



## DIGITAL BASED EARLY DETECTION OF MENTAL HEALTH IN MENTAL HEALTH ALERT VILLAGE

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### ABSTRACT

Mental health is an integral part of being healthy. Some mental health indicators are also indicators of a healthy state such as being free from pain or psychological distress, being productive and contributing to social life. This study aims to describe community mental health based on the results of early detection using the e-DSSJ application. The research design used is descriptive with a case study approach. The subjects used in this study were the people of Botolinggo village, Bondowoso district. The research sample of 1040 respondents was taken by purposive sampling with inclusion criteria, namely aged  $\geq 15$  years, domiciled in Botolinggo Village and willing to become research respondents. The instrument used in this study is the e-DSSJ application which adopts the Self Reporting Questionnaire-29 (SRQ-29) instrument. The results of univariate analysis showed that most respondents were mentally healthy (73%), experienced anxiety (26.7%), mental disorders (0.09%) and no respondents experienced post-traumatic distress syndrome (PTSD) and drug abuse (0%). Through early detection of mental health based on the e-DSSJ application, it can be seen that people who are mentally healthy, at risk of mental problems and mental disorders with the hope that those who are mentally healthy remain healthy, those at risk of mental problems do not experience mental disorders and those with mental disorders can immediately get health services.

Keywords: early detection; e-DSSJ application; mental

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### INTRODUCTION

Mental health can be defined as a healthy condition physically, mentally, socially, spiritually, free from pain and able to live productively and adapt to changes that occur (Sadock, Benjamin J., Virginia A. Sadock, 2017). Mental health cannot be separated from physical, social and spiritual health, because mental health is an integral part of a person's healthy condition. Some indicators of mental health include being free from pressure, being able to adapt to changes that occur, being able to live productively and having social relationships and being able to socialize with the surrounding environment. Mental health can contribute to all aspects of human life, from economic, social, educational, human rights to security aspects (M. Zaini, 2019). For example, when an individual is healthy both physically or physically and spiritually or mentally, the individual will be able to live productively, which in turn will have a positive impact on economic and social aspects. Conversely, if an individual is sick or at risk of mental illness, the individual will be less productive and even tend to become a burden (Keliat, B.A., 2019). In terms of human rights, someone who is sick or at risk of mental illness is often judged and treated in a discriminatory manner (discriminatory) and gives a negative label or label to mentally ill people or people with mental disorders (stigma).

However, mental health problems in the community have recently been relatively high and even tend to increase. The increase in the occurrence of mental health problems in the community is caused by many factors, ranging from economic/poverty factors, social conflicts and other issues related to community life (Zaini, M, Komarudin, 2023). An increase in the prevalence of mental health problems will have a major impact on the welfare and progress of society and even a country. The Ministry of Health noted that the economic burden caused by mental health problems is greater than the economic burden caused by tuberculosis disease.

The results of Basic Health Research (Riskesdas) in 2013 and 2018 related to mental health at the individual level show that the prevalence of severe mental disorders (ODGJ) is relatively the same, namely 1.7 and 1.675 per 1000 population. The increase in the number of cases of mental disorders is in line with the increase in population. In addition to the prevalence of severe mental disorders (ODGJ), the prevalence of people with mental emotional problems (ODMK) is also a problem in mental health services. The problem that often occurs in the ODMK group is the difficulty in knowing the exact amount because people with mental emotional problems such as anxiety, depression are difficult to know if individuals do not report and seek help from health services. Basic health research data in 2018 showed that there was an increase in the prevalence of mental emotional problems (ODMK) from 6% in 2013 to 9.8% in 2018. It should be noted that this group of ODMK will be at risk of becoming ODGJ if they do not get help and health services properly (Ministry of Health, 2018).

Mental health needs to be prioritized in health services in the community. The priority of mental health services in the community can be realized by providing comprehensive mental health services and not only focusing on treatment and rehabilitation services, but promotional efforts and early prevention of mental health problems must be increased. One form of prevention efforts in mental health services is through early detection of mental health (Novi Indiyati, 2019). Early detection of mental health is part of screening efforts for the appearance of symptoms that lead to a person's mental health. Prevention efforts through early detection of mental health must be a priority for mental health service policies by not always relying on health workers but involving the community as a form of shared responsibility (Zaini, M, 2022). Community involvement in mental health services begins with providing knowledge, understanding, awareness and skills about efforts that can be made to maintain mental health. The challenge in mental health services today is the increasing prevalence of mental health problems and the limited number of mentally trained health resources available in the community. This condition creates a treatment gap between people who need services and the availability of mental health services (Permatasari and Setiawati, 2021). On the other hand, the development of technology and information actually creates opportunities to develop digital platforms in the field of mental health, one of which is a digital platform for detecting mental health problems in the community.

The digital application used to conduct early detection of mental health is a platform that will be used by mental health cadres in the mental health alert village (Rahmawati. D, Fitria, 2021). The digital platform used is the e-DSSJ application. Through this e-DSSJ application, it is hoped that it will make it easier for mental health cadres and mental health program holders to carry out early detection of mental health in the community. Based on the description above, this study aims to determine the condition of mental health in the community through early detection of mental health activities using the e-DSSJ application, with the hope that the data from early detection results are real time so that mental health conditions in the community will be more accurate.

## METHOD

This research is descriptive research using a case study approach (Alimul, 2014). The subjects in this study were people in Botolinggo Village, Bondowoso Regency. Using purposive sampling technique, a sample of 1040 respondents was obtained with the inclusion criteria of being  $\geq 15$  years old, domiciled in Botolinggo Village, Bondowoso Regency for at least 1 year and willing to become research respondents. Data were collected using the e-DSSJ application to detect mental health problems in the community. The e-DSSJ application used was adopted from the Self Reporting Questionnaire-29 (SRQ-29) instrument. The e-DSSJ application was developed to facilitate early detection of mental health in the community. Data in the study were taken using purposive sampling technique from all people in Botolinggo Village, Bondowoso Regency with a sample size of 1040 respondents. Respondents in this study were determined based on the inclusion criteria, namely aged  $\geq 15$  years, domiciled in Botolinggo Village, Bondowoso Regency and willing to become research respondents. The instrument used in this study is the e-DSSJ application which adopts the Self Reporting Questionnaire-29 (SRQ-29) instrument.

In this study, researchers used research assistants, namely mental health cadres. Mental health cadres who were appointed as research assistants were first given knowledge about the aims and objectives of the study and the procedures for using the e-DSSJ application to detect community mental health. The use of the e-DSSJ application in general begins with filling in the respondent's identity. After the respondent's data is filled in, several questions will appear related to mental health problems experienced in the last 3 months. After all questions are filled in, early detection results will appear, namely whether the respondent is a mentally healthy category, a category of people with mental problems (ODMK) such as anxiety, post trauma distress syndrome (PTSD), drug abuse or a category of people with mental disorders (ODGJ). The use of the e-DSSJ application to detect mental health problems has also been tested for validity with a significance value above 0.05 so that it is declared valid. While the reliability test shows the Cronbach alpha value above 0.6 so that it is declared reliable. The data analysis used in this study was univariate analysis. Univariate data analysis uses frequency distribution in the form of percentage values.

## RESULTS

The results of research on early detection of mental health using the e-DSSJ application will be presented in the table below.

Table 1.  
Mental Health Early Detection Results using e-DSSJ Application (n=1040)

Category	Jumlah	
	f	%
1. Individuals with mentally healthy	760	73
2. Individuals at risk of mental disorders:		
a. Anxiety	278	26,7
b. <i>Post trauma distress syndrome</i> (PTSD)	0	0
c. Drug abuse	0	0
3. Individuals with mental disorders (skizofrenia)	1	0,09

Based on table 1, it can be seen that the mental health conditions of the Botolinggo Village Community are mostly in the mentally healthy category as many as 760 respondents (73%), 278 respondents with anxiety categories (26.7%), people with mental disorders (schizophrenia) as many as 1 respondent (0.09%) and there are no respondents who experience post trauma distress syndrome (PTSD) and drug abuse (0%).

## **DISCUSSION**

### **Characteristics of individuals with mental health**

Health can be understood as a condition of physical, psychological, social well-being and free from pain. Mentally healthy individuals are understood as individuals who have awareness of their potential, the ability to manage stress, adapt to changes that occur in life, be productive, and contribute to the surrounding environment (Keliat BA, Riasmini NM, Daulima NHC, 2020). Mental health is the foundation for the well-being and effectiveness of life functions for individuals and society. A healthy soul in each individual cannot be generalized. This makes mental health has more urgency to be discussed considering that each individual has their own needs to be mentally healthy and there are many factors that influence a person to stay mentally healthy. The aspects that exist in a mentally healthy person are thoughts, feelings, behavior must be in harmony (Stuart, 2019). Someone who is mentally healthy, always has a positive and not distorted thinking. Forms of positive and non-deviant thinking such as positive thinking about oneself and the environment, responsive to changes that occur, good concentration, good orientation towards self, time and place. Judging from the aspect of feelings, someone with a healthy soul also has positive feelings. Positive feelings can be seen from the presence or absence of emotional disorders such as excessive and prolonged anxiety, prolonged sadness, moodiness, and feeling inferior. Aspects of behavior shown in a mentally healthy person can be seen from the presence or absence of behavioral disorders such as anger for no apparent reason, behavior that is not in accordance with norms and rules in the community, and behaving in accordance with existing stimulus.

In addition to aspects of thoughts, feelings and behavior, a mentally healthy person also has a healthy physical condition and is free from pain. One of the characteristics of a physically healthy person can be seen from the presence or absence of complaints of pain or objectively does not appear to be sick, all organs function normally and the absence of psychosomatic symptoms, namely physical complaints that arise or are affected by thoughts or emotions and not due to obvious physical factors such as infection (Zaini, 2021). The healthy condition of the soul in a person is influenced by 2 factors, namely internal and external. Internal factors refer to things that are individual, while external factors refer to things that are outside of the individual (Zaini, 2019). Internal factors that affect a person's mental health include physical conditions, psychological conditions, attitudes in dealing with pressure or problems and the value or meaning of life owned. External factors that affect a person's mental health include socioeconomic conditions, cultural factors, environment.

In this study, most respondents were in the mental health classification (73%). Researchers argue that the optimal degree of mental health in respondents in this study was achieved for several reasons including physically, some respondents were in the middle or middle adult age range (aged 40-60 years). Middle or middle-aged adulthood is the peak period of maturity of a person's age, where at that age a person experiences 3 developmental tasks, namely assessing the past, changing the future and carrying out the individualization process (Rahmania and Tasaufi, 2020). Of the 3 types of developmental tasks, individuals can fully reflect and reflect on various mistakes in the past, but still have hope to create or change lives in the future. Cognitive maturity in adulthood contributes positively to a person's adaptability in dealing with problems / stressors so that a person is more resilient to the stressors experienced.

### **Characteristics of individuals at risk of mental disorders**

Individuals who are at risk of mental disorders are defined as people who have physical, mental, social, growth and development, and/or quality of life problems so that they have a

risk of experiencing mental disorders (Zaini, 2022). An example of an individual with psychiatric problems is a person who experiences anxiety who is still able to carry out daily activities but there is a decrease in his quality of life. In this study, most of the psychiatric problems experienced by respondents were mild to moderate levels of anxiety. In everyday life, anxiety is frequent and common in society. Anxiety or anxiety is almost the same as fear. What distinguishes anxiety from fear lies in the nature of the stimulus, which in anxiety the stimulus is abstract and does not necessarily occur while in fear conditions the stimulus is real and often occurs or has been experienced (Vibriyanti, 2020). In this study, what is categorized as anxiety is a feeling of worry about something that is not clear, diffuse, feeling helpless and emotional response to the assessment of something. Conditions of anxiety or anxiety are something that most often occurs in society, especially rural communities.

Anxiety or anxiety is caused by three main factors: biological, psychological and social. Biological factors that cause anxiety in the form of discomfort and threats to daily needs. Psychological factors that cause anxiety include threats to self-integrity (self-concept) and loss. While social factors that cause anxiety are threats to social and economic life. The occurrence of anxiety causes changes in physical, psychological and behavioral aspects (Stuart, 2019). In the physical aspect, symptoms found in a person with anxiety include changes in the cardiovascular system, neuromuscular system, gastrointestinal system and urinary system. In the psychological aspect, symptoms found in someone with anxiety include cognitive and affective changes. In the behavioral aspect, symptoms found in someone with anxiety include uncontrolled behavior (N. M. Ismail, 2020). In this study, of all respondents (1040) who experienced psychiatric problems in the form of anxiety as many as 278 respondents (26.7%). Research argues that the factors causing anxiety in respondents in this study are mostly influenced by biological factors, namely the threat to physical health. Respondents experienced anxiety because they suffered from physical illnesses such as hypertension and cholesterol. The next factor that caused anxiety in respondents in this study was social factors such as losing a job due to illness. While the symptoms that appeared in respondents with anxiety in this study were physical symptoms such as changes in the cardiovascular system such as heart palpitations, palpitations, dizziness. Changes in the neuromuscular system such as insomnia, tension and startle reactions. Changes in the gastrointestinal system such as loss of appetite, heartburn, nausea and abdominal discomfort (functional dyspepsia).

### **Characteristics of individuals with mental disorder (skizofrenia)**

Individuals with mental disorder (skizofrenia) is defined as a person who has a disturbance in the thought process, feelings and behavior which is manifested by symptoms and / or meaningful behavioral changes and causes suffering and obstacles in carrying out functions as a human being. Disruption of thought processes, feelings and behavior is caused by the inability of individuals to perform tasks in the process of development. In carrying out their developmental duties, individuals will certainly face problems, when individuals are unable to overcome problems and changes in life, it can trigger mental disorders. In addition, biological and psychological factors also contribute to the occurrence of mental disorders. Symptoms that appear in people with mental disorders are divided into 2 symptoms, namely positive and negative symptoms. Positive symptoms are symptoms that must be present when an individual is diagnosed with a mental disorder, while negative symptoms are other symptoms that follow positive symptoms. Positive symptoms include impaired perception (hallucinations), delusions (delusions), disturbances in thinking (difficulty concentrating and communicating) and disturbances in behavior (aggressive/angry behavior for no apparent reason). While negative symptoms include loss of interest, motivation and facial expressions,

and tone of speech is not appropriate to the situation, difficulty feeling happy or satisfied, does not want to socialize and prefers to stay at home, loss of interest and motivation to do activities, changes in sleep rest patterns, and not paying attention to appearance and personal hygiene. These negative symptoms can last several years before the patient experiences early symptoms or positive symptoms. Negative symptoms in people with mental disorders generally appear gradually and worsen with the length of time they occur (Stuart, 2019).

In general, mental disorders are grouped into mental disorders consisting of schizophrenia, psychosis, depression, dementia, bipolar affective disorder, mental retardation and growth and development disorders including autism (Linda Amiyati Hasan, Ayu Pratiwi, 2020). The results of mental health detection in this study obtained 1 response with mental disorders. The diagnosis of mental disorders experienced by respondents in this study, in addition to being based on the results of detection, has also been known in advance by health workers through medical examination. Signs of positive symptoms that appear during early detection of mental health are perceptual disorders (hallucinations), especially hallucinations, namely hearing voices telling to hit, difficulty concentrating and communicating and aggressive / angry behavior. While the signs of negative symptoms that appear when early detection of mental health in respondents are staying in the room and not wanting to meet other people including family, tense facial expressions, rarely sleep at night, untidy look and some days do not want to take a shower. Another data found at the time of early detection was that respondents had not wanted to take drugs given by health workers for several days.

## **CONCLUSION**

Based on the results of mental health detection, it can be seen that mental health problems that occur in the community are quite high (anxiety by 26.7%, mental disorders by 0.09%). The importance of early detection of mental health based on the e-DSSJ application carried out in the community is intended so that mentally healthy people remain healthy, who are at risk of experiencing psychiatric problems so as not to experience mental disorders and those with mental disorders can live independently and productively. Early mental health detection activities based on the e-DSSJ application become more effective and able to improve community-based mental health services..

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