

The Effect of Chair Yoga with Spiritual Intervention on the Life Satisfaction of Older Adults

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ABSTRACT

Introduction: Life satisfaction is a condition of individual happiness as a conceptualization of well-being to fulfil needs, goals, expectations, and desire according to the standards. The aging process accompanied by degenerative changes in older adults is also one of the factors causing dissatisfaction in the older adults. Life dissatisfaction has an impact on the quality of life of older adults. This study aims to investigate the effect of chair yoga with spiritual intervention on the life satisfaction of older adults. **Methods:** This quasi-experimental study employed a pre-test and post-test design using a control group. The study involved an intervention group of 42 respondents and control group of a further 42 respondents. The sample was selected using multistage random sampling. The data were analyzed using a t-test. **Results:** The results of the study show that the mean score for intervention group was higher ($p=0.000$). Furthermore, the mean score for life satisfaction after the intervention was significantly higher than for the control group ($p=0.000$). **Conclusion:** It is concluded that the use of chair yoga with spiritual intervention is a useful preventive measure to increase life satisfaction in older adults. The study also suggests that this form of intervention should be considered as a complementary nursing therapeutic practice for older adults in the community.

Keywords: *Chair Yoga, Spiritual, Life Satisfaction, Older Adults*

INTRODUCTION

The older adults population is predicted to continue to increase every year. The World Health Organization (WHO) explains that between 2015 and 2050 there will be an increase in the proportion of the population aged 60 years and over from 12% to 22%. The World Report on Aging and Health explains that the total older adults population has reached 11% of the total 6.9 billion world population (WHO, 2015). An increase in the number of older adults will cause an increase in the number of older adults dependents and become a burden for the community if it is not balanced with good programs and policies.

The Indonesian Ministry of Health in its report and analysis of the situation of the older adults explained that the increase in the number of older adults people is one indicator of increasing life expectancy. The increasing number of older adults causes problems in various aspects, including in terms of health. WHO

(2015) predicts that by 2050, 80% of the older adults population will live with low welfare, due to rapid population growth which has an impact on health and social systems. Increasing age causes various changes and decreases in the physiological function of organ systems due to the degenerative/aging process, so that many non-communicable diseases appear in older adults (Mauk, 2014).

The aging process is the result of the accumulation of several changes that occur at the molecular and cellular levels that are damaged or decreased due to aging, which causes a decrease in physical and mental capacity, which in turn causes the risk of disease that causes death (Ebersole & Hess', 2014). The occurrence of morbidity in older adults has an impact on health problems that interfere with activities of daily life (George *et al.*, 2014).

The older adults are a group or population at risk,

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which means a group of people who have health problems and tend to experience a decline due to risk factors that influence them (Allender, Chancellor & Warner, 2014). The risk factors experienced by older adults are due to age and the aging process causes organs and cells in the body to decrease in capacity and function. The older adults as a population are at a high risk and have a high potential for exposure to disease. Stanhope & Lancaster (2014) mention three characteristics of health risks in the older adults, namely biological risk (age-related risk), social and environmental risk, and lifestyle risk (behavioral).

The concept of functional consequences described by Miller explains that health problems and the decline in various body functions in older adults occur due to changes in age factors along with the aging process, exacerbated by accompanying risk factors, resulting in negative consequences in the form of physical health problems and cognitive. Impaired physical or cognitive health status will affect the functional status of the older adults (Kertapati, Sahar & Nursasi, 2018). Health problems in the older adults are complex which includes physical, mental and functional abilities. Changes and decreases in various body functions, functional status, and life satisfaction in the older adults need special attention (Miller, 2012).

Quality of life contributes to individual life satisfaction. Good quality of life in the older adults has an impact on better life satisfaction. Life satisfaction is the achievement of individual hopes and desires in accordance with the standards (Sirgy, 2012). If the desires and expectations of life do not match it will have an impact on dissatisfaction. The aging process accompanied by degenerative changes in the older adults is also one of the factors causing dissatisfaction in the older adults. Older adults with physical limitations and dependence tend to be dissatisfied with their lives. Physical limitations cause the older adults to experience a decrease in activity and socialization (Miller, 2012). This has an impact on the dissatisfaction experienced by the older adults. Dissatisfaction causes the older adults to become restless, a burden on the mind and even depression (Oshio, 2012). This shows that the older adults experience psychological and mental disorders, so they need to get the right intervention.

Yoga is a non-pharmacological therapy used to treat depression. The stages of movement in yoga are very suitable for the older adults and can help overcome stress and depression problems. This is evidenced by the average depression level of respondents decreased, so that the level of depression after yoga therapy decreased (Yuniartika *et al.*, 2021). Cognitive decline and psychological health problems were the most common and received less attention in the older adults. Many studies have proven the efficacy of yoga on cognitive and mental health parameters in the older adults. These studies prove that Yoga-based interventions have a positive impact on improving attention, executive function and cognitive memory, as well as reducing depression in the mental health of the older adults. There are various efforts and scientific facts made to improve the health and fitness of the older adults (Chobe *et al.*, 2020). WHO explains that sports, physical activity, social activities, and religious activities are efforts that can help improve the quality of life of the older adults through improving health and well-being. Regular and group exercise contributes to physical and mental health and improves social relationships.

Some of the activities carried out by the older adults to maintain health are staying active, exercising physically, maintaining social relationships and continuing health check-up. One of the activities and exercises that can be done by the older adults is Yoga. Yoga is a physical exercise that takes a holistic approach to health through an art and science that combines mind, body, and spirit. Yoga is an exercise that combines elements of physical postures, breathing techniques, relaxation, and meditation (Lindquist, Snyder, & Tracy, 2014).

Functional changes experienced by the older adults also cause cognitive changes, so that it will affect the psychological and mental health of the older adults. Psychological and mental disorders cause anxiety, stress and even depression in the older adults. Spiritual nursing interventions help to improve the psychological state of older adults (Ebersole & Hess', 2014). Spiritual therapy is an intervention that produces positive effects for individuals who experience confusion and weakness of belief (Seghatoleslam *et al.*, 2015). Implementation of nursing in the form of guiding prayer activities in every activity, effectively increasing client satisfaction

in meeting spiritual needs. The spiritual approach is an intervention that can increase self-confidence in individuals. The spiritual approach is effective in overcoming signs and symptoms of depression and improving psycho-spiritual well-being so that individuals are able to realize the meaning of life and think more positively (Pinto & Angelina, 2015).

Various studies related to spirituality or yoga in the older adults have been carried out by many researchers, but there has been no research that combines spiritual intervention with chair yoga exercises, which according to the researchers' assumptions affect the functional status and life satisfaction of the older adults. The advantage of this exercise is that it is done in groups, the movement is safe and in accordance with the conditions of the older adults. Based on this description, a study was conducted that combines spiritual intervention with chair yoga exercises to see the effect of modification on life satisfaction in the older adults.

Ethical Approval

This research has gone through an ethical review process and was declared to have passed the ethical review by the research ethics committee as an effort to protect the human rights and welfare of research subjects under the number 0412/UN2.F12.D/HKP.02.04/2016 on May 4, 2016.

METHODOLOGY

This study used a quasi-experimental approach with pre and post-test designs using a control group. The population involved in this study were the older adults. The sample was divided into 2 parts for *t*-test (with=80%,=5%). For data collection, simple and multiple random samples were taken, involving 84 respondents (42 intervention groups and 42 control groups).

The research instrument uses the Life Satisfaction Index - A (LSI-A) to assess the life satisfaction of the older adults. LSI-A was first developed and used by Neugarten, Havighurst, and Tobin in 1961. LSI-A was used to measure the life satisfaction of the older adults in the past, present and future. This instrument was developed to assess life satisfaction in the older adults in the community. The LSI-A instrument has been translated into several languages, has been tested for validity and reliability in the general public, the results

show that LSI-A can be applied across languages, countries, and cultures. This instrument has been tested and recognized internationally (Ni Mhaolain, 2012).

Chair yoga combined with spiritual intervention is a mediation package consisting of 6 stages: centering, warming up, core pose, cooling down/counter pose, praying, and meditation. Respondents in the intervention group were divided into two small groups. The researcher was assisted by an assistant as a facilitator to observe the respondents during the intervention process.

The chair yoga exercise program with spiritual intervention is carried out 3 times a week for 4 weeks, morning or evening. The data were processed using paired *t*-test data analysis to examine the difference between the level of life satisfaction of the older adults in the intervention and control groups both before and after the intervention. The research was conducted in Depok City, Indonesia. Researchers ensured that there was no possibility of participants experiencing physical or mental harm. As this study used a parametric interval scale, the paired *t*-test was performed before and after the intervention. To determine the effect of chair yoga on spiritual intervention in the control and intervention groups, an independent *t*-test was used.

RESULTS

From Table 1 it is seen that the average age of respondents in each group is 66 years. Consisting of women 88.1% from the intervention group and 92.9% from the control group. In the intervention group, 66.6% of respondents had a history of disease, as well as 71.4% of respondents in the control group. Physical activity levels were higher in the intervention group, with an average of 796.43 minutes per week. Life satisfaction of respondents in the treatment group and the control group before and after the intervention showed the average life satisfaction in the treatment group before the intervention was 28.40 with a standard deviation of 4.462. The mean life satisfaction in the treatment group increased to 32.76 with a standard deviation of 3.980.

The mean life satisfaction in the control group was not much different before and after the intervention, namely 28.36 with a standard deviation of 4.372. The LSI-A instrument consists of 20 statement items. Of the

20 items, the highest increase in score after the intervention carried out was a statement that led to the components of the mood situation and the congruence between the desired goals and the goals achieved.

Table 1: Differences between the Mean Scores for Life Satisfaction Before and After Chair Yoga with Spiritual Intervention

Variable	Intervention group (n = 42)		Control group (n = 42)	
	Mean difference	p	Mean difference	p
Life satisfaction	4.36	0.000	-0.26	0.000

Table 2: Differences Between the Mean Scores for Life Satisfaction in the Intervention and Control Groups After Chair Yoga with Spiritual Intervention

Variable	Group	Mean	SD	p
Life satisfaction	Intervention (n = 42)	33.76	3.980	0.000
	Control (n = 42)	28.36	4.372	0.000
		5.4		

There was an increase in the mean of life satisfaction in the treatment group with a difference of 4.36 compared to before the intervention was given. The results of further testing using paired t-test obtained p value = 0.000 which means there is a significant difference for better life satisfaction after the intervention ($p < 0.05$).

There was a decrease in the mean of life satisfaction in the control group with a difference of -0.26. The results of further analysis using paired t -test obtained p value = 0.026 which means there is a significant decrease in respondents' life satisfaction before and after the intervention in the control group ($p > 0.05$).

The average life satisfaction of respondents after being given the intervention of chair yoga and spiritual intervention in the treatment group was greater than the average life satisfaction of the control group that was not

given the intervention. The results of further analysis using pooled t test obtained p value = 0.000 which means that there is a significant difference in respondents' life satisfaction after being given an intervention between the treatment group and the control group ($p < 0.05$).

DISCUSSION

Chair yoga with spiritual intervention is proven to increase the life satisfaction of the older adults in the treatment group. Yoga is a holistic approach that involves activities or movements that contain physical, mental, and spiritual elements. Yoga has the meaning of uniting individual consciousness with the highest consciousness that creates harmonization between body and soul while still controlling the mind. Chair yoga with spiritual intervention is a type of exercise that can be done anywhere, anytime, even while working and can be done sitting in a chair (Dua *et al.*, 2021). Yoga is a form of exercise that can improve mental conditions (reduce depression, anxiety), emotional (reduce anger, stress, tension and increase self-efficacy), social, increase life satisfaction, and improve sleep and quality of life (Mooventhan & Nivethitha, 2017). Chair yoga, which is done for 20 minutes, 12 weeks, 24 sessions have an impact on physical fitness, contributing to the reduction in the risk of falling and other psychological problems (Ikai *et al.*, 2017).

Exercise contributes to improving neuromuscular coordination in the older adults so that the older adults are able to concentrate better and think positively (Miller, 2012). This study provides interventions in the older adults group, so as to improve the psychosocial status of the older adults. Older adults must communicate, meet friends, can joke, discuss their problem. This allows the older adults to not feel lonely, minimize anxiety and the older adults this way can accept this situation wisely in dealing with problems. The older adults better understand the meaning of life. They understand that everyone has advantages and disadvantages, everyone is not the same, everything goes according to their respective capacities and abilities. This

statement was conveyed by representatives of the older adults when the researcher interviewed them. Based on this statement, it is certain that chair yoga with spiritual intervention is recommended as one of the positive exercises that can increase life satisfaction in the older adults. The results of in-depth interviews stated that the older adults felt more relieved and were able to think more positively, reduced anxiety, and better sleep quality. The older adults also said they were more inclined towards God Almighty, because the older age keeps the desire to stay healthy, productive, and happy.

Other studies have shown that chair yoga can reduce stress in the older adults with dementia or cognitive impairment, as well as having an impact on mental health (Bodenstein, Rej & Sekhon, 2022). A study involving 208 respondents aged 65 years and over, having history of chronic disease showed that the spiritual approach is in the form of decreasing depression levels in the older adults and increasing spiritual well-being. So, the older adults find more meaning in life and accept the situation with resignation and sincerity (Monod *et al.*, 2015). Conducting prayer guidance on the experimental group of respondents by saying positive sentences and building self-confidence and understanding of spiritual meaning (Pinto & Angelina, 2015). The results of the intervention in the treatment group showed that positive expressions could eliminate negative perceptions so that gratitude and belief in God emerged. Yoga is an activity that improves muscle strength, balance, and flexibility in the older adults, and improves mental health in the older adults population (Shin, 2021). Research was done on women with stage I-III cancer, involving 92 respondents. The results showed that yoga had an effect on respondents' life satisfaction. Respondents are more resigned and accept circumstances and conditions, so that positive feelings and thoughts emerge (Lotzke *et al.*, 2016).

Based on some of these studies, it can be concluded that the intervention in the form of prayer and chair yoga can increase life satisfaction in individuals. Likewise, the intervention provided by the researcher was combination of chair yoga intervention with spiritual intervention that increased the life satisfaction of the older adults. The intervention provided were a

combination of exercises with spiritual values in the form of positive sentences and prayers that are said in the heart repeatedly by individuals. The most effective spiritual approach used in the older adults is in the form of prayer, religious lectures, and religious rituals according to individual beliefs. Older adults need to receive chair yoga intervention with spiritual intervention to maintain and even increase life satisfaction, thereby contributing to the quality and productivity of the older adults in carrying out daily activities and routines independently without depending on others (Mauk, 2014).

The researcher conducted an analysis of each statement item on the instrument. The results of the analysis show that the components that have a high score, enhanced mood, and the match with the desired goals versus the goals achieved. This is because in chair yoga with spiritual intervention there are elements of relaxation, meditation, prayer and chanting of positive sentences. This procedure makes the mood and mind calmer, more comfortable, with positive thoughts. This makes the individual aware and leads to positive things. Chair yoga with spiritual intervention is one type of exercise that is suitable and modified based on the needs and conditions of the older adults. The older adults are recommended to do chair yoga 2-3 times a week regularly in order to optimize strength, flexibility, endurance and balance which contribute to improving and maintaining functional status and life satisfaction of the older adults.

Life satisfaction plays an important role in the meaning of life. Older adults with unfulfilled/achieved desires and expectations tend to feel dissatisfied with their lives. In old age, the older adults need a calm mind to achieve health and happiness. Through this intervention the anxiety is reduced, sleep patterns and quality are better. They also do not feel lonely because the intervention in this study was carried out in groups. As a result, they have more positive attitudes and thoughts to live a better life in their old age. During the implementation of prayers and positive sentences, there were some who cried while being guided by researchers. Representatives of the older adults said that now they are more aware of each person's strengths

and weaknesses. From this study, it can be seen that the older adults are more open and accept their current circumstances and conditions, even though there are desires and hopes that have not been fulfilled. With these positive thoughts, the older adults become more satisfied and happier. Thus, chair yoga with spiritual intervention is an alternative invention that can be given by nurses in the community in an effort to increase life satisfaction through a psychosocial approach.

CONCLUSION

The realization of life satisfaction of the older adults in the treatment group was better than the control group after the intervention. Modification of spiritual elements in practice is effective in increasing positive feelings in older adults. This increases the awareness of the older adults and contributes to increased life expectancy. Chair yoga with spiritual intervention has a significant effect on the life satisfaction of the older adults after the intervention in the treatment group. There needs to be a policy related to promotive and

preventive efforts carried out by Nurses in the field to improve the health and life satisfaction of the community, especially the older adults. One of these efforts is Chair yoga with spiritual intervention. This intervention can be integrated into the prevention program for the older adults.

Conflict of Interest

The authors state that the research review was carried out without any commercial or financial tendencies that could be construed as a potential conflict of interest.

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