

## Effect of Yoga Practice on Mental Health of Elementary Teacher Training Students

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### Abstract

*The present study investigates the effect of yoga classes on mental health of elementary teacher training students. A pre-test and post test factorial design has been employed on the gain mental health scores of experimental and control group. The total sample comprises 60 Elementary Teacher Training students of Rayat College of Education, Railmajra, affiliated to State Council of Educational Research and Training, Punjab was selected. The gain scores were computed after post- test for all the students. The data was analyzed statistically with the help of mean, SD and t-ratio. The results of the study reveals that (i) Mental health post-test mean scores of experimental group was significantly higher than that of pre-test mean scores. (ii) There is no significant difference found in the mental health pre-test and post-test mean scores of control group. (iii) Mental health mean gain scores of experimental group was significantly higher than that of control group.*

**Key words:** Yoga Practice, Mental Health, Elementary Teacher Training Students,

### Introduction

The conceptual background of yoga has its origins in ancient Indian philosophy. There are numerous modern schools or types of yoga (i.e., Iyengar, Viniyoga, Sivananda, etc.), each having its own distinct emphasis regarding the relative content of physical postures and exercises (*Asanas*), breathing techniques (*Pranayama*), deep relaxation, and meditation practices that cultivate awareness and ultimately more profound states of consciousness. The application of yoga as a therapeutic intervention, which began early in the twentieth century, takes advantage of the various psycho-physiological benefits of the component practices. The physical exercises (*Asanas*) may increase patient's physical flexibility, coordination, and strength, while the breathing practices and meditation may calm and focus the mind to develop greater awareness and diminish anxiety (Kirkwood, Rampes, Tuffrey, Richardson & Pilkington, 2005), and thus result in higher quality of life. Other beneficial effects might involve a reduction of distress, blood pressure, and improvements in resilience, mood, and metabolic regulation (Yang, 2007).

By 2020, the World Health Organization predicts that depression will be the second largest contributor to the global disease burden, after ischemic heart disease. Anxiety is also being diagnosed at a greater rate than it was in the past. Despite these increases in diagnosis, treatment regimens typically include pharmaceutical therapies that are not sufficient to prevent further illness or promote mental well-being. Effectively addressing mental health concerns entails a comprehensive approach that addresses the root of the problem(s) (Da-Silva, Ravindran & Ravindran, 2009; Jorm, Christensen, Griffiths & Rodgers, 2002; Pilkington, Kirkwood, Rampes & Richardson, 2005).

The eight limbed path of yoga includes: Yama (moral codes), Niyama (self-discipline), asana

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(postures), Pranyama (breath practices promoting life force), Pratyahara (sensory transcendence), Dharana (concentration), Dhyana (meditation), Samadhi (state of bliss). Yoga's greatest aim is to create compassion within and a deep sense of unity and oneness with all forms of life. Yoga is an individual activity that has social implications. Those who regularly participate in yoga typically interact with the world in calmer and more reasonable ways. More positive social interactions and relationships are one of the ripple effects of individual yoga practice (Shroff, 2011).

The mechanisms that make yoga a seemingly effective health promotion, disease prevention, treatment, rehabilitation, and palliation intervention are not entirely understood. Various researchers hypothesize that yoga works through positively affecting the nervous system, the cardiovascular system and gene expression. Stimulation of the Vagal nerve results in increased parasympathetic activity of the autonomic nervous system and also increases GABA (a neurotransmitter) activity in the brain (Streeter, Gerbarg, Saper, Ciraulo, & Brown, 2012).

From a yogic perspective, the breath is a bridge between mind and body. Slow diaphragmatic breathing is common to almost all forms of yoga. The key to quieting the mind is slowing and deepening the breath. Practicing yoga helps to regain mental stability, calmness, and tranquility, primarily because of this kind of breathing. Practitioners are able to connect internally through this stillness and silence. Virtually all yogic practices, including asana (Postures), Pranyam (Life Force Practices), Dhyana (Meditation), encourage quietness and listening within. Being kinder and gentler to oneself and others is part of the practice on and off the mat. A yogic saying states that through a flexible body we gain a flexible mind. This helps people become more patient, forgiving, less prone to anger and sadness. Additionally, yoga brings practitioners "home" to their natural selves, partially through an imitation of nature. Many of the Asanas imitate animals and plants such as tree pose, dog pose, cat pose, snake pose, and others (Parks & Steelman, 2008).

The final part of a yoga class is Savasana, corpse pose, in which people lie down with their arms and legs open in deep rest. It is often the most popular part of the class, partly because it comes after the body has been moving and working. Ayurvedic physicians recommend savasana to almost all their patients as a remedy to modern society's hectic pace of living. Savasana combines deep breathing with systematic relaxation of each body part. While some people may fall asleep during Savasana, the intent is to maintain consciousness while most of the body is resting. The sense of expansion and softness helps to release attachment to material concerns. Within Indian philosophy death is part of a cycle of life and re-birth. By allowing the mind and body to imitate death, letting go of all worries and attachments becomes possible.

Moreover, yoga encourages practitioners to experience an open heart. Many yogic philosophers consider the entire practice to be about metaphorically connecting to our hearts. Within the chakra system, the heart lies in the middle of the seven chakras. Asanas such as Arda Chakrasana (back bend), Kapotasana (pigeon pose), and Ustrasana (camel pose) encourage the expansion of the center of the chest which is the location of the Anahata Chakra, the yogic heart center. Visualizations and Pranyams in yoga also encourage open heartedness. The effect is often less judgment, greater acceptance of self and others and a more relax approach to life.

In fact, mental health problems are common among children and young people in the West, as well as in other parts of the world. The current scenario is challenging for both teachers and parents, as well as for children, to foster a positive mental health status. The transition from early childhood to youth

and adulthood can be demanding in itself. In the midst of dealing with physical changes, children also have to develop their own identity, increase their autonomy from their parents, and handle changing peer relations. The pressure on young people also varies, encompassing academic, commercial/marketing, and relational issues, as well as succeeding in school, being popular, having a fit or slim body, wearing the right brands of clothes, and owning the latest technological gadgets, etc (Hagen & Wold, 2009). This set of expectations creates stress, which impacts children and young people's mental health and well-being, as well as hampers their school performance (Hagen, 2009).

In this paper, investigator tried to provide evidence for yoga as a form of health promotion, illness prevention and treatment for depression and other mental health imbalances. Like other therapies, yoga is not a complete solution to mental health concerns. In conjunction

with other approaches, yoga has great potential to lead people towards greater mental well-being.

### **Need and Significance of the Study**

Today, learners are facing many problems like academic stress, family stress and many more. Coping with these problems may depends on presence of sequential set of mental process involving emotion recognition, appraisal of implications for self and initiation of control process. Generally, parents and teachers expect high level performance in all the areas from their children's but less attention is paid toward the psychological and mental problems of the learners. In the present study it is observed in elementary teacher training students that after the school education they enter in professional course and have lot of pressure on their mind due to academic burden, economic problems, job fear after the completion of course, expectations of society, parents and teachers, which lead to many mental health problems like. So the need is felt to introduce the yoga practice among elementary teacher training students to reduce their external world problems and help them to concentrate on self. Therefore investigators made an attempt to determine effect of yoga practice on the mental health of elementary teacher training students.

### **Objectives**

1. To compare the pre-test and post-test mental health scores of experimental group.
2. To compare the pre-test and post-test mental health scores of control group.
3. To compare the mental health of experimental and control group.

### **Hypotheses**

H<sub>1</sub>: There will be no significant difference in pre-test and post-test scores of experimental group on mental health.

H<sub>2</sub>: There will be no significant difference in pre-test and post-test scores of control group on mental health.

H<sub>3</sub>: There will be no significant difference in mean gain scores of experimental group and control group on mental health.

### **Sample**

The study was conducted on a sample of 60 students of elementary teacher training class of Rayat College of Education, Railmajra, Shaheed Bhagat Singh Nagar, affiliated to State Council of

Educational Research and Training, Punjab. The two intact sections of 30 students were formed. The two intact sections were named as experimental and control group. It was purposive sample.

**Design**

The study was experimental in nature. A pre-test and post test factorial design was employed. Treatment of yoga asana and breathing exercises was given along with routine classes to experimental group only. The variable yoga classes were independent variable and mental health score was the dependent variable which was calculated as the difference in post-test and pre-test scores.

**Tools Used**

1. Mental Health Inventory by Jagdish and Srivastava (1983) was used.
2. 20 Minutes Yogaasana and Breathing exercises were done along with routine classes for thirty day of the implementation of experiment.

**Procedure**

After the selection of sample and allocation of students to the two groups, the experiment was conducted in four parts i.e. **firstly**; a mental health pre-test was administered to the students of both the treatment and control group. The answer sheets were scored to obtained information regarding the previous mental level of elementary teacher training students. Secondly, for 30 day, 20 minute treatment of yoga Asana and Breathing exercises were given to experimental group along with routine classes. Thirdly after the completion of the treatment, mental health post test was administered to the students of both the groups. The answer sheets were scored with the help of scoring key. The scores of experimental and control group was compared according to their pre-test and post-test scores. The difference was the gain mental health scores.

**Analysis and Interpretations of the Results**

The analysis of the obtained data was done by statistics such as mean, SD and t-ratio techniques were used. The results are presented in table 1, 2, and 3.

**Table-1: t- ratio of significance difference between pre and post test scores experimental group on mental health**

| Variable           | Post-test Scores |        |       | Pre-test Scores |        |       | SE <sub>D</sub> | t-ratio |
|--------------------|------------------|--------|-------|-----------------|--------|-------|-----------------|---------|
|                    | N                | Mean   | SD    | N               | Mean   | SD    |                 |         |
| Experimental Group | 30               | 160.67 | 12.58 | 30              | 152.46 | 10.01 | 2.93            | 2.80**  |

*\*\*Significant at 0.01 level*

*(Critical Value 2.00 at 0.05 and 2.66 at 0.01 level, df 58)*

Table-1 shows that post test mental health mean scores of experimental group is 160.67, which is higher than pre-test mental health mean scores 152.46, of experimental group. The t-value testing mean difference of post and pre test of experimental group is 2.80, which in comparison to table value was found significant at 0.01 levels. Hence hypothesis H<sub>1</sub>: There will be no significant difference in pre-test and post-test mental health mean scores of experimental group, is rejected. The result indicates that experimental group has improvement in their mental health due to yoga practice along with normal classroom activities.

**Table-2: t-ratio of significance difference between pre and post test scores of control group on mental health**

| Variable      | Post-test Scores |        |       | Pre-test Scores |        |       | SE <sub>D</sub> | t-ratio |
|---------------|------------------|--------|-------|-----------------|--------|-------|-----------------|---------|
|               | N                | Mean   | SD    | N               | Mean   | SD    |                 |         |
| Control Group | 30               | 152.50 | 10.47 | 30              | 152.46 | 10.43 | 2.69            | 0.014   |

(Critical Value 2.00 at 0.05 and 2.66 at 0.01 level, df 58)

Table-2 shows that post test mental health mean scores of control group is 152.5, which is little higher than pre-test mental health mean scores of 152.46 of control group. The t-value testing mean difference of post and pre test of control group is 0.014, which in comparison to table value was not found significant even at 0.05 level. Hence hypothesis H<sub>2</sub>: There will be no significant difference in pre-test and post-test mental health means scores of control group, is accepted. The result reveals that there is no improvement in mental health of control group due to routine activities in classroom. Bazzano, Anderson, Hylton and Gustat (2018) found that there were no significant differences between intervention and control with regard to demographic traits, prior yoga experience.

**Table-3: t-ratio of significance difference between mean gains scores of experimental and control groups on mental health**

| Variable    | Experimental Group |      |      | Control Group |      |      | SE <sub>D</sub> | t-ratio |
|-------------|--------------------|------|------|---------------|------|------|-----------------|---------|
|             | N                  | Mean | SD   | N             | Mean | SD   |                 |         |
| Gain Scores | 30                 | 8.21 | 2.14 | 30            | 0.04 | 1.04 | 2.37            | 3.44**  |

\*\*Significant at 0.01 level

(Critical Value 2.00 at 0.05 and 2.66 at 0.01 level, df 58)

Table-3 shows that mean gain mental health scores of experimental group is 8.21, which is higher than the mean gain mental health scores of 0.04 of control. The t-value testing significance of mean difference of experimental and control groups is 3.44, which in comparison to table value was found significant at 0.01 level. Hence, the null hypothesis H<sub>3</sub>: There will be no significant difference in the mental health mean gain scores of experimental and control group, is rejected. The result reveals that mental health of experimental group is better due to yoga practice with routine classroom activities than that of control group. The results of the study were supported by findings of Gururaja, Harano, Toyotake & Kobayashi (2011) found that yoga helps to improve the mental health in both the groups. Hagen & Nayar (2014) found that yoga may help children and young people cope with stress and thus, contribute positively to balance in life, well-being, and mental health. We present research literature suggesting that yoga improves children's physical and mental well-being. Folleto, Pereira and Valentini. (2016) suggest that the implementation of yoga practice in physical education lessons contributed to children's development. Hendriks, De-Jong and Cramer (2017) found that the practice of yoga contributes to an increase in physically mental health among adults from non-clinical populations in general. Yoga was found to contribute to a significant increase in psychological well-being when compared to no intervention but not compared to physical activity. Jain and Jain (2017) found that yoga is helpful to keep better physical and mental health of primary school level child. Bazzano, Anderson, Hylton and Gustat (2018) found that the intervention group was significantly

more interested in yoga, with 95% rating themselves very or somewhat excited to participate, compared to only 59.38% among the controls at baseline.

### Findings

1. The post-test mean scores of experimental group was significantly higher than that of pre-test scores on mental health.
2. The post test mean scores of control group were not significantly higher than that of pre-test scores on mental health.
3. The mean gain scores of experimental group were significantly higher than that of control group on mental health.

### CONCLUSION

**The present study reveals that mental health of experimental group was significantly higher than that of control group. It is further observed during the experiment that there was improvement in the mental health of elementary teacher training students who were practicing yoga and breathing exercises every day along with routine classroom activities than that of control group elementary teacher training students.** By practicing meditation one can easily concentrate and relax. Practice of speaking 'OM' helps to control the mind from different unwanted thoughts and provide mental peace. Yoga controls mental health, prevent depression, fatigue, anxiety, stress, posttraumatic stress disorder. It maintains physical fitness, sympathetic / parasympathetic activation, and cardiovascular endurance. Regular practice of yoga and asana improves cardio pulmonary conditions, hyper tension, pulmonary functions, metabolic processes, endocrine gland working, glucose regulation, musculoskeletal functions. Government has accepted the importance of yoga that's why specific training sessions are organized for school teachers and students. **It is concluded from the above whole discussion that yoga classes and breathing exercises has positive impact on the mental health of learners. So it can be implemented on other classes at school level or college level.**

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