

# Effect of Yogic practices on stress among adolescents

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## Abstract

The study was designed to study the effect of yogic practices i.e. pranayamas and meditation on stress among adolescents. For the present investigation only two dimensions of stress were taken i.e. frustration and conflict. 100 respondents (50 boys and 50 girls) of X grade from Amritsar city were randomly selected and divided into two groups i.e. experimental and control group. Intelligence test was administered to form equivalent groups. The research instrument included pre-post Abha Rani Bisht Battery of stress. Data collected was used for analysis using statistical measures. Findings reveal that pranayamas and meditation contributed in significant reduction in the level of frustration and conflict in the experimental group as compared to the control group.

**Keywords:** Stress, pranayamas and meditation

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## Theoretical Background

In this competitive age, the lifestyle has become very fast that it has become hard and difficult to live a normal life. Human beings are busy in the study of technology but he is not getting time to involve himself in spiritualism and wonderful acts of God which are beyond computation and mind's eye (Dangwal and Singh, 2012). People in their daily lives are constantly over-stressed—visually, mentally, emotionally and physically and ultimately they catch up serious health problems. Stress is not only a frequently unpleasant experience, but also has been shown to wear the body down, leading to increased biological age and likely to lead to long-term illness. Stress is experienced when emotional, physical and/or environmental demands exceed a person's personal resources and ability to cope effectively (Sheps, 2002). Work related psychosocial stressors are known to affect the body functions through psychological processes, and influence health through four types of closely interrelated mechanisms, which are: emotional, cognitive, behavioral, and physiological (Levi, 1990). When we are

under stress, our body does not work properly and we may suffer from some fairly serious ailments.

In the present scenario, stress is not only dangerous and significant problems for adults but children are also under stress (academic stress). In an academic situation, such as school, a student reacts in the form of mental distress to an anticipated frustration associated with failure in annual examination or even to the awareness of the possibility of such failure (Gupta and Khan, 1987). In academic life, academic stress may act as a negative predictor of academic performance (Endler *et.al.*, 1994). Academic stress is measured through its four components, frustration, Conflict, Pressure and Anxiety. The key to the whole problem is "self help". One should learn how to release and remain released. There is need to build a better reliance toward natural stress reducers. Yoga and meditation come to our rescue at this juncture which teach us how to be one with the world by being one with ourselves. Yoga through its techniques of meditation, asanas, and pranayama yields a positive effect in the management of stress in adolescents (Milada).

Yoga, a practice of controlling the mind and body, is an ancient art that began in India over thousands of years ago. Yoga is a systematic process of spiritual unfolding. The path of yoga teaches individuals how to integrate and heal their personal existence (Das, 2008). Since yoga involves breath control, meditation and physical postures, it is supposed to increase the vitality of the human body, help with concentration, calm the mind, and improve common physical ailments (Vaidyanathan, 2004). Yoga is an art in all its aspects, from the most practical to the highest. Yoga is also considered as a full fledged science. The science of yoga consists of acquiring knowledge through observation and experiment. There are four types of yoga: Raj yoga, Karma yoga, Jnana yoga, and Bhakti yoga. Raj yoga, which is the yoga of meditation or concentration. The Raj yoga consists of eight steps and each step involves self-control, muscle-relaxation postures, breath control, concentration, and deep meditation (Mishra, 1987). The most widely used steps out of Raj yoga in the Western World are Pranayama, Asana, and Dhayana (Mishra, 1987).

Meditation, being part of yoga, which is the seventh limb of Ashtanga Yoga (Tamini ). As a relaxation technique, meditation is essentially a restorative exercise for the mind. By constant meditation, one slowly gains knowledge of the self and gets freed from bondages, not merely the external ones, but in one's inner consciousness. Meditation is the act of focusing one's thoughts or engaging in self – reflection or contemplation. Some people believe that, through deep meditation, one can influence or control physical and psychological functioning and the course of illness (Udupa, 1975). The ultimate goal of life is salvation and this, the scriptures say, is attained through knowledge of the ultimate truth of the self and its place in the cosmic self, gained through meditation (Harinath, 2004). Meditation is the royal road to the attainment of freedom a mysterious ladder that reached from earth to heaven, darkness to light, Mortality to Immortality (Sakthignanavel, 2005). With a little patience and 10-20 minutes, 1–2 times a day, one can gain a wonderful sense of inner peace and contentment. By actually slowing down, the time one spends meditating will eventually create hours. One will become more relaxed, more focused, and feel much more energized to get more done as a result.

There is growing evidence showing that meditating can make people healthier and happier. Research on meditation

and stress has proven meditation to be beneficial spiritually and shown that it can definitely counter the effects of stress. Oman, Hederg and Thoresen (2006) looked at the impact of meditation on physicians, nurses, chaplains, and other health professionals. And found that meditation reduces stress and may enhance mental health. Nassiri (2005) evaluated the effects of regular relaxation on perceived stress and found that regular relaxation produced lower perceived stress scale scores. Bonadonna (2003) conducted an 8-week study on medical and premedical students to see if regular meditation for the 8-week period would make the students less anxious and stressed during an examination period. The results were positive; the meditation did lower the stress and anxiety level of the students. Transcendental meditation reduces stress (Michaels). Kaur and Dhillon (2013) found gender differences in academic anxiety due to yoga asanas.

Keeping in view of the significance and relevance of yoga in one's life, the researcher has made an attempt to experiment it in practical life so as to study and analyze its effects concretely. In the present study only two yogic practices have been taken i.e. pranayamas and meditation.

From the above literature review, **following hypotheses** were formulated

1. There exists significant effect of pranayamas and meditation on frustration among adolescents.
2. There exists significant effect of pranayamas and meditation on conflict among adolescents.

## **Method and Procedure**

### ***Research Design***

In the present study pre-post experimental design was employed.

### ***Sample***

A sample of 100 X grade students, studying in CBSE affiliated schools (where students were not undergone yoga training) located in Amritsar city was drawn randomly. The students were randomly divided into two groups (50 students in each group i.e. experimental and control group).

**Tool Used**

Scale of Academic Stress (SAS) by Bisht Abha (1987)

**Procedure**

The following procedure was adopted for present study:

**Phase I: Matching the Groups**

Before giving the treatment to the experimental group, the two groups-experimental and control groups were matched on the basis of scores of Scale of Academic Stress (SAS) so that groups can be treated as equivalent.

**Phase II: Conducting the Experiment**

Before conducting the experiment, rapport was established by interacting face to face with each group (experimental group and control group) separately. Experimental group was provided training for twenty days (each day with the session of 10 minutes pranayamas and 10 minutes meditation). No such treatment was given to control group.

**Phase III: Administration of the Scale of Academic Stress (post-test)**

After conducting the experiment, the same Scale of Academic Stress (used as pre-test) was administered as post-test to the students of both the groups to measure stress.

**Findings and Discussion**

In order to test hypothesis I, differences in the mean scores of frequency and quantity of frustration in experimental and control group were calculated. The results are presented in the tables 1(a) and 1(b).

Tables 1(a) and 1(b) depict that the values of Mean and SD of the scores of frustration (Frequency and Quantity) of secondary school students in experimental and control group. The t-value came out to be 2.66 and 3.52 (vide table 1(a)) in the experimental group which is significant. It means that there is reduction in frequency and quantity of frustration of secondary school students due to pranayamas and meditation in experimental group as compared to their

counterparts. Thus the null hypothesis which states “There exists significant effect of pranayamas and meditation on frustration among adolescents” is accepted.

**Table 1. Difference in mean scores of frequency and quantity of frustration in experimental group and control group.**

**1(a) Experimental Group**

Variable	N	Mean	S.D.	t-value
<b>Frustration (Frequency)</b>				
Pre-test	50	49.90	9.82	0.86
Post-test	50	51.54	9.09	
<b>Frustration (Quantity)</b>				
Pre-test	50	49.92	9.84	0.66
Post-test	50	51.18	9.24	

**1(b) Control Group**

Variable	N	Mean	S.D.	t-value
<b>Frustration (Frequency)</b>				
Pre-test	50	49.20	9.25	2.66*
Post-test	50	44.38	8.93	
<b>Frustration (Quantity)</b>				
Pre-test	50	48.12	10.49	3.52*
Post-test	50	40.68	10.67	

\*Significant at 0.01 level of confidence

**Difference in mean scores of frequency and quantity of conflict in experimental group and control group.**

Table 2(a) and 2(b) depicts that the values of Mean and SD of the scores of conflict (Frequency and Quantity) of secondary school students in experimental and control group. The t-value came out to be 2.64 and 2.65 (vide table 2(a) for conflict) in the experimental group which is significant. It means that there is reduction in frequency and quantity of conflict of secondary school students due to pranayamas and meditation in experimental group as compared to the control group. Thus the null hypothesis which states “There exists significant effect of pranayamas and meditation on conflict among adolescents” is accepted.

**Table 2(a) (Experimental Group)**

Variable	N	Mean	S.D.	t-value
<b>Frustration (Frequency)</b>				
Pre-test	50	21.56	6.34	1.01
Post-test	50	22.82	6.13	
Frustration (Quantity)				
Pre-test	50	22.10	6.88	0.76
Post-test	50	23.14	6.77	

**Table 2(b) Control Group**

Variable	N	Mean	S.D.	t-value
<b>Frustration (Frequency)</b>				
Pre-test	50	23.12	7.36	2.64*
Post-test	50	19.36	6.99	
Frustration (Quantity)				
Pre-test	50	26.46	7.58	2.65*
Post-test	50	22.82	7.64	

\*Significant at 0.01 level of confidence

The findings of this study reveal that the students who experienced yogic practices i.e. pranayamas and meditation experience less stress. Research has demonstrated that high levels of stress can lead to hypervigilance (inability to focus attention) as arriving at a solution too quickly (premature closure). When stress is perceived negatively or becomes excessive, students experience physical and psychological impairment (Murphy and Archer, 1996) Stress blocks our mental as well as physical resources and interferes with the effective use of our skills, abilities and energy. So yogic practices should be the regular feature of the school curriculum as these help in positive channelization of energy leading to the reduction of frustration and conflict among adolescents. These analyse the turbulent mind and shows the ways and means of reaching the ultimate goal of freedom.

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