

Coloring Reduces Stress

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Abstract

This study will determine whether coloring in a set of ten shapes reduces stress. The participant's heart rate will be monitored before and during the act of coloring in the shapes. The participant's resting heart rate will then be compared to their heart rate as they are coloring in the shapes. If their heart rate decreases as compared to their resting heart rate, it can be concluded that the act of coloring in a set of shapes can be used to reduce stress.

Coloring Reduces Stress

I believe that stress can be reduced through the act of coloring. Stress acts on everybody, but some people struggle to cope with it. Failure to cope with stress can have lasting impacts on you. Daily stressors have been associated with increased psychological distress as well as physical symptoms (Hay, & Diehl, 2010). We must be able to react to the stressors we face in a positive way. Health problems are more likely to occur in people with increases in negative responses to stressors (Leger, Charles, Turiano, & Almeida, 2016). Stress can cause a number of problems, including ones involving sleep, or lack thereof. People dealing with family stress have been associated with experiencing insomnia (Bernert, Merrill, Braithwaite, Van Orden, & Joiner, 2007). There are also a number of health problems that may be caused by stress. For instance, stressful events are associated with changes in one's immune system, and how the changes affect the person may be linked to the specific event (Seegerstrom, & Miller, 2004). Stress has also been found to cause memory problems (Rickenbach, Almeida, Seeman, & Lachman, 2014). Impairment of one's working memory capacity is common with people with PTSD (Schweizer, & Dalgleish, 2016). Stress can also lead people to do things that they normally wouldn't do. People will often try anything to cope with the stress that they are facing. Stress has been linked to substance use among adolescence (Wagner, 1993). There are many conditions that can arise due to stress, and dealing with these is crucial.

There are numerous ways of dealing with stress including different therapies. One of the methods used in some therapies is drawing mandalas. Mandala drawings have helped improve PTSD symptom severity (Henderson, Rosen, & Mascaro, 2007). They have also helped those with ADHD, allowing them to reduce stress and have more emotional stability to communicate with others (Green, Drewes, & Kominski, 2013). Since the use of drawings has been able to help

deal with stress, the process of coloring may also help to reduce stress. Art is commonly used to relieve stress and is often successful in doing so. Other art therapies have helped participants with self-awareness and personal growth, which can also be useful when dealing with stress (Perryman, Moss, & Cochran, 2015). It is important to handle stress in a positive way. When handled in a negative way, the effects of stress can worsen.

Stress impacts everyone in different ways. Some people can find things to take their minds off whatever is stressing them out. However others have to get some kind of help to handle the stressful situation that they are facing. Stress can lead to many problems, so people should be aware of how to deal with stress. Coloring will allow participants to stop focusing on any stressors, and only focus on the task of coloring. I believe that coloring a set of ten shapes for fifteen minutes will reduce a participant's stress, by twenty percent.

Method

Participant

The participant for this experiment will be a student from the SUNY Broome Psychology 110 (05) course of the 2016 Spring semester. The participant can be either male or female and must be between the ages of 18 and 60.

Materials and Apparatus

For this experiment to be conducted, I will need the Biopac MP40 to monitor the participant's heart rate. I will need a chair for the participant to sit in and a desk for the participant to use. I will need a piece of paper with the outlines of ten shapes printed on it, and crayons. I will also need a pencil and paper to record the results.

Procedure

Before the experiment is conducted, I need to have consent from the participant. I will explain the steps of the experiment and receive consent before I continue. I will then attach the Biopac MP40 to the participant and record their resting heart rate. I will then place the piece of paper with the ten outlines of shapes on the participant's desk. I will then give the participant crayons and ask them to begin coloring in the shapes. While the participant is coloring in the shapes I will continue to monitor their heart rate. After fifteen minutes, I will remove the paper with the shapes and the crayons from the participant's desk. I will then remove the Biopac MP40 connection from the participant. At this point, I will make sure that the participant is okay, and then I will let them leave the experiment.

Method of Analysis

After conducting this experiment, the participant's resting heart rate at the beginning of the experiment will be compared to their heart rate while they were coloring in the shapes. Heart rate will be used as a construct for stress. The difference in the beats per minute (BPM) will be analyzed to determine if the coloring in of the shapes decreased their stress or not. If the participant's heart rate decreased by 20%, then it can be concluded that the act of coloring in a set of ten shapes can be used to reduce someone's stress, thus supporting my hypothesis.

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