

# Improving Health by Reducing Stress: An Experiential Activity

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## ABSTRACT

*Stress is a leading health issue among college students. Managing stress involves enhancing resources necessary to cope with life's demands. Relaxation techniques are especially critical coping strategies when stress is chronic and coping resources are overused and fatigued. Methods: This article describes a research-based relaxation technique aimed to identify stress and enhance resources to cope with stress. Brainstorming, discussion, and skill practice will be utilized to meet the learning objectives. Evaluation: Process and impact evaluation will be used to assess the learning objectives. Conclusions: The implications involve reducing stress and promoting health among a priority stress population, college students.*

## INTRODUCTION

The causal relationship between stress and the three leading causes of death in the US has been well documented. Lasting, chronic stress causes and contributes to poor physical health (Banks, Marmot, Oldfield, & Smith, 2006; Thoit, 2010). Theory and findings suggest that stress influences physical health through biological and behavioral pathways. From the biological perspective, stress has been shown to promote an aroused physiological state that alters the function of the central nervous system, neuroendocrine system, and ultimately the immune system. From the behavioral perspective, stress has been shown to influence health practices, social coping, and medical compliance (Baum & Posluszny, 1999; Cohen & Williamson, 1991; Connor, 2008; Krueger & Chang, 2008;

Lazarus & Folkman, 1984; Schepis, McFetridge, Chaplin, Sinha, & Krishnan-Sarin, 2011).

Adolescents and college students are a priority stress population that suffers high levels of stress and related health outcomes (Compas, Connor-Smith, Saltzman, Thomsen, Wadsworth, 2001; Oman, Shapiro, Thoresen, Plante, & Flinders, 2008). Common stressors for college students include academic stress, interpersonal stress, concerns about the future, time commitments and pressures, and financial concern (Insel & Roth, 2010). Common college stressors, however, are not universally stressful for all because stress is individual and subjective. Previous findings and theory suggest that stress only occurs when an individual perceives a threat (e.g., exam, job, relationship) to be greater than available

resources (e.g., problem solving) to deal with the threat (Lazarus & Folkman, 1984).

Effective stress management involves enhancing and boosting resources that are needed to ameliorate the inevitable demands/stressors. There are several effective ways to manage stress including social support, exercise, time management, and relaxation techniques. Relaxation techniques are especially important during times of chronic stress when resources, which are needed for coping with demands and hassles, may become fatigued from overuse. Common relaxation techniques include progressive relaxation, meditation, visualization, deep breathing, Yoga, and noticing natural elements in one's environment (Insel & Roth, 2010; Largo-Wight, 2011). Past findings suggest that these relaxation techniques enhance coping abilities by resorting fatigued resources. Relaxation techniques are focused and purposeful exercises that stimulate underutilized portions of the brain to balance the concentrated stimulation and relieve the exhausted and overused portions of the brain. Relaxation is a learned skill that takes practice and involves observation and conscious release of physical arousal and stress (Folkman & Moskowitz, 2004; Insel & Roth, 2010; Jacobs, 2001; Karen et al., 2002; Largo-Wight, Peterson, & Chen, 2005). This article describes an evidenced-based teaching technique gives students the opportunity to experience perceived stress and recognize its accompanying physical symptoms in a safe, controlled environment. Students will also have the opportunity to learn and practice a relaxation technique to reduce stress. Additionally, the students will discuss personal coping strategies.

## METHODS

### Objectives

At the conclusion of this activity, students will be able to: 1) describe the influence of stress on the body; 2) identify how their body responds to stress; 3) demonstrate and practice a relaxation technique to cope with stress and protect health; and 4) create a list of effective coping strategies.

### Materials and Resources

A measure of stress, such as the Perceived Stress Scale (PSS), is required for this activity (Cohen, Kamarck, & Mermelstein, 1983). The Perceived Stress Scale (PSS) can be obtained online free at (<http://www.psy.cmu.edu/~scohen>) by choosing "Scales." For college students, it

would be most appropriate to print and make copies of PSS-14 (14 questions) for each student to complete independently. The instructor should also print the "PSS Scoring." In addition, six note cards or scratch paper, a means to play music (i.e. portable stereo or classroom computer), and music for "student performances" are required for this activity. A general health textbook that covers the relationship between stress and health, such as Core Concepts of Health (Insel & Roth, 2010) may serve as a helpful instructor resource.

### Target Audience

This activity was designed for undergraduate college students. This activity would be ideal in a general Personal and Community Health course as an introduction to stress or emotional health. Because this activity involves discussion, students should be briefed about personal sharing and respect. Rules of conduct should be explicit prior to the discussion. Because this activity was designed to produce a stress response in the students, instructors should be sensitive to students' reactions.

## PROCEDURE

The lesson will last about 50-75 minutes and should be used as an introduction to emotional health and stress management curriculum. The lesson may also be broken into two lessons: one focused on background of stress and stress and health and one on the experiential activity.

Briefly describe stress. Emphasize that stress is psychological or "all in the mind." Stress occurs when perceived demands exceed the available perceived resources to cope. Provide examples of typical stressors, but emphasize that stress is determined individually based on perception.

Describe the role of stress on health. Elicit class discussion by asking students to provide examples of their personal experience with stress. Guide the students to think about stressors and how their body has responded to stress in the past to open this discussion. "How do you feel when you are under stress? What happens to your body when you are stressed?" The specific symptoms will differ from person to person, but symptoms will likely represent the cluster of "fight or flight" arousal symptoms such as increased perspiration and heart rate. Describe how chronic, lasting arousal and stress can negatively influence the body over time. Describe some of the health consequences such as immune

suppression and increased cardiovascular reactivity.

Next, begin the performance activity under a false pretense; explain that music is important for reducing stress. Explain that today's lesson will consist of an experiment to test if performing musically in front of groups reduces stress. The experiment will consist of a group of students performing musically, either singing or dancing, in front of the class to test the hypothesis. Students will be nervous and excited. Emphasize that all students will have an opportunity to participate in this experiment. Place a note card on about 5-10% (depending on class size) of the students' desks and ask the students with the note cards to come to the front of the classroom. Explain to the students selected standing in front of the class to pick someone else in the classroom to take their place. Direct them to walk to the desk of the person who will take their place and put the card on their desk. Do not allow talking (negotiating). Explain to the class that if their peer chooses them, they must come up the front of the room and prepare to perform musically.

Allow sufficient time for the students to pick a replacement. This time allows all students in class to experience the "stress response." Notice some students looking away, and seemingly feeling some unrest. Once the performance group is chosen, gather the group of performers in front of the class and tell the class that the experiment is over. Tell students the performance experiment was intended to provoke the stress response in their bodies.

The next step is to practice a relaxation technique of observation and release to reduce stress. Ask the students to think about how their *body* felt during the experiment. Did their body feel tense, hot, shaky, or sweaty? Guide them to close their eyes and "find" the location in their body that felt the stress. Was it in the shoulders, hands, head, neck, stomach, throat, or legs? Explain that everyone feels stress in their body in different ways and it's important to learn about how your body feels stress in order to effectively and proactively cope in the future. Encourage the students to scan their entire body for tension, heat, or discomfort. Next, tell them to concentrate on relaxing *that* specific part of their body. Calmly and slowly ask them to take deep, slow breaths while concentrating on relaxing the "stressed" part of their body. Tell them to put their mind and attention on that part of their body and really

concentrate on relaxing it. Allow students to practice this relaxation technique of observation and release for 2-5 minutes, using your voice to guide them. Remind the students to breath slowly, focus on the "stressed" part of body, and consciously relax and release that part of the body.

After the practice, ask the students to describe how their body feels now. Emphasize the importance of thinking and the brain in stress and relaxation. The mind is connected to the body. Controlling, calming, and redirecting one's thoughts is an important and practical method to protect the health of one's body. Encourage students to practice the technique learned today at least once a day reduce stress in the body.

Next, facilitate a discussion on other age-appropriate methods for coping with stress. Ask the students to individually record a list of coping strategies they find useful. Next, the instructor (or students) will record ideas the students are willing to share on the board to create a collective list of effective, age-appropriate strategies for coping with stress and promoting health. Be prepared to add to the list if necessary.

In conclusion, highlight the importance of the mind on the body's health. Remind students how they were able to use their mind and thoughts to relax their body with the observation and release relaxation technique. Highlight the additional coping strategies listed. Challenge the students to try the relaxation technique practiced today at least once a day for the next two weeks. [Plan breaks and facilitate in class to support this behavior for the upcoming class meetings if possible.] Encourage the students to also try their favorite strategy listed on the board by the class for the next two weeks.

## EVALUATION

Evaluation should be based on the student learning objectives. Process evaluation could be measured by tallying the percentage of students that participated in the class discussions. A paper-and-pencil individual or group quiz may be an effective impact evaluation (and serve as a good study guide for an exam, if applicable). The quiz, for example, may ask students to: 1) describe the relationship between stress and health, 2) describe how physical relaxation can be healthy, and or 3) provide examples of effective coping strategies. Lastly, after two weeks of daily

relaxation practice, elicit a discussion about the students' perceived benefits of the practice on their stress and coping ability. This will serve as a qualitative impact evaluation and perhaps a summary of the unit/module.

## CONCLUSIONS

Stress is a leading health issue among college students. Managing stress involves enhancing resources necessary to cope with life's demands. Relaxation techniques are especially critical coping strategies when stress is chronic and coping resources are overused and fatigued. This article describes a research-based relaxation technique aimed to identify stress and booster resources to cope with stress. The implications involve reducing stress and promoting health among a priority stress population, college students.

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