

A study on perceived stress, depression, anxiety and adjustment among young adult yoga practitioners and non practitioners.

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Abstract : Stress, depression, anxiety and adjustment problem have been implicated as contributors so many chronic diseases and to decreased quality of life, even with pharmacologic treatment. Efforts are underway to find non-pharmacologic therapies to relieve stress, depression, anxiety, and adjustment problem, yoga is one option for which results are promising. Yoga is a mind-body exercise that combines both relaxation techniques and physical activity. Because of this unique approach, yoga has become a common tool for people with stress, depression, anxiety and adjustment.

This research focused on comparative analysis of stress, depression, anxiety and adjustment problems among young adult yoga practitioners and non practitioners.

In this study 60 young adult people of 20-30 years age were selected for data collection. Among them 30 (15 males and 15 females) candidates were yoga practitioners and other 30 (15 males and 15 females) candidates do not practice yoga. Perceived stress were assessed with the help of the Perceived Stress Scale PSS-10 (Cohen Kalmar & Mermelstein, 1983), depression were assessed with the help of Beck Depression Inventory Scale (BDI-2), anxiety were assessed with the help of State-Trait Anxiety Inventory Scale (STAI) and adjustment were assessed with the help of Bell Adjustment Inventory Scale (BAI).

Data were analyzed with Mean, Standard Deviation and t-test of Independent sample. Results indicated that no significant difference was obtained between yoga practitioners and non-yoga practitioners in terms of their perceived stress, depression, anxiety and adjustment.

The study reveals an area indicating that yoga can be an effective technique in reducing some of the psychological disturbances which are not usually deep rooted in nature. Suggestions for further study may be stated that yoga can be an alternative mode of treatment if provided with other measures, can have beneficial effect for the sufferers.

IndexTerms - Yoga, perceived stress, depression, anxiety and adjustment.

I. INTRODUCTION

HEALTH:

As define by World Health Organization (WHO, 1948), it is a "State of complete physical, mental, and social well being, and not merely the absence of disease or infirmity." Health is a dynamic condition resulting from a body's constant adjustment and adaptation in response to stresses and changes in the environment for maintaining an inner equilibrium called homeostasis. The maintenance and promotion of health is achieved through different combination of physical, mental, and social well-being, together sometimes referred to as the "health triangle." (Nutter,2003). It refers not only to the absence of disease, but the ability to recover and bounce back from illness and other problems. Factors for good health include genetics, the environment, relationships and education. A healthy diet, exercise, screening for diseases and coping strategies can all enhance a person's health.

Mental and physical healths are the two most commonly discussed types of health. We also talk about "spiritual health," among others. These have also been linked to lower stress levels and mental and physical well being.

MENTAL HEALTH:

According to World Health Report (2001) mental health includes "subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependence, and self-actualization of one's intellectual and emotional potential, among others." It is the "psychological state of someone who is functioning at a satisfactory level of emotional and behavioral adjustment"(Princeton University, 2004). From the perspective of positive psychology or holism, mental health may include an individual's ability to enjoy life, and create a balance between life activities and efforts to achieve psychological resilience (About.com, 2006):

- Biological factors such as genes or brain chemistry
- Life experiences such as trauma and abuse
- Family history or mental health problem

Mental health problems are common but helps are available. People with mental health problem can get better and many recover completely.

Positive mental health realize people to realize their full potential, cope with the stress of life, work productivity, make meaningful contributions to their communities.

STRESS:

What is stress?

Stress is an experienced when a body responds to any kind of excessive demand: stress can be caused by both bad and good experiences. When a body feels stress by something around, its reacts by releasing chemicals into the bloods which gives the body more energy and strength this can be a good thing, if the stress is caused by physical activity. Similarly it can be bad thing when stress is in response to an emotional instance and there is no outlet for this extra energy and strength. Stress becomes negative when a person faces continuous challenges without relief or relaxation between stressors. As a result, the person becomes overworked, and stress-related tension builds. Chronic stress can wear down the body's natural defenses, leading to a variety of physical symptoms, including the following:

- Dizziness or a general feelings of "being out of it."
- General aches and pains.
- Grinding teeth, clenched jaw.
- Headaches.
- Indigestion or acid reflux symptoms.
- Increase in or less appetite.
- Muscle tension in neck, face or shoulders.
- Problems sleeping.
- Weight gain or loss.
- Upset stomach, diarrhea.
- Sexual difficulties.

Types of Stress?

Positive stress or eustress: - positive stress can inspire people to do their and perform better than if they were under no pressure. Eustress has a significantly positive correlation with life satisfaction and hope. It is typically assumed that experiencing chronic stress, either in the form of distress or eustress, is negative. Eustress uncomfortable, but leads to personal growth.

Positive stress has the following characteristics:-

- Motivates, focuses energy
- Positive stress is a coping ability
- Provides excitement
- Improves performance-both physical and psychological.

Negative stress or distress: It is the opposite stress. An internal stress is negative stress. It's occurs when a person feels unable to perform or to cope with a situation. This stress can be short or long term. It causes anxiety or concern and can lead to mental and physical problems.

The characteristics are as follows:

- Negative stress causes anxiety
- feels unpleasant
- Decrease endurance and or performance
- May lead to both physical and psychological problems.

Neustress:

Neustress comes from the prefix 'neu' meaning neutral and it's basically a type of stress that it's in the neutral reaction zone. It is stress that doesn't cause any particular harm or grief to the individual to the extent that it causes distress. Nor is it necessarily positive or motivating change stress (Bower 2011). Neustress describe sensory stimuli that have no consequential effect; it is considered neither good nor bad. News of an earthquake in a remote corner of the world might fall into this category (Seaward 2015).

Long term stress and its sequences:

- Long term stress takes its role on the on the functioning and condition of human body and mind.
- Depression, anxiety, personal disorder and panic attacks are the most extreme reactions from stress.
- Hypertension, heart failure, heart attacks, cardiac arrhythmia, atherosclerosis, are few cardiovascular diseases that can result from stress.
- Sexual dysfunction, low fertility, is also a result of a chronic stress.
- Acne, permanent hair loss, gastro intestinal diseases, lung disease which have a direct impact on the immune system may be a result of chronic stress.
- Reducing/ avoiding stress:
- Learn how to say "no" – Know your limits and stick to them. Whether in your personal or professional life, refuse to accept added responsibilities when you're close to reaching them. Taking on more than you can handle is a surefire recipe for stress.
- Take control of your environment – if the evening news makes you anxious, turn the TV off. If traffic's got you tense, take a longer but less-traveled route. If going to the market is an unpleasant chore, do your grocery shopping online.'
- Express your feelings instead of bottling them up. If something or someone is bothering you, communicate your concerns in an open and respectful way. If you don't voice your feelings, resentment will build and the situation will likely remain the same.
- Manage your time better. Poor time management can cause a lot of stress. When you're stretched too thin and running behind, it's hard to stay calm and focused. But if you plan ahead and make sure you don't overextend yourself, you can alter the amount of stress you're under.

Tips for reducing stress:

People can learn to manage stress and lead happier, healthier lives with these following tips:

- Keep a positive attitude.
- Accept that there are events that you cannot control.
- Learn and practice relaxation techniques; try meditation, yoga.
- Exercise regularly, well balanced meals.
- Learn to manage your time more effectively.
- Make time for hobbies and interests.
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- Get enough rest and sleep. Your body needs time to recover from stressful events.
- Seek out social support. Spend enough time with those you love.

TYPES OF ANXIETY:

a) GENERALISED ANXIETY DISORDER:

A person feels anxious on most days, worrying about lots of different things, for a period of six months or more. You feel excessive, unrealistic worry and tension with little or no reason.

b) SOCIAL ANXIETY:

A person has an intense fear of being criticized, embarrassed or humiliated, even in everyday situations, such as speaking publicly, eating in public, being assertive at work or making small talk. It's Also called social phobia, this is when you feel overwhelming worry and self-consciousness about everyday social situations. You fixate about others judging you or on being embarrassed or ridiculed.

c) SPECIFIC PHOBIAS:

A person feels very fearful about a particular object or situation and may go to great lengths to avoid it, for example, having an injection or travelling on a plane.

e) PANIC DISORDER:

A person has panic attacks, which are intense, overwhelming and often uncontrollable feelings of anxiety combined with a range of physical symptoms. Someone having a panic attack may experience shortness of breath, chest pain, dizziness and excessive perspiration. Sometimes, people experiencing a panic attack think they are having a heart attack or are about to die. If a person has recurrent panic attacks or persistently fears having one for more than a month, they're said to have panic disorder. You feel terror that strikes at random. During panic attack, you may also sweat, have chest pain and feel palpitations (unusually strong or irregular heartbeats). Sometimes you may feel like you're choking or having a heart attack.

f) OBSESSIVE COMPULSIVE DISORDER (OCD):

A person has ongoing unwanted/intrusive thoughts and fears that cause anxiety. Although the person may acknowledge these thoughts as silly, they often try to relieve their anxiety by carrying out certain behaviors or rituals. For example, a fear of germs and contamination can lead to constant washing of hands and clothes.

g) POST TRAUMATIC STRESS DISORDER (PTSD):

This can happen after a person experiences a traumatic event (e.g. war, assault, accident, disaster). Symptoms can include difficulty relaxing, upsetting dreams or flashbacks of the event, and avoidance of anything related to the event. PTSD is diagnosed when a person has symptoms for at least a month.

Types of yoga

Classification based on mind and body

- Raja yoga: Emphasizes the most on exercise
- Hath yoga: Emphasizes the most on exercise of physical body.

Classification based on way of spiritual life.

- Gyanyoga: It is a way of knowledge.
- Karma yoga: It is a way of work.
- Bhaktiyoga: It is a way of worship.

Classification based on a way of other things.

- Swaryoga: Emphasizes the most on breathing.
- Kriyayoga: Emphasizes the most on blending Karmayoga (Tapa), Gyanyoga (Swadhyay) and Bhaktiyoga (Ishwar Pranidhan).'

How Yoga influences physical and mental health?

Yoga has many health-promoting benefits, so it's greater for our body and mind. Yoga can combine the benefits of meditation, breathing exercise and physical exercise and provide a way to get into a different frame of mind. 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 resilience, mood, and metabolic regulation (Yang, 2007). Khalsa (2004), stated that a majority of the research on yoga as a therapeutic intervention was conducted in India and a significant fraction of these were published in Indian journals, some of which are difficult to acquire for Western clinicians and researchers. In their bibliometric analysis from 2004, they found that 48% of the enrolled studies were uncontrolled, while 40% were randomized clinical trials (RCT), and 12% non-RCT (N-RCT). Main categories which were addressed were psychiatric, cardiovascular, and respiratory disorders. According to the British Psychological Society (2009), yoga involves concentration on the breath and body, which makes it a great way to soothe a person's mind and relieve worries. By helping discharge tension and stress, yoga poses and breathing exercises keep a person free from such negative elements.

Review of literature

In this section some recent studies will be highlighted to show whether yoga has beneficial effects in reducing perceived stress, depression, anxiety and adjustment. Health is a dynamic condition resulting from a body's constant adjustment and adaptation in

response to stresses and changes in the environment for maintaining an inner equilibrium called homeostasis. Health is determined by many factors, such as lifestyle, background, economic, social conditions, and spirituality. Both perceived stress and anxiety play an important role in shaping our life. Excess of any of these create a disharmony in our homeostasis. Yoga has been found to have beneficial effect in increasing physical and mental strength, flexibility, motivation and also helps in refreshing energy level, reduces perceived stress and anxiety; focus the mind to have greater awareness and higher quality of life.

In this section some recent studies will be highlighted to show whether yoga has any beneficial effect in reducing perceived stress and anxiety and also how people differ in their level of anxiety and perceived stress among those who practice yoga and those are not. In the review section, the research reports published in the last 11 years have been presented in a chronological order from most recent to the earlier studies-

Nelson, Friday and Loomer (2015): conducted study to examine the effects of yoga on stress and anxiety levels in male and female college students. Twelve Bethel University students experiencing mild to moderate stress and/or anxiety levels were recruited. Informed consents, depression, anxiety, adjustment and stress scale (DASS 21), and the stress questionnaire for students were completed. Next, subject's blood pressure (BP) and heart rate (HR) were collected. Participants attended a one-hour long/week yoga class for four consecutive weeks. BP, HR, and stress were assessed at weeks two and four. The data demonstrates that yoga for one hour/week for four weeks failed to reduce BP, HR, and stress. Other research suggests that students could reduce stress, BP and HR from yoga intervention once a week, for three weeks when combined with humor and reading.

Petersen (2014), conducted the study to observe changes in perceived stress in University of Pittsburgh students enrolled in a five-week group fitness yoga class. In the present study, following a case series design, the effects of participation in twice weekly yoga classes were observed in 14 university students. Cohen's Perceived Stress Scale, a measure of the perceived uncontrollability of individuals' lives, was used to measure changes in reported perceived stress in the first, third and fifth weeks of yoga classes. The result showed that nine of the 14 students evaluated exhibited a decrease in perceived stress by the end of the summer session. On average, students perceived their stress to decrease by 1.8 points with a median decrease of 2 PSS points. The present research observed positive changes in perceived stress in university students participating in a five-week yoga course.

Meagan (2014): conducted the present study to evaluate whether perceived stress and anxiety predict indicators of relapse vulnerability in a drug-abusing sample. To address these aims, this project utilized data from the STOP Project, a multisite study which evaluated how baseline measures of motivation predicted treatment outcomes in a sample of treatment-seeking drug-abusing individuals. A significant positive linear relation between anxiety and the struggle to maintain abstinence was identified. Additionally, a significant linear relation between perceived stress and temptation to use was found. These findings have important implications on the role of negative affect in the relapse process and tailoring relapse prevention strategies to specific relapse vulnerability indicators.

Yoshihara, Hiramoto, Oka, Kubo and Sudo (2014): conducted the study to examine the beneficial effects of 12 weeks of yoga training on somatization, psychological symptoms, and stress-related biomarkers. In this present study healthy women were recruited who had no experience with yoga. The data of 24 participants who were followed during 12 weeks of yoga training were analyzed. Somatization and psychological symptoms were assessed before and after 12 weeks of yoga training using the Profile of Mood State (POMS) and the Symptom Checklist-90-Revised (SCL-90-R) questionnaires. Urinary 8-hydroxydeoxyguanosine (8-OHdG), biopyrrin, and cortisol levels were measured as stress-related biomarkers. The Wilcoxon signed-rank test was used to compare the stress-related biomarkers and the scores of questionnaires before and after 12 weeks of yoga training. The result showed after 12 weeks of yoga training that all negative subscale scores (tension-anxiety, depression, anger-hostility, fatigue, and confusion) from the POMS and somatization, anxiety, depression, and hostility from the SCL-90-R were significantly decreased compared with those before starting yoga training. Contrary to our expectation, the urinary 8-OHdG concentration after 12 weeks of yoga training showed a significant increase compared with that before starting yoga training. No significant changes were observed in the levels of urinary biopyrrin and cortisol after the 12 weeks of yoga training.

Levine and Gold (2007): conducted a study to examine the differences in perceived stress, affect, anxiety, and coping ability among college students in physical education courses. This cross-sectional exploratory study which involved a self-administered questionnaire and included 108 students. Results indicated that students enrolled in the yoga classes actually reported significantly more perceived stress than their counterparts. However, yoga students reported using more positive coping strategies over the past month than no practitioners.

Smith, Hancock, Mortimer, and Eckert (2006): conducted a study to examine and compare yoga and relaxation as treatment modalities at 10 and 16 weeks from study baseline to determine if either of the modalities reduces subject stress, depression, anxiety, blood pressure and improves quality of life. One hundred and thirty-one subjects with mild to moderate levels of stress were recruited from the community in South Australia and they were provided with ten weekly 1-h sessions of relaxation or hatha yoga. Participant's responses were measured by the changes in the State Trait Personality Inventory sub-scale anxiety, General Health Questionnaire and the Short Form-36. Results showed that following the 10-week intervention stress, anxiety and quality of life scores improved over time. Yoga was found to be as effective as relaxation in reducing stress, anxiety and improving health status on seven domains of the SF-36. Yoga was more effective than relaxation in improving mental health.

Kumar (2006), conducted a study to show the effect of Yoga nidra on stress and anxiety on college-going students. The study conducted at the Yoga clinic of Dev Sanskrit Vishwavidyalaya. Practice time was 30 min the duration was 6 months. 80 students were taken from PG Yoga classes for observing the effect as well as 30 was in control group. The result shows a significant change in the

West, Otter, Geber, Johnson, Mohr (2004): conducted a study to show the effects of hatha yoga and African dance on perceived stress, affect, and salivary cortisol. In this present study, sixty-nine healthy college students were participated in one of three 90-min classes: African dance, Hatha yoga, or a biology lecture as a control session. Before and after each condition participants completed the Perceived Stress Scale, completed the Positive Affect and Negative Affect Schedule, and provided saliva sample for cortisol. The results showed that there were significant reductions in PSS and negative affect and Time \times Treatment interactions such that African dance and Hatha yoga showed significant declines, whereas there was no significant change in biology lecture. There was no significant main effect for positive affect, there was a significant interaction effect such that positive affect increased in African dance, decreased in biology lecture, and did not change significantly in Hatha yoga.

Methodology

After reviewing some relevant literatures, in this section various research methods will be discussed which are to be applied in the present study.

Problem:

A study on perceived stress, depression, anxiety and adjustment among young adult yoga practitioner and non practitioner.

Objectives of the study:

- To study and compare the perceived stress among young adult yoga practitioner and non practitioner.
- To study and compare the depression among young adult yoga practitioner and non practitioner.
- To study and compare the anxiety among young adult yoga practitioner and non practitioner.
- To study and compare the adjustment among young adult yoga practitioner and non practitioner.
- To suggest need based measure.

Operational definition:

Stress: A state of mental and emotional strain or tension resulting from adverse or demanding circumstances. It is a state of psychological imbalance resulting from the disparity between situational demand and individual's ability and motivation to meet those needs.

Depression: depression is a state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings, and sense of well being. A depressed mood is a normal temporary reaction to life events such as loss of a loved one. It is also a symptom of some physical disease and a side effect of some drugs and medical treatments. Depressed mood is also a symptom of some mood disorders such as major depressive disorder or dysthymia.

Expressed insomnia excessive sleeping, fatigue, and vocalizing general aches, pains and digestive problems and a reduced energy may also be present in individuals experiencing depression.

Anxiety: anxiety is an emotional characterized by an unpleasant state of inner turmoil, often accompanied by nervous behavior, such as pacing back and forth, somatic complaints, and rumination. Anxiety is not the same as fear, which is response to a real or perceived immediate threat, whereas anxiety is the expectation of future threat. Anxiety is a feeling of uneasiness and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing.

Anxiety can be either a short term 'state' or a long term 'trait'. Trait anxiety reflects a stable tendency to respond with state anxiety in the anticipation of threatening situations.

Adjustment: in psychology, adjustment refers to the behavioral process of balancing conflicting needs, or needs challenged by obstacles in the environment. Humans and animals regularly adjust to their environment. For example, when they are stimulated by their psychological state to seek food, they eat (if possible) to reduce their hunger and thus adjust to the hunger stimulus.

Successful adjustment is also called being "well adjusted" and is critical to mental health. Equally being well adjusted is defined as a person who "is reasonable and has good judgment, their behavior is not difficult to strange." It is important to remember that adjustment is a continuum, not a simple dichotomy; people can fluctuate and be adapt at adjusting in different circumstances.

Hypotheses:

- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their perceived stress.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their depression.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their state anxiety.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their trait anxiety.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their home adjustment.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their health adjustment.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their social adjustment.
- There exists a significant difference among young adult yoga practitioner and non practitioner in terms of their emotional adjustment.

Sample: the total sample consist of 60 individuals out of which 30 will be young adult yoga practitioner (15 males and 15 females) and 30 young adult non practitioner (15 males and 15 females).

Sampling Criteria:

<p>Inclusion Criteria: Age of the Subject: 20-30 Years. Education: At least Madhyamik. Family Income: Rs (10000-30000)/month. Condition: Willing to cooperate with the Author. Occupation: Working or nonworking. Mother tongue: Hindi and Urdu Speaking. Residence: Residing in and around Kolkata People practice yoga. Duration: at least last 6months to 1years. Regular practioner.</p>	<p>Exclusion criteria: Suffering from severe physical disability. People practice physical and mental activities like gym, swimming, dancing, athletes, meditation, etc. Practice yoga following doctor's advice for any disease.</p>
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Research design: In this study 60 young adult people categorized as 30 yoga practitioners and 30 non-yoga practitioners. On the basis of gender they were put into two sub categories as male (N-15) and female (N-15) in both the categories of the yoga practitioners and non-practitioners. Finally all the 60 people were assessed on perceived stress, depression, anxiety and on their adjustment.

RESULTS AND DISCUSSION

5.1) Results:

The analysis of results section is presented under descriptive statistics and inferential statistics for hypotheses testing.

• Results from descriptive statistics:

The following tables present the Mean and SDs of

- Perceived stress
- Depression
- State anxiety
- Trait anxiety
- Home adjustment
- Health adjustment
- Social adjustment
- Emotional adjustment

Table-1: Mean and SDs values of total yoga and non- yoga group for perceived stress, depression, anxiety and adjustment.

Variables		Group	Mean	Sd
Perceived stress		Yoga (N-30)	13.57	4.17
		Non-yoga (N-30)	19.4	6.78
Depression		Yoga(N-30)	14.13	6.99
		Non-yoga(N-30)	16.1	13.19
Anxiety	State anxiety	Yoga(N-30)	38.93	6.25
		Non-yoga(N-30)	47.43	6.44
	Trait anxiety	Yoga(N-30)	39.17	6.00
		Non-yoga(N-30)	47.23	5.45
Adjustment	Home adjustment	Yoga(N-30)	10.53	4.24
		Non-yoga(N-30)	13.10	5.16
	Health adjustment	Yoga(N-30)	10.5	4.99
		Non-yoga(N-30)	11.57	5.86

	Social adjustment	Yoga(N-30) Non-yoga(N-30)	14.47 16.77	4.39 3.40
	Emotional adjustment	Yoga(N-30) Non-yoga(N-30)	11.87 14.70	5.94 7.08

Table-2: Mean and SDs and T values of both yoga and non-yoga for perceived stress, depression, anxiety and adjustment

Variables		Group	Mean	Sd	t	Remarks
Perceived stress		Yoga(N-30) Non-yoga(N-30)	13.57 19.4	4.17 6.78	0.00	significant
Depression		Yoga(N-30) Non-yoga	14.13 16.1	6.99 13.19	0.47	Not significant
Anxiety	State	Yoga(N-30) Non-yoga	38.93 47.43	6.25 6.44	0.00	significant
	Trait	Yoga(N-30) Non-yoga(N-30)	39.17 47.23	6.00 5.45	0.00	significant
adjustment	Home	Yoga(N-30) Non-yoga(N-30)	10.53 13.10	4.24 5.16	0.04	significant
	Health	Yoga(N-30) Non-yoga(N-30)	10.5 11.57	4.99 5.86	0.45	Not significant
	Social	Yoga(N-30) Non-yoga(N-30)	14.47 16.77	4.39 3.40	0.03	significant
	emotional	Yoga(N-30) Non-yoga(N-30)	11.87 14.70	5.94 7.08	0.10	Not significant

df=58, *p<.05, **p<.01

If the **test result is less than .05** then the statistics is considered to be significant [meaning that one can be 95% confident that the difference between the means of the two groups (here, yoga practitioners and non-practitioners) is not due to the chance].

Results reveal that the in perception of stress, state anxiety, trait anxiety, home adjustment, and Social adjustment difference between yoga and non-yoga group were significant whereas depression, health adjustment and emotional adjustment difference between yoga and non-yoga group were not significant.

- Thus hypotheses 1, 3, 4, 5, and 7 were accepted. And hypothesis 2, 6 and 8 were rejected.

Results from inferential statistics: hypotheses testing

To understand the difference between yoga and non-yoga group all the 8 hypotheses have been tested.

Hypotheses 1: There exist a significant difference among young adult yoga practitioner and non practitioner in terms of their perceived stress.

Hypotheses 2: There is no significant difference among young adult yoga practitioner and non practitioner in terms of their depression.

Hypotheses 3: There exist a significant difference among young adult yoga practitioner and non practitioner in terms of their state anxiety.

Hypotheses 4: There exist a significant difference among young adult yoga practitioner and non practitioner in terms of their trait anxiety.

Hypotheses 5: There exist a significant difference among young adult yoga practitioner and non practitioner in terms of their home adjustment.

Hypotheses 6: There is no significant difference among young adult yoga practitioner and non practitioner in terms of their health adjustment.

Hypotheses 7: There exist a significant difference among young adult yoga practitioner and non practitioner in terms of their social adjustment.

Hypotheses 8: There is no significant difference among young adult yoga practitioner and non practitioner in terms of their emotional adjustment.

Interpretation:

There is a noticeable difference in the mean and SD values of yoga practitioner and non practitioner..

Perceived stress: The mean of Perceived stress among the yoga practitioner is 13.57 and SD is 4.17, while for the non yoga practitioner the mean is 19.4 and SD is 6.78. Thus, the mean value of group shows that non yoga practitioner has high level of stress than the yoga practitioner.

Depression: The mean of Depression among the yoga practitioner is 14.13 and SD is 6.99, while for the non yoga practitioner the mean is 16.1 and SD is 13.19. Thus, the mean value of group shows that non yoga practitioner has high level of depression than the yoga practitioner.

State-Trait Anxiety: The mean of state-trait anxiety among the yoga practitioner are 38.93, 39.17 and SD are 6.25, 6.00 while for the non yoga practitioner the mean are 47.43, 47.23 and SD are 6.44, 5.45. Thus, the mean value of group shows that non yoga practitioner has high level of anxiety than the yoga practitioner.

Adjustment: The mean of home, health, social and emotional among the yoga practitioner are 10.53, 10.5, 14.47, 11.87 and SD are 4.24, 4.99, 4.39, 5.94, while for the non yoga practitioner the mean are 13.10, 11.57, 16.77, 14.70 and SD are 5.16, 5.86, 3.40, 7.08. Thus, the mean value of group shows that the non yoga practitioner has high level of adjustment issue than the yoga practitioner.

Discussion:

Perceived Stress: Taking into account the domain of perceived stress it may be seen that non yoga group is more susceptible to stress (as has been revealed by the respective mean and t test scores. There lies a significant difference in the level of perceived stress among the yoga or non yoga group. The following is how the yoga group experiences less stressing comparison to the non yoga group –:

- a) Reduced stress
- b) Sound sleep
- c) Reduced cortical levels
- d) Improvement of many medical conditions
- e) Allergy and asthma symptom relief
- f) Lower blood pressure
- g) Smoking cessation help
- h) Lower heart rate
- i) Spiritual growth
- j) Sense of well-being
- k) Reduced anxiety and muscle tension
- l) Increased strength and flexibility
- m) Slowed aging process

Yoga's benefits are so numerous; it gives a high payoff for the amount of effort involved.

Depression: Taking into account the variable Depression here too, a significant difference has been found among the two groups as has been revealed from the respective means of 14.13 and 16.1 respectively, the t test yielding a value of 0.47 which may be interpreted as being significant.

More studies are using randomized controlled trials to look at the relationship between yoga and depression. Randomized controlled trials are the best ways to verify study results. According to the [Harvard Mental Health Letter](#). Recent studies suggest that yoga can:

- reduce the impact of stress
- help with anxiety and depression
- be a self-soothing technique similar to meditation, relaxation, and exercise
- improve energy

Yoga is a physical exercise that involves different body poses, breathing techniques, and meditation. The therapy may help with depression and your symptoms, such as difficulty concentrating or loss of energy.

Many people use yoga therapy to manage:

- mental and emotional problems, such as stress, anxiety, or depression
- conditions and disorders, such as ongoing low back pain

- chronic or long-term pain
- overall health and well-being

Anxiety (State & Trait) : Taking into consideration the domain of Anxiety it may be seen that the non yoga group experiences more anxiety in comparison to the yoga practicing group and this difference among the two groups in terms of the experienced level of anxiety has been found to be significant (t test score of 0.00).

Anxiety is reduced via practicing yoga in the following manner:

1. Yoga lowers tension and promotes relaxation. In times of high stress and anxiety, our bodies tend to constrict. We start to hold tension in our shoulders, necks, jaws, or elsewhere. Excessive muscular tension can then feed back to our minds and perpetuates the feeling of unease. When we experience the relaxation benefits of yoga, we can lower our physical tension, which helps release the grip that anxiety can have on us. Click [here](#) for a yoga video specifically geared toward relaxation.
2. Yoga helps us regulate the breath. Our breath is intimately connected to our nervous system. When we're anxious we tend to take rapid, shallow breaths, or we might even unconsciously hold our breath and then take big gulping breaths. When we slow and deepen our breathing, we soothe the nervous system. Yoga can teach us to breathe with awareness and to use the breath to move through challenging poses. As I found in the delivery room, we can take this breath focus with us anywhere. Most yoga instructors will direct your attention to the breath during a class; click [here](#) for videos that demonstrate specific breathing techniques in yoga.
3. Yoga increases bodily awareness. In addition to the relaxing effect that comes directly from a session of yoga, we can also learn greater awareness of our bodies that can further lower our physical tension and stress away from the mat. We often carry unnecessary tension in our bodies, and through the practice of yoga we can get better at recognizing tension and letting go of it.
4. Yoga interrupts worry cycles. All of us have had the experience of getting stuck in our heads, and chronic worries can be exhausting. When we step on the yoga mat, we have an opportunity to step out of the thinking mode. Our worries can of course come with us, and yoga gives us the opportunity to practice letting go of the worries and coming back to our bodies and breath, over and over. Through this practice we can learn to let go of our worries at other times, too.
5. Doing yoga demonstrates self compassion. When we're stressed and busy, it's easy to stop doing things that are good for us, like exercising, getting enough sleep, and eating well.
6. Yoga fosters self-acceptance. As challenging as yoga can be, the practice is grounded in an acceptance of where we are.
7. Yoga trains us to accept discomfort. We often move reflexively away from discomfort, and at times this retreat can lead us away from what we value. For example, avoiding activities that cause us anxiety will bleed the life out of our experience.

Adjustment: Taking into consideration the domain of adjustment (Home , health , social & emotional) it may be stated that here too , there lies a significant difference in the level of adjustment as made by the yoga and non yoga practicing group. One of the main benefits of yoga is balancing tension and calm and adjusting oneself to the home, social , health & emotional demands, something that we do in our lives everyday. However, yoga stretches your body and mind with challenging stretches while also asking you to focus on maintaining a presence of mind and deep breathing throughout the experience.

Conclusion : From the above conclusions it can be stated that the study reveals an area indicating that yoga can be an effective technique in reducing some of the psychological disturbances which are not usually deep rooted in nature.

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