



Yoga enhanced CBT for stress reduction: A survey

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Abstract : Various studies across the globe have emphasized that students undertaking professional courses, such as engineering are subjected to higher stress. Excessive stress could lead to psychological problems like depression and anxiety. The objective of the current study is to make a survey to assess stress among students and its association with various academic, social and health-related factors. Originates of stress especially for students have different sources such as mobile phones and social networks. Signs of stress are tension, anxiety, angry, frustrated or irritated by things over which he has no control. Stress also influences the desire and performance in studies, and one's general attitude toward life. The stress response can be measured and evaluated in terms of perceptual, behavioral, and physical responses. Cognitive behavioral therapy (CBT) is a widely used psychotherapeutic treatment that targets maladaptive thought patterns affecting behavioral change and emotional wellbeing. Yoga offers many positive effects on cognitive faculties, reduction of stress and emotional intensity. Therefore a shambavi Mahamudra yoga enhanced CBT technique is analyzed to reduce stress in students and improve their overall performance.

Keywords : Stress, Cognitive Analysis, CBT, , Shambavi Mahamudra.

1. Introduction

During the last two decades the world, has witnessed for remarkable changes in Information Technology (IT). The advancement in IT led to the emergence of Social Networking Sites (SNS) through mobile phones. The usage of SNS has been so widespread that they have caught the attention of academics worldwide. An increasing number of social scientists are developing interest in studying SNS, because of its impact on society. Further, the usage of SNS among the student community is evidently increasing. It has invariably left a big impact on society in general and college students in particular.

Therefore today's need is to relieve the students from social and academic stress created due to mobile phone internet usage. Global research on this topic is ongoing and western countries have started realizing the effect of yoga and have adapted to practicing yoga.

International Journal of ChemTech Research, 2018,11(02): 18-22.

DOI= <http://dx.doi.org/10.20902/IJCTR.2018.110203>

A multi-stage cluster sampling technique for the analysis of mobile phone based social networking sites usage amongst students has been adopted. Additionally, the study determined personal and family factors related to the mobile phone use and, the relationship between problem mobile phone use and psychological health of the students. The analysis showed that adolescents' active mobile phone users were more vulnerable to psychological disturbances[1].

The effectiveness of Cognitive Behavioral Therapy (CBT) on self-efficacy and the Academic Achievement in the adolescents was examined [2]. The research results revealed that the experimental group exhibited significant enhancement in their self-efficacy and Academic achievement.

Yoga-enhanced Cognitive Behavioral Therapy (Y-CBT) may be a promising new treatment for those suffering from generalized anxiety disorder has been discussed [3]. Y-CBT may also reduce depression in those suffering from generalized anxiety. Y-CBT may reduce depression and anxiety in a clinic population where clients suffer from multiple diagnoses including generalized anxiety disorder.

A research on practice of Shambhavi Mahamudra Kriya for a group of volunteers and his results support the notion that the kriya may represent a natural treatment for stress reduction has been conducted[4].

The effectiveness of mindfulness-based cognitive therapy (MBCT) on diminishing social anxiety disorder symptoms and improving the self-esteem of female adolescents suffering from social anxiety was determined [5]. Spatio temporal analysis approach useful for neuroscience research has been proposed[6]. It has been shown that different cognitive processes involve brain networks that oscillate at particular frequencies.

The effect of Yogic practices on social stress and academic stress of female students was studied [7,8]. The effectiveness of CBT (involved education about trauma reactions, breathing retraining, progressive muscle relaxation training, learning self-talk exercises to manage anxiety-producing situations, prolonged imaginable and in-vivo exposure, and cognitive therapy) among adolescents was evaluated [9,10]. The effectiveness of CBT on Self efficacy and the Academic achievement in the adolescents and has proved that the considered experimental group exhibited significant enhancement in their self-efficacy and Academic achievement was examined [11].

From the literature review we could infer that CBT is an ongoing research process for generalized stress analysis in human community. Therefore we have proposed Shambhavi Mahamudra Kriya enhanced CBT technique for stress reduction and improvement of academic performance in engineering students addicted by mobile phone based internet.

2. Yoga : A stress Buster

Thousands of years ago yoga originated in India, and in present day and age, an alarming awareness was observed in health and natural remedies among people by yoga and meditation which has been proven an effective method for improving health in addition to prevention and management of stress. With increasing scientific research in yoga, its therapeutic aspects are also being explored. Yoga is reported to reduce stress and anxiety, improves autonomic functions by triggering neuro-hormonal mechanisms by the suppression of sympathetic activity, and even, now-a-days, several reports suggested yoga is beneficial for physical health of patients. Such global recognition of yoga also testifies to India's growing cultural influence.

The practice of yoga synchronizes human physiology through controlled postures, breathing, meditation, a set of regular physical exercises, and relaxations. Certain types of yoga practice improve autonomic nervous system by modulating parasympathetic and sympathetic activity, significant changes in brain rhythms, sensory motor rhythm, and regulation of breathing rate, and improvement in the cardiac activity and enhance the sense of well-being. Therefore yoga asanas and Shambhavi Mahamudra has been considered as a scientific tool for stress analysis in engineering students due to external stimuli such as mobile phones, social network and relationship problems.

2.1 Definition of the problem

Stress has become the number one reported impediment to academic performance, as fellow students now report being stressed out than ever. Globally social networking through mobile is recognized as medium

for information exchange, in various fields such as in academic research, entertainment, communication and commerce. Now day, controversial issues eschewed from internet use and its outcomes.

Researchers have indicated that the continuous use of mobile based internet results in a lot of psychological and mental disorders like anxiety, depression, stress and obsessive compulsive disorder. Adolescent students compulsively use the internet and mobile phones, to such an extent that it is given priority over all other responsibilities which also affect time and attention to studies, domestic and responsibilities at home, and even adolescent interaction and relationships. Some examples and activities of Internet overuse may include chatting online, playing online video games, or visiting sexually illicit or pornographic sites. All types of social, economic and psychological stresses play a role in creating and developing Internet addiction.

As a consequence students are distracted from studies and day to day life activities and live in a dream world leading to even suicidal attempts. Therefore Shambavi Mahamudra enhanced through CBT has been chosen as a scientific tool for stress analysis and stress reduction.

2.2 Objective of the survey

1. To overcome stress effects investigation on the effect of yoga practice on cognitive skills, autonomic nervous system, and heart rate variability by analyzing physiological parameters is proposed
2. The aim of the present study is to examine the potential benefit of enriching CBT with Shambavi Mahamudra .
3. To investigate statistical data collected for analyzing the changes in delta, theta, alpha and beta rhythms.

3. Proposed Methodology

A growing problem not only in India but all over the globe is that students are more stressed than ever. In fact, India has one of the highest rate of suicides among people aged between 15 and 29. Although the reasons are myriad but failure in semester examination, depression leading to mobile phone addiction are some the reasons why people put their life at risk.

A common cause of concern is the pressure from parents to do well in the exams. Students are insecure about their future and because of this stress; they are attracted to mobile internet usage, smoking, drugs, alcohol and suicide.

3.1 Importance of the proposed methodology

The Psychologists suggest that students suffer from anxiety and traumatic disorder relating to peer pressure. The best time of the life that students are supposed to enjoy and cherish is the time they are pushed to extreme levels which can be overwhelming for many.

In this current scenario a need arises to relieve the students from stress and control the usage of mobile phones. This can be achieved by practicing a Psychotherapy technique and some form of mind relaxation technique .Therefore in this proposal a Shambavi Mahamudra enhanced CBT is proposed to reduce the effect of mobile phone induced stress in students by spatio temporal spectral analysis. The proposed technique would reduce the stress inducing factors and improve the academic performance of students.

3.2 Methodology

A survey is to be conducted about the previous academic performance. a sample size of 60 students including boys and girls with poor academic results is to be selected. Two groups of Control Group (Group-I) and Experimental Group (Group-II) with 30 students in each group, are to be framed. Mind distraction, Concentration & memory level of Students in the experimental group before the practice of Shambavi Mahamudra enhanced CBT analysis are to be assessed. A database of assessment results is to be created. Shambavi Mahamudra using proper Audio and Video commentary CDs under the guidance of Isha Trainer daily to experimental group alone is to be practiced.

In yoga, mudras and kriyas are used to move energy around the body. One such way of doing so is called the Shambhavi mudra (which is also called the Bhairavi mudra and the Eyebrow Gazing mudra).

Steps of Shambavi Mahamudra:

1. Sit in any meditative asana like Padmasana, Siddhasana, Sukhasana or Swastikasana as in figure1.
2. The fingers can assume Jnana mudra or Chin mudra and the palms can rest on the knees.
3. Shambhavi Mudra is nothing but gazing at the eyebrow center. With our eyes we cannot actually see the place where the two eyebrows meet. But an attempt is made to focus the vision between the eyebrows. Roll both the eyes upwards and try to gaze at the eyebrow center. When students do this, they will be able to see the two eyebrows as two curved lines meeting at the center. It forms a kind of V-shaped line with a dip at the center.
4. Concentrate the eyes on this dip in the lower center region of the V-shaped line as in figure2.
5. Maintain this position for as long as you can. Initially, the eye muscles will start to pain after few seconds or within minutes. Relax the eyes and bring it back to the normal position.
6. Rest for some time and try again. With practice one can maintain this gaze for longer period of time.
7. Breathe normally during the practice as shown in figure3. As you proceed with the meditation technique, your breath will slow down and become more subtle.



Figure 1

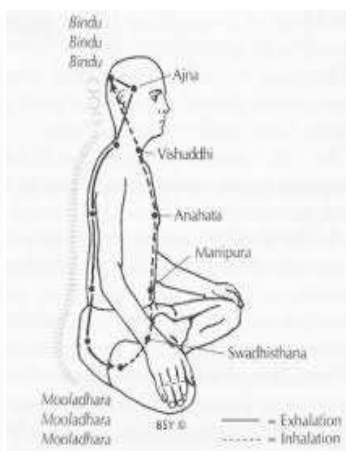


Figure 2

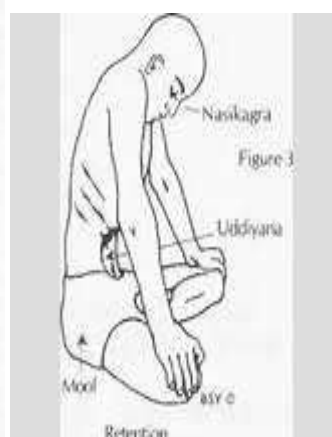


Figure 3

Benefits of ShambaviMahamudra:

- Reduced risk of heart diseases and better cardiac functioning
- Improved attention.
- Enhanced Mental Capabilities
- Improved quality of sleep
- Increased alertness, awareness, and relaxation
- Reduction in menstrual problems.

4. Results

A questionnaire was prepared and students were asked to answer those questions .A medical counselor was asked to check the student's health. The survey made showed significant improvements in students health and academic performance. In future we are planning to assess the somatic parameters such as Resting Heart Rate, Heart Rate Variability, Blood Pressure, Peripheral Temperature, Skin Conductance & Resting EEG and psychological parameters such as Memory (Verbal and Non-verbal), Attention & Concentration of Engineering Students in the experimental group before and after practice of yoga asanas and Shambhavi Mahamudra .

5. Conclusion

Based on the findings of this study, the following conclusions are drawn:he highest rated benefits participants receive from Shambhavi Mahamudra yoga overall were stress relief and improved flexibility. Common initial fears amongst those new to yoga include lack of flexibility or strength, doing it wrong or not

doing it good enough, injury and pain, and conflicts with beliefs. Common reasons for starting yoga include friends and family, health and fitness, and stress relief. As a consequence Shambavi Mahamudra enhanced through CBT which has been chosen as a scientific tool for stress analysis and stress reduction has reduced the students distraction from studies and day to day life activities and improved their academic and overall performance.

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