



Effect of Yogic Practices with and without Deep Relaxation Technique on Diastolic Blood Pressure among School Girls

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Abstract

The menstrual cycle is the cycle of natural changes that occurs in the uterus and ovary as an essential part of making reproduction possible. Its timing is governed by endogenous (internal) biological cycles. The menstrual cycle is essential for the production of eggs, and for the preparation of the uterus for pregnancy. The cycle occurs only in fertile female humans and other female primates. In human females, the menstrual cycle occurs repeatedly between the age of menarche, when cycling begins, until menopause, when it ends. The study was undertaken with the aim to observe the effect of yogic practices with and without deep relaxation technique on diastolic 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). The data was collected from three groups prior to training and after 12 weeks of yogic practices with and without deep relaxation technique . 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 diastolic blood pressure.

Keywords: Yogic Practices, Deep Relaxation Technique , Diastolic Blood Pressure.

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Introduction

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.

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.

Several yoga poses and deep relaxation technique are proven to ease menstrual pain. it can also help mind and body adapt with stress, anxiety and depression making feel relaxed and calm, and enabling to cope with psychological symptoms of pms. Having a generally relaxed mind and body can also help in alleviating the menstrual pain. The healthy yoga diet can also help by supplying the body with the necessary vitamins and minerals to counteract the symptoms of PMS. However, it is important to recognize the need to slow down and practice yoga gently. The abdomen should remain soft and inactive throughout the practice so that the menstrual flow can continue unobstructed. Twists and inverted positions are not suitable as this may reverse the flow or squeeze the abdominal area and interfere with the natural discharge of menstrual fluid.

Purpose of the Study

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

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Hypothesis

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

TommiJean Thomas, Ph.D.; Christopher D. Tori, Ph.D.; Benjamin A. Thomas, B.A. Rajvi H. Mehta, Ph.D. (2000) investigated the Medical, Psychological, and Spiritual Benefits of Longterm Iyengar Yoga Practice among 357 long-term yoga practitioners. It was hypothesized that long-term practitioners would obtain higher scores on the battery of psychological tests than normative sample. As predicted, improvement of physical and psychological disorders was reported, and the personality characteristics of the sample were indicative of well-adjusted individuals. the findings provide strong support for significant positive change in the physical, mental, and spiritual realms.

Methodology

For the purpose of the study, 45 female subjects with School girls from Kanchipuram 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 diastolic 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 diastolic 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 Diastolic 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 diastolic blood pressure of experimental and control group (scores in mm/hg)

Test	Osho dynamic meditation group	B.K.S Iyengar group	Control group	Source of varaince	df	Sum of square	Mean square	F
Pre-test mean	83.13333	81.80	82.00	Between	2	15.51	7.756	1.343
				Within	42	2424.13	57.72	
Post-test mean	80.33333	79.67	85.53	Between	2	309.51	154.76	3.68*
				Within	42	1766.40	42.06	
Adjusted mean	79.77	80.02	85.75	Between	2	342.52	171.26	11.02*
				Within	41	637.411	15.55	

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

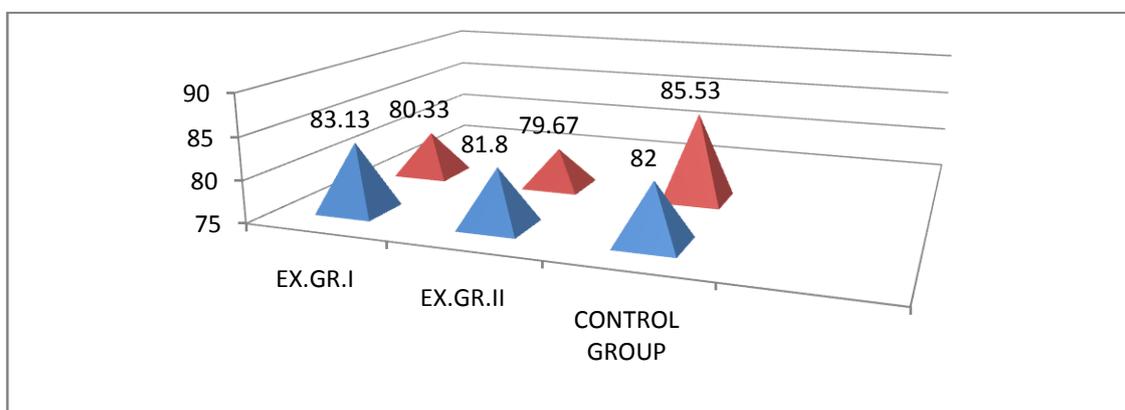
Table 2. Scheffe’s post-hoc test for diastolic blood pressure

Experimental group-1	Experimental group-II	Control group	Mean difference	Required C.I
79.77	80.02	-	0.25	3.58
79.77	-	85.75	5.98	
-	80.02	85.75	5.73	

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 diastolic blood pressure are graphically presented.

Figure I. Bar diagram on ordered adjusted means of diastolic blood pressure



It was hypothesized that the changes on selected diastolic 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 Diastolic 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 diastolic 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 .

References

1. Indira Devi (1967), “Yoga: The Technique of Health and Happiness”, Bombay: Jaico Publishing House, pp. 20.
2. Iyengar BKS (1999), “The Gift of Yoga”, New Delhi: Harpers Collins Publications India Pvt Ltd., pp.394.
3. Iyengar. B. K. S, (2001), Light on the yoga Sutras of Patanjali, New Delhi: HarperCollins Publishers, India, pp.9-40.
4. Iyengar. B. K. S, (2006), Light on yoga, New Delhi: HarperCollins Publishers, India, pp.19-46.
5. Krishnamoorthy V.(2007), “Simple Yoga for Health”.Mathi Nilayam Publications (3rd Ed), PP. 8-11.
6. Kavalayananda Swami (1977), “Asana” (1st ed), Lonaavala: kaivalyadhana pp.32.
7. Lad, V(1998), “The Complete Book of Ayurvedic Home Remedies”, Three Rivers Press, NY, pp.150.
8. Murugesan. N. (2006) “Basic Anatomy and Physiology” Published by Sathya Pubshers Sixth edition P.

9. Parshad O, Richards A, Asnani M (2011), “Impact of yoga on haemodynamic function in healthy medical students”, *The West Indian Medical Journal*, 60(2): pp.148-152.
10. Pal A, Srivastava N, Tiwari S, Verma NS, Narain VS, Agrawal GG, Natu SM, Kumar K (2011), “Effect of yogic practices on lipid profile and body fat composition in patients of coronary artery disease”, *Complementary Therapies in Medicine*, 19(3): pp.122-127.
11. Patricia, 2008),”Stress Relief and tagged improve self confidence, yoga practice”. Bookmark the permalink.