

## Application “Pentol Bakar (Pencet Tombol Bila Ada Kegawatdaruratan Jiwa)” As an Innovation of RSJID Dr. Aminogondohutomo

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### Abstract

Based on WHO data in 2019, every 8 people or around 970 million people worldwide. The problem of mental disorders is a complex issue while in Indonesia access to services is limited so that to optimise health services innovation is needed, especially in digital technology. This study aims to determine how the analysis of the use of the pentol bakar application at RSJD Dr. Amino Gondohutomo along with SWOT analysis. (Strengths, weaknesses, opportunities, threats). The literature search method in this study is a scoping review using the PCC framework to create journal inclusion and exclusion criteria and PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews). The results of this research review are 5 articles that match the research topic from 893 articles. The Pentol Bakar application made by RSJD Dr.Amino Gondohutomo has advantages in the form of easy access for patients and families and helps health services more efficiently because of a faster response. While the shortcomings in using the application are in the form of a lack of information and understanding related to the application used. SWOT analysis conducted by researchers can provide recommendations in the future in using the application so that it is more effective. These findings are expected to make a positive contribution in improving the quality of mental health services in related institutions.

### Keywords



*Application; Emergencies; Medical Services; Mental health*

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## 1. INTRODUCTION

Mental health according to the WHO is defined as when a person feels healthy and happy, has the ability face life's challenges, is able to accept others as they are, and has a positive attitude towards self and others. Good mental health enables individuals to realise their abilities, cope with the stresses of daily life, work productively, and contribute to their communities. Mental health disorders cannot be taken lightly as the number of cases is still quite high (Ayuningtyas et al., 2018). Based on metaanalysis data in 2019 from the World Health Organization (WHO), every 8 people or around 970 million people worldwide, such as schizophrenia, depression, dementia, and other common mental disorders are widespread in various countries (World Health Organization, 2025; Wu et al., 2023). The prevalence of mental disorders in Indonesia according to the 2018 Basic Health Research (Riskesdas) data is that more than 19 million Indonesians aged over 15 years experience emotional mental disorders and more than 12 million people in the same age group suffer from depression (RI, Kemenkes, 2022). In , data from the Agency for Health Research and Development (Litbangkes) in 2016 noted that as many as 1,800 people committed , or at least 1,000 people in the same age group suffered from depression 5 people every day. Most of them (47.7%) were adolescents and the productive age group, between 10 and 39 years old (Maritska et al., 2023). These two national surveys show that mental health problems are still significant in Indonesia.

Mental illness is a complex issue that requires serious attention. The three main factors at the root of this problem are the lack of public understanding of mental disorders, the negative stigma that has developed, and unequal access to mental health services (Agusno, 2011). The inherent stigma and limited knowledge often cause people with mental disorders to be reluctant to seek help, while limited access to services exacerbates the gap in mental health treatment. One alternative to overcoming these barriers is the use of internet-based health services, which can reaching young people who are vulnerable to mental health problems, as well as people in areas with limited access to services (Abas & Sukihananto, 2023).

In Indonesia, internet-based interventions have the potential to be an effective strategy to reduce gaps in access to mental health services, especially as internet usage in the country increased to 50% of the population (120 million people) in 2018 (Arjadi et al., 2018). With the development of technology, internet-based

interventions offer potential solutions to provide more equitable access to mental health services, reduce service gaps, and help communities overcome stigma and access difficulties. These digital interventions allow for wider engagement, providing opportunities for people with mental illness to obtain early support and necessary information in a more accessible and welcoming environment.

The digitisation process can have a major impact and long-term sustainability to meet patient needs (Naslund et al., 2019). Innovation in digitisation is needed, through innovation it can increase flexibility and disease care management so as to improve the quality of health services. With innovations in digital technology in the field of mental health, it can help optimise health services be smooth and effective so that certain patients are easier to access than having face-to-face consultations, enable real-time patient data collection, and monitor patients' mental conditions (Bond et al., 2023; Lounsbury et al., 2022). In addition, if someone who is experiencing mental problems and is not immediately referred for treatment, it can worsen the patient's condition. So in this case innovation is needed to improve and increase the provision of technology-based mental health services.

RSJD dr Amino Gondohutomo is a mental hospital located in Semarang. Preliminary studies conducted at this hospital also implemented internet technology innovations with the application, namely "Pentol Bakar" (Pencet Tombol bila Ada Kegawatdaruratan Jiwa) located in the emergency room. The way the application works is that when there is a patient experiencing a mental emergency at home, the family can immediately open the Pentol Bakar application and press the "On" button on the application so that the information will be directly connected to the Emergency Room of Amino RSJD and the officer will immediately pick up patient to do a mental assessment and be taken to the Emergency Room for further treatment.

Mental patient emergencies at home are often characterised by unpredictable and dangerous behaviour, requiring immediate attention. The "Pentol Bakar" app was developed to improve the response to these emergencies, allowing patients' families to report alarming conditions quickly and efficiently. This innovation not only speeds up the treatment process, but also provides a sense of security for patients (Mavrogiorgou et al., 2011) and their families, as they know that help is easily accessible when needed. Thus, the "Pentol Bakar" app has the potential to improve the quality of mental health care in the community and reduce the negative impact of emergencies that occur at home.

Based on the prevalence of mental disorders in Indonesia and the development of digital technology that allows innovation in the provision of physical and mental health services, researchers are interested in knowing how to analyse the use of the

Pentol Bakar application at RSJD Dr. Amino Gondohutomo Semarang City, Central Java Province. This study aims to determine the Pentol Bakar application as an innovation in pick-up services for patients with mental illness and to determine the advantages and disadvantages of the service and to determine the SWOT analysis (*Strengths, weaknesses, opportunities, threats*) of the Pentol Bakar service for patients with mental health problems at RSJD Dr. Amino Gondohutomo.

## 2. METHODS

This type of research is qualitative research with descriptive research design. The method used in this research is *scoping review*. The *scoping review* method was chosen because the reference sources used were varied from journal articles and official websites. *Scoping review* is a method used to identify literature in depth and thoroughly by identifying and presenting an overview of evidence on a topic, as well as noting gaps in research (Lockwood & Tricco, 2020). *Scoping review* aims to answer questions from a predetermined research topic by using various sources of similar research articles and then grouping and making conclusions (Widiasih et al., 2020).

In the process of preparing a *scoping review*, there are several steps that need to be taken by researchers. This process refers to the framework originally developed by Arksey and O'Malley (2005), then refined by Levac, Colquhoun, and O'Brien (2010). The steps include: Formulating research questions that are aligned with the study objectives, searching various sources to find relevant literature, selecting literature based on suitability to the topic, organising and mapping the collected literature, preparing a report that includes the results of the analysis of selected literature, and consulting with experts in related fields (Danielle Levac, 2010).

The literature search method in the *scoping review* research is in the form of searching for journals or research articles through search engines such as *PubMed*, *Science Direct*, and *Scopus* to obtain research literature according to the topic. The *keywords* used to help search the literature are: "*Mental Health Emergency*" AND "*Ambulance Service*" AND "*Emergency Medical Services Application*". The use of these keywords is very important to help find relevant literature, speed up information searches, and help organise and categorise research articles (Ebidor & Ikhida, 2024).

The strategy applied by researchers in searching for articles or journals is to use the PCC *framework*, which includes *Population*, *Concept*, and *Context*. This framework serves as a guide in setting inclusion and exclusion criteria, so as to achieve the desired *scope* or *scope* in research (Peters et al., 2017). Via The PCC *framework* formed a research question in the form of "How is the use of the PENTOL BAKAR application formed as

an innovation in patient pick-up services with mental emergencies at RSJD dr. Amino Gondohutomo Central Java Province".

**Table 1.** PCC *Framework*

<b>Population (P)</b>	1. Patients with psychiatric emergencies 2. Health workers who deal with mental health issues – General Public
<b>Concept (C)</b>	Ambulance service innovation as emergency treatment soul.
<b>Context (P)</b>	Operation and implementation of ambulance services at home mental illness.

Based on the PCC *framework*, the inclusion and exclusion criteria in the literature search can be formulated as follows:

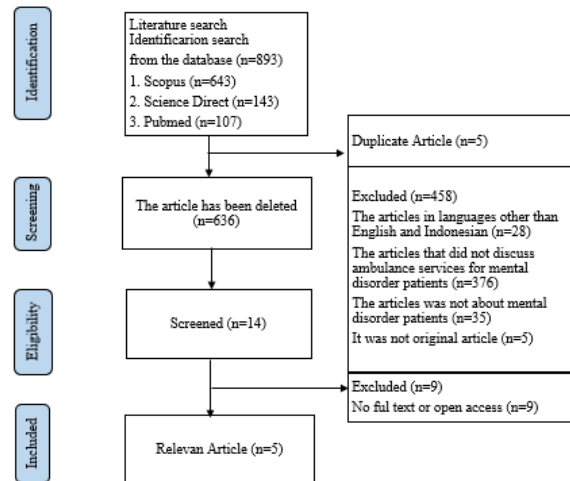
**Table 2.** Inclusion and Exclusion Criteria

<b>Inclusion</b>	<b>Exclusion</b>
1. Mental patients who experience mental emergencies	1. Mental patients who are not experiencing mental emergencies or are in a stable state 2. Patients with physical impairment
2. Use of ambulance service for pick-up of mental patients	3. Research that discusses mental emergency services without ambulance services
3. Research that discusses technological innovation in mental emergency services	
4. Articles that discuss the effectiveness, benefits, advantages, and disadvantages of emergency app services soul	
5. Research article with publications for the last 5 years (2019- 2024) Articles in Indonesian and English	4. Year of article publication below 2019 Articles in languages other than Indonesian and English

## 2.1. Data Collection Method

In preparing the scoping review, the researcher conducted an independent literature search through trusted databases, analysing the articles found to identify differences and avoid duplication. The article search and selection process used PRISMA-ScR, developed by EQUATOR Network to improve the quality and transparency of research reporting. Search results were selected based on inclusion criteria through analysis of research titles and article abstracts. Selected

articles were entered into an article synthesis matrix table. The results of the analysis were summarised to produce outcomes that refer to the research objectives or questions and discuss implications for future research, practice and policy. The results of the scoping review can be submitted for consultation with relevant parties, although optional (Widiasih et al., 2020).



**Figure 1.** PRISMA Flowchart-ScR

### 3. FINDINGS AND DISCUSSION

#### 3.1. Identity of Literature

Table 3. Identity of Literature in the Review

Number	Author	Year Publication	Language	Title	The Name of Journal	Access Type	Journal Qualication
1.	Harriet Elizabeth Moore, Aloysius Niroshan Siriwardena, Mark Gussy and Robert Spaight	2023	English	<i>Mental health emergencies attended by ambulances in the United Kingdom and the implications for health service delivery: A cross-sectional study (Scopus)</i>	Journal of Health Services Research & Policy	Full text, open access	Scopus
2.	Joshua Moskovitz MD, Joshua Sapadin BA, Michael Guttenberg DO	2019	English	<i>Interfacility ambulance transport Of mental health patients (pubmed)</i>	Journal of the American college of Emergency Physician Open	Full text, open access	Pubmed
3.	Lizbet Todorova , Anders Johansson , Bodil Ivarsson.	2021	English	<i>A Prehospital Emergency Psychiatric Unit in an Ambulance Care Service From the Perspective of Prehospital Emergency Nurses: A Qualitative Study</i>	Healthcare (Basel)	Full text, access open	Pubmed
4.	M. Colla G.A. Oliveira G.D. Santos	2019	English	<i>Operations Management in Emergency Medical Services: Response Time in a Brazilian</i>	Procedia Manufacturing	Full text, access open	Science direct

Number	Author	Year Publication	Language	Title	The Name of Journal	Access Type	Journal Qualication
				Mobile Emergency Care Service			
5.	Torus et al	2021	English	<i>The growing field of digital psychiatry: current evidence and the future of apps, social media, chatbots, and virtual reality. World psychiatry</i>	World Psychiatry	Full text, access open	Scopus

**Table 4.** Identity of literature

Title	Author	Purpose	Method	Sample	Research Findings
<i>Mental health emergencies attended by ambulances in the United Kingdom and the implications for health service</i>	Harriet Elizabeth Moore, Aloysius Niroshan Siriwardena, Mark Gussy and Robert Spaight	Explain about the epidemiology of mental health emergencies handled by East Midlands Ambulance	Desain cross-Sectional Using routine observational retrospective data from EMAS	102,079 Data that has been entered to EMAS	The data analysis results show anxiety (38.0%), overdose (21.2%), depression (15.0%), and suicide attempts (8.6%). In terms of pickup, the records show treated and transported (59.9%), patients refusing care/transport (17.1%), treated and discharged (12.5%), no care needed (5.2%), and



Title	Author	Purpose	Method	Sample	Research Findings
					referred to a general practitioner (3.4%), indicating opportunities to enhance the provision of emergency medical services and collaboration between primary healthcare services and mental health professionals. The dispatch triage includes referring phone calls to healthcare professionals for consultation. Additionally, it is important to distinguish between physical and mental health emergencies and refer patients to appropriate services early in the emergency response cycle.
<i>Interfacility ambulance transport of mental health patients</i>	Joshua Moskovitz MD, Joshua Sapadin BA, Michael Guttenberg DO	Highlighting several hazards to help minimize risks faced by EMS and identifying best practices currently used during the transfer of mental health patients between facilities.	Writing Method: Using the article review method. This journal examines various aspects related to interfacility transport for mental health patients by emergency medical	Several materials on aspects related to interfacility transport for mental health patients by emergency medical	Protecting EMS personnel from injury is crucial to maintaining a healthcare system that can manage the increasing demands of emergency psychiatric services. Some recommended tips include assessing

Title	Author	Purpose	Method	Sample	Research Findings
			services (EMS).	services (EMS).	agitation and risk of violence, using telemedicine, restraints, and sedation. Injuries that frequently occur during the transfer of care are a major concern. Therefore, minimizing transportation , such as through the use of telemedicine, is highly recommended.
<i>A Prehospital Emergency Operations Management in Emergency Medical Services: Response Time in a Brazilian Mobile Emergency Care Service</i>	Lizbet Todorova, Anders M. Colla, G.A. Oliveira, G.D. Santos.	Discussing and evaluating the care pathways Operations Management in Emergency Medical Services: Response Time in Mobile Emergency Care Services in Brazil	Descriptive Qualitative Literature review	Pre-hospital Emergency Nurse 11 jurnal	This study found that the pilot project This study found limitations in internal processes and the quality of information needed for decision-making in ambulance dispatch. The results contribute to quantitative research on EMS with a focus on developing countries, as well as being relevant for exploring the specifics of operations management

Title	Author	Purpose	Method	Sample	Research Findings
					and its application in safety services.
<i>The growing field of digital psychiatry: current evidence and the future of apps, social media, chatbots, and virtual reality. World psychiatry</i>	Torous et al	This study found limitations in internal processes and the quality of information needed for decision-making in ambulance dispatch. The results contribute to quantitative research on EMS with a focus on developing countries, as well as being relevant for exploring the specifics of operations management and its application in safety services.	Literature review dengan iPARISH framework		This study provides an overview of the use of Digital Health Technologies (DHT) in delivering easily accessible and continuous mental health care interventions. It discusses the relevance of recent technological advancements , including digital phenotypes and remote interventions.

### 3.2. Data Analysis

**Table 5. Data Analysis Result**

No	Title	Data Analysis Result and Discussion
1.	<i>Mental health emergencies attended by ambulances in the United Kingdom and the implications for health service delivery: A cross-sectional study</i>	Emergency Medical Services (EMS) play a role in community referrals for non-emergency or chronic conditions, including mental health. To optimize services, it is important to enhance emergency call triage by involving psychologists and psychiatrists. This helps operators identify patients who need continuous mental health care and direct them to appropriate primary care services earlier in the triage process.
2.	<i>Interfacility ambulance transport of mental health patients</i>	The transportation of patients with mental health disorders between facilities by emergency medical services (EMS) personnel presents unique risks for both patients and providers. The increasing occurrence of injuries and difficulties during these transfers of care is a major concern. Reducing the complexity of this process and identifying and addressing issues are key to improving the safety of both patients and providers. Protecting EMS personnel from preventable injuries is crucial to maintaining an effective healthcare system that can manage the growing needs of emergency psychiatric services. Reducing the need for interfacility transportation is an initial step to minimize risks for EMS personnel. Thorough patient evaluation and the use of risk assessment tools to determine the need for restraints can help. Practical strategies implemented before and during transportation can also reduce the risk of injury for EMS personnel.
3.	<i>A Prehospital Emergency Psychiatric Unit in an Ambulance Care Service From the Perspective of Prehospital Emergency Nurses: A Qualitative Study</i>	Collaboration among nurses is crucial to enhancing the safety and comfort of patients with mental disorders. Cooperation with the police strengthens the handling of cases requiring security support. Adapted psychiatric ambulances with small seats replacing the beds create a more relaxed atmosphere, reduce stigma, and improve communication.
4	<i>Operations Management in Emergency Medical Services: Response Time in a Brazilian Mobile Emergency Care Service</i>	This study identifies limitations in internal processes and the quality of information needed to support decision-making in ambulance dispatch. The results contribute to quantitative research on EMS, especially in the context of developing countries.

No	Title	Data Analysis Result and Discussion
5.	<i>The growing field of digital psychiatry: current evidence and the future of apps, social media, chatbots, and virtual reality. World psychiatry (scopus)</i>	Digital Health Technologies (DHT) are increasingly used for the clinical management of long-term mental health issues. Research shows that DHT supports individuals in managing symptoms independently in addition to regular care. Future research needs to combine these fields to utilize available data for timely and targeted remote interventions, preventing relapses and other adverse outcomes.

### 3.3. Mental Emergency Application "Pentol Bakar"

Handling psychiatric emergencies requires appropriate assessment, assurance of safety, immediate attention to clients, and evaluation of risks related to violence, loss of control, aggression, self-harm, suicide, or homicide. In psychiatric emergencies, treatment generally focuses on behavioural and symptom management (Rokayah, 2023). Amino Mental Hospital has innovations related to the handling of psychiatric emergencies, namely the "Pentol Bakar" application which focuses on picking up patients who have psychiatric emergencies.

Management of psychiatric emergencies requires appropriate assessment, assurance safety, immediate attention to the client, and evaluation of risks related to violence, loss of control, aggression, , suicide, or homicide. In emergency situations, treatment is usually focused on behavioural and symptom management. RSJD Amino has an innovative "Pentol Bakar" application that focuses on picking up patients with psychiatric emergencies.

Based on interviews conducted with one of the health workers of Amino Gondohutomo Mental Hospital, it was found that there are 2 options for picking up patients, namely the first option with 3 nurses and 1 driver and the second option is 1 doctor, 2 nurses and 1 driver. addition, the flow of picking up mental health patients starts with the patient's family contacting the *whatsapp* number directed from the application. Furthermore, health workers re-check patient information regarding the patient's condition, history of mental disorders and others based on information from the family. The team of health workers who will pick up the patient wears personal protective equipment such as vests, *safety helmets* and carries other medical support tools such as *restraint ropes*, and injection sets (syringes, sedatives such as diazepam).

After all preparations were completed, the team along with the ambulance left for the pick-up location. After the team arrived at the location, the team analysed the patient's condition and provide the necessary measures (rope placement, drug injection, etc.) according to the patient's condition. The usual first treatment is the injection of sedatives to relax the muscles, so that most patients become unconscious.

After the patient was treated, the team took the patient to Amino Gondohutomo Mental Hospital for further treatment.

In one month there are approximately 10 times the use of the Pentol Bakar application. The implementation in the field is also assisted by related parties, such as social services to handle patients in each region. The majority of users of this service are people in Brebes, Tegal, Kendal, Pemalang, Pekalongan, Demak, Rembang, Jepara, Pati and surrounding areas.

### **3.4. Advantages and Disadvantages of Using the Pentol Bakar Application**

The Pentol Bakar application created by RSJD Dr.Amino Gondohutomo has advantages and disadvantages in its use. The grilled pentol application has disadvantages including

1. Patients and/or families lack exposure to information regarding the application of Pentol Bakar
2. Patients and / or families who still lack understanding of technology
3. Mobile phones owned by patients and/or families that are not sufficient to download the Pentol Bakar application
4. Patients and/or families prefer to contact the hospital via *WhatsApp* rather than using the app
5. Patients and/or families who are unable to pay for the cost of pentol bakar services
6. Health workers have difficulty in knowing the detailed condition of mental health patients

In addition to the shortcomings of the Pentol Bakar application, of course, this application has various advantages, namely:

1. Opening innovations regarding digital- based health services, especially in the Central Java region
2. Facilitate patient/family management of psychiatric emergencies
3. Greater access to services
4. Services at the hospital become more efficient because they already know the patient's condition beforehand
5. Accelerate the response of health workers in managing psychiatric emergencies

As based on the analysis of various articles conducted by Koh et al., (2022) Mental health care apps have the main potential to provide timely support, reduce mental health care costs, combat stigma in help-seeking, and improve therapeutic outcomes. However, this study also identified several challenges, such as user engagement issues, security in emergencies, and breaches of privacy and confidentiality.

### 3.4. Advantages and Disadvantages of Ambulance Service for Mentally Ill Patients

Digitised psychiatric emergency care has the potential to improve mental health care in a number of ways, including (Torous et al., 2021) :

1. Capture continuous, dense, and diverse mental health data for use in diagnosis and monitoring
2. Analysing data, especially through digital paradigms, to generate actionable insights and predictions at the individual level clinically
3. It offers a wide range of interventions that are often beyond the app itself, by facilitating connections to clinical services, peer support, personalised resources, emergency services, and even new therapies.

Risks and challenges associated with the transportation of mentally ill patients by emergency medical services (EMS) include that patients with mental health conditions often exhibit aggressive or difficult-to-control behaviour during transport, so that increasing the risk of injury for EMS personnel. To date, there are no uniform guidelines or standards for the transport of mentally ill patients and differences in regulations between institutions add to the confusion in practice, increasing the risk of injury (Moskovitz et al., 2020).

Moore *et al.*'s study (2023) describes the epidemiology of mental health emergencies treated by *East Midlands Ambulance National Health Trust* (EMAS). There were 102,079 medical records of mental health emergencies treated by ambulance services in the *East Midlands* that contained characteristics of mental health emergencies, including records of *Dispatch*, *Primary Impression*, and *Outcome*. *Dispatch* is determined by the description given by the '999' caller of the patient's condition. *Primary Impression* is determined by the paramedic attending the emergency based on the initial diagnosis of the patient's condition, and thus tends to be more specific than *Dispatch*. Mentally ill patients are often recorded in *Dispatch* as physical problems, such as anxiety problems often misperceived as respiratory problems because the patient is short of breath (Moore et al., 2023).

The management of mental health emergencies often involves misidentification of the initial condition, with emergency calls more often classifying the problem as a

physical condition, such as respiratory distress, rather than mental health. The mental health problems most commonly identified by paramedics at the are anxiety, intentional drug overdose, and depression. This suggests that *primary* clinical judgement is more accurate in predicting treatment outcomes. Anxiety is often the main predictor of why patients are brought to hospitals that provide mental health services (Moore et al., 2023).

### 3.5. Pentol Bakar Application Recommendations Based on SWOT Analysis

The use of telepsychiatry is a potential solution to reduce the need for transfers between facilities by providing remote psychiatric services that have been shown to reduce hospitalisation and ED wait times and improve EMS efficiency. Some of the recommendations include developing screening criteria for EMS personnel to determine if patients should be transported directly to a mental health facility, promoting the use of telepsychiatry, standardising best practices in risk assessment prior to transport, implementing a brief meeting between healthcare professionals prior to initiating transport, and establishing uniform safety equipment for patient restraints and creating a database to track injuries and refusals to transport patients in mental health facilities (Moskovitz et al., 2020).

Another recommendation is to improve the capability of EMS personnel through training to better recognise mental health emergencies and involve mental health specialists in the triage process. This aims to ensure patients are appropriately identified and referred to appropriate services earlier, thereby improving the effectiveness and safety of mental health emergencies (Moore et al., 2023).

Furthermore, Cook (2019) proposed a collaborative model involving multidisciplinary teams consisting of paramedics, mental health nurses and police officers. This model has proven to be effective in some areas of the UK, such as the West Midlands, where such collaboration has reduced *Emergency Department* readmission rates. Through this approach, paramedics are able to conduct assessments and direct referrals to mental health services, ultimately improving the quality of care and reducing pressure on the emergency services system. Collaboration between ambulance services and mental health services is necessary to ensure that the appropriate and most effective care is provided as quickly as possible.

Another recommendation was also made by Todorova et al., (2022) in which the ambulance service in Sweden does not use beds, but uses chairs and resembles a



small room to create a sense of comfort for psychiatric patients. In addition, cooperation with police agencies is also needed to secure the pick-up place to increase patient comfort.

Situational analysis related to the effectiveness of using pentol bakar also needs to be studied further, a simple SWOT analysis related to the application will provide many new views so that the application can be more useful in the future, the following SWOT situational analysis of the pentol bakar application:

**Table 6.** SWOT Analysis

<b>External</b>	<b>Opportunities (O)</b> There is a significant gap between people who need care and their access to care facilities (Salsabilah et al., 2023). This is evident as there are still provinces without Mental Hospitals, while only 40% of General Hospitals have mental health service facilities (Ministry of Health of the Republic of Indonesia, 2022).	<b>Threats (T)</b> <i>PENTOL BAKAR</i> It has a high service rate, making it very likely that people with lower economic status are reluctant to use this application.
<b>Internal</b>	PENTOL BAKAR innovation can make it easier for patients who have difficulty accessing services <u>mental health</u> .	
<b>Strengths (S)</b> 1. This application can facilitate the community in need of emergency mental health care from specialized mental health hospitals through an emergency button. 2. This application is already available on the Play Store, and the registration process is easy. 3. It makes it easier for the Emergency Medical	<b>Strengths - Opportunities (SO)</b> 1. Collaborate with relevant parties such as community institutions. 2. Engage with the surrounding community. 3. Increase promotion of the application by collaborating with healthcare facilities.	<b>Strengths - Threats (ST)</b> 1. Diversify payment options and financing schemes: including installments or financial aid programs. 2. Expand the target user base by adding additional services such as online mental health consultations (telemedicine).

Service team to locate patients with psychiatric emergencies.

#### **Weakness (W)**

1. Not all people use smartphones.
2. The *PENTOL BAKAR* application only serves as an intermediary for selecting ambulance services and is then directly redirected to a WhatsApp number.
3. Other necessary features, such as mental health condition screening, categories of psychiatric emergencies understandable by laypeople, and automatic estimation of distance and arrival time, have not yet been integrated into this application.

#### **Weakness - Opportunities (WO)**

1. Development of Additional Features in the Application: Integrate additional features such as initial mental health condition screening, psychiatric emergency categories, and estimated ambulance arrival time to make the application more functional and informative for users.
2. Provision of Alternative Access for Non-Smartphone Users: Provide emergency call services based on SMS or hotlines for people who do not have smartphones so they can still access the offered services.
3. Strengthening User Education on Mental Health: Provide educational modules in the application that teach how to assess basic psychiatric conditions and understand available

#### **Weakness - Threats (WT)**

1. Collaboration with the Government to Improve Service Accessibility: Work with local governments to provide financial support or subsidies for underserved communities to make service rates more affordable.
2. Optimization of User Services: Improve service processes by providing direct communication channels with medical personnel through the application without being redirected to WhatsApp, to offer more responsive and integrated services. Socialization and Training Program on Application Usage: Conduct educational campaigns and training for the community, especially in areas with limited health access, on how to use the *PENTOL BAKAR* application and the

emergency services, to help laypeople make decisions in emergency situations.

importance of mental health access.

#### 4. CONCLUSION

The PENTOL BAKAR application is a good innovation in handling psychiatric cases in Central Java Province, in this study, researchers explored the PENTOL BAKAR application developed as one of the innovations in the handling of psychiatric cases in Central Java Province. Through the literature review methodology, the researcher was able to find out how the results of the exploration related to the handling of mental emergencies, which included SWOT analysis and interviews with stakeholders. The researcher was able to identify the strengths and weaknesses of the application and provide valuable insights for further development. For hospitals, the app can improve the flow of emergency care through emergency buttons so that they can respond to patients faster, while for health workers it can intervene in a more timely manner, reduce the risk of delays in treatment, and improve service accuracy, and for health policies it can be a reference in making policies related to the use of digital technology in the future. These findings are expected to make a positive contribution in improving the quality of mental health services in related institutions.

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