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EFFECT OF YOGIC PRACTICES WITH AND WITHOUT DEEP RELAXATION TECHNIQUE ON SYSTOLIC BLOOD PRESSURE AMONG SCHOOL GIRLS

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Abstract:

The Yoga not only works the physical body by keeping it fit while strengthening and elongating the muscles, it also helps the nervous and circulatory systems by purifying and balancing them. In the past, traditional healers used Yoga postures as a method for healing emotional disorders and illnesses. As a result of regular practice, many benefits will occur. This includes greater endurance, flexibility, deeper breathing, and an overall improvement in mood and emotional well-being. The traditions of Hatha Yoga provide powerful physical results and are intended to serve as a foundation for the mental and spiritual dimensions of Yoga. Hard work can silence the mind, but has no power to alter or transcend emotional and karmic patterns held in the unconscious mind. The purpose of the present study was to find out the effect of yogic practices with and without deep relaxation technique on systolic blood pressure among school girls. For this study totally 45 female students were selected as subjects from Kanchipuram. Their age ranged between 15 to 18 years. They were divided in to three groups. Experimental group I –yogic practices with deep relaxation technique , Experimental group II- yogic practices without deep relaxation technique and group III –control group (no intervention)and the data was collected from three groups prior to training and after 6 weeks of yogic practices with and without deep relaxation technique. The Analysis of covariance was used to find out the significant difference between the three groups. The level of significance at 0.05%. The results proved that the regular yogic practices and deep relaxation technique helped to significantly reduce the physiological variable systolic blood pressure.

Key Words: Yogic Practices, Deep Relaxation Technique, Systolic Blood Pressure

Introduction:

The practice of Yoga not only works the physical body by keeping it fit while strengthening and elongating the muscles, it also helps the nervous and circulatory systems by purifying and balancing them. In the past, traditional healers used Yoga postures as a method for healing emotional disorders and illnesses. As a result of regular practice, many benefits will occur. This includes greater endurance, flexibility, deeper breathing, and an overall improvement in mood and emotional well-being. The traditions of Hatha Yoga provide powerful physical results and are intended to serve as a foundation for the mental and spiritual dimensions of Yoga. Hard work can silence the mind, but has no power to alter or transcend emotional and karmic patterns held in the unconscious mind.

The practice of Asanas promotes flexibility of the muscles and strength in the bones and tissues. It also massages the organs, brings balance to different internal and glandular functions, promotes the flow of vital energy, prana (also known as qi in Chinese, or ki in Japanese), and balances the physical and metaphysical parts of the body (koshas). Asanas are techniques that promote awareness, concentration, meditation, and relaxation through the physical body. As the practice becomes more regular, there are significant results. Such results include good mental and physical health through stretching, massage and the stimulation of the energy channels of the internal organs.

Scientific studies have shown that the practice of Yoga has curative abilities and can prevent disease by promoting energy and health. That is why more and more professionals have started using Yoga techniques in patients with different mental and physical symptoms, such as psycho-somatic stresses and different diseases. Our bodies have a tendency to build up and accumulate poisons like uric acid and calcium crystals, just to mention a few. The accumulation of these poisons manifests in diseases and makes our bodies stiff. A regular Yoga practice can cleanse the tissues through muscle stretching and massaging of the internal organs. This brings the waste back into circulation so that the lungs, intestines, kidneys, and skin are able to remove toxins in a natural way.

A periodic discharge of a bloody fluid from the uterus occurring at more or less at regular interval of 28 days in woman from the age of puberty to menopause is known as menstruation. The flow of altered blood along with endometrial and stoma cells, glandular secretion and occasional blood clots occurs for 3 to 5 days

through a vaginal passage. Menstruation ceases during pregnancy. Its failure to occur may result from some abnormalities, physical disorders and emotional and hormonal disturbances. Common menstrual disorders are as follows.

From puberty until menopause a women's reproduction system under goes many cyclic changes. The cyclic changes are related to the changes in the endometrium, breast, ovaries, vagina, hormone secretions, and even emotional attitudes. The cyclic reproduction changes of the human female are marked by menstruation, during which some cells, uncoated blood from ruptured blood vessels, other fluids and uterine endometrium are released through the cervix and vagina. Each menstrual cycle occurs about every 28 days and last for 4 – 5 days. The menstruation occurs 12 to 14 days after the ovum is released from the ovary, about one in four weeks. The periodicity of cycle varies with individuals, after fertilization, menstruation ceases and it is the first indication of pregnancy.

Purpose of the Study:

The present study was designed to find out the effect of yogic practices with and without deep relaxation technique on systolic blood pressure among School girls

Hypothesis:

- It was hypothesized that there would be significant differences on systolic blood pressure among School girls due to yogic practices with and without deep relaxation technique groups than the control group.
- It was hypothesized that there would be significant differences on systolic blood pressure among School girls due to yogic practices with deep relaxation technique group than the yogic practices without deep relaxation technique group.

Review of Related Literature:

Sarang P S, et al (2006), conducted the "Study on Oxygen consumption and respiration during and after two yoga relaxation techniques" at Swami Vivekananda Yoga Research Foundation, Bangalore, India. In Cyclic meditation (CM) is a technique which combines "stimulating" and "calming" practices, the oxygen consumption, breath rate and breath volume of 50 male volunteers were assessed before, during, and after sessions of CM and sessions of supine rest in the corpse posture (Shavasana, SH). The oxygen consumption, breath rate and breath volume increased during the "stimulating" practices of CM, returned to the baseline during the "calming" practices, and the oxygen consumption decreased after CM. During the SH session the oxygen consumption, breath rate and breath volume reduced; however the decrease in oxygen consumption after SH was less than after CM. The results support the idea that a combination of yoga postures with supine rest (in CM) reduces the oxygen consumption more than resting supine alone does.

Methodology:

For the purpose of the study, 45 School girls from Kanchipuram area aged between 15 to 18 years were selected. They were equally divided into three groups: experimental group I (yogic practices with deep relaxation technique), Experimental group II (yogic practices without deep relaxation technique) and control group (no intervention).

The experimental group I was involved in yogic practices with deep relaxation technique for the duration of six weeks, experimental group II was involved yogic practices without deep relaxation technique. The control group was in active rest during the period of the study. This study employed the experimental random group design, with yogic practices with and without deep relaxation technique as the independent variable and systolic blood pressure as the dependent variable.

The training scheduling comprises of six days per week for the maximum of one hour for six weeks. The data were collected before training as pre-test from three groups. After six weeks of yogic practices, data were again collected from all the experimental groups and control group. The equipment used to measure the level of systolic blood pressure through citizen equipment. Analysis of covariance (ANCOVA) was used to find out the significant differences among the groups. The level of significance was fixed at 0.05%.

Result and Discussion:

The Systolic blood pressure was measured through citizen equipment. The pre and post test means of the experimental groups and control group statistically analyzed to find out the significance of Table

Table 1: Computation of Mean and Analysis of Covariance of Systolic Blood Pressure of Experimental and Control Group (Scores in mm/hg)

Test	Experimental Group-1	Experimental Group-II	Control Group	Source of Variance	DF	Sum of Square	Mean Square	F
Pre-Test Mean	127.133	128.67	129.47	between	42.18	2	21.089	0.48
				within	1854.80	42	44.16	
Post-Test Mean	123.467	125.00	129.27	between	270.98	2	135.49	6.49*
				within	876.67	42	20.87	
Adjusted Mean	123.31	125.03	129.39	between	289.65	2	144.83	6.99*
				within	849.178	41	20.71	

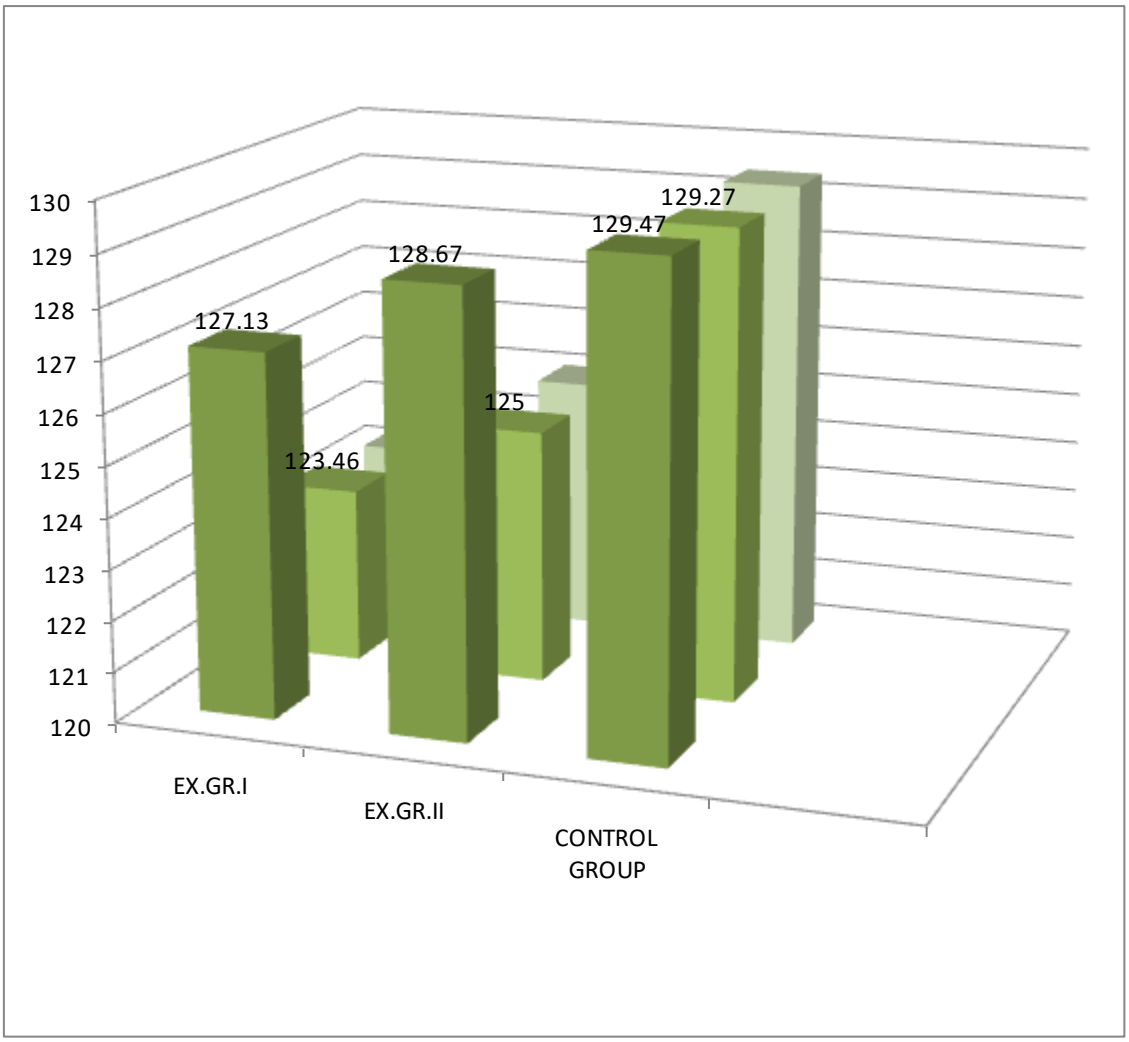
Table value for df 2 and 42 was 3.21 Table value for df 2and 41 was 3.22.

Table 2: Scheffe's Post-Hoc Test for Systolic Blood Pressure

Control Group	Experimental Group I	Experimental Group II	Mean Difference	Required C.I
129.39	123.31	-	6.08*	1.14
129.39	-	125.03	4.36*	
-	123.31	125.03	1.72*	

The pre test, post test mean values of EX.GR-I (yogic practices with deep relaxation technique), EX.GR-II (yogic practices without deep relaxation technique) and control group on systolic blood pressure are graphically presented in the Figure 1.

Figure 1: Bar Diagram on Ordered Adjusted Means of Systolic Blood Pressure



Discussion on Hypothesis:

It was hypothesized that the changes on selected systolic blood pressure as a result of Experimental Group – I (yogic practices with DRT), Experimental Group - II (yogic practices without DRT) would differ significantly than the control group among School Girls. The post hoc analysis of the results proved that Experimental Group – I (yogic practices with DRT), was effective than Experimental Group - II (yogic practices without DRT) in significant changes of Systolic blood pressure, and the hypothesis was accepted at 0.05 level.

Conclusion:

The six-weeks of yogic practices and deep relaxation technique significantly reduced the physiological variable systolic blood pressure in the post test data of experimental groups, compared to the control group. The post hoc analysis of the results proved that the yogic practices with deep relaxation technique (experimental group I) was effective than the yogic practices without deep relaxation technique (experimental group II) among School Girls.

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