



## Effect of Yoga Physical Activity on Increasing Self-Control and Quality of Life

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### Abstract

The purpose of this study was to determine the effect of physical activity of yoga on improving self-control and quality of life. The method used is experimental with The One-Group Pretest-Posttest Design research design. The sample of this research is the active female students of UPI Sport Science with a total sample of 28 people. The sampling technique uses purposive sampling. The instrument used was an adaptation of the Self-Control Scale questionnaire to test the increase in self-control and WHOQOL-100 to test the increase in quality of life. Data analysis used was Paired Sample t-Test to test the effect of yoga physical activity on increasing self-control and quality of life. The results of data analysis showed that there was an influence of physical activity of yoga on the increase in self-control ( $Z = -3,343$ ,  $p = 0.001$ ) and quality of life ( $t = -3.663$ ,  $p = 0.001$ ). So, it can be concluded that there is an influence of physical activity of yoga on increasing self-control and quality of life.

### Introduction

Self-control occurs when someone tries to change the way they think, feels something, or changes their behavior to be better. Self-control is involved in many different responses, including emotional regulation, thought suppression and behavioral control actions (DeWall et al., 2011). People with high self-control must achieve better grades in the long run because they have to be better at completing assignments on time, not reluctant to carry out activities, using study time effectively, choosing appropriate courses and maintaining emotional disorders (Tangney et al., 2004). Failure in self-control often impacts aggression, and vice versa if one's self-control is high, the tendency for aggression is also low (Denson et al., 2012). Failure in self-control not only affects aggression but also impacts on poor self-management (Tangney et al., 2004).

If someone who has entered adulthood is expected they have good self-control because when someone has entered adulthood they

tend to interact more with others so they must be more able to control themselves (Tri Dayaksini, 2003). When in a time of tension, adult women easily lose control of themselves so that the ability of adult female self-control is lower (Jumanisanti, 2009). Feelings of stress are commonly felt by students in the first year especially female students (Alqomaizi et al., 2018). They often experience stressors related to academic pressure to perform well, social pressure, financial challenges and academic saturation (Peltzer & Pengpida, 2014). In addition, personal and academic stressors can also arouse feelings of fear, incompetence, worthlessness, anger and guilt that can cause psychological and physical morbidity (Swallen, 2005; U.S. Department of Health and Human Services, 2010; Zhang et al., 2016).

Quality of life reflects a person's or group's perceptions of physical and mental well-being over time (Zhang et al., 2016). One of the main concerns of the U.S. The Department of Health and Human Services

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is promoting physical activity for women. The health benefits of physical activity are psychological and physiological. Psychological benefits include improvements in sports participation, improvement in mental health, mood, and quality of life (Zhang et al., 2017). In addition, regular physical activity can reduce the likelihood of several types of cancer, type II diabetes, high blood pressure, high cholesterol, premature death, stroke, and coronary heart disease (Zhang et al., 2017).

Students who are more physically active also reported higher quality of life related to health problems (Kruger & Sonono, 2016). Then based on recommendations from the American Alliance for Health, Physical Education, Recreation and Dance (AHPERD), it states that children and adolescents must be physically active for at least 60 minutes every day and must participate in activities with mostly moderate to strong intensity that strengthen muscles and bone (Elliot, 2013).

Lifestyle that does not move a lot during childhood and adolescence can cause early health problems such as obesity which are then maintained throughout adulthood (Fogelholm, 2008). The United States national surveillance data show that a percentage of 15-20% constitutes lower women's participation in physical activity compared to men. Women tend to have low participation in various activities. Barriers to this are lack of time, energy, and family worries as a reason for their low activity patterns (Ainsworth, 2000).

Many studies have shown that yoga techniques with a type of mind-body therapy can improve a person's physical and mental health (Rocha et al., 2012). Practicing yoga has been associated with many positive things in various aspects of physical performance and well-being including decreased blood pressure, decreased blood fat values, decreased body mass index, increased pulmonary function, increased muscle torsion, increased hand grip strength, reduced lower back pain, delay the onset of muscle pain after strenuous activity, increase flexibility and balance, and improve cardiovascular performance (Polsgrove, Eggleston, & Lockyer, 2016). In Sanskrit, yoga means union. Yoga aims to develop and maintain a healthy balance between all aspects

of the body and mind (Javnbakht et al., 2009). The impact of yoga is also associated with improvements in mental health including reducing anxiety, reducing depression, increasing the state of relaxation, and increasing motivation (Polsgrove et al., 2016). In addition, Yoga not only improves health-related quality of life but also improves balance, muscle strength, cardiovascular health, blood pressure, improves sleep quality, and also functions to improve other body systems (Patel et al., 2012). Because basically, yoga is believed to improve and maintain a healthy balance between all aspects of the body and mind (Javnbakht et al., 2009).

### **Metode**

In this study, an experimental method was used with the research design used, namely The One-Group Pretest-Posttest Design. The population in this study was female students of FPOK UPI Sports Sciences with a population of 120 people. The sample is determined using the Purposive Sampling technique where the sample is taken with certain considerations. Therefore, the samples taken in this study were 28 female students of FPOK UPI Sport Science. The characteristics of the sample are active female students of FPOK UPI Sports Sciences aged 17-25 years. The instruments used in this study were the Self-Control Scale from Tangney in 2004 and the WHO Quality of Life Scale-100 questionnaire from the World Health Organization (WHO) in 1995. Data analysis used was Paired Sample t-Test to find out whether there was an influence from yoga physical activity towards increasing Self Control and Quality of Life.

The first procedure in this study, after determining the sample, is the provision of an informed consent sheet of consent given to the prospective sample, whether he wants to become a research sample or not. Furthermore, a pre-test in the form of initial data collection is conducted so that there can be seen an increase or not after treatment of self-control and quality of life. In this pre-test, samples are requested to fill in self-control and quality of life questionnaires before treatment. In the process of treatment, yoga physical activity programs are given as many as 16 meetings based on the results of a referral from the journal Maddux

et al., (2018). The training program follows the basic FITT training principles (frequency, intensity, time and type). The asana yoga exercise program provided is in the form of sun salutation movements, standing balance 3 poses (warrior 3, dancer poses and tree poses), boat poses, supta badha konasana and savasana / dead poses. Then after treatment, the researcher returned to take the final data in the form of a post-test. In this post-test, the sample again fills in the self control and quality of life questionnaires as was performed in the pre-test at the beginning. If the data has been collected from the results of the pre-test and post-test then then step on the data analysis stage in order to get conclusions from the results of the

study.

**Result and Discussion**

In Figure 1, it can be seen that prior to the physical activity of yoga, the self-control level of the sample shows a moderate level of 96%, while a high level of self-control is 4%. That means that when viewed from descriptive data, there are still few people who have high self-control. The results of the post-test self-control data show a figure of 89% for samples that have a moderate level of self-control and 11% for samples that have a low level of self-control.

In Figure 1, the results show that in the sample pre-test data with a moderate level of quality of life of 57%, while a sample with a high

Table 1. Yoga Exercise Program

Meeting	Exercise Program Movement	Reps/time	Keterangan
1-8	Sun Salutation	10x reps	<i>Each of the Warrior poses, dancer poses and tree poses are performed with pause breaks.</i>
	Warrior Pose	3x 30 seconds	
	Dancer Pose	3x 30 seconds	
	Tree Pose	3x 30 seconds	
	Boat Pose	3x 30 seconds	
	Supta Bada Konasana	3 minutes	
	Savana/Dead Pose	5 minutes	
9-16	Sun Salutation	10x reps	<i>Warrior poses, dancer poses and tree poses are performed in series without breaks</i>
	Warrior Pose	3x 30 seconds	
	Dancer Pose	3x 30 seconds	
	Tree Pose	3x 30 seconds	
	Boat Pose	3x 30 seconds	
	Supta Bada Konasana	3 minutes	
	Savana/Dead Pose	5 minutes	

Source: Primary Data, 2019

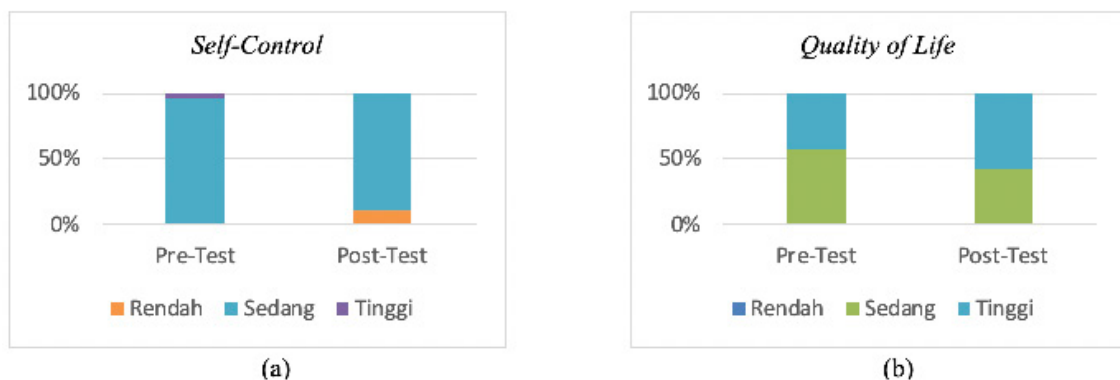


Figure 1. Research Result Data Based on the Level of Self-Control and Quality of Life

Table 2. Results of Analysis of Research Data

Variable	N	Median	SD	T	Z	P Value
Self-Control					-3.343	0.001
Pre-Test	28	50.57	5.660	-		
Post-Test	28	47.21	5.533			
Quality Of Life				-3.663		0.001
Pre-Test	28	244.79	21.063		-	
Post-Test	28	255.89	19.721			

Source: Primary Data, 2019

level of quality of life was 43%. This means that when viewed from descriptive data, the level of quality of life is still dominate rather than a high level of quality of life. Then in the results of the post-test study, this shows the level of quality of life that is currently in decline, its value to be 43%. In the post-test level of high quality of life, this indicates a value of 57%.

From Table 2, the results show that the value of  $Z = -3,343, p = 0.001 < 0.05$ , then the data is significant. From the results of the analysis of these data, it can be concluded that there is an influence of yoga physical activity on increasing one's self-control. Whereas in the Quality of Life variable, the results of data analysis showed that the value of  $t = -3.663$  and  $p = 0.001$ , then the data was significant. Therefore, it can be concluded that there is an influence of physical activity of yoga on improving one's Quality of Life.

Based on the results of data processing and data analysis that has been performed, then discuss the results of research that aims to determine the effect of physical activity of yoga on increasing self-control and quality of life. If previously the results of the study were in the form of statistical data, in the discussion of the study further, the findings in the study were in the form of results from previous findings, comparisons from previous findings, and theories that might support the research results.

Everyone is always trying to achieve prosperity in his life, whether it's physical or psychological well-being. However, physical and psychological health are both very necessary for the achievement of the welfare of one's life. Regular yoga practice can help improve the balance of the body and mind that is natural and harmonious (Dubey, 2017). In yoga asanas, the movements used are the

safest movements because movements in yoga asanas are performed slowly and mediatively accompanied by deep breathing techniques (Rocha et al., 2012). There are several yoga movements that can help improve one's self-control including balance posture that can coordinate the body for the better, think more focused, and balance the left brain and right brain. Restorative posture (savasana) can provide calm and balance to the body and relaxation. Then in the sitting posture to bend towards the front, it can make the mood become calmer, unite the mind, and release the ego. In addition, there is a chest opening posture which can reduce stress and anxiety levels.

The results showed that physical activity of yoga can improve self-control. This is in line with the results of research from Ramadoss & Bose, (2010) which shows that by doing yoga treatment, the results can increase stress resistance, self-control, and self-awareness. In a study conducted by Ramadoss & Bose, (2010) not only uses the type of yoga asanas but also uses other types of yoga, namely pranayama yoga and dhyana yoga. Thus, it is proven that any type of yoga practice can improve one's self-control. Improved self-control is not only done with yoga, but can be done with other types of physical activity. One of them is doing mindfulness exercises by means of plank exercises. Because basically, this mindfulness exercise is in the form of mind and breathing meditation in order to be more focused (Stocker et al., 2019).

As noted by Tangney et al., (2004) that the center of the concept of self-control is the ability to override or change inner responses and to suppress the tendency of undesirable behavior, and refrain from deviant actions. In the self-control process, it has been proven that the

inhibitory process has a stronger relationship with behavior that requires an avoidance response than one that requires an approach response (Allom *et al.*, 2016). According to (Tangney *et al.*, 2004), that individuals who have high self-control tend to be more likely to be involved in health protection behavior. When a sample wants to participate in physical yoga activities, it means that the person has controlled his self-control well because they are able to resist the temptation to do activities that might be more fun and less effective (Allom *et al.*, 2016). According to Necka, (2015) the best example of self-control is the inhibition of unwanted responses that manifest themselves in resisting temptation or restraint.

Likewise with the results of the effect of physical activity of yoga on increasing quality of life, the results of data analysis showed the effect of increasing quality of life after the treatment of yoga asanas. Yoga not only improves quality of life related to health but also improves balance, muscle strength, cardiovascular health, blood pressure, improves sleep quality, and improves other body systems (Patel *et al.*, 2012). In this yoga asana movement, there are a number of poses that can help in increasing one's health and satisfaction, namely standing position (*tadasana*), to increase the body's stamina to be more balanced and stable. The sitting position to bend forward strengthens the abdominal muscles, legs, and spine. Posture to open the chest is useful to strengthen the heart, the body feels fitter, becomes more spirited. Twist posture is to refresh the central nervous system, detox, flex the spinal joints, and facilitate digestion. Even in the field findings, researchers found that when the sample was given physical activity in yoga, they felt a change in their body, one of which was an improvement in their sleep quality. Their sleep quality is better than before. The body becomes fresher and they are more focused on something. This is supported by the results of research from Dubey, (2017) which states that yoga can improve an individual's social welfare including personal control, health, quality of life, and life satisfaction.

Basically, yoga aims to unite the body, mind and spirit for health and satisfaction (Polsgrove *et al.*, 2016) coaches, and athletes may better see that yoga has a role in optimizing

performance. Aims:: To determine the impact of yoga on male college athletes (N = 26. Satisfaction with life is a major dimension of well-being. Yoga brings good physical and mental health to people who regularly practice it and in turn can make people judge that life is satisfying (Dubey, 2017). By practicing yoga regularly, it has a significant impact on reducing their physical and psychological problems because yoga nourishes the body and mind. Results of research on clinical applications of yoga have revealed that increasing frequency of publication over the past 3 decades has increased (Jeter *et al.*, 2015). According to Jeter *et al.*, (2015) types of medical conditions that can be improved by yoga practice include psychopathology (eg depression, anxiety), cardiovascular (eg hypertension, heart disease), respiratory (eg asthma) diabetes and various other diseases. Yoga is a relatively new clinical discipline and appears in a broad category of body and mind medicine, whose growth is consistent with the popularity of yoga which is increasing the use of alternative medicine throughout the world (Dubey, 2017).

In another study, based on data from the National Psychological Activity and Weight Loss Study, there were about 90% of adults who met the recommended level of physical activity assessing their health as well or far better. This shows that people who are physically active experience better health because of the reduction in the number of unhealthy physical and mental days compared to those who are less active (Kruger & Sonono, 2016) females = 61.2%, mean age = 19.6 years, SD = 1.26 years. Physical activities that can improve quality of life are physical activities that can increase heart rate such as aerobic fitness (Kruger & Sonono, 2016) females = 61.2%, mean age = 19.6 years, SD = 1.26 years. In addition, based on research results from Delextrat *et al.*, (2015) states that zumba exercise can affect physiological and psychological health including cardiovascular health, body composition, body image, and psychological well-being. Even according to U.S. Department of Health and Human Services (2008), physical activity also contributes to the development and maintenance of healthy bones and muscles, improved fitness related to health, and positive social and mental health.



## Conclusion

Based on the results of data analysis and discussion, it can be concluded that the provision of physical activity of yoga can improve self-control and quality of life for female students. There is a significant effect of yoga physical activity results on increasing self-control ( $p = 0.001 < 0.05$ ) and quality of life ( $p = 0.001 < 0.05$ ). This research is expected to increase knowledge for all people to know how to maintain and improve self-control and quality of life so that their well-being is balanced between physical and mental health. Most people forget the welfare of their lives related to physical and mental health due to various activities. Improved self-control and quality of life are needed, one of which is to do physical yoga activities. Besides being able to improve self-control and quality of life, we can also interact with other people and have their own peace of mind and free time.

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