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The Implementation of Clinical Pathway at Private Hospital in Jakarta: a Qualitative Study

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INDEXING
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ABSTRACT
In the universal health coverage era, hospitals generally apply clinical pathways for quality and cost control. The utilization of clinical pathways has been widely used and researched. However, limited qualitative research has analyzed the phenomena and challenges of implementing the clinical pathway in Indonesia. Thus, this study aims to explore a depth perspective on the challenges in implementing the clinical pathway. This study used a single case study qualitative approach and descriptive method to describe the challenges of implementing clinical pathways in private hospitals. The findings in this study revealed the difficulty of achieving the expected compliance of a clinical pathway implementation with excellent and diverse functions. However, the challenges encountered were awareness problems, workload imbalances, different perceptions of doctors, and suboptimal hospital management. This study offers alternatives that can complement existing studies and encourage improvement in the use of clinical pathways in Indonesia.

Kata kunci:
Clinical Pathway;
Jaminan Kesehatan Nasional;
Mutu;
Implementasi;
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Dalam era jaminan Kesehatan universal, clinical pathway umum diterapkan di rumah sakit untuk pengendalian mutu dan biaya. Pemanfaatan clinical pathway telah banyak digunakan dan diteliti. Namun, penelitian kualitatif yang menganalisis fenomena dan tantangan penerapan Clinical Pathway di Indonesia masih terbatas. Penelitian ini bertujuan untuk menggali perspektif yang mendalam tentang tantangan dalam penerapan Clinical Pathway. Penelitian ini menggunakan pendekatan kualitatif studi kasus tunggal dan metode deskriptif untuk mendeskripsikan tantangan penerapan clinical pathway di rumah sakit swasta. Temuan penelitian ini menggambarkan kesulitan dalam implementasi clinical pathway yang memiliki fungsi dan manfaat yang beragam. Tantangan yang dihadapi adalah masalah kesadaran, ketidakseimbangan beban kerja, perbedaan persepsi dokter, dan manajemen rumah sakit yang kurang optimal. Hasil penelitian ini menawarkan alternatif yang dapat melengkapi penelitian yang ada dan mendorong peningkatan penggunaan clinical pathway di Indonesia.

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INTRODUCTION

In the universal health coverage era, hospitals generally apply clinical pathways for quality and cost control. Their existence is included in hospital accreditation both nationally and internationally. A clinical pathway is an integrated service planning concept that summarizes every step given to patients based on evidence-based medical service standards and nursing care with measurable results and within a certain period while in hospital (Anak & Firmanda, 2006). The benefits of clinical pathways have been widely studied, including the publication of a systematic review of clinical pathways in Indonesia (Riza & Nurwahyuni, 2019; Tanjung & Nurwahyuni, 2019).

In the last few years, research and scientific publications related to the benefits of clinical pathways are still being carried out (Ayu Fitri & Sundari, 2018; Hapsari & Nurwahyuni, 2019; Nurwahyuni et al., 2018; Siswanto & Chalidyanto, 2020). The use of clinical pathways has even grown to the use of telehealth (Shaffer & Dohar, 2020). However, only a few studies present challenges and analyze variance in clinical pathway implementation (Fardhana et al., 2019; Helzainka, 2021). Limited qualitative research has also analyzed the phenomena and

challenges of implementing the clinical pathway in Indonesia. For this reason, this study aims to explore a depth perspective on the challenges in implementing the clinical pathway.

RESEARCH METHOD

This research used a general qualitative approach to analyzing clinical pathway compliance. The subject of this study was stakeholders (from hospital management and health care workers) related to clinical pathway implementation in a private hospital in Jakarta. The purpose of selecting a single locus in this study was to get the depth of findings related to clinical implementation and challenges in a private hospital, which have not been analyzed in recent studies. Data collection consisted of collecting clinical pathway compliance data from hospital records and quality committee reports, documentation, observation of daily activities related to clinical pathway implementation, in-depth semi-structured interviews, and expert panel consultation (consisting of three experts in management). Triangulation was carried out through different data collection methods (interviews, observations, and document searches) and interviewing informants with different backgrounds to cross-confirm the findings of each informant. The data grouping approach used for analysis was a simplified matrix display based on the clinical pathway assessment component, consisting of initial assessment, support, follow-up assessment, education, management, and outcome. This study elaborated a descriptive method to describe the hospital's challenges of clinical pathway implementation. The findings in this study were then classified according to the context of the problem, analyzed, and compared with relevant theories and previous research publications.

RESULTS AND DISCUSSION

This research was conducted in a class B private hospital in Jakarta, which serves private and universal health coverage patients. Hospital X has implemented ten clinical pathways with single diagnostic criteria since 2018. The cases using the clinical pathway at a private hospital in Jakarta consisted of acute appendicitis, Benign Prostatic Hyperplasia (BPH), Sectio Caesarea (SC), febrile seizures, Dengue Hemorrhagic Fever (DHF) in children, DHF in adults, pediatric acute gastroenteritis, typhoid fever, coronary heart disease, and bacterial pneumonia. The clinical pathway format commonly used has six assessment components: initial assessment, support, follow-up assessment, education, management, and outcome (Anak & Firmanda, 2006). The minimum achievement standard specified by the hospital was 80% for each assessment component. In this research, more than 80% were categorized as high compliance, 60-79.9% as moderate compliance, and less than 60% as low compliance. The achievement of compliance standards for using clinical pathways in Hospital X in 2018-2020, respectively, was 74%, 59%, and 65%. The achievement of compliance standards for using clinical pathways for each assessment component in 2020 is shown in Table 1.

Based on the compliance target set by the hospital (80%), the two most problematic components (based on average) were support (49.4%) and management (39.5%). The other two components with moderate achievement were follow-up assessment (76%) and education (77.2%), while the two components that achieved the expected target were initial assessment (84.2%) and outcome (87.5%). Clinical pathways for acute appendicitis and bacterial pneumonia showed low compliance rates for all assessed components.

Moreover, the informants' interview was conducted to find obstacles and challenges for each component in implementing clinical pathways based on the analyzed data. The summary of findings from the qualitative study is presented in Table 2

Table 1. The Achievement of Compliance Standards for the Use of Clinical Pathways in 2020

Clinical pathway	Initial assessment	Support	Follow-up assessment	Education	Management	Outcome
Acute appendicitis	50%	0	25%	25%	25%	75%
Benign prostatic hyperplasia	100%	50%	100%	100%	0	100%
Sectio caesaria	92%	62%	92%	92%	69%	100%
Febrile seizures	100%	25%	25%	75%	75%	100%
Dengue hemorrhagic fever in children	100%	100%	100%	100%	0	100%
Dengue hemorrhagic fever in adults	100%	80%	80%	80%	60%	100%
Pediatric acute gastroenteritis	100%	77%	88%	100%	66%	100%
Typhoid fever	100%	0	100%	100%	0	100%
Coronary heart disease	50%	100%	50%	50%	100%	50%
Bacterial pneumonia	50%	0	50%	50%	0	50%
Mean	84.2%	49.4%	76%	77.2%	39.5%	87.5%

Source: *Hospital X, Jakarta, 2020*

Based on the results of qualitative data collection, it was found that the problems that occurred in each clinical pathway component assessed were related to the awareness of care providers. This finding is in line with the results of a previous systematic review, which emphasized that care providers' awareness is an essential factor in implementing clinical pathways (Ayu Fitri & Sundari, 2018; Helzainka, 2021; Sartika et al., 2019). Awareness is also one of the critical success factors (Hidayat & Pawelas Arso, 2020). An interesting finding is that the components with good and moderate compliance only included issues of awareness and technical problems related to filling out clinical pathways. The comparison of quantitative and qualitative data findings showed that the awareness factor alone did not cause failure in clinical pathway implementation.

Another challenge generally encountered in this research was the change in policies related to the COVID-19 pandemic and the workload or time constraints. It has not been found in existing publications because research related to the challenges in implementing clinical pathways during the COVID-19 pandemic does not yet exist. Therefore, we could not carry out an in-depth justification regarding the relationship between the COVID-19 pandemic condition and the implementation of clinical pathways because this study did not examine the implementation of clinical pathways directly related to the diagnosis of COVID-19.

In addition, there was no uniformity in components with poor compliance achievement (support and management) in both the supporting examinations performed and the therapy used. In the support component, non-uniformity occurred because of the consideration of cost efficiency, so the examination in the inpatient area was carried out in the outpatient area. In addition, some cases required more supporting examinations than those specified in the clinical pathway. It might occur due to variations in diagnosed cases or differences in

understanding from doctors to the specified clinical pathway. In the management component, two problems could be divided into problems on the front lines and problems in hospital management.

Table 2. Obstacles and Challenges in Clinical Pathway Implementation

Clinical pathway components	Obstacles and Challenges
Initial assessment	1. Lack of awareness of care providers in filling out clinical pathway forms 2. Lack of technical knowledge from the care providers to use clinical pathways 3. Time constraints and overcrowded hospital conditions 4. Doctors and care providers consider clinical pathways as part of the administration.
Support	1. Pandemic conditions and rapidly changing regulations that require additional examinations, such as PCR tests and chest X-rays 2. Fragmentation of supporting examinations should be carried out in an inpatient setting, but it is an outpatient setting for more efficient treatment costs. 3. Non-uniform supporting examination for patients with different financing statutes 4. Additional tests for diagnosis
Follow-up assessment	1. Care providers, especially those who have just joined, do not understand using the clinical pathway form. 2. Limited time to complete the clinical pathway form 3. Lack of human resources (especially during the COVID-19 pandemic)
Education	1. Lack of awareness of care providers in filling out education sheets as documentation of communication with patients, families, doctors, and other care providers 2. Care providers do not understand how to fill out the education sheet. 3. Time constraints
Management	1. Lack of awareness of care providers in filling out clinical pathway forms 2. The use of drugs outside the clinical pathway standards (antibiotics and supplements) and not following the national formulary 3. Many care providers are using new therapies in case management. 4. Doctor's uniformity in providing therapy 5. A limited supply of drugs
Outcome	1. Lack of awareness of care providers in filling out clinical pathway forms 2. The patient's various clinical conditions affect the patient's outcome at discharge.

Source: *Summarized from the interview*

Problems on the front lines were similar to those in the support component; there were differences in perceptions from doctors about the use of drugs outside the specified clinical pathway. Meanwhile, problems with hospital management occurred mainly in the supply of needed drugs. If the drugs specified in the clinical pathway were not available, the care provider's compliance in implementing the clinical pathway would be constrained.

This study proposes several alternative solutions to overcome the challenges of implementing clinical pathways. First, awareness and technical capacity of care providers in using clinical pathways should be increased. It is one of the critical success factors stated in the findings of the previous publication and the determination and evaluation of the clinical pathway itself. Second, an analysis of the workload and resources owned by the hospital in the implementation of clinical pathways needs to be carried out. The third is the perception of doctors, who are one of the key stakeholders in implementing clinical pathways. Fourth is the improvement of systems and management support, especially related to drug supply and needs listed in established clinical pathways.

Further, training and assistance can increase care providers' awareness and technical capacity in clinical pathways. Structured training can be carried out for every type of profession, starting from orientation when they first start working in a hospital or for employees who have worked. The shared vision regarding the benefits of clinical pathways for hospitals and every profession involved is the key to successful clinical pathway implementation. The importance of regular training and evaluation was also revealed in previous studies in different hospitals (Dewi et al., 2019). Assistance can be done in the initial phase after training, and it can also be explicitly directed to professions that are vital stakeholders, such as doctors.

Creating a balance between workload and required resources is also part of the science and art of human resource management. Research to reduce the workload related to clinical pathways by using software has been carried out but still has pros and cons (Aarnoutse et al., 2018). Before concluding that the existing human resources are limited, an evaluation of the increased workload of care providers in implementing clinical pathways needs to be explored in depth. The increase in workload can occur due to factors related to the reluctance and incapability of care providers. However, if a shortage of human resources is found, it is necessary to evaluate and improve the hospital management system.

Moreover, doctors are vital stakeholders in clinical pathways, starting from selecting, preparing, and implementing clinical pathways. It is also crucial to uniting doctors' perceptions and understanding of clinical pathways (Jabbour et al., 2018). The dominant challenge from doctors regarding clinical pathways is the problem of attitude (Balbeid et al., 2018). Ideally, every doctor is involved in the entire clinical pathway process. One of the critical activities that can be done to get the same understanding from doctors is regular meetings held quite often, for example, once a month, to discuss clinical pathways, including the implementation challenges. It is the application of the simple management principle of Plan-Do-Study-Act (PDSA). Implementing the PDSA cycle will provide significant benefits in overcoming the existing challenges and improving clinical pathways.

Implementing clinical pathways can also reflect and evaluate the overall hospital management system. Hence, it is necessary to manage human resources, supporting examinations, and medicines, all of which cannot be separated from hospital management to carry out the clinical pathway that has been determined. There also should be an alignment of goals between management science and clinical pathways to achieve efficiency and effectiveness in hospitals. In this case, the role and development of hospital management science are vital in implementing clinical pathways.

In addition to these alternatives, currently improving the implementation of clinical pathways continues to grow. In several countries, hospitals develop various clinical pathway models, including the development of clinical pathways with different formats. For example, the specific clinical pathway format for pancreatic injuries (Naik-Mathuria et al., 2017),

difficult deep vein access (Sou et al., 2017), and new diseases such as COVID-19 (Xu et al., 2020). However, the application of clinical pathways that continue to develop, including format, may not necessarily be applied in Indonesia. Care providers in Indonesia who are unfamiliar with the implementation of clinical pathways will face new challenges if they are introduced to a different clinical pathway format from what is commonly used in Indonesia today. Patient involvement in the formation of clinical pathways is also one thing that can be explored as an alternative, but not all patients are willing to be involved (Andersen-Hollekim et al., 2019).

CONCLUSION

The study's findings highlight the difficulty of achieving the expected compliance of a clinical pathway implementation with excellent and diverse functions. The difficulties encountered included issues with awareness, workload imbalances, different perceptions of doctors, and suboptimal hospital management. Improvements and attention to each of these challenges will improve clinical pathway implementation compliance. Although this study was carried out in-depth, it still has limitations because it was carried out in a single case study. Therefore, further research can be developed in more hospitals with a similar approach, and the formulation of new clinical pathway models needs to be explored.

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