

The Effect of Kapha Yoga Exercise on Concentration and Quality of Life

Yenni Andari, Adang Suherman and Komarudin Komarudin

Universitas Pendidikan Indonesia, Jln. Dr. Setiabudhi No. 229, Bandung, Indonesia

yenniandari@student.upi.edu

Keywords: Yoga, Concentration, Life Quality.

Abstract: Increased age can lead to decreased body physiological function, it will be worsening if the aging is not accompanied by physical activity. Yoga is one of the physical activities that are beneficial both physical and psychological. The purpose of this study is to determine the effect of yoga practice on the concentration and quality of life. This research used a causal-comparative method, the population in this study was 22 female teachers at SMPN 1 Bandung, they were chosen by using purposive sampling technique. The data collection technique for concentration variables was grid concentration exercise test (Harris, 1998) and the instrument used to measure quality of life was in the form of World Health Organization Quality of Life (WHOQOL) - BREF questionnaire. The data analysis was carried out through version 20 of SPSS. The data processing procedure used Independent sample test statistic, the result of the research showed that 1) KAPHA Exercise gave a significant influence on the concentration, 2) KAPHA practice gave a significant influence to the quality of life. KAPHA yoga exercise can be one way to improve concentration and quality of life.

1 INTRODUCTION

The life span is divided into nine periods, i.e. before birth, newly born (until second week), infancy (second week end to end of second year), early childhood (2-10 years), puberty (10-13 years), adolescents (13-18), early adulthood (18-40 years), middle age (40-60 years), and old age (60 years to death) (Hurlock, 2002). Aging is a natural biological process (normal). It is characterized by the growth and development to achieve maturity at the age of \pm 30-35 years later followed by a decline by the progressive and gradual degenerative changes of body shape and function due to the wear of the cell accompanied by decreased physiological capacity.

One characteristic of the decline in physiologic capacity in middle-age women is menopause, most women begin experiencing menopausal symptoms at the age of 40s and the peak is achieved at the age of 50 (Kronenberg, 1990; Utian, 2005; Freeman and Sherif, 2007). Generally, a woman will experience menopause around the age of 45-50 years. Menopause not only results in changes in ovarian function that affect hormones and affects women's organs in general but it also affects a woman's psychological state. Psychological problem is highly individualized, influenced by socio-cultural, educational, environmental and economic (Rostiana, 2009). Some menopausal women experience severe menopausal symptoms that can affect their daily

activities that can ultimately degrade their quality of life (Larasati et al., 2007). Some studies have proven that psychic pressure arising from the social value of postmenopausal women contributes to physical symptoms during the menopausal period (Princess, Wati and Yunus Ariyanto, 2014). Physical symptoms are perceived to trigger the emergence of psychological problems. The usual feelings in this phase include fragile, sad, and depressed (Srimulyanti, 2013). As a result, women during menopause become depressed, not concentrated and irritable (Srimulyanti, 2013).

Yoga is a very popular sport today, yoga practice is a comprehensive health system that is beneficial to improve physical health, provide peace of mind and soul. Yoga in sanskrit is yuj which means the unification of the breath, body and soul (Ramesh, 2016; Iyengar, 1982; Henry, 2003; Junkin, 2007; Melorose et al., 2015). Yoga comes from Sanskrit which means to unite or harmonize body, mind and soul. Yoga is divided into 9 types, among others; Jnana yoga, Karma yoga, Bhakti yoga, Yantra yoga, Mantra yoga, Tantra yoga, Kundalini, Hatha yoga and king yoga (Shindu, 2014). The most popular yoga done today is Hatha yoga, Hatha yoga is a training system that uses various techniques of body posture (asana) accompanied by breathing techniques (pranayama) (Henry, 2003).

Hatha yoga continues to grow and grow into various types along with the development of the era,

one of which is KAPHA yoga. KAPHA yoga was created as a new Hatha yoga system in Indonesia that aims to enrich and become a part of modern yoga Hatha in this world. KAPHA is an advanced technique of Hatha yoga, the benefit of KAPHA technique is to produce the asana (posture) that shri (beautiful) sthira (strong / sturdy) and sukham (comfortable) (Koko, 2013).

The effects of yoga practice on health have been demonstrated through numerous studies, including the reduction of psychological pressure and mucosal immunity in middle and elderly women (Nobuhiko, et al, 2017) other studies have shown that with the addition of a 16-week yoga practice program combined with Conventional therapy in patients with type 2 diabetes mellitus (DM2) can bring precise control of glycosylated hemoglobin, blood sugar, lipid profile in elderly subjects on a long-term basis (Vaishali, 2012).

Referring to the results of the above research, that yoga practice provides many benefits to the body, mind and soul, but researchers have not found any research of the benefits of KAPHA yoga exercise to improve concentration and quality of life are studied scientifically, hence to fill the void in research and to corroborate some theories of the benefits of yoga practice, the researchers feel interested to examine these issues empirically in one scientific study, given the importance of concentration and quality of life for the survival of a person, especially women entering middle age, with the practice of yoga, it is expected to increase concentration and quality of life, therefore researchers are interested in conducting further research on "The Effect of KAPHA Yoga Exercises on Concentration and Quality of Life".

2 METHODS

The researchers used causal comparative method. This was done since the researchers was interested in investigating a problem deeply by comparing two different group situations.

Causal relation is a correlation that has cause and effect impact. There will be independent variable and dependent variable (Sugiyono, 2012) Comparative is comparing the existence of one or more variables in two or more different samples. The basic causal-comparative method involves selecting two or more distinct groups of variables and comparing them to other variable or variables (Fraenkel, Wallen and Huyn, 1993).

2.1 Participants

The population of the study was 22 female teachers at SMP Negeri 1 Bandung. By using purposive sampling technique, the total population who follow KAPHA yoga exercise 16 people ranging from 45-57 years old and the comparison group was 17 female teachers with the same characteristics that did not follow KAPHA yoga exercise. Relating to the number, Fraenkel and Wallen (1990, p. 294) claimed that "The minimum acceptable sample size for a correlational study is considered by most researchers to be no less than 30". This is in line with Suherman's (2002) opinion that, "The number of samples for comparative causal research is the same as for experimental research of at least 15 people while samples for correlational research are at least 30 people". The reason researchers use purposive sampling technique is in accordance with the characteristics of the sample that became the object of research, namely middle-aged female teacher with age range 45-57 years and middle-aged female teachers who actively participate in yoga practice.

2.2 Measures

2.2.1 Concentration Test

This test is to determine the concentration of the players by using the grid concentration exercise test adopted from Dorothy V. Harris and B.L Harris (1998). Tools that need to be prepared are a questionnaire of grid concentration exercise, stopwatch and stationary. The way of conducting this test is that the participants are given a concentration questionnaire, after which they are ordered to sort the numbers 00-99 arranged randomly within 1 minute. Assessment of the scores was obtained from the results of sorting the numbers. If the value is low, then the concentration level is low and if the value is high then the concentration level is high.

71	91	63	79	31	01	92	21	43	69
12	80	65	74	36	84	54	89	52	11
73	93	90	81	33	03	44	23	45	68
04	34	67	70	22	48	56	02	32	13
75	95	46	83	35	05	82	25	47	57
94	06	98	24	14	64	58	53	72	15
77	97	26	85	37	07	16	27	49	61
28	50	00	30	20	62	60	55	66	17
10	40	59	87	39	09	96	29	51	41
08	18	42	38	76	99	88	78	86	19

Figure 1: Grid Concentration Exercise Questionnaires.

2.2.2 Quality of Life Test

The instrument used in this study was made in the form of a questionnaire adopted from the World Health Organization Quality of Life (WHOQOL) - BREF. This instrument uses 26 question items where the tool uses four dimensions: physical, psychological, social and environmental relations. All questions are based on a five-point likert scale (1-5) and five different answer options. Questions 1 and 2 are about overall quality of life and general health, whereas for other questions are questions from each of the WHO domains.

Table 1: WHOQOL-BREF Questionnaires.

WHOQOL-BREF	Question Number.	The Number of items
Physical Domain	3, 4, 10,15, 16, 17 and 18	7
Psychological Domain	5, 6, 7, 11, 19, and 26	6
Social Interaction Domain	20, 21 and 22	3
Society Domain	8, 9, 12, 13, 14, 23, 24 and 25	8
Quality of Life Perception	1	1

2.3 Procedures

To find out the results of data that has been obtained, then the authors processed the data. The data analysis was carried out through statistical computation analysis. Calculation and analysis of data in a study was intended to determine the meaning of data obtained in order to solve the research problems. The procedures of the analysis were described as follows:

- Choosing 16 people from the population of 22 people with purposive sampling technique, 16 middle-aged female teachers (age range 45-57 yrs.) who follow KAPHA yoga exercise and as the comparison 17 middle-aged female teacher who did not follow KAPHA yoga;
- Administering concentration and quality of life tests.
- Testing data normal distribution and homogeneity;
- Comparing the concentration and the quality of life tests from those participating KAPHA and those who are not. The tests were conducted to determine whether there is a significant effect of KAPHA yoga exercise on the concentration and quality of life

3 RESULTS AND DISCUSSION

After being tested for a sample group of middle-aged female teachers who attended KAPHA yoga exercises and middle-aged female teachers who did not take KAPHA training by performing a concentration test using a grid concentration exercise test and a quality of life test in the form of a questionnaire adopted from the World Health Organization Quality of Life (WHOQOL) -BREF and get the results, the next step is to process the data so that the score that has been obtained can be interpreted.

The results of data analysis of the concentration of groups who do yoga exercises and groups who do not do yoga exercises that is on the concentration test results, for the yoga practice group, the sample was 16 people. The mean of concentration test result for yoga practice group obtained score 14,5000 and standard deviation 1,89737 and group that did not follow yoga practice totaled 17 people, got average score 9,0000 with standard deviation 2,85044. While the quality of life test results, for the yoga practice group, the average score was 97.0625 and standard deviation 7.44284, and groups that do not follow the yoga practice of 17 people, the test results average was 87.9412 with a standard deviation 8,25735.

After obtaining the means for both groups, hypothesis testing was carried out preceded by normal distribution and homogeneity test. It was revealed that the data were normally distributed and homogeneous. The data analysis was performed through Independent t test to compare the means from the groups. The result is presented as follows.

Table 2: t Test.

	Two means t-test			Description
	T (2-tailed)	df	Sig.	
Concentration	6,481	31	0,000	Significant
The Quality of Life	3,326	31	0,002	Significant

On the concentration score, the t observed value for concentration with df n-1=31 was 6,481 (Sig.) = 0,000. Since (Sig.) 0,000 < 0,05, then Ho was rejected. It means that there is a significant difference on the concentration score between the group with yoga exercise and the group without yoga exercise based on the observed score. the score of group with yoga is higher than that without yoga (14,5 > 9,0). It implies that the concentration from the group with yoga is better than the group without yoga.

On the quality of life score, the observed value for the quality of life with df n-1 = 31 was 3,326, (Sig.) = 0,002. Since (Sig.) 0,002 < 0,05, then Ho was

rejected. It means that there is a significant difference on the quality of life score between the group with yoga exercise and the group without yoga exercise based on the observed score. the score of group with yoga is higher than that without yoga ($97,06 > 87,94$). This means that the quality of life of the group given KAPHA yoga exercises is higher than in groups that are not given KAPHA yoga exercises.

Based on the results of the study, it can be concluded that (1) KAPHA yoga exercises have a significant effect on the concentration, as well as on the results of the average score of quality of life, the group given yoga practice has a score higher than the group without yoga practice, it can be concluded that KAPHA yoga exercise had a significant effect on quality of life (2).

Concentration plays an important role in every span of life (Wilson, Peper and Schmid, 2006), because in normal daily normal human activities ranging from children to the elderly, the body and mind will always move and work constantly to strive toward and get something needed. Concentration is needed by students to carry out their learning tasks (Kintari et al, 2014) with high concentration level, then the students will receive the learning material easily. The yoga program can help students become more calm and focused, be able to control behavior as well as increase social participation and help students to engage in classroom learning (OTR / L, OTR / L and PhD, 2010).

Concentration is also much needed for an athlete in a sporting event, concentration disorder can be a problem such as lack of accuracy in throwing, kicking, punching and shooting, which may subsequently lead to failure to achieve predetermined targets (Komarudin, 2017) then reinforced by Mukhtar et al (2017) on the importance of training concentration on archery athletes. In line with other studies of athletes, without high concentration, the accuracy when athletes perform floating service will be affected (Septiyanto, Suharjana and Suharjana, 2016).

Yoga is one of the philosophies of life based on a universal science, the knowledge of the art of breathing, the anatomy of the human body, the knowledge of how to regulate breathing accompanied by gymnastic motion or limbs, how to train concentration, unite thoughts and so forth (Gruber, 2008; Medina et al., 2015; Junkin, 2007; Melrose, Perroy and Careas, 2015).

Based on the results of data processing shows that there is a significant influence KAPHA yoga exercise on quality of life, in addition to trained muscles in the body, stimulate the organ system in the body to work better, and to remove toxins in the body also provides benefits to psychology, the mind becomes more relaxed and calm, furthest from degenerative diseases

as well as psychiatric illness so that indirectly can improve the quality of life This is in line with the results of the study (Lakkireddy et al., 2013) revealed that the results of the study by giving treatment of yoga exercises 60 minutes twice a week during 3 months can significantly improve the quality of life, anxiety and depression in atrial fibrillation patients (abnormal heart beat, characterized by rapid and ineffective atrial activity and irregular ventricular contractions). The benefits of yoga can be felt for cancer patients in psychological health improvement and also provide important information for practitioners that yoga is an additional therapy for cancer patients to help overcome psychological pressure and to improve quality of life (K. Y. Lin et al., 2011).

In yoga intervention to cancer patients undergoing chemotherapy, it was found that the psychological condition score was higher than physical health (K.-Y. Lin et al., 2011). In contrast to the results of research (Paper, 2016) where the results of his research the highest value of physical and environmental domains. Differences in the value of each aspect of the quality of life can occur because it is caused by differences in characteristics of the research subjects. Subjects in this study did not have chronic illness with an average age of 50 years, and the benefits most felt for them were on social and environmental aspects.

4 CONCLUSIONS

This study shows that KAPHA yoga exercises can improve concentration and quality of life significantly, in yoga practice there are exercises to control the breath, focusing on one particular object by bringing awareness during yoga practice to the whole body, in addition to the practice of yoga also there are exercises stability of the body for example raises one foot to exercise balance, balance exercise will be successful if done with full concentration, therefore stability exercise in yoga can increase concentration. It can be seen from the result of data processing, the result of the average score of group given KAPHA yoga training is higher than the group without KAPHA yoga exercise (14,5 & gt; 9,0). This means that the group's concentration test given by yoga practice is higher than the group that is not given yoga practice, so based on the results of data processing shows that KAPHA yoga exercise can give a significant effect on the concentration.

The benefits of yoga practice not only train the muscles in the body but also provide benefits to the psychological aspects such as the mind becomes more relaxed and calm, so it can prevent from degenerative

diseases and also can cure psychiatric illness so that indirectly can improve the quality of life, this reinforced with the results of data processing, based on the average score of the two groups, the average score of the yoga practice group was higher than the group without the yoga practice (97.06 & gt; 87.94). This means that the quality of life of the group given KAPHA yoga exercises is higher than in groups that are not given KAPHA yoga exercises.

One's life and health are affected by physical, mental, emotional and spiritual conditions, through one's yoga practice it is better to know the body, mind and soul. So by practicing yoga on a regular basis all the benefits of yoga practice will be obtained thoroughly including with increased concentration and quality of life.

REFERENCES

- Fraenkel, J. R., Wallen, N. E. and Huyn, H. H. (1993) 'How to Design and Evaluate Research in Education', *PsycCRITIQUES*, p. 710. doi: 10.1037/032719.
- Freeman, E. W. and Sherif, K. (2007) 'Prevalence of hot flushes and night sweats around the world: a systematic review.', *Climacteric: the journal of the International Menopause Society*, 10(3), pp. 197–214. doi: 10.1080/13697130601181486.
- Gruber, K. (2008). *The physiological and psychological effects of Ashtanga yoga (Doctoral dissertation)*.
- Henry, N. I. (2003) 'The Health Benefits of Yoga', *Journal of Consumer Health On the Internet*, 7(2), pp. 75–80. doi: 10.1300/J381v07n02_08.
- Hurlock, E. B. (2002) *Psikologi Perkembangan: Suatu Pendekatan Sepanjang Rentang Kehidupan*, Erlangga.
- Iyengar, B. K. S. (1982) *Light on Yoga*, Yoga Dipika. doi: 10.1007/s13398-014-0173-7.2.
- Junkin, S. E. (2007) 'Yoga and Self Esteem: Exploring Change in Middle-aged women'.
- Komarudin. & Mulyana. (2017). *The Effect of Brain Jogging Exercise Toward the Increase of Concentration and Learning Achievement*. *Journal :1st Annual Applied Science and Engineering Conference*, 180, 1-6, doi: 10.1088/1757-899X/180/1/012238
- Kronenberg, F. (1990) 'Hot flashes: Epidemiology and physiology', *Annals of the New York Academy of Sciences*, 592, pp. 52–86. doi: 10.1111/j.1749-6632.1990.tb30316.x.
- Lakkireddy, D. et al. (2013) 'Effect of yoga on arrhythmia burden, anxiety, depression, and quality of life in paroxysmal atrial fibrillation: The YOGA my heart study', *Journal of the American College of Cardiology*. Elsevier Inc., 61(11), pp. 1177–1182. doi: 10.1016/j.jacc.2012.11.060.
- Larasati, T., Satria, D. and Ghustaf, M. (2007) 'Jurnal kualitas hidup pada wanita yang sudah memasuki masa menopause', *psikologi Universitas Gunadarma*.
- Lin, K.-Y. et al. (2011) 'Effects of Yoga on Psychological Health, Quality of Life, and Physical Health of Patients with Cancer: A Meta-Analysis', *Evidence-Based Complementary and Alternative Medicine*. Hindawi Publishing Corporation, 659876. doi: 10.1155/2011/659876.
- Medina, J., Hopkins, L., Powers, M., Baird, S. O., & Smits, J. (2015). The effects of a hatha yoga intervention on facets of distress tolerance. *Cognitive behaviour therapy*, 44(4), 288-300.
- Melrose, J., Perroy, R. and Careas, S. (2015) 'the Effects of Yoga on Body Dissatisfaction, Self- Objectification, and Mindfulness of the Body in College Women', *Statewide Agricultural Land Use Baseline 2015*, 1(August). doi: 10.1017/CBO9781107415324.004.
- OTR/L, J. C.-S. E., OTR/L, J. S. S. M. and PhD, M. K. (2010) 'Perceptions of Children Who Participated in a School-Based Yoga Program', *Journal of Occupational Therapy, Schools, & Early Intervention*, 3(3), pp. 226–238. doi: 10.1080/19411243.2010.520246.
- Paper, C. (2016) 'Gambaran Quality of Life (Qol) pada Anggota Sanggar Yoga di Surabaya [Description of Quality Of Life (Qol) among ...]', (December).
- Ramesh, V. (2016) 'effect of physical exercises and practices on health related physical fitness, basal metabolic rate and lipid profile variables of obese adolescents doctor of philosophy in physical education'.
- Rostiana, T. (2009) 'Kecemasan pada wanita yang menghadapi menopause', *Jurnal Psikologi*, 3(100), pp. 76–86.
- Septiyanto, A., Suharjana, S. and Suharjana, S. (2016) 'Pengaruh metode latihan imagery dan konsentrasi terhadap ketepatan floating servuce atlet bola voli DIY', *Jurnal Cakrawala Pendidikan*, 35(3). doi: 10.21831/cp.v35i3.8249.
- Srimulyanti, Y. (2013) 'Hubungan antara penerimaan diri dengan kecemasan dalam menghadapi menopause pada wanita dewasa madya'.
- Sugiyono (2012) *Metode Penelitian Kuantitatif, Kualitatif Dan R&D*, Bandung: Alfabeta. doi: 10.1017/CBO9781107415324.004.
- Utian, W. H. (2005) 'Psychosocial and socioeconomic burden of vasomotor symptoms in menopause: a comprehensive review.', *Health and quality of life outcomes*, 3, p. 47. doi: 10.1186/1477-7525-3-47.
- Wilson, V. E., Peper, E. and Schmid, A. (2006) 'Training Strategies for Concentration', *Applied Sport Psychology: Personal Growth to Peak Performance*, pp. 404–422.