

The Influence of Progressive Muscle Relaxation Exercise with Gending Javanese Music Accompaniment on Elderly Sleep Quality Improvement

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Abstract

Elderly is considered as the final stage of development in the life cycle of human. The number of elderly is increasing every year both in the world and in Indonesia. In Indonesia itself, in 2020, it is estimated that the number of elderly is about 80,000,000. In the 21st century, the special challenges in the field of health from the increasing number of elderly are the emergence of degenerative problems and Non-Transmitted Diseases; one of them is being difficult to sleep. One of the non-pharmacological practices in improving the quality of elderly sleep is by performing progressive muscle relaxation techniques and listening to music. The goal to be achieved is to analyze the Influence of Progressive Muscle Relaxation with Gending Javanese Music Accompaniment on Elderly Sleep Quality Improvement. The research design used was pre experimental with One Group Pre-test-Post-test design. The sampling method was done by Purposive Sampling with 12 samples. The research result by using Wilcoxon statistical test obtained value $p = 0,003 < \alpha = 0,05$ which shows that the quality of elderly sleep improved. In the end, the conclusion of the present research is there is an influence of progressive muscle relaxation exercise with Gending Javanese music accompaniment on elderly sleep quality improvement. In addition, as suggestion, it is recommended to Wredha Nursing Home party to put the exercise into daily schedule of elderly, so that sleep quality problem in elderly can be improved.

Keywords: Sleep Quality, Relaxation, Progressive Muscle, Gending Javanese Music, Elderly.

I. INTRODUCTION

Elderly is recognized as the final stage of development in the life cycle of human. According to the World Health Organization (WHO), the elderly are divided into four criteria: middle age who are 45-59 years old, elderly who are 60-74 years old, old who are 75-90 years, and very old who are over 90 years (Priyantini & Dwiharini, 2012). In Indonesia's Law No. 13 of 1998 regarding the Welfare of Elderly in Chapter 1 Article 1 Verse 2, according to the Law, the elderly is someone who reaches the age of 60 years and over both men and women (Maryam, 2008). Elderly can be considered as golden age because not everyone can reach that age, then the elderly require promotive and preventive good nursing treatment, so that they can enjoy the golden age and become useful and happy elderly (Maryam, 2008). The existence of the elderly in Indonesia is characterized by life expectancy which increases from years to years; therefore, to increase the life expectancy, it needs maintenance support and health improvement in order to attain healthy, happy, efficient, and productive old age (Lin, et al, 1999).

The number of elderly is increasing every year both in the world and in Indonesia. The welfare increase both physical and psychological will increase life expectancy. The total of elderly all over the world in 2013 increased by 8.1% compared to 2012 according to the World Health Organization (WHO). According to WHO, in the Southeast Asia, the population of the elderly is at 8% or about 142 million inhabitant. By 2050, it is estimated that the population of the elderly increases 3 times from the present year. While, in Indonesia itself in 2020, it is estimated that the number of elderly is about 80,000,000. Indonesia is included into the top five countries with the highest number of elderly people in the world due to the increase of life expectancy. In 2000, the number of elderly was 5,300,000 (7.4%) of total population; while in 2010, the number of elderly was 24,000,000 (9.77%) of the total population; and in 2020, it is predicted that the elderly will reach 28,800,000 (11.34%) of the total population. Besides, in Indonesia itself, in 2020, it is estimated that the number of elderly will be about 80,000,000.

Indonesia is included into the top five countries with the highest number of elderly people in the world. The number of elderly people in Indonesia in 2013 increased by 0.89% compared to 2010. The development of elderly people number in Indonesia from year to year tends to increase. Indonesia is a country that enters to the era of aged structured population because the number of people aged 60 years and over is about 7.18%. The elderly population in Indonesia in 2006 amounted to approximately 19 millions with a life expectancy of 66.2 years. Based on the population census in 2010, the number of elderly in Indonesia was 18.1 million people (7.6% of the total population). In 2014, the number of elderly people in Indonesia became 18.781 million people and it is estimated in 2025, the number will reach 36 million people.

Aging is a gradual process of disappearance of the network's ability to repair, replace itself and maintain its normal structure and function (Drake et al, 2004). Aging is not a disease but is a gradual process of causing cumulative change, a process of decreasing body resistance in the face of internal and external stimuli that end in death. The process of becoming an advanced age is a natural process that will be undertaken by every human being, in this process many biologically, psychologically, socially, emotionally and spiritually changes (Darmojo, 2005).

Aging is a natural process that cannot be avoided. The aging process involves changes that will have an impact on the decrease of physical, mental, psychosocial, work-related changes and the social role of the elderly and the decrease of independence (Maryam, 2008). As a person gets older, his or her physical abilities will decrease further, resulting in a decline in his or her social roles (Achour et al, 2014). In the 21st century, the special challenges in the field of health from the increasing number of elderly are the emergence of degenerative problems and Non-transmitted Diseases, such as diabetes, hypertension, and mental health disorders of depression, dementia, anxiety disorders, sleeplessness. These diseases will cause problems if they are not prevented, because these will be chronic and multi-pathological diseases. Hence, the attention of all countries on these elderly problems should be focused because there will be a very large dependency of costs, in which the elderly usually have more than 10 diseases, such as sight impairment, hearing impairment, appetite, and sleep difficulty.

Elderly is a group of high risk age of sleep disorders caused by several factors, such as the changes in psychological and social aspects as well as age-related pathological process. According to the National Sleep Foundation, about 67% of 1.508 elderly people in the United States aged 65 years old and older report experiencing a sleep disorder and as much as 7.3% of elderly complain of starting and maintaining sleep disorder or insomnia (Wilsmore et al., 2013). The research result in Iran as much 86.2% of 390 elderly (199 men and 191 women) with an average age of 60 years or older expressed experiencing sleep disorders and more than half of the elderly took about 20 minutes to start falling asleep (Abrams & Berkow, 2013). Changes in the sleep quality of the elderly is also caused by the physical abilities of the elderly which are more decreasing. Physical abilities decrease is caused by the decrease of organ abilities, such as heart, lung, and kidney. The organ abilities decrease makes immune system and body endurance are also affected. On the elderly group (60 years), it is found that 7% cases complain about sleep problems (sleep only no more than five hours a day). The same case was found in 22% cases in the 70-year-old age group, the older elderly complained more on waking up earlier and 30% of the elderly group wake up at night. This figure is seven times higher than the age group of 20 years (Nugroho, 2010).

Normal sleep changes in the elderly are decreased in *Non Rapid Eye Movement* (NREM) 3 and 4, the elderly have almost no stage 4 or night sleep (Potter and Perry, 2006). Changes of elderly sleep pattern is caused by changes in neurological systems that will physiologically decrease the number and the size of neurons in the central nervous system. This makes the function of neurotransmitters in the neurological system decreases, so the distribution of *norepinephrine*, which is a substance to stimulate sleep, will also decrease. Sleep problems frequently experienced by the elderly are often awake at night, often awakened in the early hours, difficult to fall asleep, and a very tired feeling during the day. The incomplete sleep cycle in the elderly causes the elderly not to sleep tight, often wake up, and reduces the sleep hours per day. This causes the sleep quality of the elderly decreases, so that it triggers other dangerous health problems for elderly. Sleep quality is a state where the sleep of an individual produces freshness and fitness when waking up from sleep. Sleep quality includes the quantitative aspects of sleep like sleep duration, sleep retention, and subjective aspects, such as night sleep and rest, (Kusuma, 2016). Sleep quality is the ability of everyone to maintain sleep and to get REM sleep stage and proper NREM. Sleep quality in elderly experiences change which is REM sleep begins to shorten. Progressive decrease in NREM 3 and 4 stages and almost no stage 4. People over the age of 60 years often complain about sleep disorders, especially the problems of sleep deprivation.

Sleep is a natural phenomenon and becomes human need and process required for the formation of new body cells, repair of damaged body cells (Natural Healing Mechanism), gives the body time to rest or to maintain the balance of metabolism and biochemistry of the body (Wijayanti, 2012). Sleep, according to Johnson, is considered as one of the basic human physiological needs (Stanley & Beare, 2006). Thus, a person let alone an elderly who experiences poor sleep quality can be absent from his or her job and the risk increase of psychiatric disorders including depression. Change of sleep quality in the elderly is also caused by the physical abilities of the elderly which are decreasing. Physical abilities decrease is caused by the organ abilities decrease, such as heart, lung, and kidney. Decrease in the ability of organs makes immune system and body endurance are also affected. Poor sleep quality can cause various negative impacts, such as: it can damage the mood of the elderly, feeling weak, not fresh while doing activities, and increase the risk of falling because of the reduction of concentration levels in the elderly. Elderly whose sleep are disturbed become forgetful, disoriented or confused. Difficult to sleep or staying asleep is a common problem in the elderly.

Elderly is a group of high risk age of sleep disorders caused by several factors, such as changes in psychological and social aspects as well as age-related pathological process. In elderly group (60 years old), it is found that 7% cases of complaining about sleep problems (only can sleep no more than five hours a day). It is same as 22% cases in the elderly group aged 70 years old, this elderly group complains more on waking up earlier and 30% from the group wakes up at night. This figure is seven times higher than the group aged 20 years old (Nugroho, 2010). Management of the elderly who have difficulty to sleep is in form of maintaining daily schedule, waking up in the usual time, following the sleeping hour regulation, doing exercise every day but avoiding heavy exercise, limiting sleeping hour from 1 to 2 hours at the same time each day, taking a bath with warm water, avoiding drinks containing caffeine and alcohol, performing relaxation techniques such as deep breathing, progressive muscle relaxation, massage, reading and listening to music. On the other hand, music therapy is a skill using music or music elements by a therapist to enhance, maintain, and restore mental, physical, emotional, and spiritual health. In medical perspective, music therapy is referred to as complementary therapy (*Complementary Medicine*). This music therapy is humanistic. With the help of musical instruments, the client is also encouraged to interact, improvise, listen or actively play music.

Music can improve and influence brain development and metabolism. The strains of music that a person enjoys can increase and stimulate the release of endorphins and serotonin which can give a calm and relaxed feeling to the body, so that the quantity and quality of elderly sleep increases (Nugroho, 2010). In giving music therapy, there are several things that must be considered; one of them is the type of music that will be given. There are several types of music such as classical music, rock music, *gamelan* music, Javanese music (*Gending Javanese*), and others.

Non-pharmacologic management to improve current sleep quality is highly recommended as it seldom has side effects and can lead elderly to maintain their own health. One of the non-pharmacological practices in improving the quality of elderly sleep is by performing progressive muscle relaxation techniques and listening to music. Progressive muscle relaxation exercise is a combination of breathing exercises and a series of contractions and muscle group relaxation whereas the strains of music commonly enjoyed by a person can increase and stimulate the release of endorphins and serotonin that can provide a calm and relaxed feeling to the body, so that the quantity and quality of the elderly sleep increases (Nugroho, 2010).

The research conducted by Erliana et al (2008), that is the research to find difference of insomnia level of elderly before and after progressive muscle relaxation exercise. From the research, it is found significant difference on insomnia level of elderly before and after progressive relaxation exercise. Based on the results of previous study at Wredha Griya Kasih Siloam Nursing Home of Malang and the results of interviews with the officers of the Nursing Home, it obtained results that the numbers of elderly are 30 people and there are about 15 elderly who experience sleep quality decrease. Many elderly complain about being difficult to start sleeping, waking up at night, and waking up too early.

From the explanation and the data above, then the researcher is interested in examining the influence of progressive muscle relaxation therapy with *Gending Javanese* music accompaniment on elderly sleep quality improvement at Wredha Griya Kasih Siloam Nursing Home of Malang. Moreover, the general purpose of this research is to Analyze the Influence of Progressive Muscle Relaxation with *Gending Javanese* Music Accompaniment on Elderly Sleep Quality Improvement at Wredha Griya Kasih Siloam Nursing Home of Malang.

II. METHODS

The research design used is pre-experimental with *One Group Preferences Pre-test-Post- test* design. This research was conducted at Wredha Griya Kinasih Siloam Nursing Home of Malang in June 2017. The population of the present research is all elderly staying at Wredha Griya Kinasih Siloam Nursing Home of Malang as many 30 people. The sampling method was done by using *Purposive Sampling*. The sample that fulfilled the inclusion criteria in this study was 12 people. The data collection instrument in this research used questionnaires (Beck et al, 2004). The questionnaires were used to measure the quality of elderly sleep before and after progressive muscle relaxation exercise. The researcher used structured interview technique using the Pittsburgh Sleep Quality Index (PSQI) questionnaire (Buysse et al, 1989). This questionnaire consists of 7 questions components.

The procedures in collecting this data are: 1) Before progressive muscle relaxation exercise, a permit to conduct the research should be got first, then respondents selection were conducted based on the determined inclusion criterias. Then, elderly sleep quality assessment conducted at each elderly's house before the progressive muscle relaxation exercise was done. The measurement was done for all elderly and the elderly experiencing problems in sleep quality was then taken as samples, 2) Implementation of progressive muscle relaxation exercises with

Gending Javanese music accompaniment. Implementation of relaxation exercises lasted for 7 days regularly, 3) After progressive muscle relaxation exercise with musical accompaniment of Gending Javanese. The measurement was conducted at each elderly' house. In this stage, the researcher also made evaluation by re-asking the respondents' feeling and explaining that the intervention has been completed. The result of measurement before and after giving intervention was categorical data so that it was presented in the form of frequency and percentage (Nugroho, 2014).

III. RESULTS

A. General Overview of Research Location

The present research was conducted at Wredha Griya Kasih Siloam Nursing Home of Malang. This nursing home was originally an orphanage that housed children with special needs and those who do not have family in Malang, but as time goes by, this Wredha Griya Kasih Siloam Nursing Home of Malang also takes care of elderly who do not have family or elderly who have family but not treated well. The numbers of elderly residents at Wredha Griya Kasih Siloam Nursing Home of Malang are 30 elderly people and are divided into 4 homes. Each home is inhabited by 7 to 8 elderly people, each room contains 2 elderly people. In addition, each home is guarded by 2 responsible officers in the home. Besides, there is also a prayer room and hall facilities which are usually used for various activities.

B. Characteristic of Respondents

Table 1. Characteristics of respondents in research about Influence of Progressive Muscle Relaxation Exercise with *Gending Javanese* Music Accompaniment on Elderly Sleep Quality Improvement at Wredha Griya Kasih Siloam Nursing Home of Malang in June 2017

No.	Respondent Code	Gender	Age	Education
1	1	Female	74	Senior High School
2	2	Female	68	University
3	3	Female	64	Elementary School
4	4	Female	68	Senior High School
5	5	Female	71	Senior High School
6	6	Female	87	Elementary School
7	7	Female	80	Elementary School
8	8	Female	65	Junior high school
9	9	Female	72	Elementary School
10	10	Female	74	Senior High School
11	11	Female	65	Elementary School
12	12	Female	74	Elementary School

Based on the result of data collection, the characteristics of respondents show that all the respondents are women with the number of 12 people and mostly aged 66-74 years old and most of them are graduated from elementary school.

Table 2. Characteristics of respondents in research about Influence of Progressive Muscle Relaxation Exercise with *Gending Javanese* Music Accompaniment on Elderly Sleep Quality Improvement at Wredha Griya Kasih Siloam Nursing Home of Malang in June 2015 based on comorbidities and problems encountered

No.	Code	Comorbidities	Problems encountered
1	1	Hypertension	Longing for family
2	2	Mild stroke	Conflict with fellow residents of the nursing home
3	3	Hypertension	-
4	4	-	Easily offended
5	5	Hypertension	-
6	6	Osteoporosis	-
7	7	Osteoporosis	Easily offended
8	8	-	Longing for family
9	9	Osteoporosis	-
10	10	Diabetes mellitus	Easily offended
11	11	-	Conflict with fellow residents of the nursing home
12	12	Hypertension	Longing for family

Based on data about the history of the disease and the problem faced, it shows that most of the respondents have a history of comorbidity, that is hypertension. While, psychologically, most of the respondents are facing problems, which are longing for family and conflict with fellow residents of the nursing home.

Table 3. Scores of respondents' sleep quality before and after the intervention of progressive muscle relaxation with *Gending Javanese* music accompaniment at Wredha Griya Kasih Siloam Nursing Home of Malang in June 2017

Respondent Code	Wilcoxon Signed Rank Test	
	Sleep Quality	
	Score	Score
	Before practice	After practice
1	17 Very Bad	12 Pretty Bad
2	18 Very Bad	13 Pretty Bad
3	10 Pretty Good	7 Pretty Good
4	11 Pretty Good	6 Pretty Good
5	16 Very Bad	14 Pretty Bad
6	13 Pretty Good	7 Pretty Good
7	17 Very Bad	13 Pretty Bad
8	12 Pretty Good	7 Pretty Good
9	13 Pretty Bad	13 Pretty Bad
10	11 Pretty Good	6 Pretty Good
11	13 Pretty Good	7 Pretty Good
12	11 Pretty Good	7 Pretty Good
P = 0.003, z = -2.966 Wilcoxon Signed Rank Test		

Based on table 3, it obtained significance value (p) of Wilcoxon test results = 0.003 and the value of Z = -2.966, so, it can be concluded that there is an influence of progressive muscle relaxation exercise on *Gending Javanese* music accompaniment on elderly sleep quality improvement. The result of signed rank test statistic test using *Wilcoxon test* got *asympt.sig* value for sleep quality as much 0.003 (p < 0.05). It shows that H_a is accepted and H_0 is rejected, which means there is an influence of progressive muscle relaxation exercise with *Gending Javanese* music accompaniment on elderly sleep quality improvement.

Table 4. Cross Tabulation Table of Elderly Sleep Quality Before and After Progressive Muscle Relaxation Exercise With *Gending Javanese* Music Accompaniment.

	Sleep Quality Before Exercise		Sleep Quality After Exercise					Total	%
	Total	%	Very Good	Pretty Good	Pretty Bad	Very Bad			
Very Good	0	0%	0				0	0%	
Pretty Good	0	0%		7			7	58%	
Pretty Bad	8	67%			5		5	42%	
Very Bad	4	33%				0	0	0%	
Grand Total	12	100%	0	7	5	0	12	100%	

Based on table 4, it reveals that there is a change of the number of respondents who get improvement from before doing the exercise and after doing progressive muscle relaxation exercise with the accompaniment of *Gending Javanese* music accompaniment; that is, before the exercise, there are 4 respondents (33%) experience very bad sleep quality, but after exercise, all respondents experienced bad condition, so that the condition of the respondents was very bad at the data after the exercise amounted to 0 (0%), and the data on the respondents with bad condition also changes, although 4 respondents become pretty bad, but from 8 respondents (67%) which before exercise they are still in bad condition, after doing the exercise, there are 7 respondents that experience change to pretty good condition, so the data of respondents are in pretty good category after the exercise amounted to 7 respondents (58%).

IV. DISCUSSION

A. Sleep quality before being given a progressive muscle relaxation exercise with *Gending Javanese* musical accompaniment.

The result of interview which referred on PSQI questionnaire before giving progressive muscle relaxation exercise with the music accompaniment of *Gending Javanese* shows that the respondents experience disorder in sleep quality, most respondents complain about being difficult to start sleeping, often wake up at night, and sleep too late, so that they got sleep quality decrease. Based on the data in table 3, 8 respondents (66.7%) had poor sleep quality and 4 respondents (33.3%) had very poor sleep quality. This is because the quality of sleep respondents can be influenced by several factors namely the conflict with fellow residents of the nursing home (2 people), easily offended (3 people). In addition, it can be caused by diseases that will cause physical discomfort, while the problems faced cause psychological discomfort so that it affects the quality of elderly sleep. Sleep quality in the elderly can be affected by several factors: retirement, loss of partners, illness, migration from family environment, and myth or assumption. Various changes can occur in the elderly respiratory system, hearing system, vision system, cardiovascular system, and musculoskeletal system (Czeisler et al, 2005). Changes in the elderly's body system can lead to stress. The health history of a person who has the disease tends to get physical and psychological stress. This is because of the reaction of stress and stress is considered more influential than the cause. A person may become aggressive, depressed, may suffer anxious neurosis, may suffer psychosomatic disorders, and suffer physical diseases such as high blood pressure, gastric ulcers, constipation, and cancer. Therefore, the elderly who have certain diseases and are facing problems can suffer sleep quality decrease.

B. Sleep quality after being given progressive muscle relaxation exercise with musical accompaniment of Gending Javanese

Based on table 3, the results obtained after the progressive muscle relaxation exercise with the music accompaniment of *Gending Javanese* indicate that there is an increase in the quality of respondents' sleep that 7 respondents (58.3%) are included into pretty good category of sleep quality and 5 respondents (41.7%) are included into pretty bad category of sleep quality and no respondents experiencing very bad sleep quality. 7 respondents (58.3%) are included into pretty good category of sleep quality after being given the progressive muscle relaxation exercise with music accompaniment of *Gending Javanese*. In addition, 4 of 7 respondents whose sleep quality is pretty good said that their feet which initially rather stiff when moving become relax and easy to move, so that it triggers comfortable feeling when having activities. This gives effect on calm feeling, especially when sleeping, so that it feels easier to sleep, although waking too early still occurs. Most respondents also stated that since the exercise is done together, it makes respondents not feel lonely and have many friends, so that longing for family which is frequently felt becomes decrease.

The other 3 respondents whose sleep quality is good enough stated that after frequent gathering with other elderly friends, they feel happy and calm because there is a conversation let alone the body is fresher and the mind is calmer after the relaxation exercise. Besides, feeling of annoyance that is often felt towards fellow residents of the nursing home is reduced because her mind and feeling are calmer and more relax. They also say that the body that often feels weak and hard to move now becomes more relax and their muscles are stronger, so that it makes them easier to start sleeping because of sadness caused by feeling offended and conflicts with fellow residents of the nursing home. Furthermore, complaints and uncomfortable feelings are reduced because the body is more relax and feeling becomes calm. While 5 respondents (41.7%) are included in pretty bad category of sleep quality. Based on interviews with 3 respondents whose sleep quality is pretty bad, they said that they still feel sad because they remembered their family and 2 other respondents said they sometimes still often feel dizzy and pain in bone and joints which make them difficult to start sleeping and often awaken at night. For someone over the age of 60 years, it is necessary to exercise regularly to maintain physical fitness and to maintain old age health. One of physical fitness components that can be trained is *flexibility* which is the ability to move muscles and joints in all areas of movement. Lack of movement can cause lethargy and decrease the physical quality that impact a person will be more often attacked by disease (Cohen et al, 2004).

Gending Javanese music accompaniment is also quite effective as music therapy to reduce tension in the muscles and give a feeling of calm and relaxed, so it is very helpful to improve sleep quality (Tsai, 2005). It was expressed by some respondents although some types of music they like is not *Gending Javanese* music, but jazz, *keroncong*, and classical music. They also stated that after doing progressive muscle relaxation exercise with *Gending Javanese* music accompaniment, they immediately feel sleepy and are willing to sleep. From the researcher' observation during the progressive muscle relaxation exercises accompanied by *Gending Javanese* music, all respondents seemed enthusiastic and excited to do the exercise. The movements are also well followed, even some respondents, in the middle of the exercise, look sleepy.

On the other hand, 5 respondents (41.7%) are included into pretty bad category of sleep quality. Based on interviews with 3 respondents whose sleep quality is pretty bad, they said they still feel sad because they remembered their family and 2 other respondents expressed that they sometimes still often feel dizzy and pain in bone and joints which cause them difficult to start sleeping and often awaken at night. There was 1 respondent

who did not experience sleep quality change either before practice or after relaxation exercise. This could occur because the respondent felt bored or saturated with the activity that has been followed even though psychologically the respondent is not experiencing the problem. By doing physical activity, it can improve attitudes, reduce stress and loneliness, make sleep better, and prevent feelings of depression (Stanley, 2006), so that it can improve and enhance the quality of sleep, especially in the elderly. For elderly, enough sleep is very important; if the need for sleep is very less, it will lead to a sleepy effect, especially during the day, memory impairment, often fall, so that it resulted to the decrease of life quality (Merlino et al, 2005).

C. Influence of Progressive Muscle Relaxation Exercise with Gending Javanese Music Accompaniment on Elderly Sleep Quality Improvement

Wilcoxon test results can be seen which obtained significance value (p) = 0.003 and the value of $Z = -2.966$, so it can be concluded that there is an influence of progressive muscle relaxation with the accompaniment of *Gending Javanese* music on elderly sleep quality improvement. The analysis result of signed rank test using *Wilcoxon test*, *asympt.sig* value for sleep quality is obtained as much 0.003 ($p < 0.05$). It reveals that H_a is accepted and H_o is rejected which means that there is an influence of progressive muscle relaxation with the accompaniment of *Gending Javanese* music on elderly sleep quality improvement, (Buysse et al, 1989). Relaxation exercise combined with controlled breathing exercise and a series of contractions and relaxation of muscle groups appropriately combined with music accompaniment can stimulate both physical and psychological relaxation responses (Backhaus et al, 2002). The responses occur because of the stimulation of parasympathetic autonomic nervous system activity that result to the decrease of body metabolism, blood pressure, and the increase of serotonin secretion.

V. CONCLUSION

The conclusion of this research are: 1) the quality of elderly sleep before getting progressive muscle relaxation therapy with the accompaniment of *Gending Javanese* music is mostly in pretty bad category, 2) the sleep quality after getting progressive muscle relaxation therapy with the accompaniment of *Gending Javanese* music experiences score decrease from very bad to pretty bad and from pretty bad to pretty good, 3) there is an influence of progressive muscle relaxation therapy with the accompaniment of *Gending Javanese* music at Wreda Griya Kasih Siloam Nursing Home of Malang significantly by $0,003 < 0,05$.

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