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Dinesh Patidar
Ph.D. Scholar, Department of
Physical Education,
Rabindranath Tagore
University, Madhya Pradesh,
India

Dr. Vikas Saxena
Department of Physical
Education, Rabindranath
Tagore University, Madhya
Pradesh, India

Corresponding Author:
Dinesh Patidar
Ph.D. Scholar, Department of
Physical Education,
Rabindranath Tagore
University, Madhya Pradesh,
India

Meditation's effects on specific physiological factors

Dinesh Patidar and Dr. Vikas Saxena

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Abstract

The effectiveness of meditation can vary from person to person, and it's essential to find a meditation practice that suits your preferences and needs. The references provided above can offer you more in-depth information and insights into the scientific exploration of meditation's benefits and its impact on various aspects of well-being. The purpose of the study is to find out the meditation's effects on specific physiological factors. There are thirty (30) male and female students who were pursuing graduation and were randomly selected as subjects for this study. The subjects' ages ranged from 18 to 25 years. All the subjects were physically fit and thus capable of performing all the tests efficiently. The variables chosen for this study are: systolic blood pressure Diastolic Blood Pressure For each of the chosen groups, the results pertaining to significant differences, if any, between the pre-test and post-test means of the two groups (experimental and control groups) were assessed by employing the paired t test. It was hypothesized that there would be a significant impact of meditation on selected physiological variables (systolic and diastolic blood pressure).

Keywords: Meditation, systolic blood pressure, diastolic blood pressure

Introduction

Meditation is a practice that involves focusing the mind and eliminating the stream of random thoughts to achieve a state of mental clarity and relaxation. It has been practiced for thousands of years across various cultures and traditions, and scientific research has increasingly recognized its potential benefits for mental, emotional, and even physical well-being.

Remember that the effectiveness of meditation can vary from person to person, and it's essential to find a meditation practice that suits your preferences and needs. The references provided above can offer you more in-depth information and insights into the scientific exploration of meditation's benefits and its impact on various aspects of well-being.

Systolic blood pressure (SBP) is the higher of the two values measured during blood pressure readings. It represents the pressure exerted on the walls of the arteries when the heart contracts and pumps blood into the circulatory system. A normal systolic blood pressure reading for adults is typically around 90-120 mm Hg (millimeters of mercury).

Blood pressure guidelines and recommendations may change over time as new research and clinical findings emerge. It's important to consult with medical professionals or reputable health organizations for the most up-to-date information.

Diastolic blood pressure (DBP) is the lower of the two values measured during blood pressure readings. It represents the pressure in the arteries when the heart is at rest between beats, filling with blood in preparation for the next contraction. A normal diastolic blood pressure reading for adults is typically around 60-80 mm Hg (Millimeters of mercury).

As with systolic blood pressure, please note that blood pressure guidelines and recommendations may change over time as new research and clinical findings emerge. It's important to consult with medical professionals or reputable health organizations for the most up-to-date information.

Methodology

The purpose of the study is to find out the meditation's effects on specific physiological factors.

Selection of the Subject

There are thirty (30) male and female students who were pursuing graduation and were randomly selected as subjects for this study. The subjects' ages ranged from 18 to 25 years. All the subjects were physically fit and thus capable of performing all the tests efficiently. The variables chosen for this study are: Systolic blood pressure Diastolic Blood Pressure.

Statistics

For each of the chosen groups, the results pertaining to significant differences, if any, between pre-test and post-test means of the two groups (experimental and control groups) were assessed by employing the paired t test, as given below:

Finding and Result

For each of the chosen groups, the results pertaining to significant differences, if any, between pre-test and post-test means of the two groups (experimental and control groups) were assessed by employing a paired 't' test, as given below.

Table 1: Comparison of mean values of pre and post-test of systolic blood pressure of Experimental Group

Test	Mean	Standard Deviation	Mean Difference	Df	Standard Error	t-ratio
Pre-test	67.2	2.48				
			1.6	14	0.56	2.86*
Post-test	65.6	3.48				

*Significant at 0.05 level of significance 't' $(0.05)_{(14)} = 2.05$

Table – 1 shows that there is significant difference among pre and post-test of systolic rate of experimental group as calculated value t-ratio 2.86 is higher than tabulated t-value 2.05. Thus it is proved that eight (8) weeks of meditation had significant effect on systolic blood pressure.

Table 2: Comparison of mean values of pre and post-test of diastolic blood pressure of Experimental Group

Test	Mean	Standard Deviation	Mean Difference	Df	Standard Error	t-ratio
Pre-test	3.27	0.82				
			0.15	14	0.032	
Post-test	3.42	0.86				4.51*

*Significant at 0.05 level of significance 't' $(0.05)_{(14)} = 2.05$

Table – 2 show that there is significant difference among pre-post-test of diastolic blood pressure of experimental group as calculated value t-ratio 4.51 is significantly higher than tabulated t-value 2.05. Thus, it is proved that eight (8) weeks of meditation had positive effect on vital capacity.

Discussion of Findings

It was hypothesized that there would be a significant impact of meditation on selected physiological variables (systolic and diastolic blood pressure).

Summary

Meditation is often associated with a variety of physical and mental health benefits, and its potential impact on blood pressure has been a topic of interest in both scientific research and alternative medicine practices. Here's an

overview of the potential impact of meditation on systolic and diastolic blood pressure:

Systolic Blood Pressure: Systolic blood pressure is the higher number in a blood pressure reading, representing the pressure in your arteries when your heart beats. Research suggests that meditation techniques, particularly mindfulness meditation and transcendental meditation, may have a positive impact on systolic blood pressure. These techniques often involve deep relaxation, focusing attention, and controlling breathing, which can lead to a reduction in stress and anxiety. Reduced stress and relaxation can contribute to lower systolic blood pressure levels.

Diastolic Blood Pressure: Diastolic blood pressure is the lower number in a blood pressure reading, representing the pressure in your arteries when your heart is at rest between beats. Similar to systolic blood pressure, meditation has been studied for its potential to lower diastolic blood pressure. By promoting relaxation and reducing the body's stress response, meditation can help the blood vessels dilate and improve blood flow, which in turn can lead to lower diastolic blood pressure readings.

It's important to note that while there is evidence suggesting that meditation can have a positive impact on blood pressure, the extent of the reduction can vary among individuals and depends on factors such as the type of meditation practiced, the duration and frequency of practice, and the overall health of the individual.

Before making any significant changes to your health regimen, especially if you have existing medical conditions, it's recommended to consult with a healthcare professional. Meditation can be a complementary practice to conventional medical treatment, but it should not be considered a replacement for medical advice or treatment for hypertension or other health conditions.

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