

# The Effect of Mental Posyandu Community Health Worker Training on Knowledge and Attitudes about Handling Patients with Mental Disorders in Indonesia

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## ABSTRACT

**Introduction:** The number of Patients with Mental Disorders in the Sumberpucung District is very high at 246 individuals. Mental Health Posyandu has yet to be founded in the Sumberpucung Health Center region. This is due to the absence of Community Health Workers (CHWs) and their lack of mental health competence. It is established that mental health training for CHWs influences the knowledge and attitudes of CHWs about mental health. However, the Sumberpucung Community Health Center has never offered mental health training.

**Methods:** This quantitative study with Quasi Experiment Design approach and the One Group Pretest-Posttest Design. Thirty-three individuals were sampled using the complete sampling technique. Research instruments using pretest and post-test questionnaires. The questionnaire underwent both validity and reliability testing. The intervention took the form of training consisting of distributing mental health-related materials and a workshop on the five implementation tables for mental health posts. Wilcoxon Sign-Rank Test uses non-parametric statistics in contrast to other tests. **Results:** The Wilcoxon Sign-Rank Test yielded a P value of 0.002 (<0.005) for several tests of CHW knowledge in the pre-and post-tests. This study reveals that between the pre-and post-tests, understanding of CHW is significantly altered. The Wilcoxon Sign-Rank Test revealed a P value of 0,038 (<0,005) between the pre-and post-tests of the attitudes of the CHWs. This study reveals that the attitudes of CHWs change considerably between the pre- and post-test. **Conclusion:** Mental health CHW training influences mental health CHW knowledge and attitudes.

**Keywords:** Posyandu community health worker training; knowledge; attitudes; mental health community health worker (CHW)

## INTRODUCTION

Mental health has become a Global Priority since 2009. Mental disorders are a collection of abnormal conditions, both physically and mentally related [1]. Mental health problems do not cause death directly but will cause prolonged suffering for both individuals, family, community, and country because it causes sufferers to become unproductive and dependent on others [2]. WHO states that around 450 million people experience mental disorders around the world is six percent [3]. In East Java, the prevalence of severe mental disorders is 83,600 people and 2,470,000 people with emotional and mental disorders [4], While the number of mental disorders in Malang Regency is 1100 people, with 144 people in shackled patients [5].

The government has made efforts to address the problem of mental disorders, especially in primary health care centers or puskesmas. The orientation of the Ministry of Health has changed from referral-based mental health to basic community mental health [6]. Mental Health Posyandu is an effort to approach community-based mental health services through community empowerment by intermediaries for mental health cadres (KKJ). Mental health cadres must have good knowledge and understanding to prevent, detect and improve public health, especially in mental health [7].

The Sumberpucung Health Center applies the Healthy Family Indicator (IKS) to prioritize the main health problems in Sumberpucung District. Problems related to mental health are included in the top three priority health problems in Sumberpucung District, which are still unresolved. The 2018 IKS survey still neglected 58.4% of people with severe mental disorders in the Sumberpucung District [8], and a mental health post in Sumberpucung District has not yet been formed. According to the findings of interviews with the program holders of the Sumberpucung Health Center's mental health program, the lack of cadres is because many individuals lack of knowledge and skills to provide mental health services. Consequently, the Posyandu cannot be implemented.

The role of cadres in mental health programs is to assist health workers in identifying and reporting events in the community that can impact public health, assisting in providing simple health problem solutions to the community [9]. In addition, Mental Health Cadres are also tasked with monitoring the independence of patients and their families. People with mental disorders. Given the important role and function of Mental Health Cadres, good knowledge and skills are needed to carry out their role in society. Ratih et al. stated that several factors influenced cadres' roles, including attitude, motivation, knowledge, and years of service [10].

Therefore, in this study, we will discuss the effect of mental health posyandu cadre training on knowledge and attitudes regarding managing patients with mental disorders in the Sumberpucung District, Malang Regency.

**METHODS**

The research design used in this research is a Quasi Experiment Design approach with the One Group Pretest-Posttest Design. Conducted this research in the working area of the Sumberpucung Health Center, Sumberpucung District, Malang Regency, in October 2019. Sampling was carried out using the total sampling method. The sample is mental health cadres from seven villages in Sumberpucung District, totaling 35 cadres.

The sample selection criteria are divided into inclusion and exclusion criteria. The inclusion criteria were: Mental Health cadres from each village, and the last education of the cadres were at least Elementary school. The exclusion criteria were: mental health cadres who did not complete the training and those who were not willing to complete the pre-test and post-test questionnaires.

The research instrument used a knowledge questionnaire and an attitude questionnaire. The sample will be given a pretest questionnaire to find out the initial state, then given treatment in the form of training on mental health and the implementation of a mental health post, then given a posttest questionnaire to find out the condition after treatment, and tested this instrument for validity and reliability test. The normality test was carried out with Shapiro-Wilk. Data that is normally distributed will be tested by parametric pairing t-test. However, if it is not normally distributed, the data is tested non-parametrically using the Wilcoxon Sign-Rank test.

**RESULT**

Respondents to this study were cadres who attended the Mental Health Posyandu Cadre Training on Saturday, 05 October 2019, and invited 33 of the 35 people. Based on table 1, it is known that most of the respondents were aged 36-50 years, 20 respondents (60.6%), aged 20-35 years, ten respondents (30.3%), and aged >50 years three respondents (9, 1%). The gender of the respondents was mostly female, 18 people (54.5%) and 15 men (45.5%). Education of the respondents were 22 respondents (66.7%) from senior high school, six respondents from junior high school (18.2%), three respondents from elementary school (3%), and two respondents from university (6.1%). Most of the 31 respondents are self-employed 15 people (45.5%), 12 housewives (36.4%), one respondent was a teacher (3%), one respondent was a village official (3%), and one respondent was a trader (3%). The village origin of these respondents came from seven villages, Sumberpucung village had four people (12.1%), Karangkates village were four people (12.1%), Jatiguwi village were five people (15.2%), Sambigede village were five people (15.2%), Senggreng village were five people (15.2%), Ngebruk village were five people (15.2%), and Teryang village were five people (15.2%).

**TABLE 1:** Characteristics of Respondents.

Characteristics of Respondents	n	%
<b>Age (n=33)</b>		
20-35 years	10	30,3
36-50 years	20	60,6
>50 years	3	9,1

<b>Gender (n=33)</b>		
Male	15	45,5
Female	18	54,5
<b>Education Background (n=33)</b>		
Elementary School	3	9,1
Junior high school	6	18,2
Senior high school	22	66,7
University	2	6,1
<b>Job (n=33)</b>		
Self-employed	15	45,5
Housewife	12	36,4
Teacher	1	3
Village official	1	3
Traditional trader	1	3
<b>Village Origin</b>		
Sumberpucung	4	12,1
Karangkates	4	12,1
Jatiguwi	5	15,2
Sambigede	5	15,2
Senggreng	5	15,2
Ngebruk	5	15,2
Ternyang	5	15,2

Source: 2019 Research Primary Data

Table 2 shows that the respondents' knowledge in the pretest was mostly good in 27 respondents (81.8%), sufficient knowledge in six respondents (18.2%), and three respondents lacked knowledge. In comparison, the respondents' knowledge in the post-test was mostly 31 respondents (93.9%) had good knowledge, two respondents (6.1%) had sufficient knowledge, and there was no lack of knowledge of respondents.

**TABLE 2:** Distribution of Pretest and Posttest Knowledge of Mental Health Cadres.

Knowledge (n=33)	Pretest n (%)	Posttest n (%)
Less	0 (0)	0 (0)
Enough	6 (18,2)	2 (6,1)
Good	27 (81,8)	31 (93,9)
<b>Total</b>	<b>33 (100)</b>	<b>33 (100)</b>

Source: 2019 Research Primary Data

**TABLE 3:** Increasing Respondents' Knowledge.

No	Knowledge Enhancement (n=34)	Total (%)	Percentage
1	Posttest < Pretest	3 (9,1%)	Decreased
2	Posttest = Pretest	12 (36,4 %)	Not increasing
3	Posttest > Pretest	18 (54,5%)	Increased
<b>Total</b>		<b>33 (100%)</b>	

Source: 2019 Research Primary Data

Based on table 3, it is known that the majority of respondent's knowledge was pretest < posttest were 18 respondents (54.5%), posttest = pretest were 12 respondents (36.4%), and pretest > posttest were three respondents (9.1%).

**TABLE 4:** Analysis of Differences in Knowledge Before and After Extension Using the Wilcoxon Test.

	Frequency			Z count	Z table	p-value
	Posttest <pretest (n)	Posttest =pretest (n)	Posttest >pretest (n)			
<b>Knowledge</b>	3	12	18	-3.088	1,96	0,002

The Wilcoxon signed ranks test with a significance level of = 5% on the Knowledge variable obtained a Z count value of -3.088 with a significance value of 0.002. The calculated Z value is greater than the Z table (1.96), or the significance value is less than the significance level of 0.05, which means that Ho is rejected or H1 is accepted so that it can be concluded that there is a difference in knowledge before and after being given education training for posyandu cadres (Table 4).

**TABLE 5:** Distribusi Sikap *Pretest* dan *Postest*.

Attitude	Pretest		Postest	
	N	%	N	%
Less	0 (0)	0 (0)	Kurang	0 (0)
Enough	2	6,1	2	6,1
Good	31	93,9	31	93,9
<b>Total</b>	<b>33</b>	<b>100</b>	<b>33</b>	<b>100</b>

Source: 2019 Research Primary Data

**TABLE 6:** Increasing Respondents' Attitudes.

	No Knowledge Enhancement (n=33)	Total (%)	Percentage
1	Posttest < Pretest	6 (18,1%)	Decreased
2	Posttest = Pretest	10 (30,3 %)	Not Increased
3	Posttest > Pretest	17 (51,5%)	Increased
	<b>Total</b>	<b>33 (100%)</b>	

Source: 2019 Research Primary Data

The attitude of the respondents based on table 5 showed that the pretest with a good attitude was as many as two respondents (6.1%), and the good attitude was 31 respondents (93.9%). No attitude was found to be lacking, while the attitude of the respondents in the post-test was good as many as 31 respondents (93.9%), good attitude of two respondents (6.1%), and no attitude of respondents who were lacking. The majority of respondent's knowledge was pretest < post-test, namely as many as six respondents (18.1%), posttest=pretest as many as ten respondents (30.3%), and post-test> pretests as many as 17 respondents (51.5%) based on Table 6.

**TABLE 7:** Analysis of Differences in Attitudes Before and After Training Using the Wilcoxon Test.

	Frequency			Z count	Z table	p-value
	Posttest <pretest (n)	Posttest =pretest (n)	Posttest >pretest (n)			
<b>Knowledge</b>	6	10	17	-2,077	1,96	0,038

Furthermore, the normality test was carried out with the Shapiro-Wilk, where the data distribution was not obtained normally distributed, then continued with the Wilcoxon signed ranks test with a significance level of = 5% in the attitude variable, the Z count value was -2.077 with a significance value of 0.038. In table 7, the Z count value is greater than the Z table (1.96), or the significance value is less than the significance level of 0.05, which means Ho is rejected or accepted. So, there are differences in attitudes before and after being given training for posyandu cadres.

**DISCUSSION**

**Characteristics of Respondents**

Based on the analysis of the data in table 1, which contains the respondents' characteristics, most respondents' ages are 36-50 years old (60.6%), this age is middle adulthood. Age is a factor that facilitates (predisposing factor) the occurrence of changes in one's behavior and attitude. Age is also one of the factors that influence individuals in acquiring knowledge. The more mature a person's age, it is expected that the soul will be, more mature and wiser, more rational thinking, more able to control emotions, and more responsible for their role [11].

The gender of most of the respondents was female (54.5%), but not much different from the number of male respondents (45.5%). Anisah's research states that female cadres support Mental Posyandu Community Health Worker activities because women play more roles as housewives, so they have free time to carry out their roles

as cadres. Male cadres in mental health are also needed because they will play a role in patient referral activities and in dealing with anxiety disorders in patients with mental disorders [12].

This study's cadre education is high school (66.7%). Notoatmojoyo stated that education is one factor that influences one's knowledge. Education makes it easier for someone to receive information, so the more knowledge they have. The higher a person's education, the better his knowledge [13]. Sahriana's research on mental health cadres, most of whom have secondary education. This study stated that education affected good knowledge of mental health and attitudes in acting as cadres [14].

Characteristics of cadres based on work in this study found that most of the cadres' jobs were entrepreneurs (45.5%) and followed by housewives (36.4%). According to Farhat, cadres who do not work or are housewives have more free time than workers, so they can be more active in carrying out health cadre's activities [15]. However, in this study, the percentage of cadres working as entrepreneurs was greater than housewives. Entrepreneurs are thought to have more flexible working hours to still carry out their role as cadres. In addition, in this study, some cadres were village officials, so they could support their role as soul cadres. Village officials are community leaders who play an important role in knowing the condition of their citizens, especially those who experience mental disorders, and in cross-sector collaboration for handling mental disorders [16].

In this study, cadres came from seven villages. Five villages each consisted of 5 cadres (Jatiguwi, Sambigede, Senggreng, Ngebruk, and Ternyang villages), and two villages each consisted of 4 cadres (Sumberpucung and Karangates). Based on the information from the cadres, cadres from Sambigede Village had received training on mental health, while cadres from other villages had yet to. This study is likely to affect the knowledge and attitudes of cadres. In addition, some cadres have experience taking care of people with mental health conditions even though they are not officially cadres. Some of the other cadres have never been involved in mental health. Experience in a field influences a person's knowledge and attitude in his role. This study continues a previous study that concluded a correlation between cadre experience and knowledge and attitude [11].

### **Effect of Mental Health Cadres Training on Knowledge of Mental Health**

Training is an effort to develop human resources, especially intellectual abilities and personality. Training is part of an educational process, the purpose of which is to improve the abilities or skills of a person or group of people. Training generally emphasizes psychomotor abilities, even though it is based on knowledge and attitudes. Training has long-term benefits that will help someone to be more responsible in the future [17].

The program Mental Posyandu Community Health Worker is a mental health promotion program that provides education or knowledge about mental health and hands-on practice of implementing a mental health post to mental health cadres using the lecture method and a five-table workshop. The provision of adequate education will make a good contribution to implementing for patients with mental disorders. According to Lawrance Green's theory (1980) in Notoatmodjo, the health of a person and society is influenced by the information obtained [7].

In transferring knowledge that can stimulate more than one sense, such as lectures using other tools or media, media will be more effective than just using one receptor, for example, writing. The other media are expected to be able to touch cognitive, affective, and psychomotor aspects. This research is also in line with Hidayati et al., which showed an increase in mental health knowledge with the lecture method and training in posyandu [18].

Knowledge of cadres about mental health is cadres' understanding of the meaning, causes, classification, signs, and symptoms related to mental health, as well as the role of cadres in implementing the mental health post. Measurement of knowledge can be done by interviewing, which states the material's content that the research subjects or respondents want to know [7]. In this study, the measurement of knowledge has been carried out following the theory, namely through interviews using a questionnaire containing material about mental health.

Table 2 shows that after the intervention, only two people (6.1%) had sufficient knowledge, while the remaining 31 people (93.9%) had good knowledge. This study shows that the provision of interventions in the form of training for mental health cadres has increased respondents' knowledge. The results of this study follow the theory that knowledge is the result of knowing, which occurs after people sense a certain object, most of which is obtained through the eyes and ears [13].

Based on the results of the research presented in Table 3, it can see that only three respondents (9.1%) experienced a decrease, 12 respondents (36.4%) did not experience an increase in knowledge, and 18 respondents (54.5%) experienced an increase in knowledge after giving interventions.

Based on table 4 above, the Wilcoxon signed ranks test with a significance level of = 5% on the Knowledge variable obtained a Zcount value of -3.088 with a significance value of 0.002. The calculated Z value is greater than the Z table (1.96), or the significance value is less than the significance level of 0.05, which means that  $H_0$  is rejected or  $H_1$  is accepted. It can be concluded that there is a difference in knowledge between posyandu cadres before and after receiving education training.

The results of this study indicate compatibility with previous research conducted by Eni Hidayati et al., which stated that mental health care training effectively increases cadre knowledge. The post-test about mental health can change the knowledge of caring for people with mental disorders [19]. Meanwhile, three respondents who experienced a decrease in knowledge scores were suspected because these respondents needed more focus in filling out the post-test questionnaire. This lack of concentration will indirectly affect the ability to think critically when filling out the questionnaire [20].

Various learning methods have been carried out, and what is often used in counseling. The most effective method in health promotion or health education is audio-visual media. According to Edgar Dale in Wibowo & Suryani, which is described in a cone, reading will remember 10% of the material; listening will remember 20%; seeing will remember 30%; hearing and seeing will remember 50% of the material [21]. This is in line with the results of this study (table 2) which shows an increase after giving counseling and practicing it directly.

### **The Influence of Mental Posyandu Cadre Training on Cadre Attitudes**

Training is an effort to develop human resources, especially intellectual abilities and personality. Cadre training is part of an educational process to improve a person's abilities, knowledge, or special skills [2]. Attitude is a reaction or response of someone who is still close to a stimulant or object. A fairly complex process always precedes every action as a starting point for receiving a stimulus. At the same time, there are various psychophysical dynamics in the individual, such as the need for feelings, attention, and decision-making. Attitude consists of a cognitive component (learned ideas), a behavioral component (influences responses, appropriate or inappropriate), and an emotional component (generates consistent responses) [14]. In respondents are given material and education about the importance of integrated treatment of and the need for concern for the surrounding community to support the treatment process. It is hoped that this series of activities can increase the positive attitude of cadres or respondents towards.

The study's results found a significant influence between on the attitudes of cadres in. This study is indicated by the p-value of 0.038 < 0.05 (Table 7). Based on the results of this study, improved the attitude of cadres toward people with mental disorders. In this case, a good attitude includes accepting, responding, appreciating, and feeling responsible for the in the cadre environment. In Table 6, it can be seen from the 33 cadres present 17 respondents experienced an increase in attitude for the better, and ten respondents did not experience a change in attitude. Six respondents got a lower attitude score after receiving training, and data from 10 respondents who did not experience a change in attitude arose because of the number of respondents who obtained a high attitude score during the pre-test. At the same time, six respondents who experienced a decrease in attitude scores were alleged because these respondents lacked focus in filling out the post-test questionnaire.

The results of this study indicate compatibility with research conducted by Nur Alifa who stated that there was a significant effect of health training on attitudes and knowledge of cadres in the early detection of mental disorders. as well as increasing a better attitude in handling patients [22].

### CONCLUSION

Based on the research that has been done, the researchers concluded that there was an effect of the Mental Posyandu Community Health Worker program on increasing knowledge and attitudes about handling patients in the Sumberpucung district of Malang.

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