessment* and *Objective* sections represented most of the incomplete documentation, suggesting these are the most susceptible areas within the clinic's current documentation system.

Table 3.3. SOAP Documentation Incompleteness (Jan–Feb 2024)

Month	S (Subjective)	O (Objective)	A (Assessment)	P (Plan)	Total Incomplete
January	0	0	0	2	2
February	1	4	6	1	12
Total	**1 (7.1%)**	**4 (28.6%)**	**6 (42.9%)**	**3 (21.4%)**	**14 (100%)**

Table 3.4 presents a summary of outpatient visits, referral data, and documentation completeness, emphasising key trends observed during the study period. In February, the number of incomplete SOAP entries (n = 12) exceeded that of January (n = 2), resulting in incompleteness rates of 6% and 1%, respectively (see Table 3.4). The average incompleteness rate across the two months was 3.5%. Although documentation was generally complete, the Objective and Assessment components were identified as areas requiring targeted improvement. Collectively, these findings provide a detailed overview of outpatient service utilisation patterns and documentation practices at the clinic. The analysis highlights notable strengths, including a steady demand for services throughout the review period and particularly high rates of documentation completion in January. However, the findings also reveal areas for improvement, most notably the incomplete SOAP documentation observed in February, which may indicate workflow challenges or gaps in adherence to standard protocols.

Table 3.4. Summary of Outpatient Visits, Referrals, and SOAP Incompleteness (Jan–Feb 2024)

Indicator Category	January	February	Combined Total
Total Outpatient Visits	201	198	399
UMUM Patients	22	41	63
BPJS Patients	179	157	336
Male Patients	71	70	141
Female Patients	130	128	258
Referrals	21	41	62
Incomplete SOAP Entries	2 (1%)	12 (6%)	14

Discussion

This study offers key insights into outpatient service utilisation and documentation practices at Klinik UIN Syarif Hidayatullah Jakarta. The stable number of visits in January and February 2024 reflects a sustained demand for primary health care. The predominance of female patients is consistent with previous research, which attributes higher outpatient care utilisation among women to greater health awareness and more proactive health-seeking behaviors [2], [3]. The large proportion of BPJS beneficiaries further underscores the community's reliance on Indonesia's national health insurance, reflecting national patterns in which primary care serves as the initial point of contact for health services [10]. A significant increase in patient referrals was observed during the study period, with cases rising from 21 in January to 41 in February, representing nearly a twofold increase. Several factors may account for this escalation. Seasonal variations can affect both the prevalence and complexity of medical conditions presenting at the clinic, thereby altering referral rates. Additionally, physicians' referral decisions are influenced by factors such as clinical confidence, workload, familiarity with referral guidelines, and access to diagnostic resources [6], [7]. Operational adjustments, including changes to clinic workflow, staff availability, or scheduling in February, may also have contributed to the higher referral numbers. The cumulative total of 62 referrals over two months highlights the clinic's essential role in the healthcare system, particularly in enabling early identification and management of complex or high-risk cases.Another important finding is the marked decline in the completeness of medical record documentation, with a particular drop in the thoroughness of SOAP (Subjective, Objective, Assessment, Plan) note sections.

In January, most patient records met documentation standards; however, in February, there were 12 incomplete entries. Most of these deficiencies were concentrated in the Assessment and Objective components, which are crucial for accurate diagnosis and treatment planning. This observed pattern is consistent with prior research demonstrating that manual or paper-based record-keeping systems frequently lead to gaps in documentation, especially in sections demanding detailed clinical reasoning or extensive physical examination findings [8], [9]. Such omissions not only compromise the quality and continuity of patient care but may also hinder communication among healthcare providers and complicate future clinical audits or quality improvement initiatives.The absence of comprehensive objective data in medical records undermines the clinician's ability to accurately diagnose and monitor patient progress, as vital signs, examination findings, and relevant test results may be inadequately captured. Incomplete Assessment notes disrupt the logical flow of clinical reasoning, making it difficult for subsequent providers to understand the rationale behind diagnostic and management decisions, ultimately threatening the continuity and safety of patient care. The uptick in incomplete documentation observed in February could plausibly be attributed to increased patient throughput, shortened consultation durations, or growing demands on clinicians' time and attention. When faced with such pressures, healthcare providers often focus on addressing the most urgent patient needs, inadvertently relegating documentation to a secondary priority. This tendency is well documented in primary care research, where high workload and time constraints frequently result in suboptimal record-keeping [12].

Furthermore, the persistent use of paper-based records intensifies these challenges: handwritten forms do not provide real-time prompts, reminders, or validation checks, as electronic medical record (EMR) systems do. This lack of built-in support mechanisms increases the risk of omissions, inconsistencies, and errors in the documentation process, which can have downstream effects on care coordination, clinical audit accuracy, and even medico-legal accountability [2], [9].These findings underscore the urgent need for multi-

faceted interventions to enhance the quality and completeness of clinical documentation. Implementing regular, structured audits in alignment with national accreditation standards not only fosters consistent adherence to SOAP guidelines but also provides a mechanism for promptly identifying persistent or emerging documentation challenges. Comprehensive training programs for physicians and nurses, incorporating practical workshops, case-based learning, and real-time feedback, can equip staff with the skills and confidence needed to produce detailed and accurate SOAP notes. Additionally, redesigning manual documentation forms to include clearly demarcated SOAP sections, embedded prompts, or visual checklists may help guide clinicians through each step of the process, especially during high-volume or high-stress periods. These design enhancements can reduce cognitive load and the likelihood of omissions, ultimately supporting sustained improvements in documentation practices and contributing to better patient outcomes.

Transitioning to an electronic medical record (EMR) system represents a pivotal advancement for the clinic, offering a comprehensive solution to address persistent documentation challenges and support clinical excellence. EMRs have consistently been shown to reduce documentation errors by eliminating issues commonly associated with handwritten notes, such as illegibility, incomplete entries, and misplaced records. These digital platforms enhance the completeness and clarity of patient records by standardizing data entry formats, providing real-time prompts and reminders for missing information, and ensuring that all required SOAP sections, Subjective, Objective, Assessment, and Plan, are thoroughly addressed [2], [13]. EMRs can also facilitate seamless communication among healthcare providers by making patient data instantly accessible, thereby supporting continuity of care and informed decision-making. For a newly accredited clinic striving to uphold high standards of care, investing in an EMR system not only helps maintain accreditation requirements but also fosters a culture of accountability, safety, and continual quality improvement. In summary, this study highlights both the strengths, such as effective service delivery and a commitment to quality, and the areas needing focused attention, including SOAP documentation gaps and referral rate variability. Proactively addressing these areas through targeted staff training, ongoing audit mechanisms, and the strategic adoption of digital solutions such as EMRs will be essential to sustaining accreditation and consistently delivering high-quality, patient-centered care.

IV. CONCLUSION

This study provides a comprehensive evaluation of the completeness of outpatient medical records and service utilisation at Klinik UIN Syarif Hidayatullah Jakarta. While outpatient visit volumes remained stable during January and February 2024, significant deficiencies were observed in documentation practices. Analysis of the SOAP components demonstrated that the Assessment and Objective sections were most frequently incomplete, with most omissions occurring in February. These findings suggest variability in clinician documentation, likely influenced by workflow pressures, time constraints, or inconsistent adherence to established standards.The number of referrals increased substantially from 21 in January to 41 in February. This trend may reflect changes in case complexity, physician decision-making processes, or seasonal variations in patient presentations.

These patterns highlight the clinic’s critical role in early case detection and in ensuring that patients receive appropriate levels of care.Collectively, these findings demonstrate the necessity of structured, ongoing medical record audits, targeted clinician training in SOAP documentation, and optimised workflow organisation to ensure comprehensive and consistent record-keeping. Implementing electronic medical records (EMRs) is a vital long-term strategy to enhance documentation accuracy, minimise omissions, improve communication among healthcare providers, and maintain accreditation compliance. Addressing documentation deficiencies and ensuring compliance with quality standards will enable the clinic to deliver safe, effective, and coordinated care, while also preparing for digital transformation and future quality assurance requirements.

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