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Research Article

The Effectiveness of the Establishment of A Living Healthy Village on the Psychological Distress of Coastal Communities in Semarang

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ABSTRACT
One of the areas that need special attention in mental health status is the coastal community. Several studies state that the problems in coastal communities are more complex than others. This condition bring an impact on mental health that can be affect the quality of life of the community. The purpose of this study was to determine the effectiveness of the mental health alert village establishment against psychological distress of coastal communities in Semarang, Indonesia. This research is a quasy experimental pre-post test with control with random sampling technique with the criteria of citizens aged 17-60 years, not experiencing mental disorders, physically healthy, and no disabilities. The sample of this study was 206 residents divided into two groups, namely the intervention group and the control group. The questionnaire used was K-10 (kestler) to measure the level of community psychological distress. The bivariate test used the Kolmogorov Smirnov test to measure the effect of therapy. The research stages were conducting a pre test to measure the level of psychological distress, then forming a mental health alert village and a set of activities for 7 months and finally a post test. The result of this study were that the mental health alert village had a positive effect on the mental health status of the community through psychological distress indicators.

Keywords: community mental health nursing; *psychological distress*; coastal community.

INTRODUCTION

Management of mental health problems has shifted from hospital based to community based psychiatric services. This is in line with the increasing number of people with mental disorders so that services are not only focused on curative efforts but more emphasize proactive efforts oriented towards preventive and promotive efforts (who, 2013). Riskesdas (Kementrian Kesehatan RI, 2018) stated that schizophrenia mental disorders at 7 per mil increased drastically from 2013, namely 1.7. The large number reflects the number of people with mental disorders who show progressivity each year, so that it requires proper handling and understanding to overcome the problem.

One of the areas that need special attention in terms of mental health status is the coastal community. The development of the coastal population has not shown progress compared to other community groups. Indonesian statistics show that 25% of the poor are coastal communities. This condition has an impact on mental health which will affect their quality of life, one of which is psychological distress. A study conducted by (Febriana, 2019) on Semarang coastal communities with a bad physical environment, stated that 7% were in a moderate mental disorder with the most psychological distress symptoms being anxiety and depression. A study conducted by (Febriana, 2019) (Kinzie et al., 2016) shows that coastal communities have high levels of anxiety and depression with domestic violence due to economic factors. The low economy often becomes a circle of destruction of society where mental health is an important part of it.

The results of the observational survey at the research locus this time showed that this village is located in the coastal area of Semarang with complex problems. Tidal floods have an effect on the residents' economy and security issues, inadequate physical environment and bad health problems (Winahayu, et al., 2014). Previous studies at this locus (Febriana, 2019) general mental health screening in Bandarharjo found that out of 1223 samples, 6 were diagnosed with mental disorders, 216 were at risk, and 1011 were healthy.

Therefore, it takes a set of systems to reduce mental disorders in society. This effort is not only carried out by health workers but also by empowering the community through activities to provide understanding, fostering awareness and public concern for mental health problems in the community (keliat, 2011) with the concept of a

mentally healthy alert village. With this concept, mental health services are not only focused on healing clients with mental disorders, but also on mental health promotion and prevention with targets other than mental health clients (Stuart, 2014) [8] by including the community itself as cadres who play a role as the main actor in community development and empowerment programs (Winahayu, et al., 2014) . This is also in accordance with Indonesia strategic plan regarding health, namely community development with community empowerment through the formation of mental health alert villages (DSSJ) where the regional community itself, in this case cadres, is the spearhead of mental health with various skills provided. In addition, this is also in accordance with the health service strategic plan, namely with the presence of cadres, the services can touch the community more comprehensively because of reports from cadres as well as cadres' participation in motivating people to participate in mental health services.

METHOD

This research applies *quasy eksperimental pre post test with control*. The population in this study was adult among 21-60 year old in BandarHarjo, Semarang. Sample selection using a random sampling method by determining the population in accordance with .There were two groups, the intervention group with 103 respondents and the control group with 103 respondents at the different RW. The inclusion criteria in this study were adult who physically fit. The exclusion criteria for this study were someone who experience mental disorders and were terminally ill during the study. This study uses psychological distress scale (K10) by Kessler and Mroczek (1994) .Researchers categorize the results of each instrument and analyze it with chi-square.

RESULTS

Following of this research

Table 1: Respondent distribution based on sosiodemographic (n= 206)

Variable	Category	Control group (n=103)		Intervention group (n=103)		Total (n=206)	
		f	%	f	%	f	%
Gender	Male	60	58.3	59	57.3	119	57.8
	Female	43	41.7	44	42,7	87	42.2
Education	None	25	24.3	20	19.4	45	21.8
	Elementary	31	30.1	28	27.2	59	28.6
	Junior high school	19	18.4	25	24.3	44	21.4
	Senior high school	27	26.2	30	29.1	57	27.7
	Graduated	1	1.0	0	0.0	1	0.5
Working Status	None	0	0.0	0	0.0	0	0.0
	Entrepreneur	20	19.4	20	19.4	40	19.4
	sailor/labor	51	49.5	45	43.7	96	46.6
	Civil servant	1	1.0	2	1.9	3	1.5
	Housewife	31	30.1	36	35.0	67	32.5

Table 2: Results of Marginal Homogeneity Test : *psychological distress* before and after the DSSJ is given in the intervention group

		Psychological distress after DSSJ				Total	p
		well	mild	moderate	severe		
Psychological distress sebelum DSSJ	well	5	0	0	0	5	*0,000*
	mild	43	1	0	0	44	
	moderate	18	20	13	0	51	
	Severe	0	0	2	0	3	
Total		66	21	15	1	103	

It is found that there was a change in *psychological distress* category in the intervention group. As for the results of the marginal homogeneity test, the p-value is 0,000, which means that Ho is rejected, so there is a difference in changes in *psychological distress* between the groups exposed to DSSJ.

Table 3: Marginal Homogeneity Test Results : *psychological distress* before and after the DSSJ is given in the control group

		Psychological distress setelah DSSJ				Total	p
		well	mild	moderate	severe		
Psychological distress sebelum DSSJ	well	47	1	0	0	48	*0,000*
	mild	8	17	0	0	25	
	moderate	2	11	9	0	22	
	Severe	3	0	1	4	8	
Total		60	29	10	4	103	

It is found that the *psychological distress* in the respondent has a change from the mild to healthy category of 8 respondents, while the results of *psychological distress* after DSSJ were carried out on respondents with moderate to mild variables as many as 11 respondents.

Some respondents who were in the same category between before and after therapy experienced an increase in points. The results of the marginal homogeneity test, p-value 0,000, which means that Ho is accepted, so based on table 5.2.2 it is found that there is a change in the psychological distress category in the intervention group. As for the results of the *marginal homogeneity* test , the p-value is 0,000, which means that Ho is rejected so that there is a difference in *psychological distress* in the group not exposed to DSSJ.

Table 4: Kolmogorov-Smirnov Test Results : *psychological distress* after Given The DSSJ in the Intervention and Control Groups

	Psychological distress								Total	*p*
	well		mild		moderate		severe			
	n	%	n	%	N	%	n	%		
Before intervention	60	58,2	29	28,1	10	9,7	4	3,8	103	0,045
After intervention	66	64,1	21	20,3	15	14,5	1	0,9	103	

It is found that the p value is 0.045 ($p < 0.05$), which means there is a difference in *psychological distress* between the exposed and non-exposed DSSJ groups. Therefore, it can be concluded that there is an effect that The DSSJ increased by 5.9% in the healthy category, and decreased by 2.9% from the severe *psychological distress* category to healthy.

DISCUSSION

1. *Psychological distress* before and after the DSSJ is given in the intervention group

The results showed that there were differences in the level of anxiety in adolescents before and after giving cognitive therapy in the intervention or treatment group. The data states that not all respondents experienced a change in *psychological distress* levels, but all respondents experienced a decrease in psychological distress scores ranging from 2-23 scores.

A decrease in score means that there is a change in signs and symptoms of *psychological distress* towards a better direction even though they are still on the same level of anxiety. Therefore, it can be generalized that there were changes in *psychological distress in terms* of signs and symptoms after the formation of the DSSJ, in this case in the RW scope of the intervention group.

The bivariate test shows that the p value is less than 0.05, which means that there are differences in anxiety before and after giving treatment in the intervention group. Psychological stress "is often applied to a combination of symptoms that do not differ from depression and generalized anxiety symptoms to personality traits, functional

disabilities and behavioral problems (Canavan et al., 2013) Psychological distress is largely defined as a state of emotional distress characterized by depressive symptoms (i.e., lost interest; sadness; hopelessness) and anxiety (eg, restlessness; feelings of tension) (Ross & Mirowsky, 2002) . In particular, the stress-distress model argues that the main features of psychological distress are exposure to stressful events that threaten physical or mental health, the inability to cope effectively with these stressors and the emotional turmoil that results from this ineffectiveness (Horwitz, 2007) (Ridner, 2004) . They argue that psychological stress disappears when the stressor disappears or when a person comes to deal with it effectively.

Many of the symptoms that appeared before the formation of DSSJ were feeling tired without reason, anxiety, and restlessness. Significant changes are found in the same signs and symptoms. According to (Stuart, 2014), clients with anxiety and depression will affect cognitive abilities such as decreased concentration, thinking, and a narrowing range of attention areas. This will affect their life status in general. Therefore it is important to give therapy both individually and collectively.

The DSSJ program in this study is expected to improve community psychological distress. Changes in *psychological distress* symptoms in the treatment group showed good results from conditions with high to low frequency. This means that there is a very significant decrease in scores in the treatment group. The reduction in *psychological distress* symptoms in this group was because the client was given various programs to train both cognitive and psychomotor how to fight and control disturbing thoughts.

2. *psychological distress* before and after being given the DSSJ in the control group.

The results of the research in the control group showed that *psychological distress* in general had decreased but for some people as many as 10 respondents were in that category. The same even with the increasing value ranging from +1 to +4 means that there are several signs of symptoms that are felt increasing in frequency.The control group in this study did not get the intervention in the form of the formation of the DSSJ during the study. Even so, in general the quality of *psychological distress is* headed for a better direction. This is an interesting point to analyze. The signs and symptoms of *psychological distress* shown by respondents in the control group were the same as in the intervention group, namely feeling tired without reason, anxiety, restlessness, and *cant cheer up* . The post test results show that there is a decrease in the same symptoms.

The decrease in symptoms of feeling tired without reason, anxiety, and anxiety in this group can occur due to the process of existing programs in the community. The community in this neighborhood is very active and they have several cadres who are also active in mobilizing residents. When compared to the intervention group, the community here is more dynamic. One of the programs that is running well is a spiritual program, including the recitation of male and female residents.

A society with a good spirituality program brings goodness to the individual. As a study conducted by (Sharma et al., 2009) The awakening of meaning and purpose brings back hope and enthusiasm to face life's difficulties. The study found that for every 10-point increase in a person's intrinsic religiosity, there was a 70% increase in recovery from depressive symptoms.

Another study found by (Torabi et al., 2018) that the implementation of spiritual care by nurses can affect the mental situation of a person with cancer and is a suitable method for reducing *psychological distress* such as anxiety.

Therefore, it can be concluded that although the control group did not receive special intervention, in general the reduction in psychological distress symptoms that occurred due to spiritual conditions. Spirituality also has a role to play in improving mental health (Engler, 1996).

3. *Psychological Distress* after the DSSJ in the treatment and control groups.

Anxiety in the control and treatment groups from the results of the study showed that there were differences. The results of the Kolmogorov-Smirnov statistical test showed that the p-value was 0.045 ($p < 0.05$), therefore it can be concluded that DSSJ is effective in reducing the *pshycological* symptoms of community *distress*.

The formation of the DSSJ is expected to have a significant impact on individual abilities related to adaptive coping abilities so as to reduce symptoms of *psychological distress* . This can only be achieved by being serious about this program. The mental health alert village program is a program that involves an active role of the community to improve mental health status. So that one of its successes depends on the participation of the community and village officials.

What the researchers did was the socialization of what and how the mental health alert village was to equalize perceptions and motivation. The

second is to train selected cadres (according to the definition of cadres are those who are voluntary and have high motivation to help others for a better environment), meaning that cadres are individuals who understand their environment and understand the risks faced when they decide to become a cadre. This training is provided as a provision of knowledge about the basic basics of the DSSJ program and matters concerning the soul such as mental health characteristics, psychosocial and mental disorders, early detection of the community, *role play* , the first thing to do and how the referral system is at the puskesmas. So it can be imagined that cadres are the spearhead of this program.

From the above, the researcher concluded that the increase in the skills of the residents from before, can be said to be empty about people's souls being filled is a factor that makes this program effective. Another observation is the cadres' persistence to invite other communities to be directly involved in improving their mental health status. They think that being a cadre gives them the right opportunity to be able to help, give and of course feel needed by the community.

Mental cadres are volunteers with the aim of facilitating the process of handling mental disorders found in the community. Mental cadres help people achieve optimal mental health through community mobilization to maintain and improve mental health and monitoring of community health conditions in their area. The satisfaction of DSSJ cadres in carrying out their duties is in line with the increase in cadre performance as shown by research by (Durkin et al., 2016) that there is a very real positive relationship between cadre performance and the success of programs and activities. , in the end this success will encourage increased performance towards the target.

Some of the programs carried out in the intervention group besides the basic program are mental health promotion programs in the form of mental health exercises, health stimulation counseling for adolescents and children, promotion to risk groups, namely stress management. This program is planned based on the results of assessments from the community and local cadres regarding what their priority needs are for mental health, especially in relation to *psychological* {*Citation*}Within the six months of the research period, some of the most prominent obstacles were the disproportionate number of cadres and inactive cadres. However, this can be overcome by having cadres who are very active and creative after some assistance.

Students to participate in promoting activities. As a study conducted by (Dedi Kurniawan[1] et al., 2018) The number of soul cadres is insufficient when compared to the target, inactive cadres, and cadres who *drop out* which are crucial problems in implementing DSSJ program activities. The success and sustainability of the DSSJ program activities are highly dependent on cadres and the community who come to participate. Health empowerment is an effort to help the community to recognize and find out their own problems in the household structure so that they can apply healthy ways of living in order to maintain and improve their health (Kementrian Kesehatan RI, 2018) (Fung et al., 2016).

The control group who did not receive the DSSJ program didn't show a decrease in *psychological distress* symptoms, but several individuals had an increase in points which meant it was getting worse. This condition illustrates the importance of mental nursing interventions, especially psychotherapy to help clients reduce these symptoms in society.

CONCLUSIONS

This study illustrates that there is an effect of forming a mentally healthy alert village on community psychological distress. It is necessary to monitor the implementation of the continuous DSSJ program as a form of follow-up which is mainly carried out by the puskesmas, village officials, and the community with the campus as the initiator. Further research needs to be developed to determine the effect of spirituality to reduce psychological distress, which can be integrated with the DSSJ program so that it can be the right combination of therapy for mental health.

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