# EFFECT OF THERAPY COMPLEMETER MEDITATION YOGA IN PATIENTS STRESS IN POLYCLINIC SOULS SPECIAL HOSPITAL REGIONAL PROVINCE OF SOUTH SULAWESI

P-ISSN: 2086-2555; E-ISSN: 2622-7363

# <sup>1</sup>Indirawaty, <sup>2</sup>Rahman, <sup>3</sup>Khaerunnisa, <sup>4</sup>Sumirah

<sup>1,2</sup>Lecturer of the Health Polytechnic of the Ministry of Health Department of Nursing Makassar
 <sup>3</sup>Health Polytechnic Student of the Department of Nursing Makassar
 <sup>4</sup>Lecturer of Politeknik Kesehatan Ministry of Health Department of Nursing Malang
 \*indirawaty13@gamil.com

DOI: 10.24252/jkesehatan.v11i1.5073

#### Abstract

Yoga therapy in the world of nursing is known as the term complementary therapy. To avoid stress, one of the most efficient and has been done for centuries is to do yoga. The efficacy of yoga in helping to relieve stress is no doubt. Yoga helps keep people away from stress. According to Hawari (2008), the high incidence of stress in Indonesia is also the reason why stress should be prioritized handling because in 2008 recorded about 10% of the total population of Indonesia experiencing mental disorders or stress. The high level of stress is generally caused by economic pressures or poverty (Ministry of Health, 2009). General Purpose of this study To determine the influence of complementary therapies of yoga meditation on stress patients in Soul Polyclinic of Special Hospital Area of South Sulawesi Province. True Experiment Design True Experimental Design. Population in this study all stress patients who came to visit in Soul Polyclinic of Special Hospital Area of South Sulawesi Province amounted to 60 respondents consisting of 30 respondents in the group without intervention 30 people for the intervention group (Sugiono, 2011). The statistical test used: Mann Whey test and Wilcoxon test. Result of analysis test using Mann Whiteney got data that value The result show that Ha rejected and Ho accepted which mean there is no difference of average of stress level in group without intervention and intervention group during pre-test. The results of the test The results show that Ha accepted and Ho rejected which means there is a difference in the average level of stress in the group without intervention and intervention group at post-test. The above statistical test results give us an illustration that there are two groups in this study, that is the group of respondents treated only with pharmacology therapy, and one group of respondents treated with pharmacology therapy and complementary therapies of yoga meditation. The results showed that the group given pharmacological therapy and complementary therapies had a higher cure rate than the group of respondents who received only pharmacological therapy

Keywords: Complementary Therapy, Yoga Meditation, Stress

## **BACKGROUND**

Yoga therapy in the world of nursing known as the term complementary therapy is a way of treating the disease that is done as a supporter to conventional medical treatment or as a treatment of other options outside of conventional medical treatment. Based on data sourced from the World Health Organization in 2005, there are 75-80% of the world's population have ever undergone non-conventional treatment. According to compass magazine March (2013), Data in the United States shows, 3% of patients there do the balance of body and soul therapy due to the recommendation of his doctor. In 2007 38% of Americans used alternative and complementary medicine. Now more and more doctors are not only relying on pharmaceutical drugs to cure their patients, but also complementary therapies such as yoga or meditation. The same trend can also be seen in urban areas in Indonesia. Although not recommended physicians, complementary therapies such as yoga or meditation are now increasingly easy to find, even included in programs in fitness centers. According to Dharmono from the Department of Psychiatry, Faculty of Medicine, University of Indonesia "Therapies such as meditation are recommended to patients not to treat the disease, the goal is to reduce the stress of the illness. As stress decreases, the immune system will increase so that the disease is expected faster recovered, "he said that met some time ago.

P-ISSN: 2086-2555; E-ISSN: 2622-7363

Stress can be an early symptom of the coming of various diseases. For that, stress management is one of the preventive measures to reduce the risk of disease. To avoid stress, one of the most efficient and has been done for centuries is to do yoga. The efficacy of yoga in helping to relieve stress is no doubt. Yoga helps keep people away from stress with the methods of breathing exercises and legendary stretching of muscles.

According to Hawari (2008), the high incidence of stress in Indonesia is also the reason why stress should be prioritized handling because in 2008 recorded about 10% of the total population of Indonesia experiencing mental disorders or stress. The high level of stress is generally caused by economic pressures or poverty, the Department of Statistics states that 31 million people or 13.33% of Indonesia's population is on the poverty line with monthly spending below Rp.211.726,00 (Ministry of Health, 2009)

According Isnaeni (2010) is said to avoid the impact of stress, it is necessary the existence of a good stress management. In managing stress can be done with pharmacological therapy that includes the use of anxiety (Axio lytic) and anti depressant (anti-depressant), and non pharmacology therapy that includes behavioral approaches, cognitive approach, and relaxation.

According to Pujiastuti (2013) suggests that one type of therapy that can cause relaxation that can reduce stress and not yet widely applied in Indonesia is yoga exercises is a holistic intervention that combines posture (asana), breathing techniques (pranayama) and meditation that can provide tranquility mind.

P-ISSN: 2086-2555; E-ISSN: 2622-7363

According to the medical record of the Special Hospital of South Sulawesi Province the number of mental disorders patients has increased from year to year this is evidenced in 2005 there are about 400 people with mental disorders, in 2006 rose to 563 patients and in 2007 increased to 592 people. And the most cowardly is the data in 2011 where the increase in mental disorder presentation as many as 11,353 people. Objective To find out complementary therapies of yoga meditation on stress patient in Soul Polyclinic of Special Hospital of South Sulawesi Province.

#### RESEARCH METHODS

Research Design Research Instruments True Experimental Design Design True Experimental Design is an experimental research design that investigates possible causal relationships in which there are actually treatment groups and control groups, and compares treatment outcomes with controls not subject to treatment conditions. In this study all external variables can be controlled so that this design can be known the method used is Pre-test-Post-test Control Group Design. Research subjects of all stress patients who came to visit in polyclinic special hospital in South Sulawesi province amounted to 60 Orang (Sugiono, 2011).

Data processing, after data collection is done data processing through stages: editing, coding, scoring and data entry, tabulation data. Data analysis, after data collection, then performed data analysis in two stages, namely univariate analysis. Univariate analysis was performed on each variable of the research result. Bivariate analysis is conducted to determine whether there is influence between independent variables with dependent variable. Bivariate analysis in this study was conducted to determine the effect of yoga therapy on stress patients by looking at pre and post-test. Data analysis using statistical test t-test dependent (Sugiyono, 2010). Data analysis is done to process data in a form that is easier to read and interpreted and to test statistically the hypothesis that has been determined (Sumantri, 2011). Analysis of this research data using: bivariate analysis is an analysis to know the interaction of two variables, either in the form of comparative, associative, or correlative (Saryono, 2011). Bivariate analysis in this research is to know the difference of stress level before doing yoga gymnastics and after doing yoga gymnastics by using statistical test statistic Mann Whiteteney used to know influence of therapy meditation therapy yoga against stress patient test Wilcoxon

#### **RESULTS AND DISCUSSIONS**

1. Level of Stress on Pre-Test Group Without Intervention and Intervention Group of Stress Patients Special Hospital Area of South Sulawesi Province.

Stress Level	Without Intervention		Intervention		
	F	%	F	%	
Light Stress	12	40	15	30	
Medium Stress	13	43,3	11	36,7	
Stress is Heavy	5	16,7	3	10	
Heavy Stress	-	-	1	3,3	
Total	30	100	30	100	

Source: Primary Data, 2016

The table above shows that of 30 non-intervention group respondents and 30 respondents in the intervention group there were 12 people (40%) of the group without intervention and 15 (30%) were mildly stressed, 13 (43.3%) without intervention and 11 people (36,7%) moderate stress intervention group, 5 people (16,7%) group without intervention and 3 person (10%) intervention group that had severe stress and no group respondents without intervention experienced severe stress, whereas there was 1 person (3.3%) of the intervention group who experienced severe stress.

2. Stress Levels on Post-test Group Without Intervention and Intervention Group of Stress Patients Special Hospital Region of South Sulawesi Province.

	Without I	ntervention	Intervention		
Stress Level	F	%	F	%	
Light Stress	9	30	27	90	
Medium Stress	17	56,7	1	3,3	
Stress is Heavy	4	13,3	2	6,7	
Heavy Stress	-	-	-	-	
Total	30	100	30	100	

Source: Primary Data, 2016

The table above shows that of 30 non-intervention group respondents and 30 respondents in the intervention group there were nine (30%) groups without intervention and 27 (90%) of the mildly stressed intervention group. 17 people (56,7%) group without intervention and 1 person (3,3%) intervention group having medium stress. 4 people (13.3%) of the group without intervention and 2 (6.7%) of the intervention group who had severe stress and no group respondents without intervention and the intervention group that experienced the stress was very heavy.

To know whether or not the influence of complementary therapies of yoga meditation on stress patient in Soul Polyclinic of Special Area Hospital of South Sulawesi Province, analyzed using Wilcoxon test. Influence is said to be significant if significance value > 0,05, and vice versa is not significant if significance value < 0,05. The results of the wilcoxon test on the research data are shown as follows:

Pre-test and post-test in group without intervention of stress patient in soul polyclinic of Special Hospital of South Sulawesi Province showed result of analysis test using wilcoxon got data that Asymp value. Sig. (2-tailed) for stress level at pre-test and post-test of 0,414 with  $\alpha$  = 0,05. The table above also shows the value of Z = -0.816 with a degree of significance of 0.05. These results indicate that Ha is rejected and Ho is accepted which means no difference in average stress level in pre-test and post-test group without intervention. While Pre-test and Post-test on Group of Patient Intervention Patient Special Hospital Area of South Sulawesi Province. Result of analysis test using Wilcoxon got data that Asymp value. Sig. (2-tailed) for stress level on pre-test and post-test of 0.002 with  $\alpha$  = 0,05. The table above also shows the value of Z = -3.095 with a degree of significance of 0.05. These results indicate that Ha is accepted and Ho is rejected which means there is a difference in average stress level in pre-test and post-test intervention group.

The Mann Whiteney test is a nonparametric test used to test whether two independent samples are derived from the same population. The population of the first sample differs from the second sample population so that the two samples are independent (Whitney, 1947)

Picture of test results Mann Whiteney pre-test group without intervention and group Intervention Patient Stress Special Hospital Region of South Sulawesi Province got data that Asymp value. Sig. (2-tailed) for stress levels in pre-test in the group without intervention and intervention group of 0.479 with  $\alpha$  = 0.05. The table above also shows the value of Z of -0.709 with a degree of significance of 0.05. These results indicate that Ha is rejected and Ho is accepted which means there is no difference in average stress level in the group without intervention and intervention group at pre-test.

While post-test group data without intervention and group of Patient Stress Interference of Special Hospital Area of South Sulawesi Province using Mann Whiteney got data that Asymp value. Sig. (2-tailed) for stress levels in the pre-test in the group without intervention and the intervention group of 0,000 with  $\alpha$  = 0.05. The table above also shows the value of Z of -4.335 with a degree of significance of 0.05. These results indicate that Ha is accepted and Ho is rejected which means there is an average difference in stress level in the group without intervention and intervention group at post-test.

# a. Cross tabulation

It is one of the correlational analyzes used to look at relationships between variables (at least 2 variables) of nominal or ordinal categories. It is also possible to add control variables (C. Trihendradi, 2011). Here are the results of cross-tabulation in this study:

P-ISSN: 2086-2555; E-ISSN: 2622-7363

Table 5.10 Pretest Results Without Intervention Postest Without Intervention Crosstabulation Stress Patients Regional Specialized Hospital South Sulawesi Province

			POST"			
			Light Stress	Mediu m Stress	Heavy	· Total
PRETEST WITHOUT INTERVE NTION	Light	Count	8	4	0	12
	Stress	% of Total	26.7%	13.3%	0.0%	40.0%
	Mediu	Count	1	12	0	13
	m Stress	% of Total	3.3%	40.0%	0.0%	43.3%
	Heavy	Count	0	1	4	5
	Stress	% of Total	0.0%	3.3%	13.3%	16.7%
Total Count		9	17	4	30	
		% of Total	30.0%	56.7%	13.3%	100.0 %
<i>c</i> <b>D</b> :	ъ.	204 (		•		

Source: Primary Data, 2016

Based on table 4:11 from 30 respondents at the pre-test there are 12 people who experience mild stress, after the post-test to 9 people. For moderate stress from 30 respondents at pre-test there were 13 people after post-test to 17 people. For severe stress from 30 respondents at the time of pre-test there are 5 people, after the post-test to 4 people.

Table.5.11 Pretest Intervention Results Post-test Intervention Cross tabulation Patient Stress Regional Special Hospital South Sulawesi Province

			POSTTEST INTERVENTION			
			Light		Heav	Total
			Stres	Mediu	y	
			S	m Stress	Stress	
PRETEST	Light	Count	15	0	0	15
INTERV ENTION	Stress	% of Total	50.0	0.0%	0.0%	50.0%
•	Medium	Count	9	1	1	11
	Stress	% of Total	30.0 %	3.3%	3.3%	36.7%
•	Heavy	Count	3	0	0	3
	Stress	% of Total	10.0 %	0.0%	0.0%	10.0%
•	Very	Count	0	0	1	1
	Heavy Stress	% of Total	0.0%	0.0%	3.3%	3.3%
Total Count % of Total		27	1	2	30	
			90.0 %	3.3%	6.7%	100.0 %

Source: Primary Data, 2016

Based on table 4:11 from 30 respondents at the time of pre-test there are 11 people who experience mild stress, after being given intervention therapy complementary meditation yoga, post-test results to 27 people. For moderate stress from 30 respondents at pre-test there were 11 people after being given intervention therapy complementary yoga meditation, post-test result to 1 person. For the severe stress of 30 respondents at the time of pre-test there were 3 people, after being given intervention therapy complementary yoga meditation, post-test result to 2 people. For very heavy stress from 30 respondents at the time of pre-test there is 1 person, after being given intervention therapy complementary meditation yoga, post-test result to 0 people.

#### RESEARCH DISCUSSION

Univariate analysis in the study was used to provide an overview of stress levels in stress patients before and after being given complementary therapies of yoga meditation at the psychiatric polyclinic of the special hospital area of southern Sulawesi province. The picture is as follows:

1. Description of stress level in pre-test group without intervention and patient intervention group Stress of special hospital area of South Sulawesi province before being given complementary therapy Yoga Meditation

Result of analysis test using Mann Whiteney got data that Asymp value. Sig. (2-tailed) for stress levels in pre-test in the group without intervention and intervention group of 0.479 with  $\alpha$  = 0.05. The table above also shows the value of Z of -0.709 with a degree of significance of 0.05. These results indicate that Ha is rejected and Ho is accepted which means there is no difference in average stress level in the group without intervention and intervention group at pre-test.

These results provide an illustration that in two groups of stress patients, the intervention group and the group without intervention with a sample size of 60 people consisting of 30 respondents of the intervention group and 30 respondents in the group without intervention from the results of table 5.4. Intervention of the intervention group showed that there were 12 people (40%) of the group without intervention and 15 people (30%) of the intervention group who experienced mild stress. 13 people (43,3%) group without intervention and 11 people (36,7%) intervention group having moderate stress, 5 person (16,7%) group without intervention and 3 people (10%) intervention group experiencing stress heavy and no group respondents without severe stress intervention, whereas 1 person (3.3%) of the intervention group experienced severe stress. So each group shows that the stress level is still high. This means that the individual has not been able to cope with the stressor so as not to adapt to the stress conditions experienced.

The high incidence of stress in Indonesia is also the reason why stress should be prioritized handling because in 2008 recorded about 10% of the total population of Indonesia experiencing mental disorders or stress. Stress according to Hawari (2008) is a reaction or response to psychosocial stressors in the form of mental stress or burden of life. Stressor in the stress patient is any circumstance or event that causes a change in a person's life, so the person is forced to make an adaptation or adjustment to deal with it. However, not everyone is able to adapt and overcome the stressor, resulting in complaints such as stress, anxiety and depression (Hawari, 2008).

Man must always adapt to the ever-changing world life. Man, as he exists in a space and time, is the result of interaction between the physical, the spiritual and the environment. These three elements affect each other. In the face of all problems, we must consider the three elements as something that is holistic. As a result, humans are called somato-psycho-social living beings.

Therefore, if there is a physical disorder, there will be a physical or somatic adjustment effort. Similarly, if there is interference with the spiritual element will occur psychological adjustment effort. The efforts of the individual to overcome stress in

order to occur a continuous balance within certain limits and still can maintain life called home static (Sunaryo, 2013).

2. Patient Stress Overview After being given Complementary Therapy Yoga Meditation at the psychic clinic of special hospital of South Sulawesi province

Table 5.7. shows The results of the test analysis using Wilcoxon data obtained that the value Asymp. Sig. (2-tailed) for stress level on pre-test and post-test of 0.002 with  $\alpha$  = 0.05. The table above also shows the value of Z = -3.095 with a degree of significance of 0.05. These results indicate that Ha is accepted and Ho is rejected which means there is a difference in average stress level in pre-test and post-test of intervention group.

Yoga complementary therapy was divided into 2 groups, group A with the number of 15 people given yoga intervention for 3 days include: Friday, Monday, and Wednesday. While group A given Yoga exercises intervention as much as 3 times include: Saturday, Tuesday, and Thursday. Implementation of yoga exercises conducted from 9:00 to 12:00 hours.

From the results of the above analysis can be concluded that there are differences in decreased levels of stress in the intervention group, the pre-test and post-test. The decrease in stress levels in the intervention group was the result of complementary yoga therapy performed by stressful patients in the psychiatric clinics of special hospitals in South Sulawesi province. In this respondent client still get pharmacology therapy given by doctor of soul expert, besides client also get non pharmacology with complementary therapy of yoga meditation.

Complementary therapy of yoga in the world of nursing is known as complementary therapy. Complementary therapy is a way of treating the disease as a support to Conventional Medical Treatment or as a Treatment Another option outside of Conventional Medical Treatment, this is in line with the picture written in the compass magazine that Yoga complementary therapy has been proven to reduce the stress level it is described in compass magazine March (2013), Data in the United States shows 3% of patients there doing body and soul balance therapy because of the recommendation of his doctor. In 2007, 38 percent of Americans used alternative and complementary medicine. Body and soul balance therapies, such as yoga or tai-chi that became known since 2002, are now gaining popularity by up to 75%. After being surveyed, more than 3 percent of people did therapy at the doctor's recommendation. The study was conducted based on the 2007 National Health Interview Survey of 23,000 households. The survey results show that 6.3 million people use body and soul balance therapy based on doctors' recommendation and 34.8% do so on their own initiative. The doctors advise patients to do complementary therapies as a last resort when conventional therapies fail. Therefore we suspect if complementary therapy is done

P-ISSN: 2086-2555; E-ISSN: 2622-7363

early, it may be better, "said Dr. Aditi Nerurkar from Harvard Medical School who conducted this research.

Now more and more doctors are not only relying on pharmaceutical drugs to cure their patients, but also complementary therapies such as yoga or meditation. The same trend can also be seen in urban areas in Indonesia. Although not recommended physicians, complementary therapies such as yoga or meditation are now increasingly easy to find, even included in programs in fitness centers.

According to dr. Surjo Dharmono, Sp.KJ (K) from the Department of Psychiatry, Faculty of Medicine, University of Indonesia "Therapies such as meditation are recommended to patients not to cure the illness the goal is to reduce the stress of the illness. As stress decreases, the immune system will increase so that the disease is expected to recover faster ".

3. Effect of Complementary Therapy Yoga Meditation Before Given and After Given Intervention in Stress Patients at the psychic clinics of the special hospital area of southern Sulawesi province.

From Table 5.9. Result of analysis test using Mann Whiteney got data that Asymp value. Sig. (2-tailed) for stress levels in the pre-test in the group without intervention and the intervention group of 0,000 with  $\alpha$  = 0.05. The table above also shows the value of Z of -4.335 with a degree of significance of 0.05. These results indicate that Ha is accepted and Ho is rejected which means there is an average difference in stress level in the group without intervention and intervention group at post-test.

This table gives us an idea that there are two groups in this study, the respondents treated only with pharmacological therapy, and one group of respondents treated with pharmacological therapy and complementary therapies of yoga meditation. The results showed that the group given pharmacological therapy and complementary therapies had a higher cure rate than the group of respondents who received only pharmacological therapy.

Based on table 5.11 from 30 respondents at the time of pre-test there are 11 people who experience mild stress, after being given intervention therapy complementary meditation yoga, post-test result to 27 people. For moderate stress from 30 respondents at pre-test there were 11 people after being given intervention therapy complementary yoga meditation, post-test result to 1 person. For the severe stress of 30 respondents at the time of pre-test there were 3 people, after being given intervention therapy complementary yoga meditation, post-test result to 2 people. For very heavy stress from 30 respondents at the time of pre-test there is 1 person, after being given intervention therapy complementary meditation yoga, post-test result to 0 people.

P-ISSN: 2086-2555; E-ISSN: 2622-7363

The result of the above analysis gives an overview of respondents who experience stress after being given yoga exercises for 3 days, there are changes that occur in the stress level seen from the post-test questionnaire and physiological response of the intervention group that is in the post-test questionnaire decreased the stress level.

Decreased stress are supported by the theory that yoga exercises can stimulate endorphin hormone expenditure. Endorphin is a Neuro peptide produced by the body during relaxation. Endorphins are produced in the brain and spinal cord. This hormone can function as a natural sedative produced by the brain that gives birth to a sense of comfort and increase levels of endorphins in the body to reduce high blood pressure. When a person does gymnastics, then b-endorphin will come out and be captured by receptors in the hypothalamus and limbic system that serves to regulate emotions (Pujiastuti, 2013).

### CONCLUSION

- 1. Pre-test results in 30 respondents in the intervention group and 30 in the group without intervention showed that Ha rejected and Ho accepted which means there is no difference in the average level of stress in the group.
- 2. To know the picture of stress patient after being given complementary therapy of yoga meditation in the soul polyclinic at a special hospital area of south sulawesi province. Result of analysis test using wilcoxon got data that Asymp value. Sig. (2tailed) for stress level on pre-test and post-test of 0.002 with  $\alpha$  = 0,05. The table above also shows the value of Z = -3.095 with a degree of significance of 0.05. These results indicate that Ha is accepted and Ho is rejected which means there is a difference in average stress level in pre-test and post-test intervention group. intervention and intervention groups during pre-test.
- 3. To know the effect of complementary therapies of yoga meditation before being given and after being given intervention on stress patient in policlinic of soul of special hospital area of province of South Sulawesi. From result of analysis test using Mann Whiteney got data that Asymp value. Sig. (2-tailed) for stress levels in the pre-test in the group without intervention and the intervention group of 0,000 with  $\alpha$  = 0.05. And also shows the value of Z amounted to -4.335 with a degree of significance of 0.05. These results indicate that Ha is accepted and Ho is rejected which means there is an average difference in stress level in the group without intervention and intervention group at post-test.

The above statistical test results give us an idea that there are two groups in this study, that is the group of respondents treated only with pharmacology therapy, and one group of respondents treated with pharmacology therapy and complementary therapies of yoga meditation. The results showed that the group given pharmacological therapy and complementary therapies had a higher cure rate than the group of respondents who received only pharmacological therapy.

#### **BIBLIOGRAPHY**

Daley, D. (2011). 30 Menit untuk Bugar dan Sehat. Jakarta: Bhuana Ilmu.

Damaiyanti D. (2013). Buku Pintar Perawat Profesional Teori & Praktik Asuhan keperawat. Yogyakarta: Mantra Books

Damaiyanti, M & Iskandar. (2012). Asuhan Keperawatan Jiwa. Bandung: Refika Aditama.

Lebang, E. (2014). Yoga Sehari-hari. Yogyakarta: Pustaka Bunda.

Hidayat A, A. (2007). *Metodologi Penelitian Keperawatan & Teknik Analisa Data*. Jakarta: Salemba Medika.

Hidayat A, A. (2016). Riset Keperawatan dan Teknik Penulisan Ilmiah. Jakarta: Salemba Medika

Notoatmodjo, S. (2012). Metodologi Penelitian Kesehatan, ed. rev. Jakarta: Rineka Cipta.

Prayitno, B. (2014). Meditasi Penyembuhan dari Dalam. Jakarta: Flashbooks.

Purba J. M, dkk. (2008). Asuhan Keperawatan pada Pasien dengan Masalah Psikososial dan Gangguan Jiwa. Medan: Usu Press.

Riyadi, S dan Purwanto, T. (2009). Asuhan Keperawatan Jiwa. Yogyakarta: Graha Ilmu.

Rokhmah, R, N. (2010). *Hubungan Meditasi Dalam Yoga dengan Daya Tahan Terhadap Stress Pada Paguyuban*. Yogiswaran Surakarta. http://etd.eprints. ums.ac.id/858/. Diakses jumat 7 Februari 2018.

Siska, C. (2010). Statistik Kesehatan. Edisi Revisi. Jakarta: Rajawali Pers.

Yosep, I. (2009). *Keperawatan Jiwa*. Bandung: PT Refika Aditama.