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THE EFFECTIVENESS OF THE ONLINE REGISTRATION SYSTEM ON THE WAITING TIME FOR OUTPATIENT SERVICES OF AL ITTIHAD HOSPITAL IN BLITAR REGENCY

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ABSTRACT

The hospital provides healthcare services including outpatient, inpatient, and emergency services, as well as patient medical records. An agreement-based registration system is now increasingly important to improve efficiency and reduce costs. Online enrollment helps patients avoid long queues, in contrast to the time-consuming manual system. Long wait times affect the image, quality, and satisfaction of hospital services. This study assesses the effectiveness of the online registration system on the waiting time for outpatient registration at Al Ittihad Hospital.

This study used an experimental design with two post-test-only groups, measuring the effectiveness of the online registration system on outpatient waiting time at Al Ittihad Hospital, Blitar Regency. The population was the entire outpatient, with samples calculated using the Slovin formula and purposive sampling methods. The independent variable is the online enrollment system, and the dependent variable is the patient's wait time. Data were collected by questionnaire and analyzed using SPSS, including validity, reliability, normality, coefficient of determination, and t-test.

This study showed that the online registration system significantly reduced the outpatient waiting time at Al Ittihad Hospital, with a tally of 5,281 greater than ttable 1,656 and alpha 0.000 < 0.05. The T-test indicates that patients who use online systems have a shorter waiting time than conventional methods. These results support the zero (Ho) hypothesis that online registration systems affect wait times.

Keywords : online registration system, outpatient, patient waiting time

I. INTRODUCTION

One of the factors that affects the slow waiting time for outpatient services, which is allegedly caused by the performance of medical recorders and medical personnel who are not in accordance with their competence. If the waiting time of the patient is long, it also affects the level of patient satisfaction with the service. Patient waiting time is one of the components that has the potential to cause dissatisfaction. Patients will consider health services to be bad if their illness does not heal, long queues, and health workers are not friendly even though they are professional. (Wijoyo in Yeni, 2014).

Waiting is inevitable in obtaining health services in a hospital, because no health service can prepare itself perfectly to be able to provide patient needs immediately after the patient

arrives. However, the waiting time is a failure of a service system, because the waiting time certainly causes discomfort for patients. Even though waiting in a doctor's waiting room is a common thing, patients still don't like it. (Ige Dhamanti in Soebarto 2011)

The service process at the polyclinic involves at least four stages of activities, namely the registration process, the preparation of the patient's medical record file (status), the process of waiting until the patient meets a doctor, receiving doctor's services and receiving a prescription from a doctor. In polyclinics, the waiting time includes the time span needed by a patient from the time the person concerned registers until they get services from a doctor and receive a prescription. Each of these processes also involves facilities or infrastructure as well as human resources such as registration officers, medical records, nurses and doctors. The infrastructure and human resources will directly determine the speed of service for each process, and accumulate into waiting time at the polyclinic. According to (Arietta 2012).

As mentioned earlier, in 2008 the Director General of Medical Services Business Development of the Ministry of Health of the Republic of Indonesia has issued minimum service standards for hospitals with the decree of the Minister of Health No.129/Menkes/SK/II/2008. about the minimum service standards that must be owned by hospitals and one of them is outpatient care. Based on these minimum service standards, the standard patient waiting time at outpatient facilities (polyclinics) is (≤ 60 minutes), including the time to provide medical record documents that are set to be less than or 10 minutes.

Seven factors related to waiting time according to Fatter (1966) are, variations in appointment intervals, service time (no show rate), number of patients who come without an agreement, pattern of doctor arrival, disconnection of patient services due to the doctor's desire to stop for a while during practice hours.

A management information system is an information system that functions to help planning, control, and decision-making at the management level and is equipped with certain reports. (Fatta, 2007) The hospital management information system, hereinafter abbreviated as SIMRS, is a communication information technology system that must be owned by hospitals to process and integrate the entire flow of the hospital service process in the form of coordination networks, reporting, and administrative procedures to obtain information appropriately and accurately. (Regulation of the Minister of Health of the Republic of Indonesia Number 82 of 2013). Long wait times, especially in outpatient registration, are often a complaint of patients and can affect hospital satisfaction and image. The online enrollment system comes as an innovative solution to reduce wait times, allowing patients to register without having to queue in person at the hospital. Al Ittihad Hospital in Blitar Regency has implemented an online registration system to improve service efficiency. This study aims to measure the effectiveness of the online registration system on the waiting time for outpatient registration at Al Ittihad Hospital.

II. METHODS

This study uses an experimental design with an approach two group post-test-only experiment explained by using measurements on independent and dependent variables which are carried out at the same time with a quantitative approach by describing and analyzing the online registration system service on outpatient waiting time at Al ittihad hospital, Blitar Regency. Samples were taken using the Slovin formula and purposive sampling method. The independent variable is the use of the online registration system, while the dependent variable is the patient's waiting time.

According to (Nursalam, 2020b) the Slovin Formula is a formula to calculate the minimum number of samples if the behavior of a sample of a population is not known for sure. The criteria in this study are

1. Inclusion Criteria
   Inclusion criteria are a common characteristic of a research subject with an affordable target population to be studied (Nursalam, 2020). The inclusion criteria of this study are:
   a. Outpatients register using offline
   b. Outpatients register using online
2. Exclusion Criteria
   The exclusion criterion is to eliminate or exclude the inclusion criteria from the case study for various reasons (Nursalam, 2020). The exclusion criteria of this study are:
   a. Patient registers for hospitalization
   b. Patients who do not fill out the questionnaire

III. RESULT

The calculation of the number of research samples using the Slovin formula, obtained a total of 133 patients as a sample of the number of outpatient populations is 2,757. The results of the calculation of the T test conducted by the researcher can be explained that the X variable obtained a $t_{calculation}$ of 5.281 with a significance level of 0.000. Using a significance level of 0.05, t_{table} is obtained of 1.656 which means $t_{calculates} > t_{table}$ and significance of $0.000 < 0.05$ which means H1 is accepted. So there is a significant influence between the online registration system (X) on patient waiting time (Y).

The results of the study showed that the online registration system significantly reduced the waiting time for outpatients at Al Ittihad Hospital. Patients who use the online system have a shorter waiting time compared to those who register conventionally. This data supports the hypothesis that the online registration system has an effect on reducing the waiting time for registration.

IV. DISCUSSION

The analysis of this research shows that the online registration system variable (X) has a significant effect on the length of waiting time (Y) with an alpha of $0.000 < 0.05$ and t_{count} of 5.281 which is greater than $t_{of\ table}$ 1.656. This explains that if the online registration system is increasing, it will further reduce the waiting time for outpatients at Al Ittihad Hospital. The results of the T test show that there is a meaningful influence, so this answers the formulation of the problem and hypothesis in this study. The hypothesis that is the answer to this study is the zero hypothesis (Ho) which states that there is an influence of the online registration system on outpatient waiting time at Al Ittihad Blitar Hospital.

This study aims to analyze how significant the effect of the implementation of the online registration system on the efficiency of outpatient waiting time. In this study, data were collected from two groups of patients: one group using an online registration system and one group using conventional registration methods.

The implementation of the online registration system has proven to be effective in speeding up the outpatient registration process. This is in line with the literature that states that the digitization of hospital administrative services can increase efficiency and reduce the burden of queues at the registration counter. Reducing waiting times not only increases patient satisfaction, but also has the potential to improve the image and quality of hospital services as a whole. However, the success of this system is also influenced by socialization to patients and the readiness of hospital technology infrastructure.

V. CONCLUSION

The results of this study have significant practical implications for hospitals in efforts to improve the efficiency of health services. By adopting an online enrollment system, hospitals can reduce patient wait times, improve patient satisfaction, and ultimately improve the quality of healthcare services provided. In addition, this research also contributes to the literature on hospital management and information technology in healthcare, and can serve as a basis for further research in the same field. The online registration system at Al Ittihad Hospital is effective in reducing the waiting time for outpatient registration.

The implementation of this system can be a recommendation for other hospitals that want to improve the efficiency and quality of service. Improve socialization and training to patients and staff regarding the use of the online registration system to ensure that all users understand and can make good use of the system. Sustainability and optimization of the system requires support from management as well as continuous education to patients.

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