



The Effect of Grhasia Sadewa on the Response Time of Requests for People with Mental Disorders Evacuation at Grhasia Hospital Yogyakarta

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ABSTRACT

Background: The prevalence of severe mental disorders in Indonesia have increased, as well as in the Special Region of Yogyakarta. Healthy Indonesia Program Data with a Family Approach shows that only 46% of people with mental disorders in Yogyakarta receive care and treatment. Grhasia Hospital as a hospital with mental health specialisation owned by Special Region of Yogyakarta Government carried out an innovation based on digital technology which was named Grhasia Ready to Evacuate People with Mental Disorders (Grhasia Sadewa). Grhasia Sadewa is expected to facilitate access to referrals and reduce the length of the people with mental disorders evacuation process that has been carried out so far. **Purpose:** Determine the effect of Grhasia Sadewa on the response time of requests for people with mental disorders evacuation at Grhasia Hospital Yogyakarta. **Methods:** This study uses a quasi-experimental posttest only design with a control group. The research participants were 64 users of people with mental disorders evacuation services at Grhasia Hospital in 2021-2022. Data were obtained secondary from service documentation at Grhasia Hospital. Data analysis using Mann-Whitney test. **Results:** The mean response time to requests for evacuation for people with mental disorders in the group not using the Grhasia Sadewa application was 4924.60 minutes, while the mean for the group using the Grhasia Sadewa application was 373.43 minutes. The results of the Mann-Whitney Test show ρ value = 0.00 (<0.05) so it can be concluded that there is an effect of Grhasia Sadewa on the response time of requests for people with mental disorders evacuation at Grhasia Hospital Yogyakarta. **Conclusion:** The response time for evacuation requests for people with mental disorders is faster after Grhasia Sadewa is applied. Grhasia Sadewa needs to be socialized to the community and health centers in the Special Region of Yogyakarta to facilitate access to mental health services for the community.

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INTRODUCTION

Mental health is a condition in which an individual can develop physically, mentally, spiritually, and socially so that the individual realizes his own abilities, can cope with pressure, can work productively, and is able to contribute to his community.¹ The degree of mental health of the community can be seen from the incidence of mental disorders. According to WHO data (2016) there are about 35 million people affected by depression, 60 million people affected by bipolar, 21 million affected by schizophrenia, and 47.5 million affected by dementia. In Indonesia, with various

biological, psychological and social factors with population diversity; the number of cases of mental disorders continues to increase which has an impact on increasing the burden on the state and decreasing human productivity in the long term.²

Riskesdas data in 2018 showed the prevalence of severe mental disorders in 2018 reached 7.0 per 1,000 population, this figure increased from 2013 which was only 1.7 per 1,000 population. The trend of increasing prevalence of severe mental disorders also occurred in the Special Region of Yogyakarta, in 2018 reaching 10.4 per 1,000 population, this figure increased from 2013 which was only 2.7 per 1,000

population. With these figures, Special Region of Yogyakarta ranks second after Bali as a province with a national prevalence of severe mental disorders.^{3,4} Data from the Healthy Indonesia Program with a Family Approach shows that only 46% of people with mental disorders in Yogyakarta receive mental health services.⁵

Health services are part of public services. Public service is an activity or series of activities in the context of meeting service needs in accordance with the laws and regulations for every citizen or resident of goods, services, and/or administrative services provided by the organizer. The implementation of public services is based on the principles of a) Public interest, b) Legal certainty, c) Equality of rights, d) Balance of rights and obligations, e) Professionalism, f) Participatory, g) Equality of treatment/non-discrimination, h) Openness, i) Accountability, facilities, and special treatment for vulnerable groups, j) Timeliness, and k) Speed, convenience, and affordability.⁶

The development of information and communication technology is currently very rapid forcing public service providers to use it so that the services produced are more effective and efficient, including hospitals that provide health services. Information and communication technology in health services is very helpful in developed countries as well as developing countries in increasing the effectiveness of health services. One of the challenges faced by large institutions is to provide quality services to many people effectively and efficiently.⁷

The pandemic that has occurred in the last two years has also accelerated the use of digital health technology, which includes solutions for remote treatment and consultation, remote monitoring, and health applications.⁸ During the COVID-19 pandemic there has been an increase in the use of health applications as a way to provide care. acute, chronic, primary, and special care.⁹

Grhasia Hospital as a hospital with mental health specialisation owned by Special Region of Yogyakarta Government carry out digital technology-based innovations called Grhasia Ready to Evacuate People with Mental Disorders (Grhasia Sadewa). Grhasia Sadewa is expected to facilitate access to referrals and reduce the length of the evacuation process for people with mental disorders that has been carried out so far. The purpose of this study was to determine the effect of Grhasia Sadewa on the response time of requests for people with mental disorders evacuation at Grhasia Hospital Yogyakarta.

METHOD

This study uses a quasi-experimental posttest only design with a control group. The research participants were 60 users of people with mental disorders evacuation services at the Grhasia Hospital in 2021-2022. The data were obtained secondary from the service documentation at the Grhasia Hospital. Data analysis using Mann-Whitney test.

RESULTS AND DISCUSSION

Response time data for requests for evacuation of people with mental disorders were obtained secondary from service documentation at the Grhasia Hospital in 2021 to 2022, totaling 60 samples. The following is the response time data for evacuation requests for people with mental disorders in

groups that have not used Grhasia Sadewa and groups that have used Grhasia Sadewa.

Table 1. Response Time (Minutes) Request for Evacuation People With Mental Disorders (n=60)

Kelompok	Mean	Median	Min	Max
Sadewa	373,43	125	10	3034
Non Sadewa	4924,60	4674	3075	7650

Source: Service Documentation at the Grhasia Hospital

Table 1 shows the mean response time for evacuation requests for people with mental disorders in the group that did not use the Grhasia Sadewa application of 4924.60 minutes, the median 4674 minutes, the fastest response time was 3075 minutes and the longest response time was 7650 minutes. While the mean response time for people with mental disorders evacuation requests in the group using the Grhasia Sadewa application was 373.43 minutes, the median was 125 minutes, the fastest response time was 10 minutes and the longest response time was 3034 minutes. From these data, it was found that the response time of people with mental disorders evacuation requests in the group using the Grhasia Sadewa application was faster than the group that did not use the Grhasia Sadewa application.

The results of the normality test using the Shapiro-Wilk test showed that the data distribution was not normal so that the data analysis used the Mann-Whitney Test. The results of the Mann-Whitney Test show a value of 0.00 (<0.05) so it can be concluded that there is an effect of Grhasia Sadewa on the response time of requests for people with mental disorders evacuation at Grhasia Hospital Yogyakarta.

The results of this study are in line with the research of Kurniawati (2021) which states that the implementation of online registration applications reduces the waiting time of outpatients significantly at dr. Oen Solo Baru Hospital, in addition, patients experience improved service, the flow of examinations at the hospital has become easier, waiting times are shorter, and comfort while in the polyclinic waiting room has increased.¹⁰ The study of Suhadi et al (2021) also concludes that the impact of using the Mobile JKN application for participants is the ease of access to services, reducing transportation expenditure costs, saving service time, reducing service queues, reducing service distances and speeding up JKN service time.¹¹

Factors that are highly considered in public services to increase community satisfaction include; (1) convenience in service procedures and requirements, (2) service completion time with provisions, (3) service fees are determined in the service delivery process, (4) service products are received according to stipulated provisions, (5) service facilities and infrastructure are adequate, (6) the competence of service personnel such as knowledge, expertise, skills, attitudes must be appropriate.¹²

E-Service Quality is an electronic service quality (E-ServQual) which is considered the extent to which a network site or website facilitates an organizational activity or service for the public effectively and efficiently. Factors that need to be considered in increasing community satisfaction include: 1) Security. The security of personal data and transactions that are felt in using the organization's service applications. 2) Communications. Smooth communication between the organization and the public through the provided application. 3) Reliability. The truth and accuracy of the information provided by the organization through the application. 4) Responsiveness. Speed in service and

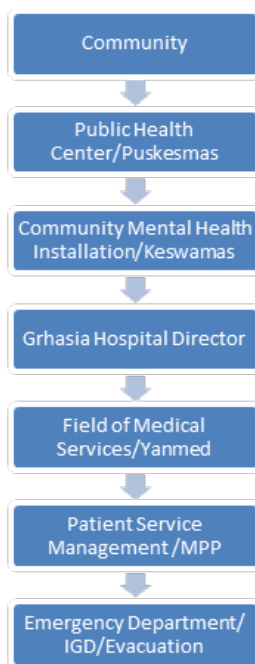
response through electronic media or applications provided by the organization. 5) Delivery. Procedures for conveying information from the organization to the public such as friendliness and courtesy.¹²

Initially the evacuation request process at the Grhasia Hospital went through several stages, namely the need for community evacuation, case verification by the Puskesmas, the Puskesmas sent an evacuation request letter to the Grhasia Hospital through the Community Mental Health Installation (Keswamas), then submitted to the Director of the Grhasia Hospital who would assign it to the field of medical services. (yanmed). After coordinating with patient service management (MPP) to ensure the availability of inpatient rooms, the yanmed field provides an evacuation

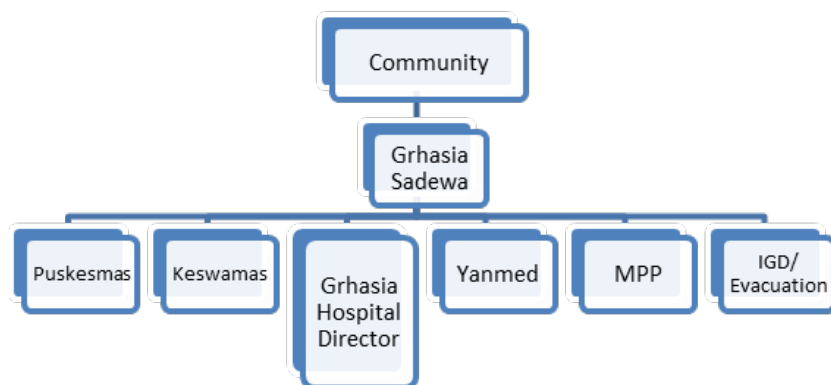
assignment order to the emergency department (IGD). This process takes 2 to 5 days or 3075 to 7650 minutes.

Grhasia Sadewa is designed to cut down the bureaucratic flow and communication of the evacuation request process for people with mental disorders so as to speed up service response times. Requests for evacuation of people with mental disorders by the community through Grhasia Sadewa will be directly informed to the puskesmas, public health installations, directors, keswamas, MPP, and IGD. Each of these stakeholders will carry out their functions and communicate simultaneously through Grhasia Sadewa. This process requires a faster time than without using Grhasia Sadewa, which is 10 minutes to 3034 minutes.

Gambar 1. Evacuation Request Process Before Grhasia Sadewa



Gambar 2. Evacuation Request Process Grhasia Sadewa



The Grhasia Sadewa evacuation team consists of 4 people trained in handling psychiatric emergencies consisting of 1 nurse, 1 driver and 2 security. The evacuation team is also equipped with psychiatric emergency management tools. The ambulance used is a special psychiatric ambulance whose interior has been designed for the safety of people

with mental disorders and the evacuation team. Grhasia Sadewa is also equipped with information on evacuation locations for people with mental disorders, making it easier for the team to evacuate.

Previous study has stated that patient handling can be helped by an application that integrates information about

the location of the patient, the location of the ambulance and the ambulance equipment.¹³ In addition, a system that integrates information related to users, service centers, ambulances, and hospitals can help comprehensive emergency services starting from requests to handling patients in hospitals. The use of information and communication technology can facilitate data communication between different information systems.

Only about 67% of Puskesmas in the Special Region of Yogyakarta are included in the Grhasia Sadewa network. Bantul Regency is an area where almost all puskesmas are included in the network (96%) while Gunung Kidul is the least (30%). This data is a stimulus for us to continue to socialize Grhasia Sadewa.

CONCLUSION

Mean response time for evacuation requests for people with mental disorders in the group that did not use the Grhasia Sadewa application of 4924.60 minutes. While the mean response time for people with mental disorders evacuation requests in the group using the Grhasia Sadewa application was 373.43 minutes. From these data, it was found that the response time of people with mental disorders evacuation requests in the group using the Grhasia Sadewa application was faster than the group that did not use the Grhasia Sadewa application. The results of the Mann-Whitney Test show a value of 0.00 (<0.05) so it can be concluded that there is an effect of Grhasia Sadewa on the response time of requests for people with mental disorders evacuation at Grhasia Hospital Yogyakarta. Grhasia Sadewa needs to be socialized to the community and health centers in the Special Region of Yogyakarta to facilitate access to mental health services for the community.

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