

A study of mental health in terms of Yoga and Physical exercise of middle adulthood

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Abstract: *Present study explored the effect of yoga and physical exercise on the mental health of middle adulthood male and female participants. The study comprised of total 80 middle adulthood participants in which 40 were practicing yoga and 40 were doing simple physical exercise from past three months atleast once in a day. 20 male and 20 female middle adulthood subjects selected among them by using quota sampling technique. Mental Health Inventory constructed by Jagdish and Srivastava (1983) was administered for collecting data. Results of the study analysed by using descriptive statistics (Mean, SDs and 't' values). Results indicate that the dimensions of mental health namely integration of personality, autonomy and total mental health showed significant difference in favour of yoga. Finding also revealed significant difference between male and female middle adulthood participants on mental health in favour of yoga. It showed that for good mental health, yoga is more effective technique for both the participants.*

Key Words: *Mental health, Yoga, Physical exercise, middle adulthood, Integration and Autonomy*

Introduction

Mental health is the balanced development of the individual's personality and emotional attitudes which enable us to live harmoniously.

In 1959 W.H.O. Expert Committee on mental health reviewed the various definitions of mental health and observed that, mental health is influenced by both-biological and social factors. It is not a static condition but subject to variations and fluctuations in degree, ' It is the capacity in an individual to form harmonious relations with others and to contribute constructively to change their social and physical environment.'

Mental health refers to our cognitive, and/or emotional well-being. It is all about how we think, feel and behave. Mental health, if somebody has it, can also mean an absence of a mental disorder. Our mental health can affect our daily life, relationships and even our

physical health. Mental health also includes a person's ability to enjoy life - to attain a balance between life activities and efforts to achieve psychological resilience.

According to Medilexicon's medical dictionary, mental health is "emotional, behavioral, and social maturity or normality; the absence of a mental or behavioral disorder; a state of psychological well-being in which one has achieved a satisfactory integration of one's instinctual drives acceptable to both oneself and one's social milieu; an appropriate balance of love, work, and leisure pursuits".

According to WHO (World Health Organization), mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". WHO stresses that mental health "is not just the absence of mental disorder".

So healthy mindedness is essential for constructive and productive work and its cultivation is one of the important tasks. Physical fitness, is not an end in itself, but is a means' of promoting the mental and moral health of the individual. Being physically active can help us to feel stronger and better able to do day-to-day activities. Being active also helps us feel better mentally and emotionally, so we have increased quality of life. In this way Yoga and simple physical exercise help us to remain healthy physically as well as emotionally.

Yoga is a spiritual practice that began in India around 6,000 years ago and is based on an ancient philosophy that combines several concepts and routines. These include meditation, self-reflection, breath control and the practice of physical postures that develop strength, flexibility and the ability to fully concentrate. Yoga is a very effective stress reduction and relaxation technique. Performance of various postures requires the stretching and then relaxing of muscle groups and joints, which effectively produces relaxation in much the same way that a massage or Progressive Muscle Relaxation (a technique used by behavioral psychologists) does. Yoga practice also draws attention towards breathing, which produces a meditative and soothing state of mind. Yoga methods for stress reduction and self-soothing are generally pretty much safe, free of side

effects, and empowering in comparison to medication alternatives. Benefits of yoga include not only strength and steadiness of the body, but also physiological and mental health. Yoga prevents as well as alleviates health problems. The object of yoga is not building muscles, but harmonizing the body, breath and mind, thereby contributing to the overall health of the individual. Yoga is recognized as a form of mind-body medicine that integrates an individual's physical, mental and spiritual components to improve aspects of health, particularly stress related illnesses (Atkinson and Permuth-Levine, 2009, pg 3-14).

The eight limbed path of yoga includes: Yama (moral codes), niyama (self-discipline), asana (postures), pranyama (breath practices promoting life force), pratyahara (sensory transcendence), dharana (concentration), dhyana (meditation), samadhi (state of bliss). The word roots of yoga mean “to join” in Sanskrit. According to Shroff (2011) joining of mind and body, and individual and collective selves is the essence of this ancient practice. Shroff (2011) also stated that yogic philosophy posits that every life form is interconnected and united. Desikachar (2011) said that “yoga exists in the world because everything is linked”.

Like yoga, physical exercise is also a bodily activity that enhances or maintains physical fitness and overall health or wellness. Physical exercise can contribute positively to maintaining a healthy weight, building and maintaining healthy bone density, muscle strength, and joint mobility, promoting physiological well-being, reducing surgical risks, and strengthening the immune system. Psychologists have long known that moderate exercise is good for depression and anxiety. When a person exercises, levels of both circulating serotonin and endorphins are increased. These levels are known to stay elevated even several days after exercise is discontinued, possibly contributing to improvement in mood, increased self-esteem, and weight management. Exercise alone is a potential prevention method and/or treatment for mild forms of depression. Such exercise can easily be found in Yoga practice. Yoga postures are designed to promote physical strength, flexibility and balance.

As mentioned in Hindu Literature that:

“Manah prashamanopayah yoga ityabhidhiyate (Yoga Vasistha)”

Yoga is called a skillful trick to calm down the mind. It is a skillful subtle process and not a brutal, mechanical gross effort to stop the thoughts in the mind.

“Yogah karmasu kaushalam (Gita 2.50)” is what Lord Krishna mentions in the Gita. This shloka is also part of Upanishad which is the culmination of all the Vedas.

Yoga is dexterity in action. The dexterity is in maintaining relaxation and awareness in action.

“Shrutivipratipanna te yada sthaasyati nishchala!”

Samaadhaavachala buddhistadaa yoagamavaapsyasi!! (Gita - 2-53)”

When the mind will remain stable even after hearing confusing and conflicting statements, it indicates will attain the state of Yoga- samadhi.

Yoga is a state of great steadiness at emotional level, balance of concentration and detachment at mental level and homeostasis at body level.

So we try to formulate a study to ensure that yoga and physical exercise has positive effect on the mental health of middle adulthood participants.

Objectives:

1. To compare the mental health of middle adulthood participants practicing simple physical exercise and yoga.
2. To know the mental health of middle adulthood male and female participants as an effect of simple physical exercise and yoga.

Hypothesis:

1. There will be significant difference in the mental health of middle adulthood participants practicing simple physical exercise and yoga.
2. Mental health of middle adulthood male and female will differ significantly by using simple physical exercise and yoga stress management techniques.

Method

Sample: To verify the above hypotheses 80 middle adulthood participants were selected on the basis of practicing simple physical exercise and yoga. 40 middle adulthood participants selected from practicing simple physical exercise and 40 from practicing yoga, bifurcating them according to gender, 20 male and 20 female middle adulthood participants selected from each group of above. Data collected from Patanjali Yogpeeth and Divya Yog Mandir for yoga, and some colonies and pavements of Haridwar for physical exercise. We included only those middle adulthood participants who are practicing either yoga or simple physical exercise continuously from past three months atleast one time in a day and we selected only middle adulthood (i.e 45-60 years) participants for the study.

Tool: We administered mental health inventory constructed and standardized by Jagdish and Srivastava (1983). The inventory measures mental health on six dimensions of mental health viz. Positive Self-Evaluation, Perception of Reality, Integration of Personality, Autonomy, Group Oriented Attitude, Environmental Mastery. The responses are made on a four-point scale from always (4) to never (1).

Procedure: First, we contacted participants personally for establishing rapport and convinced them that their results would be kept confidential and also satisfied them about their queries. From the next day we started collecting data according to their suitable time and place. Data were analyzed by using parametric statistical technique (Mean, S.D and 't' test).

Results and Interpretation

The results of the present study were subjected to statistical analyses as per objectives.

Table 01: Comparision of middle adulthood participants doing Yoga and Physical exercise on the six dimensions of mental health (Mean, SD and 't' values).

Dimensions of Mental Health	Yoga (N=40)	Physical exercise (N=40)	't'
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	Mean	S.D	Mean	S.D	
Positive Self-Evaluation	29.4	4.69	28.0	3.82	1.47
Perception of Reality	22.4	3.74	21.2	3.10	1.57
Integration of Personality	34.8	4.44	31.0	4.25	3.91**
Autonomy	17.2	2.62	15.1	2.57	3.62**
Group Oriented Attitudes	27.1	3.12	27.4	2.53	0.47
Environmental Mastery	27.2	3.11	26.4	3.00	1.17
Total	158.3	16.42	149.3	11.97	2.80**

Table 02: Showing difference between middle adulthood male and female participants doing Yoga on the six dimensions of mental health (Mean, S.D and ‘t’ values).

Dimensions of Mental Health	Yoga (N=20)				
	Male		Female		‘t’
	Mean	S.D	Mean	S.D	
Positive Self-Evaluation	29.1	5.02	29.8	4.56	0.42
Perception of Reality	22.8	3.83	22.0	3.81	0.66
Integration of Personality	35.4	4.23	34.3	4.79	0.77
Autonomy	17.2	3.05	17.2	2.26	0.05
Group Oriented Attitudes	27.1	2.90	27.0	3.47	0.09
Environmental Mastery	26.7	3.59	27.7	2.63	1.00
Total	158.4	16.5	158.1	17.1	0.05

Table 03: Comparison between middle adulthood male and female participants doing Physical exercise on the six dimensions of mental health (Mean, S.D and ‘t’ values).

Dimensions of Mental Health	Physical exercise (N=20)				
	Male		Female		‘t’
	Mean	S.D	Mean	S.D	

Positive Self-Evaluation	28.1	3.89	28.0	3.96	0.08
Perception of Reality	21.3	4.07	21.1	1.91	0.20
Integration of Personality	30.8	2.90	31.2	5.43	0.29
Autonomy	14.4	2.54	15.9	2.51	1.87
Group Oriented Attitudes	27.8	2.14	27.0	2.93	0.98
Environmental Mastery	27.6	2.85	25.3	2.84	2.55*
Total	150.0	9.51	148.5	14.4	0.38

Table 04: Comparison of middle adulthood male participants doing Physical exercise and Yoga on the six dimensions of mental health (Mean, SD and ‘t’ values).

Dimensions of Mental Health	Male (N=20)				
	Physical exercise		Yoga		‘t’
	Mean	S.D	Mean	S.D	
Positive Self-Evaluation	28.1	3.89	29.1	5.02	1.05
Perception of Reality	21.3	4.07	22.8	3.83	1.20
Integration of Personality	30.8	2.90	35.4	4.23	3.99**
Autonomy	14.4	2.54	17.2	3.05	3.18**
Group Oriented Attitudes	27.8	2.14	27.1	2.90	0.81
Environmental Mastery	27.6	2.85	26.7	3.59	0.83
Total	150.0	9.51	158.4	16.5	1.97

Table 05: Comparison of middle adulthood female participants doing Physical exercise and Yoga on the six dimensions of mental health (Mean, SD and ‘t’ values).

Dimensions of Mental Health	Female (N=20)				
	Physical exercise		Yoga		‘t’
	Mean	S.D	Mean	S.D	
Positive Self-Evaluation	28.0	3.96	29.8	4.56	1.34
Perception of Reality	21.1	1.91	22.0	3.81	0.94
Integration of Personality	31.2	5.43	34.3	4.79	1.89

Autonomy	15.9	2.51	17.2	2.26	1.78
Group Oriented Attitudes	27.0	2.93	27.0	3.47	0.04
Environmental Mastery	25.3	2.84	27.7	2.63	2.82**
Total	148.5	14.4	158.1	17.1	1.91

*P<.05, **P<.01

Table 01 refers the significant difference between mental health of participants doing physical exercise and yoga practitioners on the dimensions of integration of personality ($t=3.91$, <0.01), autonomy ($t=3.62$, <0.01) and total mental health ($t=2.80$, <0.01). Mean indicates that yoga techniques are more beneficial as compare to simple physical exercise on the above dimensions.

Table 02 indicated that middle adulthood male and female practicing yoga did not show significant difference on the six dimensions of mental health whereas table 03 showed that those middle adulthood male and females who are practicing physical exercise states significant difference on the dimension of environmental mastery of mental health ($t=2.55$, <0.05).

Table 04 showed significant difference on integration of personality ($t=3.99$, <0.01) and autonomy dimension of mental health ($t=3.18$, <0.01), between middle adulthood males who were doing physical exercise and those who were doing yoga to overcome stress. The mean values of males using yoga technique are higher on the above said dimensions than the counter group.

On the other hand, when we compared middle adulthood females who were doing physical exercise and those who were practicing yoga techniques we found significant difference only on environmental mastery ($t=2.82$, <0.01) dimension of mental health in favour of females using yoga techniques (table 05).

Discussion

Present study was an attempt to compare the mental health on six dimensions namely Positive self-Evaluation, Perception of Reality, Integration of personality, Autonomy, Group Oriented Attitude, Environmental Mastery of middle adulthood participants in terms of simple physical exercise and yoga techniques. Results indicated that yoga technique is more effective than simple physical exercise for enhancing mental health.

Finding of this study revealed that yoga affects significantly on integration of personality, autonomy and on total mental health of participants (table 01)

Comparison of middle adulthood male and female participants practicing yoga did not show significant difference on any dimension of mental health (table 02). However in terms of physical exercise, it is more effective for male on environmental mastery dimension of mental health (table 03).

It indicates that yoga is beneficial for securing mental health of both middle adulthood males and females in equal manner as clarified by table 04 and 05.

Middle adulthood males of yoga group showed positive mental health on integration of personality and autonomy dimension of mental health than the male of practicing simple physical exercise (table 04), whereas middle adulthood females yoga practitioners indicating more environmental mastery as compare to females of practicing simple physical exercise (table 05).

Several studies consisting of our results, Mercola (2016) have repeatedly demonstrated that physical activity helps keep mind sharp with age, and this goes for activities such as yoga as well.

Study conducted by Poonia (2016) have shown that positive health in healthy individual is only built with the Yoga. Other study also showed that Yoga not only improves general health but also improve physical health and sleep related problems, decreases stress and promote social function. It is also effective in anxiety and depression, OCD, PTSD, Psychosis, Substance use disorder etc.

Bonura and Tenenbaum (2013) assess the effect of a yoga intervention on psychological health in older adults. Yoga participants improved more than both exercise and control participants in anger, anxiety, depression, well-being, general self-efficacy and self-efficacy for daily living. Changes in self-control moderated changes in psychological health. Over a six-week period, findings indicate yoga's potential for improving psychological health in older adults.

Timberwolf (2010) found that Meditation, Yoga, Qigong, Tai Chi and other forms of relaxation and exercise teach us about energy accumulation and the interaction between our minds, bodies and the perception of reality. Through these practices we are able to bring or restore balance and harmony to our lives. Achieving balance and harmony will

provide positive reinforcement to our thoughts, increasing our ability to create a perception of reality that we are happy to inhabit during this turn of the wheel of life.

Woodyard (2011) found that yoga should be considered as a complementary therapy or alternative method for medical therapy in the treatment of stress, anxiety, depression, and other mood disorders as it has been shown to create a greater sense of well-being, increase feelings of relaxation, improve self-confidence and body image, improve efficiency, better interpersonal relationships, increase attentiveness, lower irritability, and encourage an optimistic outlook on life.

We concluded our results on in line Yang et al.(2009), that yoga is beneficial for maintaining mental disorders and some kinds of illness. According to Streeter (2010) promising research warrants further study of the relationship between yoga and mood, and suggests that the practice of yoga be considered as a potential therapy for certain mental disorders.

Bhattacharjee (2009) states about yoga that this is a unique technique which helps to invigorate and heal the physical constitution of an individual and in so doing catalyses the thought process towards achieving mental wellbeing. Yoga not only relaxes the mind but works on the balanced release of hormones in the body for perfect functioning on a holistic dimension. Yoga helps to optimise one's disposition and attitude towards one's external environment and can bring about conflict free interactions among people. This may be because of one's mental disposition in dealing with one's internal conflicts which more often find unintentional and sometimes unwarranted outward expression. Once this aspect is taken care of, the world as such may be led towards more tolerant horizon.

In a study conducted by Oken *et al.* (2006), on healthy seniors participants, subjects were divided into three groups of yoga, exercise and waitlist control. The yoga group showed significant improvement in quality of life and physical measures compared to the exercise and waitlist control group.

As the Patanjali (2003) Sutras states: "Yoga is the practice of quieting the mind". Similarly WHO (2014) also explains that Positive mental health is "a state of well-being

in which every individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”.

Shroff and Asgarpour (2017) said that **yoga** is gaining popularity as an accessible, acceptable and cost-effective practice for mind and body all over the world. Now a days people are turning towards yoga for mental health improvement because of preferences for: self-treatment; perceived greater efficacy; fewer side effects; lack of response to medication. Yoga’s added advantage is that it improves physical fitness and encourages self-reliance.

In summary, yoga offers individuals a timeless and holistic model of health and healing and although it may not result in the complete elimination of physical diseases and/ or adverse conditions from the body it offers a holistic path of healing. There exists an indisputable connection between a person's overall physical and mental health and the inner peace and well-being yoga is designed to achieve. Yoga suspends the fluctuations of the mind and by acting consciously; we live better and suffer less.

Conclusion

- Yoga techniques are more beneficial as compare to physical exercise on the integration of personality, autonomy and on total dimensions of mental health.
- Middle adulthood males who are practicing physical exercise states more environmental mastery in comparison to females.
- Middle adulthood males using yoga technique possess more integration of personality and autonomy than the males who were doing physical exercise.
- Middle adulthood females using yoga techniques have more environmental mastery than the females who were doing physical exercise.

Limitation and Suggestions: Limitations of this study should be acknowledged. First, we included only middle adulthood participants for the study. Second, the overall sample size in each group was small. Additionally, several important variables that may explain the relationship found were not examined in the current study, most notably, socioeconomic status, urban-rural living arrangements, age of participants at the time they start using stress management techniques.

By understanding the limitations of this study we may suggest for further research that more significant results can be obtained through increasing sample size and comparing results with other stress management techniques like meditation, psychotherapies and tai-chi etc. Results also get more predictable by using other variables such as: anxiety, depression etc.

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