The Impact of Using the Mental Health Smart Book (BISAA) to Increase Physical, Psychological, Social, and Spiritual Life Qualities in the Elderly

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Abstract: The elderly are at risk of stress because of the physical, psychological, and social changes that they experience. Intervention is needed to increase the physical, psychological, social, and spiritual life qualities of the elderly. One of the interventions is stress management, taught through health education by using the mental health smart book (*Buku Pintar Sehat Jiwa Lansia*/ BISAA). This study aimed to analyze the effect of BISAA in increasing the physical, psychological, social, and spiritual qualities in the elderly. A Quasi-experiment research design was used in this study. The target population were 744 elderly people; the affordable population were 80 elderly people and the sample comprised of 16 elderly selected by purposive sampling. The independent variable was health education with BISAA. The dependent variables were the physical, psychological, social, and spiritual qualities of life. Data were collected using a questionnaire regarding physical, psychological, social, and spiritual qualities. The study was analyzed using the Wilcoxon Signed Rank Test and the Mann Whitney U test with a significance level of $p \leq 0.05$. The results from the Wilcoxon Signed Rank Test indicated that physical quality $p = 0.014$, psychological quality $p = 0.011$, social quality $p = 0.020$, and spiritual quality $p=0.008$. In addition, the statistical test results from the Mann Whitney U test for physical quality indicated $p = 0.028$, psychological quality $p = 0.012$, social quality $p = 0.020$, and spiritual quality $p = 0.014$. Based on these results, it can be concluded that BISAA can increase the physical, psychological, social and spiritual qualities in elders, the most dominant of which is the psychological quality. Further research is expected to analyze the effect of BISAA to increase the environment quality for the elderly.

1 BACKGROUND

The aging process is a process that continues naturally. The consequence of that process gives rise to changes in the elderly, including physical, psychological, and social changes (Azizah, 2011; Joseph, 2015). Such changes can impact on the health of the elderly because every change can be a stressor (a source of stress) that requires elderly people to adapt (Idris, 2015). When elderly people suffer from stress, their quality of life deteriorates, hence there is a need for others to support them and help them cope with stress. Stress management can help the elderly by modify various behaviors that are risky to health and so improve the quality of life (Edelman & Mandle, 2010).

The World Health Organization (WHO) (2013) explained that in Southeast Asia, the elderly population accounts for 142 million people or 18% of the. It is estimated that by 2050, the elderly population will have increased three times from this year (Kemenkes, 2013). According to the National Socioeconomic Survey (susenas) in 2014, the number of elderly people in Indonesia reached 20.24 million people or around 8.03% of Indonesia's total population (Kemenkes, 2016). The number of elderly people in Indonesia by 2021 is estimated to reach 30.1 million people; for these figures, Indonesia is ranked fourth in the world after China, India and the United States. By 2050 the number is expected to increase to more than 50 million people (Kemenkes, 2013).

According to data obtained from the Surabaya City Health Office, the number of elderly people in

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East Java in 2013 was 4,210,339 people. The number of elderly people in Surabaya in 2014 was 228,798 people, compared 217,116 people in 2013. The number of elderly people in the District of Tambak Sari in 2014 was 18,584 people. According to data obtained from the Pacarkeling Community Health Centre in 2016, the number of elderly people in the working area of Pacarkeling Community Health Center was 1,424 people. There were 744 elderly people in Pacarkeling Village and 680 elderly people in Pacarkembang Village. The number of elderly in RW IX Pacarkeling was 80.

The Basic Health Research Data (Riskesdas) in 2007 indicated that the prevalence of mental emotional disorders increases with age. In the age group 55–64 years, the prevalence of emotional mental disorders is 15.9%. This number increases in the age group 65–74 years to 23.2% (MOH, 2008). The survey was conducted by researchers at the Pacarkeling Community Health Centre, Surabaya on May 10, 2016. The Elderly Visiting Elderly Integrated Service Post (Posyandu) is more focused on physical complaints and physical examinations such as weighing, height measurements, and blood pressure and does not check mental status. The results of the preliminary survey supplied physical, psychological, social, and spiritual quality questionnaires to 43 elderly people who visited the Elderly Integrated Service Post (Posyandu) in Seroja RW IX Pacarkeling Surabaya indicated that there are no elderly people whose physical, psychological, social, and spiritual quality are very good.

If the stress on elderly people is not immediately addressed, it could cause an impact on the elderly in the form of physical illness, psychological, social, and spiritual problems. Physical diseases caused or exacerbated by stress are arteriosclerosis, heart attacks, cancer, respiratory disorders, bone loss, nausea, diarrhea, hypertension, and strokes. Sexual disorders and diabetes mellitus also appear due to stress (Losyk, 2005; Sukadiyanto, 2010). Psychological problems in the elderly include sleeping disorders (insomnia), depression, and even suicide. Social problems that can arise include the decline of personal relationships and withdrawal from others (rather than seeking social support). Spiritual problems are marked by a decline in religious beliefs. The impact of stress can ultimately reduce the quality of life for elderly people (Losyk, 2005).

According to the WHOQOL-SRPB BREF, the quality of life domain includes five elements: physical, psychological, social, environmental, and spiritual (Skevington, 2013). Most researchers measure quality of life using the physical, psychological, social and environmental quality domains. In addition to the four domains, spiritual quality is very important because individuals who have good spiritual qualities will live a life in harmony both as a person and as part of the social environment and will live peacefully because they feel close to God. Spirituality is also a reflection of cultural heritage for the Indonesian nation and is believed to contain noble values and norms that are obeyed by society, impacting greatly on life (Imaddudin, 2015). Improving elderly people's quality of life of the enables them to enjoy their old age with full meaning, happiness, health, independence, productivity, usefulness, and prosperity (Kemenkes, 2013).

Stress management can be taught to elderly people through a variety of media, including via a book described as the media of elderly mental health smart book (BISAA). The book contains information about the elderly, healthy elderly souls, stress, and stress management. Stress management, which is easy to apply to the elderly, includes using mini relaxation, a healthy diet, physical activity, social support, spiritual practice, and humor. This book also features the Healthy Elderly Card (KMS) that can be completed when visiting the Elderly Integrated Service Post (Posyandu).

Based on the chronology of the problems described above, the researcher is interested in conducting research on "The Influence of Elderly Mental Health Smart Book (BISAA) on Improving Physical, Psychological, Social and Spiritual Quality at the Elderly Integrated Service Post (Posyandu) Seroja RW IX Pacarkeling Surabaya."

2 METHODS

The method used in this research was the Quasi Experiment with a pre-post test group control design. The target population were the elderly in Pacarkeling Surabaya, of which there are 744, and the reachable population of the elderly in RW IX Pacarkeling Surabaya amounted to 80 people. The inclusion criteria in this study were the elderly who visited the Elderly Integrated Service Post (Posyandu) Seroja RW IX Pacarkeling Surabaya, aged 64–74 years, have very bad, bad, moderate or good physical, psychological, social, and spiritual qualities, and be able to read. The exclusion criteria were elderly people with hearing loss.

A purposive sampling technique was used. Sixteen elderly samples were divided into two

Table 1: Demographic Characteristic Data of the Respondents.

Data	Category	Treatment Group		Control Group	
		f	%	f	%
Sex	Male	2	25	3	37.5
	Female	6	75	5	62.5
Total		8	100	8	100
Age	60–64	4	50	4	50
	65–69	2	25	1	12.5
	70–74	2	25	3	37.5
Total		8	100	8	100
Education	Did not go to School	0	0	0	0
	Elementary School	3	37.5	3	37.5
	Junior High School	2	25	2	12.5
	Senior High School	3	37.5	3	37.5
	Undergraduate Study	0	0	0	0
Total		8	100	8	100
Marital Status	Unmarried	0	0	0	0
	Married	5	62.5	5	62.5
	Widowed	3	37.5	3	37.5
Total		8	100	8	100

Table 2: Physical Quality Distribution of the Respondents.

Physical	Treatment				Control			
	Pre-Test		Post-Test		Pre-Test		Post-Test	
	f	%	f	%	f	%	f	%
Very Bad	0	0	0	0	0	0	0	0
Bad	0	0	0	0	2	25	0	0
Moderate	5	62.5	1	12.5	3	37.5	5	62.5
Good	3	37.5	5	62.5	3	37.5	3	37.5
Very Good	0	0	2	25	0	0	0	0
Total	8	100	8	100	8	100	8	100

groups: the treatment and control groups; each group had a total of eight elderly people. The independent variable is health education using the elderly mental health smart book (BISAA). The dependent variables are the physical, psychological, social, and spiritual qualities. The instrument used is the SAP (Counseling Event Unit), Elderly Mental Health Smart Book (BISAA), which contains about elderly, healthy soul elderly, stress management, Elderly Health Card (KMS) and a questionnaire consisting of two parts: demographic data questionnaire (gender, age, last education, and marital status) and valid and reliable physical, psychological, social, and spiritual quality questionnaires.

The study was conducted over three weeks. The pre-test used physical, psychological, and spiritual quality questionnaires using door to door collection for the treatment and control group the day before the health education mental health smart book (BISAA) was given to the elderly pariticpants. Intervention was held once a week as many as 3 times of treatment group meeting at Elderly Integrated Service Post (Posyandu) Seroja RW IX Pacarkeling Surabaya. Subsequently a post-test was conducted using a physical, psychological, social, and spiritual quality questionnaire for both groups through door to door collection one week after the third meeting. The collected data were analyzed using the Wilcoxon Signed Rank Test and the Mann Whitney U test with $p \leq 0$.

3 RESULTS

3.1 Respondents' Demographic Characteristics

Table 1 shows that females dominated both the treatment and control groups. In the treatment group there were six female respondents (75%) and in the control group there were five female respondents (62.5%). Half (four) of the respondents in both groups were aged 60–64 (50%). Three (37.5%) respondents in each group had an elementary school and senior high school education background. Most elderly respondents (five) in both groups were married (62.5%).

3.2 Measured Variables

3.2.1 Physical Qualities

Table 2 indicates that physical quality was moderate for most (five or 62.5%) respondents before the intervention was provided to the treatment group. The pre-test in the control group showed that many (three or 37.5%) elderly respondents had medium and good physical qualities. Following the intervention, most elderly respondents (five or 62.5%) had good physical qualities while most of the respondents in the control group had moderate physical condition (five or 62.5%).

Table 3: Data Result of the Pre-test and Post-test in Physical Quality.

Respon-dent	Treatment		Control	
	Pre-Test	Post-Test	Pre-Test	Post-Test
1	Moderate	Good	Bad	Moderate
2	Moderate	Good	Moderate	Moderate
3	Moderate	Good	Good	Good
4	Moderate	Moderate	Moderate	Moderate
5	Good	Very Good	Good	Good
6	Good	Very Good	Moderate	Moderate
7	Good	Good	Good	Good
8	Moderate	Good	Bad	Moderate
Wilcoxon Signed Rank	p = 0.014		p = 0.157	
Mann Whitney U Test	Post-Test p = 0.028			

From Table 3 it can be seen that physical qualities in the treatment group, after being provided with health education using the elderly mental health smart book (BISAA), mostly increased to six (75%). The results of the analysis using the Wilcoxon Signed Rank Test in the treatment group obtained a sig value (2-tailed) of p = 0.014, so p <0.05. These results indicate that there is a difference between the physical quality before and after being given health education by the elderly mental health smart book (BISAA) in the treatment group.

In the control group, most (six or 75%) of the respondents did not indicate a difference in the physical quality between the pre-test and post-test results. The statistical test results using Wilcoxon Signed Rank Test in the control group obtained a sig value (2-tailed) of p = 0.157 so p> 0.05. These results indicate that there is no difference in physical quality between the pre-test and post-test in the control group.

Statistical test results using the Mann Whitney U Test sig (2-tailed) value was p = 0.028 so p <0.05. These results indicate that there is a difference between the physical quality of the treatment group and the control group.

3.2.2 Psychological Qualities

Table 4 indicates that most respondents (five or 62.5%) in the treatment group demonstrated moderate psychological qualities before the intervention. In the control group, half (four or 50%) demonstrated moderate psychological qualities. After the intervention, half (four or 50%) of

Table 4: Psychological Quality Distribution of the Respondents.

Psycho-logical	Treatment				Control			
	Pre-Test		Post-Test		Pre-Test		Post-Test	
	f	%	f	%	f	%	f	%
Very Bad	0	0	0	0	0	0	0	0
Bad	0	0	0	0	1	12.5	0	0
Moderate	5	62.5	1	12.5	5	62.5	5	62.5
Good	3	37.5	4	50	2	25	3	37.5
Very Good	3	37.5	4	50	2	25	3	37.5
Total	8	100	8	100	8	100	8	100

Table 5: Data Result of the Pre-test and Post-test in Psychological Quality.

Respon-dent	Treatment		Control	
	Pre-Test	Post-Test	Pre-Test	Post-Test
1	Moderate	Very Good	Moderate	Bad
2	Moderate	Good	Moderate	Moderate
3	Good	Very Good	Moderate	Good
4	Moderate	Moderate	Bad	Bad
5	Moderate	Good	Good	Good
6	Moderate	Good	Bad	Moderate
7	Good	Very Good	Good	Good
8	Good	Very Good	Moderate	Moderate
Wilcoxon Signed Rank	p = 0.011		p = 0.564	
Mann Whitney U Test	Post Test p = 0.012			

respondents in the treatment group demonstrated very good psychological qualities, while the post-test results in the control group showed that many respondents had moderate and good psychological qualities with three (37.5%) respondents for each.

Table 5 indicates that after being given intervention, the psychological qualities of elderly respondents increased to seven (87.5%). The results of the statistics test using the Wilcoxon Signed Rank Test in the treatment group obtained a sig value (2-tailed) of p = 0.011 so p <0.05. These results indicate that there is a difference between psychological qualities before and after the delivery of health education using the elderly mental health smart book (BISAA) with the treatment group.

In the control group, most participants (five or 62.5%) showed that the psychological qualities

between the pre-test and post-test did not change. Statistical test results using the Wilcoxon Signed Rank Test, in the control group, obtained a sig value (2-tailed)of p = 0.564 so p> 0.05. The results show that there was no difference in the psychological quality between pre-test and post-test in the control group. The statistical test results used the Mann Whitney U Test sig (2-tailed) with a value of p = 0.012 so p <0.05. These results indicate that there is a difference between the psychological qualities of the treatment group and the control group.

3.2.3 Social Qualities

Table 6 indicates that five (62.5%) elderly respondents demonstrated moderate social qualities before being provided with intervention in the treatment group and the same result was indicated in the pre-test in the control group. After the intervention was given, results for the the treatment group indicated that half (four or 50%) of responbdents had good social qualities while, in the post-test for the control group, most (five or 62,5%) indicated moderate social qualities.

From Table 7, it is evident that six (75%) eldely respondents indicated an increase in social qualities following the intervention. The results of the statistics analysis using the Wilcoxon Signed Rank Test for the treatment group obtained a sig value (2-tailed) of p = 0.020 so p <0.05. These results indicate that there is a difference between social qualities before and after the health education was delivered, using the elderly mental health smart book (BISAA) for the treatment group.

In the control group, most respondents (six or 75%) indicated no change in psychological qualities between the pre-test and post-test. Statistical test results using the Wilcoxon Signed Rank Test in the control group obtained a sig value (2-tailed) of p = 0.157 so p> 0.05. These results indicate that there is no social quality difference between the pre-test and post-test in the control group.

Statistical test results using the Mann Whitney U Test sig (2-tailed) value were p = 0.020 so p <0.05. These results indicate that there is a difference between the social qualities of the treatment group and the control group.

3.2.4 Spiritual Qualities

Table 8 indicates that half of the respondents (four or 50%) in the treatment group had good spiritual qualities before being given intervention and before the pre-test in the control group. Following the intervention, most (five or 62.5%) respondents' spiritual qualities in the treatment group were very good, while the post-test in the control group indicated that many (three or 37.5%) of elderly

Table 6: Social Quality Distribution of the Respondents.

Social	Treatment				Control			
	Pre-Test		Post-Test		Pre-Test		Post-Test	
	f	%	f	%	f	%	f	%
Very Bad	0	0	0	0	0	0	0	0
Bad	0	0	0	0	1	12.5	0	0
Moderate	5	62.5	1	12.5	5	62.5	5	62.5
Good	3	37.5	4	50	2	25	3	37.5
Very Good	0	0	3	37.5	0	0	0	0
Total	8	100	8	100	8	100	8	100

Table 7: The Data Result of the Pre-test and Post-test in Social Quality.

Respon-dent	Treatment		Control	
	Pre-Test	Post-Test	Pre-Test	Post-Test
1	Moderate	Good	Good	Good
2	Moderate	Good	Moderate	Moderate
3	Good	Good	Moderate	Moderate
4	Moderate	Moderate	Moderate	Moderate
5	Moderate	Good	Moderate	Moderate
6	Good	Very Good	Bad	Moderate
7	Good	Very Good	Good	Good
8	Good	Very Good	Moderate	Good
Wilcoxon Signed Rank	p = 0.020		p = 0.157	
Mann Whitney U Test	Post-Test p = 0.020			

Table 8: The Spiritual Quality Distribution of the Respondents.

Spiritual	Treatment				Control			
	Pre-Test		Post-Test		Pre-Test		Post-Test	
	f	%	f	%	f	%	f	%
Very Bad	0	0	0	0	0	0	0	0
Bad	1	12.5	0	0	1	12.5	1	12.5
Moderate	3	37.5	0	0	3	37.5	3	37.5
Good	4	50	3	37.5	4	50	3	37.5
Very Good	0	0	5	62.5	0	0	1	12.5
Total	8	100	8	100	8	100	8	100

Table 9: Data Result of the Pre-test and Post-test in Spiritual Quality.

Respon-dent	Treatment		Control	
	Pre-Test	Post-Test	Pre-Test	Post-Test
1	Moderate	Good	Good	Good
2	Good	Very Good	Moderate	Moderate
3	Moderate	Very	Moderate	Moderate
4	Bad	Good	Good	Good
5	Moderate	Good	Good	Good
6	Good	Very Good	Bad	Bad
7	Good	Very	Moderate	Moderate
8	Good	Very Good	Good	Very Good
Wilcoxon Signed Rank	p = 0.008		p = 0.317	
Mann Whitney U Test	Post-Test p = 0.014			

respondents have moderate and good spiritual qualities.

Table 9 indicates that after being given intervention in the treatment group, the spiritual qualities of all (eight or 100%) elderly people were good. The results of the statistics test using the Wilcoxon Signed Rank Test in the treatment group obtained a sig value (2-tailed) of p = 0.008 so p <0.05. These results indicate that there is a difference between the spiritual qualities before and after being given health education by the elderly mental health smart book (BISAA) in the treatment group.

In the control group most (seven or 82.5%) respondents' spiritual qualities between the pre-test and the post-test did not change. The results of the statistical test using the Wilcoxon Signed Rank Test in the control group, obtained a value of sig (2-tailed) at p = 0.317 so p> 0.05. These results indicate that there is no difference in the psychological qualities between pre-test and post-test in the control group.

The statistical test results using the Mann Whitney U Test sig (2-tailed) value was p = 0.014 so p <0.05. These results indicate that there is a difference between the psychological quality of the treatment group and the control group.

4 DISCUSSION

4.1 Physical Qualities

Table 2 indicates that most treatment group respondents' physical qualities were moderate before being provided with health education with the media of elderly mental health smart book (BISAA) as they sometimes have the ability to perform daily activities, and have enough energy and ability to carry out an activity. The pre-test in the control group showed that many respondents had moderate and good physical qualities, as they often have enough energy to perform the activity and sometimes feel satisfied.

After being given health education using the elderly mental health smart book (BISAA), it was determined that regarding the physical qualities of the treatment group, most (75%) experienced improvement, such as being more able to perform daily activities, have enough energy to carry out the activity, getting along with others, and satisfied by sleep. The post-test regarding physical qualities in the control group indicated that the majority of respondents (75%) did not change or remain the same as they often had enough energy to perform the activity and were sometimes satisfied with their sleep.

Mubarak (2007) describes health education as a dynamic process of behavior change. Stress management can improve physical qualities because of stress management strategies that conduct mini relaxation, healthy diet, and physical activity (Edelman & Mandle, 2010).

Mini relaxation can concentrate the mind so that the blood vessels can become more elastic. Circulation will be smoother so that the body becomes relaxed and warm; the work of the heart will feel lighter, which certainly affects the workings of other organs to improve physical qualities (Handoyo, 2004).

A healthy diet makes it is possible for the body to obtain good nutrition to improve physical functions and improve physical quality (Swarth, 2006). Scientists state that an active lifestyle and regular exercise can help prevent or delay the onset of illness and disability, increase appetite, help with the recovery of old diseases, increase energy, balance, immunity, and flexibility, thus improving physical quality (Hutapea, 2005).

In the treatment group there were elderly people whose physical qualities were the same as they were before intervention was given. This is because the elderly were not paying enough attention when the

intervention was given, and one of the elderly people had an elementary school educational background so was unable to absorb and understand the health education provided. In the control group there were elderly people whose physical quality increased even though they did not receive intervention. This is because the elderly have an awareness in maintaining their physical health and actively follow the elderly integrated service post (Posyandu) and avoid foods that can worsen their health condition.

4.2 Psychological Qualities

Table 4 determines that most respondents had moderate psychological qualities before being given health education through the elderly mental health smart book (BISAA), such as sometimes accepting their body appearance, having negative feelings (loneliness, despair, anxiety, and depression), and having positive feelings (happy and cheerful). The pre-test in the control group showed that half of the respondents had moderate psychological qualities such as having positive feelings (happy and cheerful), sometimes feeling satisfaction.

After being given the health education through elderly mental health smart book (BISAA), it was determined that most respondents (87.5%) in the treatment group the result is psychological quality in treatment group found that their psychological qualities, with indicators such as frequently accepting body appearance, never having negative feelings (loneliness, despair, anxiety, depression), frequently having positive feelings (happy and cheerful) and frequently demonstrating the ability to concentrate. The post-test of psychological qualities in the control group showed the majority (62.5%) did not change; some had positive feelings (happy and cheerful) and sometimes they were satisfied with themselves.

Mubarak (2007) describes health education as a dynamic process of behavior change. Stress management can improve psychological quality because of stress management strategies linked to carrying out mini relaxation, healthy diet, physical activity, and humor (Edelman & Mandle, 2010).

Mini relaxation can calm the mind, feeling, psychology, form mental resilience, accelerate healing and stress relief (depression), to improve psychological qualities (Handoyo, 2004). According to Swarth (2006) a healthy diet allows the body to obtain good nutrition that can improve the health conditions of the elderly to overcome stress and develop psychological qualities.

Physical activity can release endorphins from the brain, resembling the effects of morphine. Endorphins prompt feelings of comfort. Physical exercise also creates mental and emotional relief that helps a person cope and prevent stress to improve psychological qualities (Swarth, 2006).

In addition, individuals who have high levels of humor are known to cope better with stress, establish relationships with people around them, and are physically healthier. When an individual can cope well with stress, then feelings of disappointment or sadness that may arise as a result of a mismatch of expectations with reality are reduced, therefore individuals have good psychological qualities (Hardianti, 2014).

In the treatment group there were elderly people whose psychological qualities were the same before and after the intervention. This is because they were not paying enough attention during the intervention and had elementary school background, so had less ability to absorb the health education provided. In the control group there was an elderly person whose psychological quality increased, despite not receiving intervention. This is because the elderly person was aged between 60 and 64 and had a life partner, therefore the psychological quality was good and his high school educational background meant that he could understand various problems that could interfere with his psychological qualities and know how to handle them. Furthermore, there are elderly people in the control group who experienced a degradation in psychological qualities because they were often worried about their health condition; they are 74 years old and feel lonely because they do not have spouse or are widowed and live alone.

4.3 Social Qualities

Table 6 indicates that social qualities before the health education intervention using the elderly mental health smart book (BISAA) in group of treatment and pre-test in control group were mostly moderate. Respondents were sometimes satisfied with interaction from others and sometimes satisfied with the support given by a friend.

After being given health education using elderly mental health smart book (BISAA), it was found that social qualities in the treatment group had increased for 75% of the sample, relating to satisfaction in interacting with others and often feeling satisfied with the support given by friends. The post-test of social qualities in the control group indicated there was no change in the results.

Stress management can improve social qualities because stress management strategies seek to provide social support. Social support can be obtained by telling stories and talking about problems regarding the social environment with others, such as family, friends, and close relatives. Therefore they obtain suggestions and gain good advice, support, and assistance without criticism, ultimately improving social qualities (Edelman & Mandle, 2010).

In the treatment group there were elderly people whose social quality category was the same as before the intervention. This is because the elderly people were not paying enough attention during the intervention and they had an elementary school educational background so had less ability to absorb the provided health education. Furthermore, in the control group there were elderly people whose psychological qualities increased, although they did not recieve any intervention. This is because the elderly respondents' personalitieare likely to gather and interact with other elderly people.

4.4 Spiritual Quality

Table 8 indicates that before being given the health education using the elderly mental health smart book (BISAA), half of the respondents in the treatment group had good spiritual qualities, such as often feeling that worship activities would help his life be better, hoping and believing God would help with his life, and amazement about God's creation. The pre-test in the control group showed that half of the respondents also had good spiritual qualities.

After being given health education using the elderly mental health smart book (BISAA), it was determined that the spiritual quality in the treatment group all experienced improvement, and took part in activities such as worshipping every day, often feeling that the worship activities helped to improve life, always hoping and believing that God will support life, and always feel amazed by God's creation. A post-test of the spiritual qualities in the control group showed that the majority of respondents (82.5%) did not change, and took part in activities such as worshipping every day, often feeling that the worship activities helped to improve life, always hoping and believing that God will support life, and always feel amazed by God's creation.

Mubarak (2007) describes health education as a a dynamic process of behavior change. Stress management can improve spiritual qualities because one of the stress management strategies is to participate in spiritual practice by being closer to God Almighty through the practice of worship such as prayer, fasting, praying, and attending recitation (Edelman & Mandle, 2010).

In the control group there were elderly people whose spiritual qualities increased despite not receiving intervention. This is because some elderly personalities are always obedient to God and continually participate in worship.

5 CONCLUSIONS

Health education using the elderly mental health smart book (BISAA) has an influence on the improvement of physical, psychological, social and spiritual qualities in the elderly, and most significantly with psychological qualities.

Health officers can conduct health education at the Elderly Integrated Service Post (Posyandu) with the elderly mental mealth smart book (BISAA) to help improve the physical, psychological, social, and spiritual qualities of the elderly. Future researchers could identify the influence of the elderly mental health smart book (BISAA) on the improvement of environmental qualities in the elderly.

REFERENCES

Azizah, L. M. (2011). *Keperawatan Lanjut Usia Edisi Pertama*. Yogyakarta: Graha Ilmu.

Depkes RI. (2009). *Pedoman Pelayanan Kesehatan Jiwa Usia Lanjut Edisi 2*. Jakarta: Depkes Ditjen Pelayanan Medik.

Edelman, C. L. & Mandle, C. L. (2010). *Health Promotion throughout the Life Span. Missouri*: Mosby Elvesier.

Handoyo. (2004). *Meditasi*. Jakarta: Gramedia.

Hardianti, H. (2014). *Pengaruh Sense of Humor Terhadap Kualitas Hidup pada Lansia Pensiunan di Kota Malang*. Skirpsi. Malang: Universitas Brawijaya.

Hutapea, R. (2005). *Sehat dan Ceria di Usia Senja*. Jakarta: PT Rineka Cipta.

Idris, H., Bidjuni, H. & Karundeng, M. (2015). Perbandingan Antara Penerapan Terapi Okupasi dan Logoterapi terhadap Tingkat Stress Lansia di Panti Werdha Damai Perkamil Kecamatan Ranomuut Manado dan panti Werdha Senja Cerah Paniki Kecamatan Mapanget Manado. *ejournal keperawatan(e-Kp) Volume 3, Nomor 2.* http://ejournal.unsrat.ac.id/index.php/j kp/article/viewFile/8298/7857. Retreived 22 April 2016.

Imaddudin, A. (2015). Mengembangkan Kesejahteraan Spiritual Peserta Didik Sebagai Katalis Bangsa

Inovatif. *PEDAGOGIK Vol. III, No. 1*. http://ejournal-unisma.net. Retreived 28 April 2016.

Kementrian Kesehatan Republik Indonesia. (2013). *Pentingnya Peran Masyarakat dan Keluarga dalam Meningkatkan Kualitas Hidup Lansia*. Jakarta. www.depkes.go.id. Retreived 7 April 2016.

Kementrian Kesehatan Republik Indonesia. (2013). *Populasi Lansia Diperkirakan Terus Meningkat Hingga Tahun 2020*. Jakarta. www.depkes.go.id. Diakses pada tanggal 7 April 2016.

Kementrian Kesehatan Republik Indonesia. (2013). *Triple Burden Ancam Lansia*. Jakarta. www.depkes.go.id. Retreived 7 April 2016.

Kementrian Kesehatan Republik Indonesia. (2016). *Lansia yang Sehat, Lansia yang Jauh dari Demensia*. Jakarta. www.depkes.go.id. Retreived 7 April 2016.

Losyk, B. (2005). *Kendalikan Stres Anda! Cara Mengatasi Stres dan Sukses di Tepat Kerja*. Jakarta: PT Gramedia Pustaka Utama.

Mubarak, W. I. (2007). *Promosi Kesehatan Sebuah Pngantar Proses Belajar Mengajar dalam Pendidikan*. Yogyakarta: Graha Ilmu.

Skevington, S. M., Gunson, K. S. & O'connell, K. A. (2013). Introducing the WHOQOL-SRPB BREF: developing a short-form instrument for assessing spiritual, religious and personal beliefs within quality of life. *Quality of Life Research, 22 (5). pp. 1073-1083. ISSN 0962-9343*. http://opus.bath.ac.uk/31070/1/Skevington_Quality_of_life_research_2012.p df. Retreived 28 April 2016.

Sukadiyanto. (2010). Stress dan Cara Menguranginya. *Cakrawala Pendidikan, Th. XXIX, No. 1*. https://core.ac.uk/download/files/335/ 11061911.pdf. Retreived 9 Mei 2016.

Swarth, J. (2006). *Stress and Nutrition*. Jakarta : Bumi Aksara.

WHO. (2013). *World Health Organization* http://www.who.int//sunstanceabuse/researchtools. Retreived 22April 2016.

Yusuf, A., Fitryasari, R. & Nihayati, H. E. (2015). *Buku Ajar Keperawatan Kesehatan Jiwa*. Jakarta: Salemba Medika.

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