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## Impacts of Surya Namaskara on anxiety and mental stress of college girls

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### Abstract

Surya Namaskara is a novel and invaluable contribution of Indian culture to mankind. Surya Namaskara practices help the students achieve mental, emotional and physical balance. It improves mental fitness, promotes relaxation, and reduces stress, anxiety and depression. Anxiety and stress are complex component of mind. All psychological components are reduced by Surya Namaskara.

**Purpose:** The purpose of the present study is to find out the effects of Surya Namaskara on anxiety and mental stress of college girls.

**Methodology:** Hundred (100) college girls of District Purba Medinipur, West Bengal State were selected at randomly as subjects for the present study. The age limit of the subjects was 19-23 years. All the subjects were divided into two equal groups such as Gr. ECG and Gr. CCG. Gr. ECG was experimental group and Gr. CCG served as control group. Initially Hamilton Anxiety Rating Scale and Stress Questionnaire designed by The International Stress Management Association (ISMAUK) were employed to all the subjects of Gr. ECG and Gr. CCG and thereafter Surya Namaskara as a treatment were given to Gr. ECG for five days in a week and 60 minute and continued three months and finally the subjects were retested on criterion measures. The data were analysed by paired t-test to find out the effects of the treatment.

**Results:** The result of the present study showed that anxiety and mental stress of college girls were improved significantly among Gr. ECG after three month of practice Surya Namaskara as a treatment.

**Conclusion:** Anxiety and Mental Stress were improved significantly through the practice of Surya Namaskara.

**Keywords:** Surya namaskara, stress, anxiety

### Introduction

The English word 'meditation' is derived from the Latin word 'meditatio' which means "to think, contemplate devise, ponder, and meditate. The greatest help to spiritual life is meditation. In meditation we divest ourselves of all material conditions and feel our divine nature. We do not depend upon any external help in meditation. Meditation is universal. It transcends all divides like religion, country and culture. It is a gift given to mankind to access the infinite sprite not limited by any identity. It is the only tool that can aid a person to return to innocence. In modern life style has high exposure to anger, hate, fear and other negative emotion. Meditation helps an individual overcome these emotions to facilitate a calm peaceful mind and healthy and stress free body. Meditation promotes relaxation, develops self-concept, self-confidence, positive attitude and socialability and reduces stress as well as anxiety.

Most of us can manage varying amounts of pressure without feeling stressed. However too much or excessive pressure, often created by our own thinking patterns and life experiences, can overstretch our ability to cope and then stress is experienced. Yadhav (2006) <sup>[9]</sup> investigated the impact of yoga practices on self-concept among fifty naturopathy and yogic science college students and fifty MBBS students both male and female. Result revealed that naturopathy and yogic science college students have better self-concept than MBBS students. Deshpande, Nagendra and Raghuram (2009) <sup>[4]</sup> studied the practice of integrated yoga module consisted of asanas, pranayama, meditation, notional correction and devotional session on personality and self-esteem in normal adult, compared with the mild moderate physical exercise group.

**Purpose:** The purpose of the present study intended to find out the effects of Surya Namaskara on anxiety and mental stress among teenage girls.

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**Methodology**

**Sample:** Total hundred (100) college girls of District Purba Medinipur, West Bengal State were selected at randomly as subjects for the present study. The age limit of the subjects was 19-23 years. All the subjects were studied in 1<sup>st</sup> Semester to 5<sup>th</sup> Semester. All the subjects were divided into two equal groups such as Gr. ECG (N = 50) and Gr. CCG (N = 502). Gr. ECG was experimental group and Gr. CCG served as control group.

Hamilton Anxiety Rating Scale (HAM-M) and Stress Questionnaire designed by The International Stress Management Association (ISMAUK) were employed to all the subjects of Gr. ECG and Gr. CCG and thereafter Surya Namaskara as treatment was given to Gr. ECG for five days in a week and 60 minutes per day and continued three months and finally the subjects were retested on criterion measures. The data were analysed by paired t-test to find out the effects of the treatment.

**Tools**

**Hamilton Anxiety Rating Scale (HAM-M):** The HAM-A was one of the first rating scales develop to measure the severity of anxiety symptoms, and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Although the HAM-A remains widely used as an outcome measure in clinical trials, it has been criticized for its sometimes poor ability to discriminate between anxiolytic and antidepressant effects, and somatic anxiety versus somatic side effects. The HAM-A does not provide any standardized probe questions.

**Scoring:** Each item is scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0–56, where < 17 indicates mild severity, 18-24 mild to moderate severity and 25-30 moderate to severe.

**The International Stress Management Association (ISMAUK):** Total twenty-five statements are there and

answer all the questions with either a Yes or a No. Answer yes, even if only part of a question applies to you. The subjects were given 30 minutes for answer and they completed their answer honestly.

**Scores**

**One or zero score for each answer**

**i) 4 points or less:** You are least likely to suffer from stress-related illness.

**ii) 5-13 points:** You are more likely to experience stress related ill health either mental, physical or both. You would benefit from stress management/counselling or advice to help in the identified areas.

**iii) 14 points or more:** You are the most prone to stress showing a great many traits or characteristics that are creating un-healthy behaviours. This means that you are also more likely to experience stress & stress-related illness e.g. diabetes, irritable bowel, migraine, back and neck pain, high blood pressure, heart disease/strokes, mental ill health (depression, anxiety & stress). It is important to seek professional help or stress management counselling. Consult your medical practitioner.

**Treatment consists of following meditation**

Prayer is the best to begin all session of surya namaskara. It helps to concentrate our mind, so investigator used to start all the session of surya namaskara with prayer. Then the subjects of Gr. ECG practised surya namaskara with breathing exercise for twelve times. After practiced of first phase of surya namaskara, the subjects did savasana for 90 seconds. After practiced of savasana the subjects were started second phase of Surya namaskara practiced same as first phase and finally did last phase of surya namaskara same as first and second phase. After practiced third phase of surya namaskara, the investigator applied relaxation technique for five to ten minutes.

**Results and Discussions**

Anxiety scores and Mental Stress scores for college girls were analyzed by paired t-test and level of significance was set up at 0.05 level of confidence.

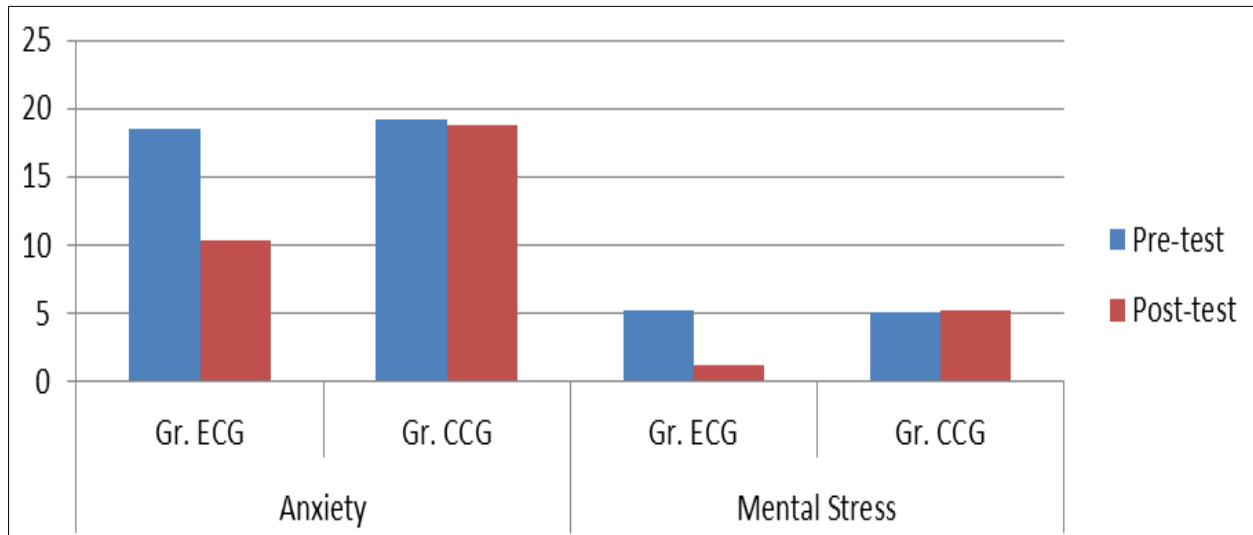
**Table 1:** Group means increase in anxiety and mental stress among Gr. S and Gr. C after three months treatment

Variable	Type of Test	Gr. ECG			Gr. CCG		
		Mean	S.D	T	Mean	S.D	T
Anxiety	Pre-test	18.47	1.56	6.31	19.13	2.1	0.05
	Post-test	10.27	1.81		18.75	1.77	
Mental Stress	Pre-test	5.21	1.21	7.32	5.03	1.15	0.71
	Post-test	1.21	0.58		5.16	1.05	

Significant at 0.05 level of confidence

Table-I, represents the mean values of pre and posttest for anxiety of Gr. ECG and Gr. CCG. The mean values of pre-test and post-test of Gr. ECG were 18.47 and 10.27 respectively in anxiety level. On the other hand, mean values of pre-test and post-test of Gr. CCG were 19.13 and 18.75 respectively in anxiety. The t-value of anxiety of Gr. ECG was 6.31 and the t value of Gr. ECG in relation to improvement of anxiety was significant at 0.05 level of confidence after three months treatment. The t-value of anxiety of Gr. CCG was 0.05. To be significant at 0.05 level of confidence the t-value should be greater than 2.04. The t-value of Gr. CCG in anxiety was not improved significantly at 0.05 level of confidence after three months treatment. Table-I, also represents the mean values of pre and posttest for mental stress level of Gr. ECG and Gr.

CCG. The mean values of pre-test and post-test of Gr. ECG were 5.21 and 1.21 respectively in mental stress. On the other hand, mean values of pre-test and post-test of Gr. CCG were 5.03 and 5.16 respectively in mental stress. The T-Value of mental stress of Gr. ECG was 7.32 and the T-Value of Gr. ECG in relation to improvement of mental stress was significant at 0.05 level of confidence after three months treatment. The t-value of mental stress of Gr. CCG was 0.71. To be significant at .05 level of confidence the t-value should be greater than 2.04. The t-value of Gr. CCG was not improved significantly at .05 level of confidence after three months treatment.



**Fig 1:** A comparison of means of pre and post test data on Anxiety and Mental Stress among Gr.ECG and Gr. CCG.

Surya namaskara, a combination of asanas, Pranayama and meditation, play great role for the reduce of anxiety and mental stress which has been reported by Anderson and Freshman (1982), Deshpande, Nagendra and Raghuram (2009), Morison and Ibrahim (1981) and Yadhav (2006)<sup>11, 4, 7, 91</sup>. In this study, Surya namaskara reduced mental stress and anxiety significantly after three months treatment. Surya namaskara have a greater impact on the mind and the senses than other exercises with the result that surya namaskara help to develop one's physical and mental powers to make the mind clam and control the stress. Yoga involves and includes eight paths (i.e. astanga yoga-yama, niyama, asana, pranayama, pratyahara, dharana, dhyana and Samadhi.). The astanga yoga based on idealistic approach, a real road to attain god consciousness, self-consciousness and self-concept. Surya namaskara helps an individual overcome these emotions to facilitate a calm peaceful mind and healthy and stress free body. Surya namaskara promotes relaxation, develops self-concept, self-confidence, positive attitude and reduces stress as well as anxiety.

## Conclusion

**Under the conditions of the present study the results seem to be concluding that the following:**

1. Significantly reduced of anxiety was observed by administering three months treatment of Surya namaskara among college girls.
2. Experimental group of college girls were reduced mental stress significantly after three months treatment of Surya namaskara.

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