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STRESS MANAGEMENT TECHNIQUES RECOMMENDED FOR STUDENTS

Annotation: *This article deals with the brain-based education which includes problem solving materials and type of yoga exercises for students as well as for teachers. Stress is a survival programme and has some negative effects on learning. The focus in the context is based on different stress management techniques. To cope with stress there are recommended some types of yoga exercises. An intensive focus should be put on physical exercise: it contains positive impacts not only on health, but also on cognitive learning.*

Keywords: *stress, anxiety, students, yoga, meditation, breathing and endorphin.*

Introduction. Stress is a situation, which evokes negative thoughts and feelings in a person, but not all people feel this situation stressful or they do not experience the same negative thoughts and feelings when you feel stressed.

A critical issue that is concerned to stress among students is its effect on learning. The Yerkes-Dodson law (1908) postulates that individuals under the low and high level of stress learn the least and that those under moderate stress learn the most. A field study and laboratory tests support the notion that the excessive stress is harmful to students' performance [1]. For example: it might effect on concentration on a lesson.

The education in Kazakhstan is a very important turning point in the academic life of students for a further career move. Stress is a pressure, worry, strain or tension resulting from mental or social, physical, or emotional distress, difficult circumstances etc. Stress, which has effect on students, can be categorized as academic, financial, time or health related and their self-imposed. All these brew up a perfect storm of stress in their minds and create an inability to meet them [2].

Students react to stress in a variety of ways. For some students, the time of college is stressful because it is different from the time of the high school. For others, separation from home is a source of stress and for some students tuition fee leads to the stress because they have to work in a part-time jobs in order to cover all the all these important expenses. Although some some kind of a stress is necessary for personal growth to occur, the amount of stress can overwhelm a student and affect the ability to cope.

It is true that the high aspirations and negative attitudes lead to the mental disorder, depression, stress and even suicide among the students [2]. Researchers of the company "Project Laboratory" found out that most of the residents of Kazakhstan experience stress, and only one third of residents consider their way of life in the health way, reports NUR.KZ. 310 citizens of Kazakhstan between 18 and 60 years old took part in the survey. More than half of respondents complain that they often or constantly experience stress [3]. As our research shows, the stress is a big problem not only in Kazakhstan, but also in other countries. For instance, one in four North Americans will suffer from an anxiety disorder at some point in their life [4].

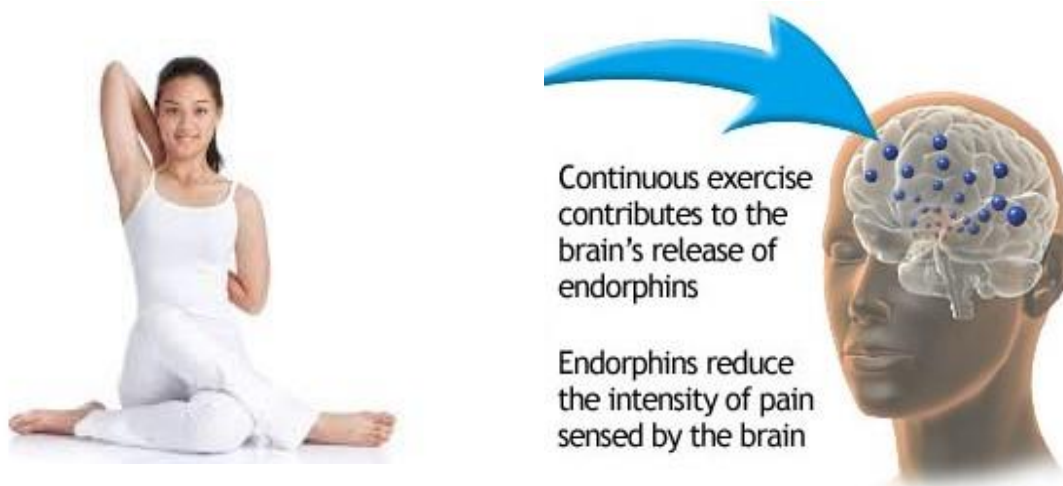
Problem solving materials and methods. There are a variety of techniques that can help relieve symptoms of stress. Yoga is a great way to reduce anxiety and stress. Here is how yoga can help you reduce stress and shown 5 ways of yoga which lower stress and anxiety [4]:

1. Yoga allows you to focus on your breathing. When a person is in an anxiety attack, breathing is short and superficial. This can aggravate a panic attack because this type of

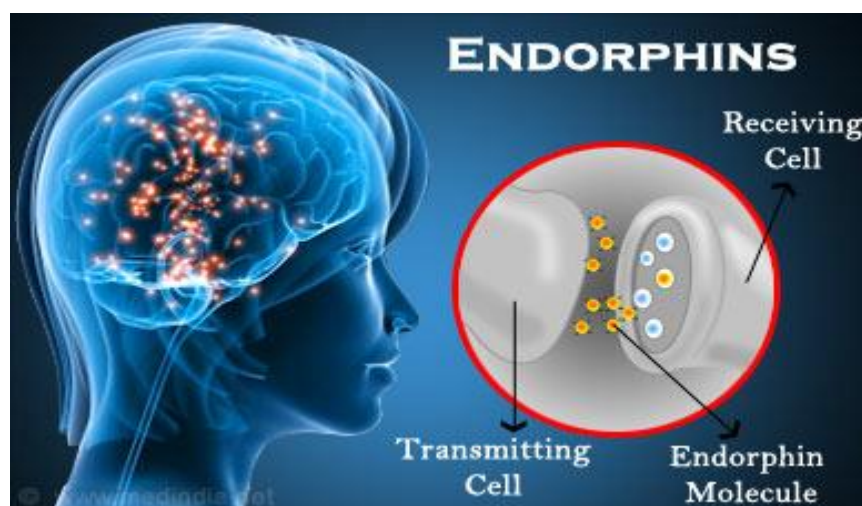
breathing causes weakness and a light-headed. The most important aspect of yoga is to focus on breathing. Practicing one's breathing through one's yoga practice is a useful skill that can be applied to other areas of life. If you feel anxious or stressed, do not forget to take deep breaths until you begin to feel more relaxed. Breathe walk and alternative nostril breathing could be an excellent example for this type of yoga [5, 6]. Breathe walk is based on a Kundalini yoga technique, and involves making strong, purposeful strides in rhythm with breathing. Dr. Weil's colleague, Dr. Jim Nicolai, demonstrates various examples of breathe walk including the "stair" and "wave" patterns. Check out Dr. Jim Nicolai's video:

<https://www.youtube.com/watch?v=TGkHVEpVoY&t=55s>

2. Exercise releases endorphin. Like other forms of exercise, yoga can release endorphin (Look at figures – 1 and 2). Endorphins are brain neurotransmitters, which do improve mood, reduce the symptoms of depression, and at the same time relieve stress and anxiety. Endorphins are essentially an all-natural antidepressant. Additionally, the flexibility and strength of yoga can help prevent injuries and reduce the chronic pain.



Figures – 1 and 2. Yoga can release endorphin (Google engine search)



3. Yoga reduces muscle tension. When we have a feeling of anxiety or stress, we contract certain areas of our body without even realizing it. Stress or anxiety can lead to the pain and muscle tension in the back, head, neck, shoulders and to the other areas. Yoga helps to

relieve muscle tension by strengthening, lengthening and relaxing sore muscles. Over time, yoga can also improve posture, which helps reduce muscle tension.

4. Yoga is difficult. Yoga is a challenge - even if you are a more experienced yogi, you will probably have some poses that are still difficult for you. Engaging in something that is difficult - and persevering even when it is difficult - will give you more confidence.

5. Yoga classes emphasize on the community and faith. When you feel anxiety, you may feel that no one understands you. This can lead to feelings of isolation and loneliness. Yoga classes are a way to meet new people and develop a sense of belonging. During resting postures, instructors offer ways for relaxing and be more present. In fact, the focus is on finding peace and strength in yourself. Having faith in something greater than yourself can be helpful when trying to cope with anxiety [4].

How often and how long should you practice yoga? In terms of integrating the qigong lessons into the regular school program, the biggest barrier appeared to be lack of time in the school day. One teacher observed: “The main problem was that I had to fit qigong into my lessons. And every day for 10 minutes – that is not easy. So if it were offered as an additional course, it would be easier and more relaxed.” Another teacher mentioned problems with the school administration over the time needed for the program: “At the beginning we were expected to do it for 15 minutes, and then with level two it was supposed to be half an hour. This caused problems with the school directors. They said that 15 minutes were doable, but no more” [7]. Many yoga instructors agree that it can actually be more effective to practice frequently for shorter amounts of time (i.e. 15-30 min) than to have fewer longer yoga sessions. However, even if you can manage to do yoga once a week, the benefits of the practice will still be there [8].

Important for teachers: Teaching should be more focused on strengths rather than on weaknesses. ‘Regenerative’ management of stress: Recovery, enjoying, relaxing, breaks. Special techniques: Yoga, meditation, autogen training, Jacobson’s progressive muscle relaxation. The Jacobson technique of progressive muscle relaxation is very easy and works well to come down from high-level stress. Focusing on good breathing also makes sense. ‘Attention to breath meditation’ has positive impacts on regulating aversive emotions, by down-regulating activation of amygdala (Doll et al., 2016, in Schachl) [9]. Meditation has also some positive effects (Ricard et al., 2015, in Schachl) [9], depending on the kind of meditation. Concentration meditation activates frontal brain areas, carefulness meditation areas in the parietal and temporal lobes and empathy meditation has impacts on regions between parietal and temporal lobes, and medial prefrontal cortex and insula [9].

Check out Jacobson’s progressive muscle relaxation video in youtube: <https://www.youtube.com/watch?v=ihO02wUzgkc&t=165s>. It takes only 15 minutes and it is very convenient for both students and teachers to do it in the classroom before the start of the lesson every day. However, here are some types of yoga exercises which are doable in the classroom and outside as well. Twice a week it can be adjusted to the curriculum plan for students and it takes more time than 50 minutes.

№	Type of yoga exercises	Time
1	Breathe walk: While counting till 10 you should walk, then stop, look, listen and feel. All these should be combined. Breathe walk is the science of combining specific patterns of breathing synchronized with your walking steps and enhanced with the art of directed, meditative attention. It changes our mood. Experience has shown that you can conquer the most common forms of anxiety and moderate depression with an appropriate program of Breathe walk.	5

	<p>It works very effectively to diminish negative mood states and boost positive ones and develop moods for mastery. The physiological shifts we can create with Breathe walk gradually build an easily accessible and stable base for positive moods. Please visit the following link for more information:</p> <p>http://www.kundaliniresearchinstitute.org/breathwalk/whatisbw/science.html</p>	
2	<p>Alternative nostril breathing: Alternate nostril breathing may help to:</p> <ul style="list-style-type: none"> • relax your body and mind, • reduce anxiety, • promote overall well-being. <p>These benefits, in turn, may help you to be more focused and aware. You can use this breathing technique to help manage stresses in your daily life. You may also find that practicing alternate nostril breathing helps you to be more mindful of the present moment.</p> <p>Lowers stress and improves cardiovascular function: One of the main benefits of alternate nostril breathing is that it may lower stress. A 2013 study (article title: Effect of fast and slow pranayama on perceived stress and cardiovascular parameters in young health-care students. Visit this link for more information: http://www.ijoy.org.in/printarticle.asp?issn=0973-6131;year=2013;volume=6;issue=2;spage=104;epage=110;aulast=Sharma) found that people who practiced alternate nostril breathing lowered their perceived stress levels. These results were also shown in the group that practiced fast breathing techniques such as breath of fire. In the same study, alternate nostril breathing was the only type of breath work that was found to have a positive effect on cardiovascular function. It was shown to significantly lower factors such as heart rate, respiratory rate, and blood pressure. After 12 weeks of practice, the participants had improvement in heart rate, respiratory rate, and blood pressure. The participants were taught the practice for 30 minutes three times per week by a certified yoga instructor. Please visit the following link for more information:</p> <p>https://www.healthline.com/health/alternate-nostril-breathing#takeaway</p>	2
3	<p>Brain wave vibration: What is Brain Wave Vibration? Every achievement of humankind - from the first use of fire to rockets blasting into outer space - began with a thought. We communicate thoughts by means of vibration - through the words we speak, the ways we touch, and the actions we take. When our thoughts are in accord with those of others, amazing things happen and even entire planets can be transformed - sometimes for the better, sometimes for the worse. There is one key player in this constant vibratory communication. It is what is responsible for receiving, producing, and interpreting the vibrations that shape the quality and content of our lives. It is what connects our mind to our body and to our physical reality.</p> <p>Naturally then, when the mind is cluttered with negative or fearful thoughts, the body also becomes unhealthy. All life forms have natural immune and homeostatic processes that maintain or return them to a normal state of equilibrium. This innate healing ability is moderated by our brain. We can either choose information that strengthens it or weakens it.</p> <p>Ilchi Lee created Brain Wave Vibration to help you tap into your inner essence</p>	5

	<p>and transcend false beliefs and preconceptions so that new, healthy information can take root. Like other forms of meditation, it slows down your brain waves to help you reduce stress, calm your mind, and become receptive to new, more self-supporting beliefs. Brain Wave Vibration balances the frenzied mindset associated with most modern lifestyles.</p> <p>Brain Wave Vibration is a powerful, easy-to-follow brain fitness and holistic healing method that helps you stimulate the flow of ki (chi, qi) to bring your body and mind back into balance. Most ancient cultures recognize a universal life force (energy) that exists in all things. Asian healing systems theorize that it is the balanced flow of ki through certain pathways in the body (meridians) that determines our health and well being.</p> <p>At its core, the practice utilizes basic vibration exercises to stimulate the brain stem, calm higher frequency brain wave activity, and circulate the body's ki. By tapping into your body's inherent rhythm, you are able to release tension and reach states of deep relaxation similar to that achieved through traditional sitting meditation. It can be done anytime, anywhere by people of all abilities, with or without music. Please visit the following link for more information:</p> <p>http://www.brainwavevibration.com/learn/</p>	
4	<p>Body tapping / slapping: EFT (Emotional Freedom Technique) tapping therapy was first introduced in the 1990s by a man named Gary Craig, who considered his approach to be an effective combination of mind-body medicine and acupressure techniques. The underlying principle of EFT is that all emotions and thoughts are forms of energy; this energy, whether positive or negative, has very real physical manifestations that affect all functions of the body. EFT was introduced around 1995, following another mind-body method called Thought Field Therapy, or TFT. In the 1980s, TFT was developed by Dr. Roger Callahan, a clinical psychologist, who found that it helped people naturally manage symptoms of anxiety, phobias and physical problems related to stress.</p> <p>It May Help Reduce Stress, Depression and Anxiety. EFT has been proven to help in the process of overcoming stress and related symptoms like trouble sleeping, fatigue and panic. What do scientific studies say about the effectiveness of EFT for reducing stress and anxiety? Over the past several decades many studies have been conducted in an attempt to validate the significance of EFT tapping and similar techniques and to determine how they might work. Please visit the following link for more information:</p> <p>https://draxe.com/emotional-freedom-technique-eft-tapping-therapy/</p>	3
5	<p>Chi-Kung: One of the most important goals for teachers, parents and school administrators is creating a healthy emotional environment for students.</p> <p>A study published in the June 2007 issue of the Journal of Chinese Medicine has found that including a particular type of qigong exercise program helped calm and energize the students, as well as improving health and reducing aggression.</p> <p>Claudia Witt, MD, and colleagues from the Institute for Social Epidemiology, Epidemiology and Health Economics at the University of Berlin, conducted a</p>	10

	<p>study with 140 students among three elementary schools and one high school in order to determine the effect of a six-month program of xianggong (“fragrant qigong”) movement instruction upon students’ health and behavior. Teachers were first instructed for eight weeks in the movements and then spent either 15 or 25 minutes twice a week instructing students before or after regular lessons. At the end of the six months, researchers conducted in-depth, semi-structured interviews with the teachers. The teachers were first asked, “Have you noticed any changes in your students during the qigong project?” They also were asked if they were interested in continuing the qigong project. Please visit the following link for more information:</p> <p>http://natureshealing.info/qigong-improves-students-health/</p>	
6	<p>The inner-smile: Based on Taoist Meditation practice, the inner smile meditation is a simple yet profound meditation that is quite natural to many people. It is centered on generating the benevolent qualities of a genuine smile that we usually offer to others. The inner smile is an opportunity to offer a smile to oneself. It can be done in a seated meditation session or in the midst of daily life. The inner smile can also be integrated into hatha yoga practice and can be particularly helpful during intense poses. Please visit the following link for more information:</p> <p>https://www.yogajournal.com/meditation/inner-smile-meditation</p> <p>One of the most well-known of Taoist practices is the “Inner Smile”, in which we smile inwardly to each of the major organs of our body, activating within us the energy of loving-kindness, and waking up the Five-Element associational network. Here is how the inner smile meditation works, as taught by Master Mantak Chia. Please visit the following link for more information:</p> <p>http://www.laughteronlineuniversity.com/inner-smile-meditation/</p>	5
7	<p>Mediation: What is meditation? Meditation is not about becoming a different person, a new person, or even a better person. It is about training in awareness and getting a healthy sense of perspective. You are not trying to turn off your thoughts or feelings. You are learning to observe them without judgment. And eventually, you may start to better understand them as well. Please visit the following link for more information:</p> <p>https://www.headspace.com/meditation-101/what-is-meditation</p> <p>Meditation can be defined as a practice where an individual uses a technique, such as focusing their mind on a particular object, thought or activity, to achieve a mentally clear and emotionally calm state. Meditation has been practiced since antiquity in numerous religious traditions and beliefs. Since the 19th century, it has spread from its origins to other cultures where it is commonly practiced in private and business life.</p> <p>Meditation may be used with the aim of reducing stress, anxiety, depression, and pain, and increasing peace, perception and wellbeing. Meditation is under research to define its possible health (psychological, neurological, and cardiovascular) and other effects. Please visit the following link for more information:</p>	10

	https://en.wikipedia.org/wiki/Meditation	
8	<p>Total body relaxation: This is a slower method of self calming, meaning it will take more time to complete. It will provide a deep all over sense of relaxation and well being. Spend a few minutes in deep relaxation. Please visit the following link for more information:</p> <p>http://calmmindbody.com/mind/full-body-meditation-for-self-calming</p>	10+
Total time in minutes		50 +

In conclusion, stress has enormous consequences on our ability to learn, perform and to think. Especially during the education process, we have to do intensive work and sometimes really silly stressful events. In addition, we must teach our students to cope with anxiety and stress. This is helpful for our future careers, satisfying business and private life, and above all, for physical and mental health. Teachers should take care of those who are being educated by us and teach them various methods of stress management techniques like yoga, meditations; inspire them to read extra books and newspapers; help them to be engaged to sports, recreational activities etc. that can have therapeutic effects on students. The more students share their problems, feelings, interests, issues and desire with parents and teachers, the better opportunities they get to progress without any stress [2]. Yoga is one of the most effective ways to reduce anxiety and stress. It can help you focus on breathing, release endorphins, relieve muscle tension, gain confidence, and become part of a community.

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