

The Effectiveness of Jacobson's technique and deep breathing technique on stress in young adults.

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ABSTRACT

Background: Our progressive society is exemplified by completing various activities, intense competition and struggle, and a never-ending time pressure, all of which contribute to stress, which young individuals, who have just entered adulthood after childhood, suffer to a greater extent. This research is conducted to determine whether of Jacobson's Technique and Deep Breathing Technique is more beneficial in reducing stress in young people.

Materials & Methods: The subject was instructed and familiarized with the procedure. A pool of subject was randomly created depending upon the inclusion and exclusion criteria. Stress was measured by using Perceived Stress Scale, prior to the techniques to get a baseline of measurement. The subjects were divided into two groups. The subjects be randomly allocated into Group A and Group B. Group A(N=30) was given Jacobson's Technique and Group B(N=30) was given Deep Breathing Technique.

Results: The results of the study shows that there is a significant effect in both the groups for stress ($P < 0.05$). GROUP A PRE-DATA (25.23 ± 1.765) and after the treatment GROUP A POST DATA (11.32 ± 1.506). GROUP B PRE-DATA shows (26.01 ± 1.627) and after the treatment GROUP B POST DATA (10.89 ± 1.626). The post results comparison of both the groups shows that there not a significant difference between the post groups of both the groups as compared using paired t test. (p value = 0.425).

Conclusion: By the results of the research, we may infer that both interventions had a considerable impact. Both Jacobson's Technique and Deep Breathing are equally efficient in alleviating stress in adults. More research with a larger sample size is required to determine the precise impacts on the participants.

1. INTRODUCTION

There is no universal agreement on how to define stress. In reaction to a perceived or actual danger or challenge, Jackson defined stress as the disturbance of homeostasis or a state of discord in the body. On the other hand, McEwen explains that "stress is a word for emotionally and physically tough conditions"(1). To fight stress, which is a condition of threatened equilibrium, adaptive mechanisms, which include emotional, physiological, biochemical, and cognitive-behavioral responses, are used(2). A "stressor" is the term given to the terrifying or difficult circumstance. These lines could be used to Acute stress is the kind of stress that a person feels when they are exposed to the stressor for the first time. When the source of the stress is eliminated or the issue is dealt with in an appropriate manner, the body's natural ability to recover and return to a state of equilibrium is restored(3). Consider the example of a traffic jam. Episodic acute: When a person is subjected to acute stress on a regular basis, for example, because of overcommitment at work or chronic concern, this may often result in stress symptoms that are harmful to both the physical and mental health of the individual. Chronic stress is the result of the continuous presence of multiple stressors or significant life difficulties (such as bereavement, childhood violent attack, personal health problems, job stability, family responsibilities, and personal safety)(4). Stress has negative consequences on behaviour, relationships, and health when it is experienced in excess. Chronic stress is the result of the presence of multiple stressors or significant life difficulties. The phrase "eustress" refers to stress in a positive sense, such as when it boosts performance and productivity. The term "distress" refers to an unpleasant kind of stress that is related with decreased performance and bad consequences on health. The way a person views the source of their stress and how well they are able to deal with it determines whether they are experiencing eustress or distress in response to a given scenario. When a person is subjected to a stressor, their body is ready to deal with the challenge or danger that they are facing(5). The chemicals adrenaline, norepinephrine, and cortisol are secreted into the bloodstream by the autonomic nervous system as well as the endocrine system in response to stress. The synthesis of these hormones sets off a chain of physiological processes that together make up the body's response to stress. The body is getting ready to deal with the stressor by undergoing all of these changes, including the "fight or flight" reaction, the synthesis of -endorphin (the natural painkiller that is produced by the body), and an increase in the sensitivity of the senses(6). When an unpleasant occurrence is seen as a danger rather than a challenge, there is an increase in the release of the stress hormone cortisol. Although it is necessary for the creation of energy,

cortisol also has the effect of suppressing

the immune system. The characteristics of the stressor, such as a person's level of familiarity with the stressor and their perception of their level of control over the stressor, have an impact on the general patterns of stress response(7).

Muscles get tense if the body is subjected to a stressful situation. It is the body's natural reaction to protect itself from being harmed or in pain. When muscles remain stiff and constricted for extended periods of time, myofascial soreness may persist. Musculoskeletal pain in the low back and upper back is also linked to stress, particularly occupational stress(8). Tension-type headaches and migraine headaches are related with continuous muscle tension in the shoulders, neck, and head. Musculoskeletal pain in the low back and upper back is also related to stress. The respiratory tract becomes more constricted as a result of the stimulation of the sympathetic nervous system that occurs during times of stress. Patients who suffer from asthma and chronic obstructive pulmonary disease (COPD) could have a worsening of their breathing problems. According to the findings of a number of studies, the passing of a loved one is associated with an increased risk of having an asthma attack or an anxiety attack(9). There is a one-to-one correspondence between stress and the functioning of the neurological system. The sympathetic nervous system of the autonomic nervous system is the part of the nervous system that is responsible for initiating the flight-or-fight response in response to stress. On the other hand, the parasympathetic nervous system is responsible for recovering from these states once the stressors have been removed.

The goal of practicing relaxation methods is to reduce feelings of stress and tension. Stress may generate a variety of physiological reactions in addition to its psychological effects. Some of these physiological responses include an increased heart rate, palpitations, excessive perspiration, shortness of breath, and tense muscles(10). There are a number of different techniques for relaxing that may be learnt either independently or via instruction from a range of health specialists. The management of everyday stress as well as stress linked to health issues, such as those associated with heart disease and pain, may benefit from the use of relaxation methods(11).

Techniques such as deep breathing, diaphragmatic breathing, and box breathing, all of which require you to concentrate on your breathing, are effective methods for reducing stress. Box breathing is a kind of stress management breathing that may be practised before, during, or after situations that are seen as stressful. The practise of box breathing may be broken down into four easy stages. The patient is supposed to use the name of the exercise to help them imagine a box with four equal sides while they are doing the exercise. It is not necessary to do this exercise in a hushed atmosphere, since it may be performed in a number of circumstances.

The Jacobson relaxation method is a kind of massage treatment that involves tensing and then relaxing certain groups of muscles in rapid succession. Sometimes people may refer to this kind of treatment as progressive relaxation therapy(12). You might potentially heighten your awareness of your body as well as the feelings it produces by focusing your attention on certain parts of your body and then tensing and relaxing those parts in turn. Dr. Edmund Jacobson, who practised medicine in the 1920s, came up with a technique to assist his patients in overcoming their anxiety. Dr. Jacobson was of the opinion that if one were to relax their muscles, it would likely also quiet their thoughts(13). During this treatment, one muscle group is tightened while the remainder of the body is allowed to remain relaxed. After this, the tension in the muscle group is released. According to the findings of a reliable source of research, there is a correlation between relaxation and blood pressure, which may be the case since stress may produce hypertension. There is evidence derived from both historical and more recent research that suggest Jacobson's relaxation method may assist epileptics in reducing the number and frequency of seizures they experience(14). The number of people in the sample has to be raised. The Jacobson relaxation method is often used as an effective treatment for sleeplessness. Several investigations of its usefulness have been carried out over the course of several years(15).

2. REVIEW OF LITERATURE

Shruti Mahajan et al 2021 - Still a severe health issue, stroke. Most stroke sufferers suffer from emotional and behavioural problems. Pain, difficulty doing previously simple actions, and a sense of powerlessness are all common experiences for those with reduced motor function. Some patients feel emotional turmoil, worry, and even panic attacks as a result of their restrictions. Patients with post-stroke anxiety will be tested for the effectiveness of Jacobson relaxation techniques and savasana. In the study, 36 stroke patients, ages 40-60, took part. Group II employed Jacobson's relaxation method, whereas Group I used shavasana. For stroke patients, Jacobson's relaxation method proved more helpful when combined with shavasana, rather than used alone. (12)

Katherine Ka-Yin Yau et al 2021 - As an example, diaphragmatic breathing may diminish sympathetic activity while increasing the baroreflex's sensitivity. Physiological and psychological effects of diaphragmatic breathing on people with high blood pressure were studied, as were the most helpful repetition frequencies and durations. After examining relevant electronic resources, we found 13 publications that met our inclusion criteria. Diaphragmatic deep breathing has been demonstrated to lower blood pressure, relax the mind, and reduce anxiety in people with hypertension and prehypertension. For four weeks, voluntary diaphragmatic breathing performed at 10 or 6 breaths per minute for 10 minutes twice a day. Researchers hope that the information gleaned from this research may aid in future therapies and studies. (11)

Shilpa Jasubha 2021 - There is hope that HeartMath technology might improve emotional and mental health. The influence of rapid coherence on psychophysiological coherence was explored in connection to the emotional states of young Indians, such as stress, concern, and grief. S.D. Edwards' research on the 'Influence of Quick Coherence on Psychophysiological Coherence and Feeling States' is consistent with the current experiment.. Six postgraduate students took part in this research, and they had all exhibited emotions of anxiety, concern, and despair before. For the 22-28 demographic, there were four women and two men. Researchers employed the DAS 21 scale and the emWave technology in this study to examine the physiological coherence of participants. They were asked to score their emotional well-being before and after each session. The quick coherence method was used in six sessions. They learnt about the fast coherence approach in the first class. They were taught heart-centered breathing and encouragement by their parents. They may submit their emWave findings after they've finished all six sessions. Stress, anxiety, and depression were measured using the DAS 21 scale. Anxiety, tension and mood were all reduced significantly after just a few sessions of rapid psychophysiological coherence training. S.D. Edwards' prior research showed substantial changes in psychophysiological coherence, negative emotional state, and positive emotional state after only five sessions. (16)

Paul Lehrer et al 2020 - Heart rate variability biofeedback has been extensively studied in the treatment of a wide range of diseases and human functioning. HRVB-related challenges and results were analysed in every study regardless of whether or not they were relevant in a specific study. Psychiatric disorders and medical conditions, as well as sports and cognitive challenges and the arts were all examined in this research project. After a preliminary examination of 1868 entries, we were able to restrict the field to 58 articles. When compared to other beneficial drugs, HRVB has a small to moderate effect size. While PTSD and sleep have just a few studies to draw from, anxiety, depression, anger, and athletic or artistic performance had the biggest effect sizes on HRVB. Meanwhile, anxiety, despair, anger, and athletic or artistic performance all had smaller impact sizes. Treatment sessions or the weeks between pre and post testing had no significant effect on the period between pre and post tests for any outcome measure. Aside from active and inactive control circumstances, the inactive control has a higher effect. In both healthy and unwell persons, HRVB has been found to reduce symptoms and improve overall function. There is a fair probability that it will be of use to someone. Before it can be widely used, this technology must be shown helpful in a number of different contexts. (17)

Kai Liu et al 2020 - Treatment for Coronavirus Disease 2019 might cause anxiety and sleep loss as a side effect (COVID-19). These drugs have the potential to make things worse. Long-term bedside training may lead to an increase in the risk of infection. COVID-19's anxiety and sleep quality will be studied using progressive muscle relaxation. A total of 51 individuals were included in this clinical study and were kept in an isolation unit. Participants were randomly allocated to one of two groups: either the experimental or the control group. As part of the research, participants were treated to a 30-minute progressive muscle relaxation exercise every day for five days. During this time, the control group got no extra attention or treatment. It was used to record patient anxiety and sleep quality using the Spielberger Anxiety Scale (STA) and the Sleep State Self-Rating Scale (SSRS) (SRSS). Ultimately, SPSS 25.0 statistical analysis software was used to conduct the research. To assist alleviate anxiety and improve sleep quality, COVID-19 patients should practise muscle relaxation. (18)

Nathan E. Cook et al 2020 - The usefulness and safety of a virtual reality-based deep breathing exercise for concussed children and teenagers is being researched. A prominent academic medical center's concussion department referred 150 patients for the study. Virtual reality headsets were used to guide participants through a five-minute deep breathing exercise. Further research on the effectiveness of short virtual reality-based deep breathing exercises for children and adolescents recovering from concussions is required. (10)

Sadaf Firoz Shaikh et al 2019 - 10 to 19-year-olds make up around one-third of everyone on the planet. Stress is the second most common health problem, according to the WHO, and it is mostly caused by the pressures of the workplace. When faced with a danger or pressure, the body's natural reaction is to become stressed. Most definitions of stress are based on the physiological reactions of the body to stressful conditions. The Perceived Stress Scale was used to determine the level of stress experienced by each individual (PSS). Thirty people, including physiotherapy students from the Dr. APJ Abdul Kalam College of Physiotherapy, were subjected to inclusion and exclusion criteria screening. Thirty-five people got Jacobson's Relaxation Technique and another thirty-five underwent Aerobic Training. Accordingly, an investigation was carried out to see if crucial indications had changed significantly. For college students who are stressed out, Jacobson's Relaxation Technique was shown to be more beneficial than Aerobic Training. (19)

Mrs. Priya Gangadharan et al 2018 - Students in the medical and nursing fields are more likely to have mental health problems as a result of the everyday stress they experience, which may have an impact on their emotional, psychological, and physical health.. Medical school students have been shown to suffer in terms of their academic performance, physical well-being, and emotional well-being. Findings from this study indicate how common depression and anxiety are among nursing students and how effectively progressive muscle relaxation works to alleviate these symptoms. Using a one-group pre/post test was the method of choice for the investigation. Over the course of the research, 218 first-year nursing students completed the Depression, Anxiety, and Stress Scale. Students suffering from mild, moderate, severe, and very severe negative emotional states were given the progressive muscle relaxation therapy. In this research, sadness and stress were shown to be strongly linked among nursing students. Participants reported feeling more at ease and lessening the intensity

of their negative emotional states when the session was over. To better deal with the pressures of school, students should include daily sessions of progressive muscle relaxation into their schedules. (20)

Masoomeh Norozi et al 2018 - Self-efficacy is crucial to the health of a patient. The purpose of this research was to examine the effect of relaxation methods on cancer patients' perception of self-efficacy. Eighty cancer patients were randomly assigned to one of two groups: experimental or control. Health and demographic questionnaires were used in the study. Two months of daily, 30-minute relaxation exercises were required of the test subjects. Those in the "control" group received their normal course of treatment. Cancer sufferers may benefit from muscle relaxation. Some patients may want to use this approach instead. (21)

Masami Yokogawa et al 2018 - In order to reduce the risk of pulmonary problems after abdominal and thoracic surgery, breathing exercises are often prescribed. The capacity of a person to execute a self-exercise practise is dependent on the availability of adequate instruction. experts looked at two different ways to see whether they might shorten the time and effort required to breathe. No one of the participants had any signs of illness. Recordings were made of heart rate and autonomic nervous system activity during normal and deep breathing. After the normal breathing phase, there was a pause for deep inhalation. Similar to the effects of DB training, deep breathing under NB instruction improves respiratory efficiency. (22)

Srividya Ramasubramanian 2017 - A non-judgmental awareness of one's current condition of being is characterised as mindfulness. Study after study shows that mindfulness training has a variety of advantages, including stress reduction and an increase in pleasant feelings. In educational contexts, there is insufficient empirical evidence to support the use of mindfulness education. So, experts are now looking at how mindfulness communication might help young people better cope with the stress and other stresses of contemporary life," they write. Researchers used a mindfulness-based communication course and a combination of qualitative journaling to investigate first-year college students' daily resilience. In early studies, participants in mindfulness communication training reported more happiness and reduced stress. An essential need exists for study on the relationship between mindfulness communication, stress management, and academic success. (7)

Açık Kalp Ameliyatı Olan Hastalarda et al 2017 - Researchers wanted to see whether practising progressive muscle relaxation methods following open heart surgery would have any effect on patients' vital signs or pain. Pre- and post-tests were used in this quasi-experiment with a control group. For the experimental and control groups, researchers recruited open-heart surgery patients at a university hospital who satisfied the inclusion criteria. For diaphragm strengthening exercises, the patient was given PMR exercises before surgery. During the first 30 minutes of treatment, the patient's vital signs were monitored. Thirty minutes after being extubated, the patient's anxiety was assessed using the state anxiety evaluation. Endotracheal extubation patients who had open heart surgery and completed relaxation exercises improved their vital signs and reduced their degree of anxiety after the procedure. (23)

Aitor Aritzeta et al 2017 - Biofeedback relaxation training was used in this research, which was targeted at lowering anxiety and enhancing academic performance. This programme included five biofeedback sessions and three training exercises that emphasised deep breathing, guided visualisations, and muscular relaxation. Only second-year psychology students at the University of the Basque Country were eligible to take part in the study. In all, 215 people took part in the study, with 81 serving as a control. Students in the experimental group reported less anxiety and greater academic achievement as a result of participating in the programme. They also exhibited lower levels of anxiety and greater levels of academic achievement as compared to the control group. Biofeedback training programmes may be an effective method for lowering students' anxiety and enhancing their academic performance, according to one research. Psychological, cognitive, and emotional processes interact in complicated ways, and researchers want to understand more about this interaction via their studies. (24)

Dr Ganesh B. et al 2017 - Women with primary dysmenorrhea are being studied to see whether relaxing practises might help alleviate their symptoms and improve their quality of life. In the case of primary dysmenorrhea, the techniques of Laura Mitchell and Jacobson should be contrasted. Laura Mitchell's physiological and Jacobson's progressive relaxation techniques were used to examine the pain and quality of life of individuals with primary dysmenorrhoea. The study's participants were a randomly chosen group of women aged 18 to 22 who had primary dysmenorrhea. Pre- and post-intervention assessments made use of the Moos menstrual distress questionnaire, the Numeric Pain Rating Scale, and the American Chronic Pain Association's Quality of Life Scale. Both groups were given Laura Mitchell's physiological relaxation method and Jacobson's progressive relaxation technique for a total of two 30-minute cycles twice a day. Patients suffering from primary dysmenorrhea were more likely to benefit from Laura Mitchell's physiological relaxation method and Jacobson's progressive relaxation approach. As a bonus, these stress-relieving therapies are simple to apply and affordable, as well as completely free. (13)

Muntazir Maqbool Kermane 2016 - We use the word "stress" to characterise this "non-specific reaction to any pressure imposed upon it." Finding out how working women and housewives cope with stress is the primary purpose of this research. The researchers picked 100 women at random using a method known as purposive sampling. Validity and reliability of the instruments were reflected in the results of the sample. The stress assessment was based on Sing's own list of stressors. This research included both pre- and post-testing. It was found to be statistically significant at the 0.05 level of significance

($t=7.280$) for this difference. Research shows that women who have to put in long hours at work tend to be more stressed than those who stay at home. There was no such training provided to the control group of 25 female workers who were randomly assigned to the PMR and mindfulness breathing groups. It was found that the experimental group's t values were non-significant at all significance levels, but the control group's were non-significant at $t = 1.685$ after the intervention. Working women in the experimental group reported much less stress than those in the control group, who reported no change. The degree of tension has been significantly reduced. (25)

Deepti Dhyani et al 2015 - In those under the age of 45, back discomfort is the most common reason for activity restriction. One in three adults will suffer from back pain at some point in their lives. People with persistent low back pain make up between 5% and 10% of people who suffer from lower back aches. The diagnostic tool is increasingly being used by persons who are truly incapacitated because of work-related or psychiatric causes.. Persistent low back pain is widespread in many nations across the globe, with 10% of individuals reporting it. The effects of chronic low back pain-related stress and impairment on muscle relaxation have been studied throughout time. The VAS, stress, and disability scores of individuals in the progressive muscle relaxation group were significantly greater than those in the control group. Chronic low back pain sufferers may benefit from the pain-relieving and stress-relieving effects of Progressive Muscular Relaxation (PMR). (26)

Maria Jose Rosa et al 2014 - Risk of asthma, respiratory discomfort, and decrease in lung function have been linked to exposure to black carbon in the air (BC). Exactly how BC causes respiratory difficulties is still a mystery to scientists and researchers. Some research suggests that BC may cause health problems because it increases oxidative stress. No intrusive procedures are needed to get 8-isoprostane, a stable consequence of lipid peroxidation. EBC 8-isoprostane and BC levels were thus the focus of our research in the United States. A New York City asthma case-control study included children between the ages of seven and eight. house visits resulted in the collection of air and EBC samples. A seven-day period was used to collect data on the concentrations of PM2.5, BC, and environmental cigarette smoke in the atmosphere. Urea and 8-isoprostane were measured using liquid chromatography tandem mass spectrometry (LC-MS). (27)

Mohamad Rodi Isa et al 2013 - Prostate cancer patients' symptoms of depression, worry, and stress were evaluated in this research using a progressive muscle relaxation training method. A six-month study was carried out by researchers from the University Malaya Medical Centre and the Universiti Kebangsaan Malaysia Medical Centre. Researchers from UMMC and UKMMC treated prostate cancer patients from both institutions. The DASS – 21 scale was used to assess symptoms of depression, anxiety, and stress. APMRT has shown its ability to alleviate tension and anxiety in patients with prostate cancer by lowering anxiety and stress. Prostate cancer patients who are experiencing worry and stress may benefit from relaxation treatment, but more research is needed to support its usage. (28)

Carol N. S. Fung et al 2012 - Although there are established professional standards, new treatment choices for depression are still needed. There are few studies on the usefulness of relaxation training (RT) in treating depression despite the fact that it is a commonly available therapy. A qualitative thematic analysis of eight research using a range of methodologies examined the efficacy of RT in treating depression in this systematic review. Young people with minor depression symptoms may benefit from RT, a low-cost therapy that has been found to be beneficial. Self-efficacy is bolstered by this method of coping, which helps in the fight against depression. Patients, practitioners, non-professionals, and the general public often employ RT as an adjunct therapy. Research on the long-term benefits and eligible receivers of RT may lead to its recommendation. This has the potential to lessen feelings of depression. (29)

Heidi A. Larson et al 2011 - The study's goal was to lessen high school seniors' fear of taking the ACT, a high-stakes admissions exam. More than 80 pupils from a Midwest high school participated in the study. From pre- to post-test, the experimental group's anxiety over the exam was significantly reduced. We need to learn more about the benefits of deep breathing and relaxing practises. (8)

Liza Varvogli et al 2011 - In the World Health Organization's view, stress may harm people's physical and mental health. An organism's equilibrium is disrupted or the body sees a condition as harmful, resulting in the development of stress. Cognitive, behavioural, and psychological coping mechanisms are among the many tools people use to manage stress. A comprehensive review of the literature in major databases of guided imagery, diaphragmatic breathing, transcendental meditation, cognitive behavioural therapy, and mindfulness-based stress reduction led to the discovery of progressive muscle relaxation, autogenic training, relaxation response, biofeedback, and emotional freedom technique (EFT). The next paragraphs introduce and briefly discuss each of these subjects. In any case, you may use any of these tips to enhance your health. (30)

Leora Kuttner et al 2006 - Irritable bowel syndrome (IBS) may make it difficult for youngsters to carry out their everyday routines. Some people with IBS have found yoga, a mind-body treatment, to be beneficial. Despite the positive outcomes in adults, there have been little research on the advantages of yoga for children. Depending on their age, 35 teens with IBS were randomly divided into two groups and placed on either a yoga or a waiting list, respectively. The levels of anxiety, depression, nausea, and functional impairment were all assessed prior to the intervention in both groups. After a one-hour presentation and demonstration, four weeks of daily practise at home were necessary. After a four-week break, the same group of teens completed the same questions they had completed at the beginning. Participants in the control group were re-tested four

weeks after beginning the yoga intervention to see whether their improvements had persisted. Yoga has the potential to be a beneficial therapeutic strategy for teenagers with IBS. (31)

RICHARD P. BROWN et al 2005 - The autonomic nerve system and mental well-being may both benefit from yoga breathing practises. A neurophysiological model of Sudarshan Kriya Yoga's effects was developed in Part I of this series. We'll go into more detail in Part II, which includes our clinical observations and recommendations for using yoga breath practises safely and successfully. Sudarshan Kriya Yoga has the potential to reduce symptoms of anxiety, PTSD, and depression at a low cost and with few side effects. Despite the fact that further clinical study is needed to verify its effectiveness, this practise has been found to be beneficial. SKY may help alleviate post-traumatic stress disorder (PTSD) in persons who have endured a significant catastrophe (PTSD). Stress management may also be improved by yoga practise. To get the most out of your training, you should spend 30 minutes a day working on it. When it comes to persuading their patients to remain with their yoga regimens, doctors and nurses may make a significant impact. (32)

Karen Pilkington et al 2005 - Yoga-based therapy may be beneficial to those suffering from depression. The researchers plan to conduct a comprehensive evaluation of the scientific evidence on yoga's usefulness in this situation as part of their analysis. Results from the Cochrane Library and MEDLINE were also considered. Findings from the IndMED database were also searched for unpublished or continuing research in alternative medicine. That year, it occurred between January and June. Sorted and evaluated by kind of study, the best research was found. Studies reporting clinical outcomes included clinical comments. According to preliminary findings, yoga therapy may be useful in the treatment of depression. Scepticism is warranted because of the wide range in treatment options, severity, and reporting requirements. These therapies may not be suitable for those with mobility issues. There is still much to learn about yoga as a therapeutic approach. (33)

RICHARD P. BROWN et al 2005 - There is some evidence to suggest that stress-related mental and physical health concerns may benefit from mind-body therapy. Recent studies have linked variations in heart rate variability, a sign of vagal tone, to emotional problems. A neuro-physiologic model of yogic breathing includes yoga, polyvagal theory, vagal activation, hyperventilation, and clinical evidence. The autonomic nerve system of the body and the mind may both benefit from yogic breathing practise. Researchers have proven that yoga breathing affects brain function and physiologic factors, but they have yet to fully explain the processes involved. For those who suffer from stress-related medical conditions, Sudarshan Kriya yoga may be an effective method to alleviate their symptoms. These aspects include the relaxing of stress response systems, neuroendocrine system hormones release, and activation of thalamic generators. This technique serves a variety of aims, including heuristic, scientific, and therapeutic ones. (34)

Lephuong Ong et al 2004 - It's common to use the word "stress management" since it has a fairly simple connotation. Studies on SM are few, and it is not known how helpful they are in solving a particular issue or challenge. There was a review of studies on schizophrenia treatment to examine whether there was agreement on nomenclature and approaches.. Findings from the research show a variety of methods but uneven branding and characterisation of them. Due to the wide range of operational definitions of "stress management," it is not possible to perform outcome study comparisons at this time. (35)

Holly Avey et al 2003 - Respondents were queried about stress and health outcomes linked to their training, opinions, and practises by a survey of primary care providers at a southern metropolitan hospital serving a mostly African-American underprivileged community. All 210 vendors were requested to respond. Many medical and professional students never learned about the connection between stress and health outcomes throughout their education. Even while many physicians believe that stress management might help their patients' health, they seldom or never bring it up in their consultations with patients. Patients were twice as likely to think that stress counselling was more important than counselling on smoking, food, or exercise. Found that 76% had limited faith in their ability to counsel patients about stress. From a survey Stress management measures were adopted by just a small percentage of the people examined in this study. Patients were more likely to be counselled about stress if practitioners believed in the importance of stress counselling, the effectiveness of stress counselling in improving health, and their competency in teaching relaxation measures. As part of an overhaul of present health care policies and practises, it is necessary to include more positive notions about mind/body medicine as well as new knowledge and abilities in stress reduction. (14)

Erica S. Sandlund et al 2000 - Studies on the physiological and psychological consequences of Tai Chi as a stress management approach are discussed in this article. PsychLit and Medline data from 1996 to 1999 are included in this review, as well as additional pertinent studies. Study results indicate that Tai Chi is a low-impact type of exercise. If you're looking to improve your flexibility and mental health, Tai Chi is a great option. Evidence suggests that Tai Chi may boost mood by enhancing cognition. Tai Chi's health benefits, including its relaxing and meditation components, may be due to one or many reasons, such as the well-known stress-relieving effects of engaging in activities we like. It has been shown that Tai Chi has several health benefits for the elderly. (36)

3. METHODOLOGY

Type of study: Pretest and Posttest experimental design

Sampling: Random Sampling

Area of Project: The sample is collected from the Delhi NCR region, the subjects are young adults, who are either college students or working.

Sampling Method:

No of Sample:60

Sample place: The sample is collected from the Delhi NCR region, the subjects are young adults, who are either college students or working.

Inclusion Criteria:

- Young adults 18 and over.
- Subjects with stress.

Exclusion Criteria:

- Subject not willing to participate.
- Subject practicing yoga, meditation or any other exercise.

4. PROCEDURE

The subject was instructed and familiarized with the procedure. A pool of subject was randomly created depending upon the inclusion and exclusion criteria. Stress was measured by using Perceived Stress Scale, prior to the techniques to get a baseline of measurement. The subjects was divided into two groups. The subjects was randomly allocated into Group A and Group B.

Group A(N=30) was given Jacobson's Technique and

Group B(N=30) was given Deep Breathing Technique.

Jacobson's Technique (Group A)

Method

It involves the contracting and relaxing of muscle groups over the legs, abdomen, chest, arms and face. It is done in a sequential pattern, eyes was closed, the individual puts a tension in a given muscle group purposefully for about 10 seconds and then releases it for 20 seconds before continuing with the next muscle group. The subject is asked to focus on the mental component and feel the difference between tension and relaxation. With practice, the subject learns how to effectively relax in a short period of time

Duration

Performs the sequence 2- 3 times on every muscle group.

For 20 minutes, 4 days a week

Deep Breathing Technique (Group B)

Method

Deep breathing or diaphragmatic breathing, or abdominal or belly is done by expansion of the abdomen instead of the chest during breathing. Diaphragmatic breathing techniques focus on the breath and slowing the breath rate by using a process such as counting the breaths while expanding the abdomen and inhaling deeply through the nose, pausing, followed by contracting the abdomen and exhaling slowly and completely through the mouth.

Duration

Performs the sequence of 2- 3 times.

For 20 minutes, 4 days a week

DATA ANALYSIS

The data analysis was carried out using the Social Science Packaging Software (SPSS) 26.0 edition of the software. Readings were analyzed using a paired t-test and graphical depiction created using Microsoft Word 2016.



5. RESULTS

The results of the study shows that there is a significant effect in both the groups for stress ($P < 0.05$). GROUP A PRE-DATA (25.23 ± 1.765) and after the treatment GROUP A POST DATA (11.32 ± 1.506). GROUP B PRE-DATA shows (26.01 ± 1.627) and after the treatment GROUP B POST DATA (10.89 ± 1.626). The post results comparison of both the groups shows that there not a significant difference between the post groups of both the groups as compared using paired t test. (p value = 0.425).

TABLE NO 1: DEMOGRAPHIC DESCRIPTIVE STATISTICS.

VARIABLES	N	MEAN $\pm$ SD
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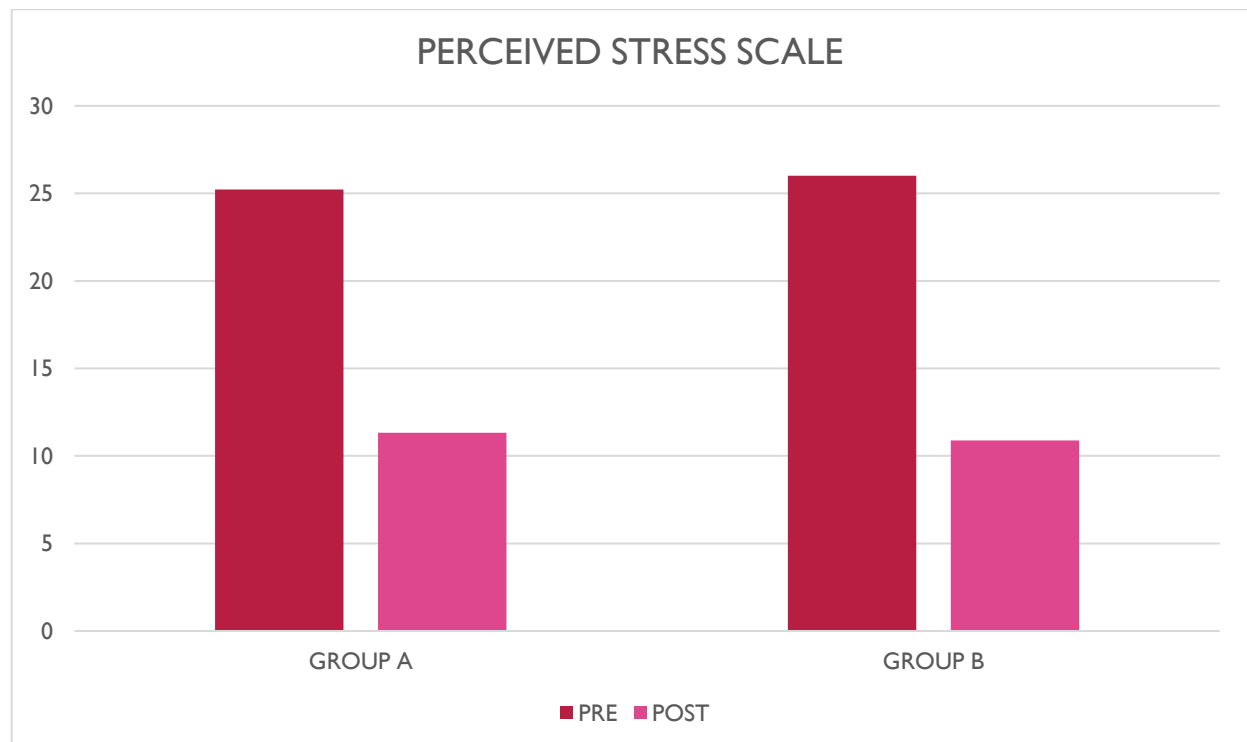
AGE	60	35.72±5.89
HEIGHT(CMs)	60	173.12±14.63
WEIGHT(Kg)	60	75.70±4.63
BMI	60	24.70±1.76

TABLE NO 2. PERCEIVED STRESS SCALE (PRE-POST) (paired t- test)

VARIABLE	SCORE	T-TEST	P-VALUE
GROUP A PRE-DATA	25.23±1.765	8.452	P<0.05
GROUP A POST DATA	11.32±1.506		
GROUP B PRE-DATA	26.01±1.627	7.627	P<0.05
GROUP B POST DATA	10.89±1.626		

TABLE NO 3. PERCEIVED STRESS SCALE (POST-POST) (paired t- test)

VARIABLE	SCORE	T-TEST	P-VALUE
POST-POST	11.52±1.627	5.617	0.425

**Figure 1 GRAPH 1 PERCEIVED STRESS SCALE (PRE-POST)**

6. DISCUSSION

The study explores differences in the impact of Jacobson's Technique and Deep Breathing as compared to a control condition on stress in young adults. The results of the study shows that there is a significant effect in both the groups for stress ($P < 0.05$). GROUP A PRE-DATA (25.23 ± 1.765) and after the treatment GROUP A POST DATA (11.32 ± 1.506). GROUP B PRE-DATA shows (26.01 ± 1.627) and after the treatment GROUP B POST DATA (10.89 ± 1.626). The post results comparison of both the groups shows that there not a significant difference between the post groups of both the groups as compared using paired t test. (p value = 0.425). A study done by Shruti Mahajan et al 2021 has shown that still a severe health issue, stroke. Most stroke sufferers suffer from emotional and behavioral problems. Pain, difficulty doing previously simple actions, and a sense of powerlessness are all common experiences for those with reduced motor function. Some patients feel emotional turmoil, worry, and even panic attacks as a result of their restrictions. Patients with post-stroke anxiety was tested for the effectiveness of Jacobson relaxation techniques and savasana. In the study, 36 stroke patients, ages 40-60, took part. Group II employed Jacobson's relaxation method, whereas Group I used shavasana. For stroke patients, Jacobson's relaxation method proved more helpful when combined with shavasana, rather than used alone. A study on students by Mrs. Priya Gangadharan et al 2018 Students in the medical and nursing fields are more likely to have mental health problems as a result of the everyday stress they experience, which may have an impact on their emotional, psychological, and physical health. Medical school students have been shown to suffer in terms of their academic performance, physical well-being, and emotional well-being. Findings from this study indicate how common depression and anxiety are among nursing students and how effectively progressive muscle relaxation works to alleviate these symptoms. Using a one-group pre/post test was the method of choice for the investigation. Over the course of the research, 218 first-year nursing students completed the Depression, Anxiety, and Stress Scale. Students suffering from mild, moderate, severe, and very severe negative emotional states were given the progressive muscle relaxation therapy. In this research, sadness and stress were shown to be strongly linked among nursing students. Participants reported feeling more at ease and lessening the intensity of their negative emotional states when the session was over. To better deal with the pressures of school, students should include daily sessions of progressive muscle relaxation into their schedules.

Future scope of study

More study can be done with higher sample size in the study with proper occupation based work.

7. CONCLUSION

By the results of the research, we may infer that both interventions had a considerable impact. Both Jacobson's Technique and Deep Breathing are equally efficient in alleviating stress in adults. More research with a larger sample size is required to determine the precise impacts on the participants.

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