

Supplement

Why Do Inpatient Visits Decrease during the Covid-19 Pandemic? A Case Study in Hospital, Malang Regency

Mengapa Kunjungan Rawat Inap Turun Selama Pandemi Covid-19? Studi Kasus di Rumah Sakit Kabupaten Malang

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ABSTRACT

The Covid-19 pandemic has caused a decreasing number of non-Covid-19 inpatient visits in almost all hospitals, including the hospital where the study was conducted, which experienced decreasing Bed Occupancy Rate (BOR) up to 35.5%. This study aimed to identify the factors causing the decrease in the number of inpatients at the hospital. The research was conducted using a case study approach at a type D hospital in Malang Regency. Data was collected through a Focus Group Discussion (FGD) analyzed using a Fishbone Diagram combined with 5 whys and triangulation using secondary data and surveys. FGD respondents determined were eight respondents consisting of the Head of Inpatient Room, the Coordinator of Inpatient Room, the Coordinator of Outpatient, the Head of the Public Relations and Marketing Unit, and the Coordinator of the Admission Department. The results show that the causes can originate from human, method, market, and environmental aspects. Distrust in hospitals is caused by negative stigmatization and instructions to delay hospital services and communication barriers due to media as a consequence of implementing health protocols.

Keywords: Covid-19 pandemic, hospital utilization, stigma

ABSTRAK

Pandemi Covid-19 berdampak pada penurunan jumlah kunjungan rawat inap non Covid-19 hampir di seluruh rumah sakit termasuk pada rumah sakit tempat kajian yang mengalami penurunan Bed Occupancy Rate (BOR) hingga 35,5%. Penelitian bertujuan mengidentifikasi faktor-faktor penyebab penurunan jumlah pasien rawat inap pada rumah sakit. Penelitian dilakukan dengan pendekatan studi kasus pada salah satu rumah sakit tipe C di Kabupaten Malang. Pengumpulan data dilakukan dengan *Focus Group Discussion* (FGD) yang dianalisis dengan menggunakan Fishbone Diagram yang dipadukan dengan 5 *whys* dan triangulasi menggunakan data sekunder dan survei. Responden FGD ditentukan sebanyak 8 responden terdiri dari Kepala Ruangan Rawat Inap, Koordinator Ruangan Rawat Inap, Koordinator Rawat Jalan, Kepala unit Hubungan Masyarakat (Humas) dan Marketing, serta Koordinator Tempat Pendaftaran Pasien (TPP). Hasil menunjukkan penyebab dapat berasal dari aspek manusia, metode, pasar, dan lingkungan. Ketidakpercayaan pada rumah sakit disebabkan karena stigmatisasi negative serta himbauan untuk menunda pelayanan di rumah sakit dan hambatan komunikasi karena faktor media sebagai konsekuensi penerapan protokol kesehatan.

Kata Kunci: Pandemi Covid-19, stigma, utilisasi rumah sakit

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INTRODUCTION

Coronavirus Disease-19 (Covid-19) was reported a pandemic by the World Health Organization (WHO) on March 11, 2020, and officially declared a national disaster in Indonesia by President Joko Widodo on April 13, 2020. This pandemic caused a decrease in outpatient visits and non-Covid-19 inpatients in almost all hospitals (1). The hospital where the study was conducted is a type D private hospital accredited by National Accreditation Commission (KARS) and located in Malang Regency. This hospital faced a decreasing number of inpatient visits and the Bed Occupancy Rate (BOR) from April to July 2020. Based on the medical record data of the hospital, the average visits from April to July 2020 was 24.4%, compared to the number of visits from January to March 2020, which was 45.3%. Meanwhile, BOR from April to July 2020 was 35%, compared to BOR from January to March 2020, which was 84.7%. This decrease is far below the standard of the Ministry of Health; the ideal value of hospital BOR is 60-85% (2).

Bed Occupancy Rate (BOR) is affected by the number of inpatient visits and is used as an indicator to determine the efficiency level of bed occupancy in a hospital (3). The low BOR value indicates a suboptimal use of inpatient care by the community. Moreover, a low BOR value might affect the income of a hospital (4,5). A study conducted by Chou et al. in 2020 on the impact of the Covid-19 pandemic on the use of Hospice Care Services in Taiwan showed a significant decrease of BOR value for inpatient hospice units from 71.4% in December 2019 to 22.6% in April 2020. The utilization of the hospital's inpatient services decreased dramatically (6).

At the beginning of the pandemic, doctors and public health experts noted a significant decline in non-Covid-19 health services. One of these was a decline of more than 60% of patients with acute myocardial infarction and stroke. This decline occurred due to delays in seeking

treatment at the hospital caused by the fear of being infected with Covid-19 when visiting hospitals, and the lockdown system effectuated made it difficult to access health care. Another identified cause was that patients did not want to be an additional problem for health services burdened by Covid-19 patients (7). The Medical Group Management Association found that COVID-19 had a negative financial effect of 97% from 724 medical practices surveyed in just weeks following the pandemic (8). This study was conducted to identify the factors causing the decrease in the number of inpatients at X hospital. The results of this study are expected to add evidence from case studies and serve as a basis for hospitals to design strategies to deal with the long-term Covid-19 pandemic.

METHOD

The study is a case study using Focus Group Discussion (FGD) as a data collection strategy at one hospital in Malang Regency in September and October 2020. Respondents were determined based on purposive sampling, consisting of eight respondents: the Head of Inpatient Room, the Coordinator of Inpatient Room, the Coordinator of Outpatient, the Head of the Public Relations and Marketing Unit, and the Coordinator of the Admission Department (TPP). Data were analyzed using Fishbone Diagram combined with 5 WHYS and data triangulation techniques to validate the results of Fishbone Diagram analysis. Triangulation was done based on secondary data from visits and surveys to outpatients.

RESULTS

The results of this study identified four main theme factors that influence the decreasing BOR that are Human Resources (Man) aspect, Method aspect, Environment (Mother Nature) aspect, and Marketing aspect (Table 1). In the Man factor, difficulty to communicate and educate due to a veil or shield becomes an identified issue. The method

Table 1. The result of Focus Group Discussion (FGD) regarding factors causing the decrease in the number of inpatient visits

Aspect	Factors Causing the Decrease in the Number of Inpatient Visits	Statement
Man	<i>Staff feels difficult to direct the patients.</i>	"It used to be easy in directing the patients. It is now difficult; many patients don't understand. The IEC to patients should be made clearer now. The veil factor in IEC complicates the patients, so they think the information provided is unclear" (S5.29.09.2020).
Method	<i>Emergency and outpatient screening procedures</i>	"Related to the screening procedure, it caused the number of Inpatient visits to fall, especially in the Emergency Department" (S2.29.09.2019). "In the screening policy, patients who were planned for surgery turned out to be Covid-19 suspects, and the patients refused to be hospitalized (R1.29.09.2020). "The screening starts from the emergency department and outpatient services, so it refuses patients with insurance" (S3.29.09.2020) "The screening policy in all hospitals is the same, and even some hospitals still use decontamination rooms" (S2.29.09.2020)
Mother Nature (Environment)	<i>The policy of no visiting hours and limits on number of visitors Patients seek self-medication</i>	"It is not clear regarding the rules of visitors and caretakers. We are still confused about the flow and the rules". (S1.29.09.2020) "Patients do not dare to come to hospitals and choose self-medication. They are fear of being Covid-19-diagnosed because the symptoms are almost the same". (S4.29.09.2020). "Patients seek other treatment due to fear of going to the hospital, afraid of being diagnosed as Covid-19". (S5.29.09.2020). "There are rumors saying that hospitals diagnose patients with Covid to take advantage. Hospitals become an agent for the spread of Covid-19. The patients are afraid of having stigma of being Covid-19-diagnosed because in community, it is considered a disgrace and should be alienated (S2.29.09.2020).

Mother Nature (Environment)	Patients are reluctant to go to hospitals	<p>"Patients are afraid of Covid-diagnosed, and it may affect their jobs or business" (R6.29.09.2019).</p> <p>"Patients are afraid of getting infected because they do not know the flow of covid and non-covid patients at the hospital". (S6.29.09.2020).</p>
Market	The advice of not going to the hospital	<p>"Initially, the hospital made a poster about postponing in going to the hospital. It creates a perception in the community to delay going. So, patients think if it's not serious, they don't have to go to the hospital" (RS.29.09.2019).</p> <p>"Several companies are advised to postpone going to the hospital and not coming to the hospital due to fear of contracting Covid at the hospital. They consider the hospital is treating Covid-19 patients so that the hospital is considered a place for transmitting Covid-19 to other patients. Company employees are advised to go to Mother and Child Hospital" (S3.29.09.2020).</p>
Market	<p>Restrictions on referring BPJS patients from Cities to Regencies</p> <p>Decreasing number of patient admissions from specialist polyclinics</p>	<p>"There are limitations on BPJS patient referrals from city-to-regency" (S3.29.09.2020).</p> <p>"Due to online school, pediatric patients may rarely get sick because of adequate nutrition. Money used for transportation can be saved for food purchases to increase nutrition" (S7.29.09.2020).</p> <p>"The number of patients admitted to the hospital from specialist polyclinics decreases" (S3.29.09.2020).</p> <p>"It is obviously decreasing; it can be seen from one of the public relations staffs in charge of receiving control letters and post-hospitalization patients and online patient registration. He thinks that the number is now less than before the pandemic." (S3.29.09.2020).</p> <p>"Non-surgery patients decreased. Patients choose to treat first; they will get back later when they are sick again. The surgery patients are still the same" (S1.29.09.2020).</p> <p>"Patients are afraid to come to the hospital, they are afraid of being admitted to isolation. The patients are not aware of the separation of the covid and non-covid patient lines. They are fear of contracting Covid" (S8.29.09.2020).</p>
Market	Decreased number of patient admissions from specialist polyclinics	<p>"Initially, the patient was willing to be admitted, but after being educated by the nurse, for example, the screening result is reactive or covid swab is positive, then he would be put in an isolation room. The patient is traumatized due to hearing that patient being treated in a hospital and put in an isolation room, then died" (S1.29.09.2020).</p> <p>"Patients thought that the isolation room is scary" (S2.29.09.2020).</p>

Source: Primary Data, 2020

Notes: Subjects are symbolized as S. S1 (Coordinator of Outpatient unit), S2 (Head of Inpatient unit), S3 (Head of Public Relations and Marketing unit), S4 (Coordinator of Emergency Department), S5 (Coordinator of Admission Department), S6 (Coordinator of Siloam inpatient room), S7 (Coordinator of Betlehem room), S8 (Coordinator of Betesda inpatient room).

factor that plays a role is the screening policy, which is not always carried out by patients and is not according to the financing policy and the policy on controlling the visitors. Negative perceptions or stigma towards services in hospitals during Covid-19 are the environmental factor

that reduces trust in using services in hospitals. Promotional content at the beginning of the pandemic prevented people from seeking health services if they were not in emergency conditions directly affected hospital visits. The lack of clarity of information and a

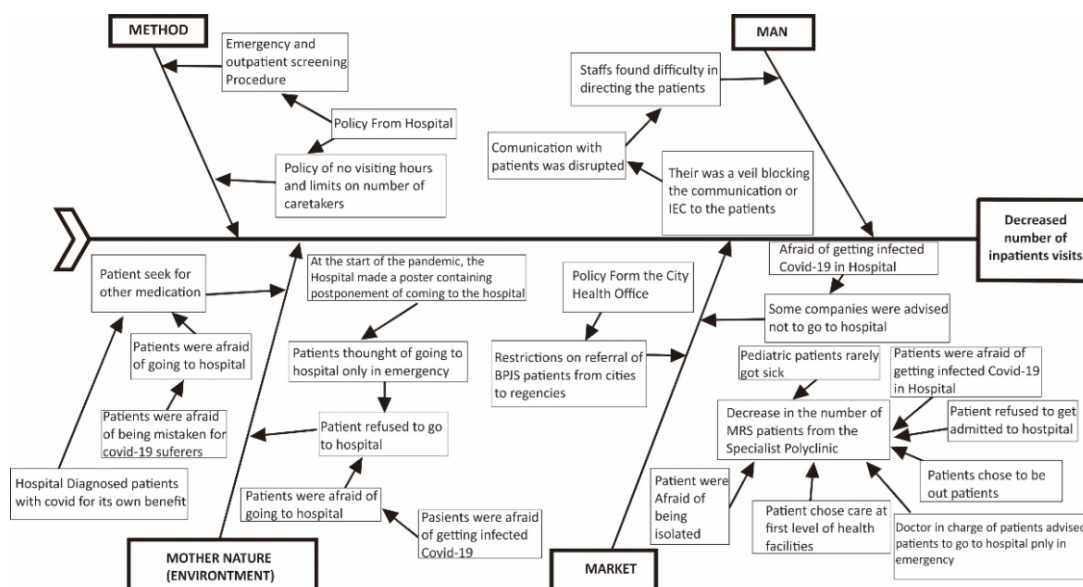


Figure . Root cause result of decreasing number of inpatient visits using the fishbone diagram

decrease in trust in hospitals due to the stigma related to Covid-19 have made patients search for other treatment alternatives and reduce using hospital services. Based on the factors identified from the FGD, 5 WHYS analysis was done as outlined in the Fishbone diagram (Figure 1). The staff faced difficulties directing the patients due to disrupted communication with patients and the presence of a veil or a shield that obstructs the process of communication or IEC to the patient. In the method aspect, the screening procedures for outpatient and emergency department services and the policy of prohibiting visiting hours and limiting the number of caretakers reduce patients' willingness to use hospital services. The stigma factor about Covid and community stigma against Covid-19 services in hospitals causes patients to avoid using services at the hospital and choose alternative health services. The emerged stigma included concerns about being declared a Covid-19 patient, worried about being infected, or considering the hospital is in an emergency condition in addition to the urge at the beginning of the pandemic to delay coming to the hospital.

The market and marketing aspects show a decrease in the number of patients who are admitted at the hospital from specialist polyclinics because pediatric patients rarely get sick, patients refused to get admitted to the hospital, patients choose the outpatient care, patients are afraid of isolation, patients choose treatment in first-level health facilities, and the doctor in charge of the patient advises patients not to be hospitalized if they are not in an emergency. It is supported by the survey results on outpatients showing 29% patients from a total of 93 respondents were not willing to be hospitalized during the Covid-19 pandemic. The decreasing number of patients referred from the polyclinic is confirmed by the data on the number of hospitalized patients from the X specialist polyclinic in 2020, which shows a 33% decrease in the number of patients.

DISCUSSION

The study identified the factors contributing to the decrease in inpatient BOR during the Covid-19 pandemic, which can be grouped into human, method, environmental, and market and marketing factors.

Man (Human Resources)

The results identify that using a veil as a Covid-19 prevention measure during interaction impedes the quality of communication and education. It affects the results of communication and affects the patient's understanding of the service procedures at the hospital; as a result, it affects their perception of the hospital's image and reduces trust. Effective communication is an essential point for every health worker in a hospital organization (9,10). Providing education during the Covid-19 pandemic is the most important part (11). Effective communication can be implemented if the message to be conveyed by the communicator can be adequately and correctly understood by the communicant to minimize misperceptions (10). The veil as a factor making the staff difficult to communicate with patients is a media barrier, a mechanical barrier often found in communication (12).

Method

During the pandemic, screening procedures are applied

for outpatient and ER and the policy of no visiting hours and limits on the number of caretakers. Screening procedures from the outpatient and emergency department of X Hospital and the prohibition of visiting hours and limits on the number of caretakers are policies implemented in almost all hospitals during the Covid-19 pandemic. This policy refers to the Guidelines for the Prevention and Control of Corona Virus Disease 2019 based on the Decree of the Minister of Health of the Republic of Indonesia in 2020. In this guideline, a triage mechanism is applied, namely early detection, screening, and separation of patients suspected of having Covid-19 in the first contact of those who come to service facilities health facilities at the first level (FKTP) and advanced level (FKTL) including the ER and outpatient services in hospitals. The policy of prohibiting visiting hours or limiting the number of caretakers is based on the prohibition of gathering or crowding in public facilities, including visiting sick persons (13).

Viewed from the sides of patients, hospitals, and caretakers, the presence of patient caretakers in a hospital is still a necessity because humans have social and integrative needs in addition to primary needs. Indonesia has a community structure covering various ethnic groups and has a basic culture in the form of a kinship system that already exists in the community and still plays an important role. In the kinship system, there are related roles between family members, including the obligations and responsibilities of each family member, whether it is family members in the main family structure or extended family. Such a role is an explanation of the behavior why the caretakers are more than one family members. This is because every family member and extended family thought that they share the same responsibility towards other family members (14). Prohibition of visiting or accompanying the patient is not following the culture in the community. It can be a factor that causes patients and families to choose not to take treatment at the hospital even though it is needed.

Environment

The factors causing the decrease in the number of inpatient visits from Mother Nature (environment) aspect are that patients refused to go to the hospital because they thought of going to the hospital only in an emergency state, the urge of delaying the use of hospital services at the beginning of the pandemic, and patients are afraid to go to the hospital due to afraid of being infected with Covid-19 in hospital. Delays in seeking treatment at the hospital due to the fear of being infected with Covid-19 when visiting the hospital were also experienced by patients with acute myocardial infarction and stroke in Italy, causing a decrease in the number of patient visits by more than 60% (7). During the Covid-19 pandemic, various ways have been taken to avoid Covid-19 transmission, one of which is to avoid visiting health facilities such as hospitals, even though their illness is not the symptoms of Covid-19 (15). Meanwhile, online media and field observation conducted by Agung (2020) in several regions in Indonesia revealed changes in people's behavior due to Covid-19. Such changes come from their own initiatives or orders from the competent authorities. Pandemics can also cause behavioral changes that impact social symptoms in the community. This decrease occurred due to delays in seeking treatment at the hospital and the fear

of contracting Covid-19 when visiting hospitals (16).

Another environmental factor that plays a role is stigmatization. Community stigmatization on positive sufferers from Covid-19 appears especially in people in areas affected by the pandemic. Stigma is a negative view of an individual or group on a matter. The stigmas that occur in social behavior in Indonesia are (a) isolating the people who have recovered from Covid-19 because they are still considered a source of transmission, (b) discriminating people who move from one area to another, (c) exclusion of certain ethnic groups because they are considered as virus carriers, and (d) exclusion of medical personnel and paramedics, especially the ones working in hospitals because they are considered a source of transmission of the Covid-19 virus (16,17).

Market

The causes of the decrease in BOR from the market aspect identified in this study include the decrease in the number of patients admitted to hospital from specialist clinics because pediatric patients rarely got sick, patients refused to get admitted to hospital, patients chose to be outpatient, patients were afraid to be isolated, patients chose treatment in first-level health facilities, and the doctor in charge of the patient advised the patient not to admit to the hospital unless emergency. However, the patients in inpatient installations come from the emergency department and outpatient installations. Outpatient is the center of attention of hospital

management because it can be a promising target market and provide financial benefits for hospitals.

As an effort to support and comply with health protocols, the Indonesian Doctors Association (IDI) advise the hospitals to reduce patient visits to hospitals and limit the number of patients in outpatient services every day (18,19). The public might visit a hospital or other medical facilities only in emergencies that require immediate medical action. It was made due to the limited health facilities at the beginning of the pandemic and to prevent and reduce the risk of transmission (20). In addition, the Executive Board of the Indonesian Pediatrician Association urged that the immunization program for children should still be carried out, and its implementation is transferred to the immunization clinic or the first health facility to avoid visiting the hospital (20). This appeal certainly has an impact on visits and public trust in hospital services.

Of the four themes of factors that play a role in decreasing the use of inpatient services, public distrust is the main cause triggered by stigmatization and the initial urge for delaying using hospital services if it is not in an emergency condition. These conditions make it difficult to communicate and educate patients in addition to media barriers due to the use of the veil in the application of health protocols. Although it cannot be generalized, the identified factors causing the decrease in the number of inpatient visits to hospitals during the Covid-19 pandemic can be a consideration by the management of other hospitals.

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