

# Performance Optimization Of Medical Rehabilitation Services In Patients With Knee Osteoarthritis During The COVID-19 Pandemic At Simpangan Depok Hospital

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**Abstract**— COVID-19 pandemic has an impact on the sustainability of hospitals, with the number of patient visits decreased, due to the implementation of health protocols, restrictions on mobility, public fear of visiting hospitals, and health worker's concerns infected with COVID-19. It also impacts the implementation of hospital services, Simpangan Depok Hospital (SDH) was experiencing changes in the service flow and restrictions on types of services. The purpose of this study is to analyze the performance optimization of Medical Rehabilitation Polyclinic (MRP) services at SDH during the pandemic, in cases of knee osteoarthritis (OA). Mixed methods research with design study is case study (qualitative), the samples are staff of MRP and knee OA patients, then cross-sectional (quantitative), the sample is knee OA patients. The results showed the adequacy of human resources (HR) at the beginning of pandemic, did not experience problems because the number of patient visits decreased. However, at the beginning of 2022, patient visits have begun to increase, so the adequacy of HR needs to find a solution. According to patient perceptions, service performance of MRP during pandemic remains optimal. However, assessment of supporting facilities is still lacking, namely convenience of waiting room, completeness of toilet facilities, and availability of canteens.

**Keywords**— Optimization; Service Performance; Hospital; Knee Osteoarthritis; COVID-19

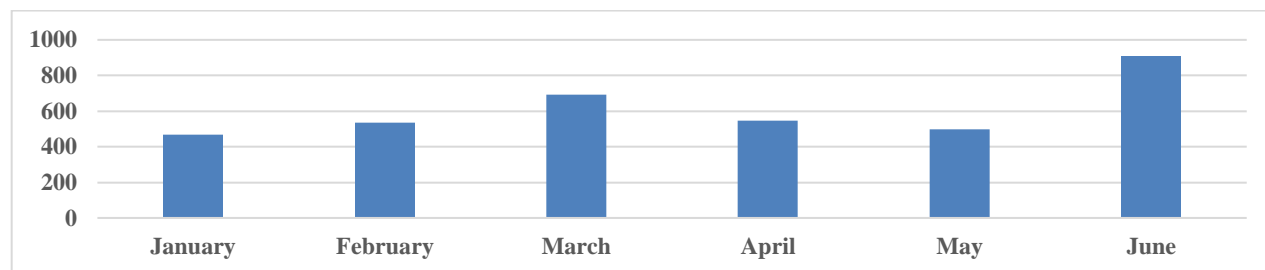
## 1. Introduction

The sustainability of a hospital is strongly influenced by the number of patient visits, but the presence of the COVID-19 pandemic will have an impact on changes in the number of patient visits at the hospital. The pandemic has also caused changes in the application of health protocols, restrictions on mobility, public fear of visiting hospitals, and health workers' concerns infected with COVID-19. Those things will have an impact on the implementation of hospital service to patients. Hospitals produce products in the form of services whose results can be seen through service performance. Patients as customers of the hospital can assess the quality of services that have been provided by the hospital. There are three approaches to assessing service quality, namely the structure (Human Resources, facilities and infrastructure), the process related to hospital services and the results of services<sup>1</sup>.

Osteoarthritis (OA) is a degenerative joint disease that occurs due to the wear and tear process and increases with age. OA often occurs in the supporting joints of the body such as the vertebrae, knees, ankles and hips. Knee OA accounts for more than 80% of the total disease burden in developed countries<sup>2</sup>. From the Global, Regional Prevalence, Incidence and Risk Factors of Knee Osteoarthritis in Population-based Studies study in 2020, it was found that the global prevalence of knee OA was 16 percent in individuals over the age of 15 years, while the prevalence of knee OA in individuals aged 40 years or older by 22.9 percent<sup>3</sup>. It is also mentioned in this study that at least 654.1 million people (>40 years) suffer from knee OA in 2020 worldwide<sup>4</sup>. According to 2018 Basic Health Research data, the largest prevalence of joint disease in Indonesia is in the age group above 75 years (18.9%), followed by the 65-74 year age group (18.6%), the 55-64 year age group (15.5%) and the age group of 45-54 years (11.1%). The incidence of knee OA in

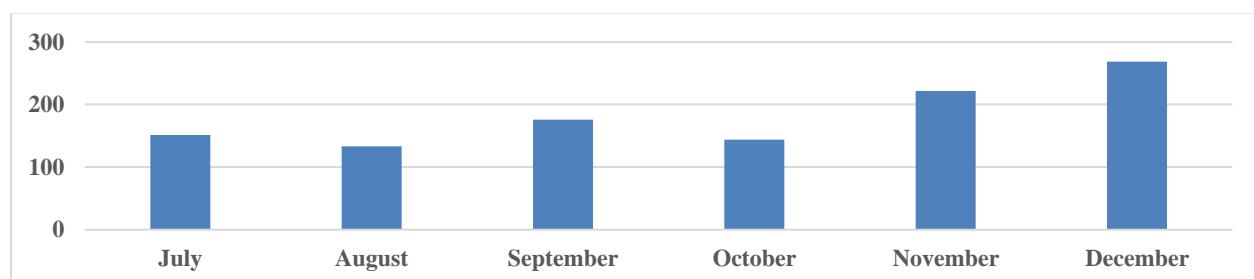
Indonesia is quite high at 15.5% in men and 12.7% in women. This figure is higher than the prevalence of other types of OA<sup>5</sup>.

In Indonesia, health services run by complying with the COVID-19 Prevention Guidelines according to the Indonesian Ministry of Health. Outpatient services at Simpangan Depok Hospital (SDH) have also changed. From the data on patient visits at the Medical Rehabilitation Polyclinic (MRP), the number of patient visits is decreasing. In 2021 data, there are 466 patients in January, 535 patients in February, 691 patients in March, 546 patients in April, 498 patients in May, and 909 patients in June.



**Figure 1.** Number of Outpatient Visits of Medical Rehabilitation Polyclinic 2021

Then, based on the visit data of patients with knee OA in 2021, it was found that in July there were 151 patients, in August there were 133 patients, in September there were 176 patients, in October there were 144 patients, in November there were 222 patients, and in December there were 269 patients.



**Figure 2.** Number of Knee OA Patient Visits in 2021

Researchers want to see how the impact of the COVID-19 pandemic on service performance at the Outpatient Medical Rehabilitation Polyclinic at Simpangan Depok Hospital, especially for patients with knee osteoarthritis, which is one of the leading services at the hospital.

## 2. Methods

**Research design:** The study used a mixed methods approach (qualitative and quantitative). Qualitative research design is a case-study conducted with in-depth interviews, then observation and document review. While the quantitative research design is cross-sectional, observational descriptive is done by looking at the frequency and characters observed in a population at a certain time.

**Research Sample:** Sample calculation using purposive technique. The sample in this qualitative study consisted of employees (health workers and non-health workers) at the SDH associated with the services of the MRP, and patients at the MRP. The sample in this quantitative study only consisted of patients, with the following patient criteria:

- Inclusion Criteria:** Knee Osteoarthritis patients according to the ACR/Kellgren Lawrence clinical classification; and Patients receiving medical rehabilitation therapy.
- Exclusion Criteria:** Patients with unaccompanied communication disorders; Patients with other diseases that interfere with interpretation; and Patients who refused as respondents.

**Data collection techniques:** Conducted by questionnaires to patients regarding the assessment of service

performance at the MRP; In-depth interviews with hospital management staff, medical rehabilitation specialists, physiotherapists, registration officers, security officers, cashiers, pharmacists and patients or families; Observation of service activities at the MRP; and Retrospective tracing of medical record documents obtained data on patients who received treatment at the medical rehabilitation polyclinic and an assessment of the results of the treatment that had been carried out.

Data analysis: Qualitative research uses descriptive analysis, starting with grouping the same data, then interpreting and assessing the relationship between one another. Then an analysis of all aspects is carried out to understand the relationship of each aspect. While quantitative research uses descriptive analysis (univariate analysis), to see the description or frequency distribution of each variable in the study.

### 3. Results

#### Description of Informant Characteristics

Informants are divided into two categories, namely hospital employees and patients. Characteristics of employees are divided according to gender, age, division of origin, and length of service

**Table 1.** Employee Data Characteristics

Characteristics	Non-Health Workers (N=7)	Health Workers (N=4)
Gender		
Man	2 (28,6%)	0 (0%)
Woman	5 (71,4%)	4 (100%)
Age	38,83	35,25
Length of work		
Less than 2 years	1 (14,43%)	0 (0%)
More than 2 years	6 (85,7%)	4 (100%)

From table 1, hospital employees who were included in this study amounted to 11 people, with 7 non-health workers and 4 health workers. In the group of health workers, all employees are female. Meanwhile, in the group of non-health workers the number of women was 71.4% and men 28.6%. From the results of the analysis, it was found that the average age of the informants in the group of health workers was 38.83 with an average age difference of 3 years younger for non-health workers, which was 35.25.

**Table 2.** Simpangan Depok Hospital Employee Distribution by Age

Age (years)	Amount	
	N	%
20-29	2	18,2
30-39	4	36,4
40-49	4	36,4
≥50	1	9,1
Amount	11	100,0

From table 2, it is found that the age of SDH employees is more in the 40-49 year age group, a total of 4 people (36.4%) as well as in the 30-39 year old group, then followed by the 20-29 year age group of 2 people (18, 2%), and at least 1 person is more than 50 years old (9.1%).

**Table 3.** Data Characteristics of Knee OA Patients

Characteristics	Length of Treatment	
	< 2 months (N=4)	> 2 months (N=17)
Gender		

Man	0	3
Woman	4	14
Average age	45,75	61,35

In table 3, it can be seen that the gender of knee OA sufferers is dominated by women, both from the treatment group for less than 2 months, namely 4 people and no men, also in the treatment group for more than 2 months, namely 14 women and only 3 men. The average age of patients with knee OA in the treatment group for less than 2 months was 15 years younger, namely 45.75 compared to the treatment group for more than 2 months, namely 61.35. Gender is an important factor in the incidence of knee OA, where women are more at risk of developing OA than men. Especially women over 50 years old or who have entered menopause. Hormones in women experience a decrease during menopause, especially the hormone estrogen. Meanwhile, one of the functions of the hormone estrogen is to help the synthesis of bone cells that form cartilage cells, namely chondrocytes. If the hormone estrogen decreases, the synthesis of chondrocytes will also experience a decrease in function. This will also affect the decrease in the synthesis of collagen and proteoglycan tissue, where in OA, the broken collagen network will have an impact on increasing the water content of the cartilage and breaking the cartilage proteoglycan filling. This makes OA more at risk for the female sex<sup>6</sup>. In line with the research conducted Putri et al. (2022), showed a significant relationship between gender and the incidence of OA, and it was more common in women aged over 50 years, which was 73.7% compared to men<sup>7</sup>.

**Table 4.** Distribution of Knee OA Patients by Age

Age (years)	Amount	
	N	%
40-49	5	23,8
50-59	6	28,6
60-69	7	33,3
≥70	3	14,3
Amount	21	100,0

Based on table 4, it was found that of the 21 patients with knee OA, which were included in the 40-49 age group 5 people (23.8%), the 50-59 age group 6 people (28.6%), then the most in the 60-69 age group, namely 7 people (33.3%), and 3 people (16.7%) in the age group above 70 years. This older mean age is in accordance with previous studies that knee OA is more common in the 50-59 year age group (28.6%) and the 60-69 year age group (33.3%) compared to the 40-49 age group. years (23.8%)<sup>8</sup>. This gives an idea that as people get older, the greater the risk of suffering from knee osteoarthritis.

**Table 5.** Distribution of Knee OA Patients based on Body Mass Index (Asia Pacific Criteria)

BMI	Amount	
	N	%
<i>Underweight</i>	2	9,5
<i>Normal</i>	8	38,1
<i>Pra-Obese</i>	8	38,1
<i>Obese 1</i>	3	14,3
Amount	21	100,0

Based on table 5, it was found that the 21 patients with knee OA whose BMI was calculated, 2 people (9.5%) were in the underweight BMI category, 8 people (38.1%) were in the normal BMI category and similarly for the pre-obese BMI category. then 3 people (14.3%) with BMI obese-1 category. Data on risk factors obtained in patients with knee osteoarthritis, in both groups had a BMI more than normal. These results are not different from previous studies that examined the prevalence of knee OA more in patients who had obese BMI<sup>6</sup>.

**Changes in Service during the COVID-19 Pandemic at Simpangan Hospital Depok**

**Table 6. Changes in Service During the COVID Pandemic at Simpangan Hospital Depok**

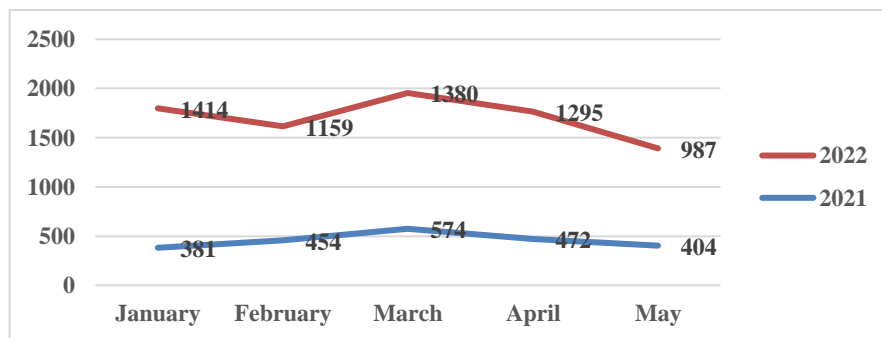
Informant	Interview Topic	Perception of Service Change
Deputy Director of Medical Services	Service changes during the COVID-19 pandemic	Patient visits at the start of the pandemic decreased, especially during the peak of the pandemic, December 2020 and January 2021, and in April and May 2021.
Head of Service and Nursing	Service changes during the COVID-19 pandemic	<ul style="list-style-type: none"> <li>- Changes in services, especially in the use of PPE, implementation (prokes) in all areas of the hospital, both for officers and for patients and their families.</li> <li>- Provision of an emergency waiting room with a tent, to prevent crowds of patients at one point, several banners were installed as a medium for conveying information on preventing the spread of COVID-19.</li> </ul>
Physiotherapist and doctor Physical Medicine and Rehabilitation	Changes in Services at the Medical Rehabilitation Polyclinic	The number of visits decreased during the peak of the pandemic, services at the Medical Rehabilitation Polyclinic went well, patients were able to adapt to changes that occurred in the hospital. There were no complaints from patients and there were no new clusters of COVID-19 at the Medical Rehabilitation Polyclinic or at the hospital.

This is in accordance with research conducted by Battista et al. (2021), from this study, it was found that during the COVID-19 pandemic, knee OA patient visits in the hospital decreased. Some patients feel the limitations of making medical visits to the hospital, this is not entirely related to OA. But there are several other accompanying diseases. Most of the knee OA patients are more than 50 years old or even more than 65 years old, which makes it possible to have many diseases due to the degeneration process, such as cardiovascular, gastrointestinal disorders, etc<sup>9</sup>.

**Hospital Structure in Service at the Medical Rehabilitation Polyclinic**

**1. Hospital Staff in Medical Rehabilitation Services**

From the data on patient visits to physiotherapy services in 2022, there was an increase in patient visits compared to the previous year. In January there were 1,414 patients, in February there were 1,159 patients, in March there were 1,380 patients, in April there were 1,295 patients and in May there were 987 patients. It can be seen through the graph below:



**Figure 3.** Comparison of the Number of Patient Visits for Physiotherapy Services in 2021 and 2022

From interviews with management staff, Physical Medicine and Rehabilitation Doctor specialist doctors and also physiotherapists, in general they think that the current number of human resources in the medical rehabilitation clinic is still sufficient, physiotherapists have problems when they have to do PMR doctor assistants or when patient visits are at the same time. The interview table is as follows::

**Table 7. Hospital Staff in Medical Rehabilitation Services**

Informant	Interview Topic	Perception of Hospital Staff
Management Staff	HR at Simpangan Hospital Depok	In the registration section, the available human resources are not enough to meet the workload, because there are many patients and must serve all polyclinics. Likewise, at the cashier, but it has been more helpful with the SIM-RS. The security department also feels that there is a lack of human resources to guard every floor of the hospital. The same thing is felt in the Pharmacy section, especially on Mondays & Wednesdays because many doctors practice and there are concoction of drugs. However, all HR already have sufficient skills and experience in each division.
Deputy Director of Medical Services	HR at Medical Rehabilitation Polyclinic	The number of SpKFR doctors has met, with an average of 10-25 patient visits per day. The number of physiotherapists has also fulfilled the existing workload, there are 2 shifts, each shift is 1 person, with the number of patients per day 50-70 people.
Physical Medicine and Rehabilitation Doctor	HR at Medical Rehabilitation Polyclinic	The number of specialist doctors is in accordance with the workload, the average patient per day is 10-20 patients. Sometimes less than 10, sometimes more than 25 patients. But still sufficient, with the number of poly days 4x per week.
Physiotherapist	HR at Medical Rehabilitation Polyclinic	The number of physiotherapists is still sufficient and has been maximized. The current number of patients is 50-70 patients, but if the number of patients increases, additional physiotherapists will be needed. Sometimes physiotherapists are overwhelmed when they are practicing doctors, because 1 physiotherapist has to be a doctor's assistant.

Assessment of the suitability of educational background, knowledge and skills is in accordance with previous research. Research conducted by Arifin et al. (2011) states that educational qualifications are an important basis for medical and paramedical personnel to provide services to patients according to the needs of their disease, where with existing qualifications patients feel confident that the diagnosis given is in accordance with their disease<sup>10</sup>. The current adequacy of the number of specialist doctors is appropriate, with the number of patient visits per day of 10-25 patients, with a doctor's practice schedule of 4 times per week. Currently there is no queue or waiting list for patients who want to consult a doctor. Patients can choose a doctor's schedule that suits each patient's condition. However, the number of physiotherapists needs to be considered to adjust to the increasing number of therapy patients, which currently averages 50-70 patients every day, divided into 2 shifts so that each shift averages 25-35 patients with 1 physiotherapist.

## 2. Medical Equipment in the Service of Knee OA Patients during the COVID-19 Pandemic

**Table 8. Medical Equipment in the Care of Knee OA Patients During the COVID-19 Pandemic**

Informant	Interview Topic	Perception of Medical Equipment
Deputy Director of Medical Services	Medical equipment that supports services at the MRP	The number of medical equipment used to carry out service activities is sufficient, and the variety of types available are as needed based on consultation with the DPJP and the PMR Doctor. If polyclinic need to procure new tools, there is a flow system for the procurement and removal of equipment.
Doctor Physical Medicine and Rehabilitation	Medical equipment that supports services at the MRP	With the current number of patients, the number of beds needs to be increased by 1 more. For the need for standard therapy equipment, there are 5 tools, namely MWD, SWD, TENS, IRR and Ultrasound therapy. Currently there are only 4 tools.

Physiotherapist	Medical equipment that supports services at the MRP	The number of mattresses used is not enough, there is only 1 IRR device, only 1 TENS. Actually, there are 2 IRR devices but 1 is broken. The IRR used is not up to standard, while in hospitals it is better to use a large IRR because there are many patients.
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The increasing number of visits to therapy patients will increase the workload of physiotherapists, but this can be overcome by increasing the number of medical devices such as beds for therapy and therapeutic tools. The addition of this medical device will reduce the workload of the physiotherapist. Currently, the existing therapeutic modalities are 1 unit of Infra Red diathermy portable, 1 unit of TENS (Transcutaneous Electrical Nerve Stimulation) electrical therapy, 1 Ultrasound diathermy, and 1 paraffin bath. Currently 1 therapy bed and 1 chair are used for therapy. With the number of visits of 20-30 patients in each shift, and from the observations during the study, each patient therapy takes 20-30 minutes. Physiotherapists work 6 hours in each shift, with 30-45 minutes of rest.

**3. Infrastructure in the Service of Knee OA Patients during the COVID-19 Pandemic**

**Table 9. Hospital Facilities in the Service of Knee OA Patients During the COVID-19 Pandemic**

Informant	Interview Topic	Perception of Infrastructure
Deputy Director of Medical Services	Facilities and infrastructure that support services at the Medical Rehabilitation Polyclinic	The number of medical rehabilitation patients continues to grow. Facilities and infrastructure, such as chairs in the waiting room and practice rooms are still lacking, then the therapy room needs to be expanded. Especially during this pandemic, it is necessary to adjust the distance between patients as recommended. However, the quality of the facilities and infrastructure used to carry out service activities at the Medical Rehabilitation Polyclinic is in accordance with the required standards.

This is in accordance with the recommendation for facilities and infrastructure in the Outpatient area Directorate General of Health Services (2021) which states the need for hand washing facilities with running water and soap/hand sanitizer at the entrance of each room, setting the seating distance in the waiting room. 1m, good ventilation and air circulation systems, physical barriers for patients and staff (glass/plastic), barriers/separators between zones, prohibition of entry for visitors/companions, available trash cans with different colors depending on the type of waste<sup>11</sup>. From the explanation above, Simpangan Depok Hospital has made efforts to improve infrastructure during the pandemic with the aim of preventing the transmission of COVID-19 in the hospital environment. Facilities and infrastructure in hospitals and their changes during the pandemic are in accordance with applicable regulations.

**Hospital Service Process for Knee OA Patients during the COVID-19 Pandemic**

In assessing the process variables in this study, it includes the implementation of SOPs, planning and monitoring functions in the services of the Medical Rehabilitation Polyclinic.

**Table 10. Hospital Service Process for Knee OA Patients During the COVID-19 Pandemic**

Informant	Interview Topic	Service Process Perception
Management staff	Standard operating procedures (SOP) that apply at the MRP	SOP is distinguished between inpatient and outpatient. During the pandemic period, there were several changes related to the implementation of health care programs and optimizing mobile JKN for the prevention of COVID-19 transmission.
Registration	SOP changes during the pandemic	Changes to SPO in the registration section, namely the use of fingerprints is abolished.

Pharmacy	SOP changes during the pandemic	There is no need for the patient's signature on a doctor's prescription and a SIM-RS has been applied.
Physiotherapist	SOP changes during the pandemic	Disinfecting therapy equipment and patient beds is carried out every patient change, using complete level 2 PPE, and limiting therapeutic devices whose use requires close contact with patients, such as ultrasound diathermy. This is done especially at the peak of the pandemic or PPKM levels 3 and 4.
Security officer	SOP changes during the pandemic	Changes to the rules for patient visits, patient companions are only allowed for those with special needs. Setting the maximum number of patients in the waiting room is a maximum of 7 patients.

This is in accordance with the Standard Guidelines for the Protection of Doctors in the COVID-19 era of the PB IDI Mitigation Team, which states that controlling the risk of COVID-19 transmission for doctors in advanced health facilities with moderate risk<sup>12</sup>. Another thing that can be done is to control the condition of knee OA patients with mild to moderate complaints to conduct teleconsultation. Teleconsultation can be an alternative option in the management of patients with mild to moderate knee OA. Hospitals need to develop a teleconsultation system and socialize it to patients.

### Hospital Planning and Supervision in Medical Rehabilitation Polyclinic Services

**Table 11. Planning and Supervision at the Medical Rehabilitation Polyclinic at SDH**

Informant	Interview topic	Perception of Planning and Monitoring
Deputy director of medical services	Planning at the Medical Rehabilitation Polyclinic	The MRP has not yet been included in the strategic plan of the hospital, the planning of activities that support the skills and competencies of human resources and the procurement of medical equipment/infrastructure can be submitted to the relevant department.
Deputy director of medical services and head of medical services	Supervision at the Medical Rehabilitation Polyclinic	Monitoring is carried out periodically every month. During the pandemic, supervision related to the implementation of services at the medical rehabilitation polyclinic, patient complaints, officer discipline in using PPE and implementing health protocols.

### Results of Hospital Services for Knee OA Patients During the COVID-19 Pandemic

#### Optimizing the Performance of Medical Rehabilitation Services for Knee OA Patients at Simpangan Depok Hospital with the Existence of the COVID-19 Pandemic

Assessment of the optimization of the performance of medical rehabilitation services is carried out by assessing the patient's perception through a questionnaire. Evaluation is carried out to assess the results or outputs of the structures and processes carried out while the patient is receiving treatment at the hospital. Assessment of these results by evaluating the factors that affect the quality of health services. The quality of service achieved is a product that can be characterized by several factors including efficacy, effectiveness, efficiency, optimality, acceptability, legitimacy, and equity<sup>1</sup>.

**Table 12. Patient Efficacy/Healing**

Classification	Amount	%
Less Complaints	19	90,5
Complaints Not Reduced	2	9,5

From table 12, data obtained from the efficacy/healing of knee OA patients after treatment for at least 2 months at the Medical Rehabilitation Polyclinic. The efficacy assessment was carried out by looking at the reduction in the perceived symptoms, namely reduced pain, improvement in daily activities such as being

more comfortable to walk, pray or when doing activities to the bathroom. Most of the patients stated that there had been a reduction in knee complaints, as many as 19 patients (90.5%) and 2 patients (9.5%) stated that there had not been a reduction in knee complaints.

**Table 13. Effectiveness/Patient's Expectations on Services**

Classification	Amount	%
As expected	20	95,3
Not up to expectations	1	4,7

From table 13, data on the effectiveness of the Medical Rehabilitation polyclinic services are obtained according to patient statements. Assessment of effectiveness is done by looking at the improvements and services obtained by patients are in accordance with patient expectations. Most of the patients stated that the service was in line with their expectations, namely there were 20 patients (95.3%) of the 21 patients, and 1 patient (4.7%) stated that it had not met their expectations.

**Table 14. Efficiency**

Classification	Amount	%
< 2 Therapeutic Modalities	2	9,5
2 Therapeutic Modalities	19	90,5

From table 14 we get efficiency data, which is an effort to reduce treatment costs without reducing the quality of health services to be achieved. Efficiency assessment was carried out by assessing the number of therapeutic modalities used in the management of knee OA. Most of the patients used more than or equal to 2 treatment modalities (90.5%), only 9.5% used 1 therapy modality.

**Table 15. Optimality**

Classification	Amount	%
Cost incurred		
As expected	21	100
Not the expected result	0	0

From table 15 obtained optimality data, which is done by assessing the amount of costs incurred compared to the suitability of treatment results. All patients use financing from the National Health Insurance (JKN). So that all the doctor's consultation fees and the cost of providing modality therapy are not borne by the patient. All patients (100%) stated that the costs incurred were in accordance with the expected results.

**Table 16. Acceptability**

Classification	Amount	%
<b>I. Accessibility</b>		
Distance		
Not far from home	19	90,5
Far from home	2	9,5
Transportation		
Reachable	18	85,7
Hard to reach	3	14,3
Service Time		
Suitable for Patients	21	100
Not suitable for patients	0	0
Financing		
JKN	21	100
Personal Expenses	0	0

Other Insurance	0	0
<b>II. Patient - Practitioner Relationship</b>		
Patient - Doctor Relationship		
Well	21	100
Not good	0	0
Patient Relationship - Physiotherapy		
Well	21	100
Not good	0	0
<b>III. Healthcare Facilities</b>		
Ease of getting services at the Medical Rehabilitation Polyclinic		
Easy	20	95,3
Difficult	1	4,7
Atmosphere		
Comfortable	7	33,3
Less comfortable	14	66,7
<b>Supporting facilities</b>		
Parking		
Easy	21	100
Difficult	0	0
Canteen		
Easy	17	66,7
Difficult	4	33,3

From table 16, we get acceptability data that assesses the ease with which patients can get services, the patient-doctor-physiotherapist relationship, and the existence of supporting facilities such as the availability of parking and canteens. The results showed that most of the patients in the medical rehabilitation polyclinic (90.3%) lived close to the hospital, with a vehicle distance of about 5-30 minutes. Most of the patients (85.7%) stated that transportation was easy to reach because it was on the edge of the main highway where public transportation was available, while 3 patients (14.3%) felt that transportation was difficult to reach because there was no public transportation that led near their place of residence. All patients (100%) stated that the doctor's examination service hours were in accordance with the patient's condition. This happens because the frequency of doctor's services is 4x a week, so patients are easy to adjust. Physiotherapy service hours every day except Sunday (6x per week). In addition, all patients in the polyclinic who became informants received financing from the National Health Insurance (JKN). All patients (100%) stated that the relationship between the patient - doctor - physiotherapist was good, there was an attitude of empathy, mutual respect and respect. In terms of health care facilities in which it provides comfort, maintains privacy, provides convenience, tranquility. Most of the patients stated that it was easy to get services at the medical rehabilitation polyclinic, there was only one patient who stated that it was not easy. More patients who feel uncomfortable with the atmosphere in the medical rehabilitation polyclinic, namely 14 patients (66.7%), especially uncomfortable with the waiting room, while seven patients (33.3%) who feel comfortable with the atmosphere in the polyclinic. In supporting facilities, all patients (100%) stated that it was easy to access parking at RSSD, but there were 4 people (33.3%) who stated that it was difficult to access the canteen to get food, and 17 people (66.7%) stated that it was easy.

**Table 17. Legitimacy**

<b>Classification</b>	<b>Amount</b>	<b>%</b>
Conformity of Service Delivery with Norms, Laws, Ethics, and Regulations		
Already appropriate	21	100
Not appropriate	0	0

Table 17 shows data on the legitimacy or conformity of service delivery with norms, laws, ethics, and regulations. All patients (100%) stated that the services provided were in accordance with this. Two patients suggested that the therapy room should be provided with curtains that are closed on all sides, but so far it is not too disturbing, if done it would be better.

**Table 18. Equity**

Classification	Amount	%
Principles of Fair and Equitable Service Delivery		
Already appropriate	21	100
Not appropriate	0	0

Table 18 shows equity data based on the perception of the patient or his family during the interview. All patients stated that the services at the medical rehabilitation polyclinic were equitable and fair. There is no difference in service delivery, according to the order of arrival. There are no special treatment patients, except urgent patients. All patients (100%) stated that the services at the Medical Rehabilitation Polyclinic were equitable and fair.

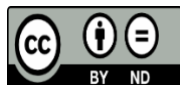
#### 4. Conclusion

The increasing number of patient visits is currently causing problems, especially in structural elements, namely the adequacy of human resources, medical equipment and infrastructure. The addition of medical devices such as patient beds and therapeutic devices, is something that might be done for hospitals. This is an alternative solution if the addition of human resources is not yet possible. Adjustments in the service process have been made in the hospital environment. Important things that have been done are to minimize direct contact in service delivery. The service performance of the Medical Rehabilitation Polyclinic during the pandemic remains optimal, this can be seen from the assessment of service quality determinants through efficacy, efficiency, effectiveness, optimality, acceptability, legitimacy and equity, which according to patient perceptions are generally good. However, the supporting facilities in the acceptability assessment require additional facilities for adequacy of chairs, completeness of bathroom facilities and the availability of canteens for patients and their families.

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