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Effect of Yogic Practices on Heart Rate among Primary Dysmenoria Adolescent Girls

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Abstract

The purpose of the study was to investigate effect of yogic practices on heart rate among primary dysmenoria adolescent girls. The subjects were equally assigned to random sampling procedure into two equal groups, i.e., the experimental group and control group. The experimental group under gone the practices in yogic practices. The control group not underwent the any kind of yogic practices for the duration of the training programme of twelve weeks. The training was given in alternate days in a week. Each session scheduled for 60 minutes. The heart rate was measured before and after the experimentation using the standardized test. The data were analyzed by Analysis of Covariance (ANCOVA) and it was concluded that the selected yogic practices group than the control group had significant (P < 0.05) effect on the heart rate level.

Keywords: Yogic Practices, Heart Rate, Primary Dysmenoria Adolescent Girls.

Introduction

Dysmenorrhea is a greek word which literally means "painful menstruation". These are abdominal and pelvic pains experienced before and during menstruation. Menstrual cramps may last for hours or up to three days. The cramps may be mildly or severely painful and can be debilitating and can interfere in regular activities, sometimes leading to absences from work, school or other functions. dysmenorrhea is caused by uterine contractions and can be aggravated by emotional stress. dysmenorrhea can be classified into primary dysmenorrhea and secondary dysmenorrhea.

Secondary dysmenorrhea has an underlying physical cause and primarily affects older women, although it may also occur immediately after a woman begins menstruation, however. Though many call Patanjali 'The Founder of Yoga', Patanjali. He was instead the first codifier of principles which were part and parcel of the spiritual life of his time... those foundations, beliefs and practices which had evolved and were passed down throughout many thousands of years from the very beginning of vedic times. Astanga Yoga is a system of Yoga that was taught by the sage Vamana Rishi in the Yoga Korunta, which is an ancient manuscript "said to contain lists of many different groupings of asanas, as well as highly original teachings on Vinyasa, Drishti, Bandhas, Mudras and Philosophy". This text was imparted to Sri T. Krishnamacharya in the early 1900`s by his Guru Rama Mohan Brahmachari, and was later passed down to Pattabhi Jois during the duration of his studies with Krishnamacharya, beginning in 1927. (.Krishnamoorthy,2007). Yoga is a science and its practice harmonizes the body and mind. Yoga is immensely useful for promoting total health. It also works effectively as a therapy in three ways preventive, curative, rehabilitative. The yoga therapy has proved its excellence in physiological, and psychological disorders like Diabetes. Researchers have established the efficacy of yoga therapy in preventing and even treating psychosomatic disorders/diseases, this has now drawn the attention of many to yogic therapy, all over the world. Now Yoga is no longer only an alternative therapy. World Health Organization (WHO), the highest body of medical practitioners has now recognized the important role of yoga as a supplementary and complementary therapy. Yogic therapy treats patient as a whole, rather than treating only symptoms of diseases or disorders. This therapy goes beyond apparent causes and symptoms and tackles the root cause of the disease or disorder.

Yoga can be defined as Samadhi as well as Samgathi. When defined as Samadhi, it means the Integration of Personality and as samgathi it means ‘Harmony. Harmony in this sense refers to the ‘Joy of positive Health’. Joy of positive health depends upon the supreme harmony between all bodily and mental functions. The musical instrument veena gives exquisite heavenly music only when its strings are attuned adequately and played upon harmoniously. So too, real health (the Positive health) consists in a balanced dynamic adjustment of forces that are opposing each of

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this inside and outside the human body. There is a hidden harmony or atonement between the things of forces that are at variance. This existence of the hidden harmony is usually not recognized or strengthened in ordinary life. Yoga tries to find harmony in things that are at variance and helps to cultivate harmonious relationship and atonement to the highest level possible at every stage of human existence. Positive health does not mean a mere freedom from disease.

Aim of the Study

The aim and objective of the study was to investigate an effect of yogic practices on heart rate among primary dysmenoria adolescent girls.

Review of Related Literature

Campbell, Peterkin, O'grady, Sanson-Fisher. Hunter centre for health advancement, Wallsend, New South Wales, Australia. Premenstrual symptoms in general practice patients. To examine the rates of premenstrual symptoms in Australian patients, the treatments they had tried for such symptoms, the perceived effectiveness of these treatments, and the proportion of women who reported that they had sought help for premenstrual symptoms and whether women perceived the need for additional help in dealing with premenstrual symptoms. Characteristics associated with higher symptom levels and desires for help were examined. Study design: a cross-sectional survey of 310 general practices patients aged 18-45 years and who had reported having had a menstrual period in the previous three months. Results: between 11% and 32% of women reported severe or extreme changes during the premenstrual phase on each of the 10 symptoms in the short premenstrual assessment form, with the highest rates for affective symptoms. Eighty-five percent of women reported that they had tried treatments for premenstrual symptoms, and many reported having tried multiple treatments. The most commonly tried treatments included pain killers rest, drinking more fluid and exercise, which had been tried by at least one-third of women. When women were asked to nominate up to three treatments they had tried and found most effective, the most commonly mentioned were dietary changes, evening primrose oil, vitamins (including b6) and exercise. Approximately 50% of the women had sought help, most commonly from a general practitioner and 45% reported that they would like more help dealing with premenstrual symptoms. Higher overall symptom scores were associated with a history of endometriosis, a lower education level, and not taking oral contraceptives, taking evening primrose oil and taking vitamin b6. Conclusion: there is a need to further refine, through evaluation of different approaches, programs and resources, ways to effectively help women who report premenstrual symptoms and would like help to deal with them.

Methods and Materials

The sample for the present study consists of 40 primary dysmenoria adolescent girls from Chennai city. The subjects were selected using random sampling method. Their age ranged from 14 - 19 years. They were divided into two groups namely Experimental group and control group (n=40), and The heart rate measurement was administrated by stop watch and stethoscope equipment. Experimental group was under the practice of yogic practices for the period of 6 weeks both morning at 6.30 to 8.00 for the period of 6 weeks . The training programme was administered for 60 to 90 minutes per session. The control group did not engage in any special activities. The load was fixed based on the pilot study. The pre test and post test were taken before and after the experimental training programme. Analysis of covariance was used as a test of significance.

Results

The data pertaining to the variables under the study was examined by analysis of covariance for each criterion variables separately in order to determine the differences, if any between the groups at different stages.

Table 1. *Analysis of covariance for pre and post tests data on heart rate of yogic practices group and control group*

	YOGIC PRACTICES GROUP	CONTROL	SOURCE OF VARIANCE	SUM OF SQUARES	df	MEAN SQUARES	OBTAINED F
Pre Test Mean	80.90	80.40	Between	2.50	1	2.50	0.35
			Within	270.60	38	7.12	
Post Test Mean	75.80	80.65	Between	235.23	1	235.23	19.11*
			Within	467.75	38	12.31	
Adjusted Mean	75.66	80.79	Between	260.36	1	260.36	
			Within	385.27	37	10.41	25.00*
Mean Diff	5.10	0.25					

*significant

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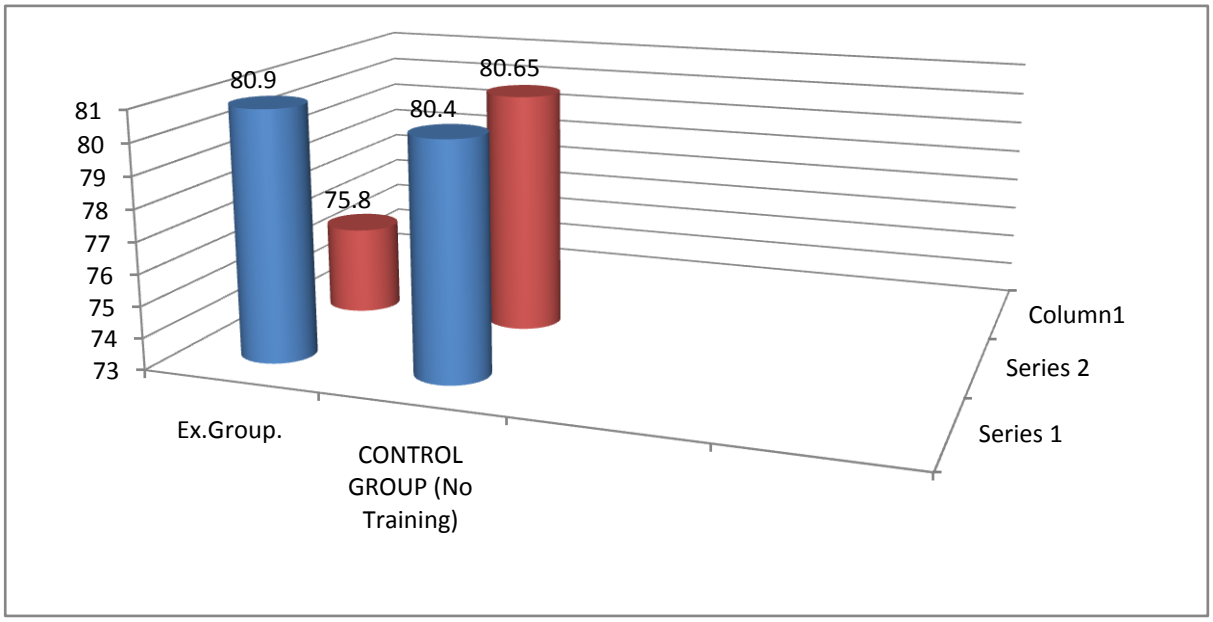
Table value for df 1 and 38 was 3.21 Table value for df 1and 37 was 3.22.
The obtained adjusted mean values were presented through bar diagram in figure 2.

Figure I. Bar diagram on ordered pre and post means of heart rate



Taking into consideration of the pretest means and posttest means adjusted posttest means were determined and analysis of covariance was done and the obtained F value 25.00 was greater than the required value of 3.22. And hence it was accepted that the Yogic practices significantly improved (decreased) the heart rate level of the control group.

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between Yogic practices group and control group on heart rate level. This proved that due to 6 weeks of Yogic practices of heart rate level was significantly improved (decreased) among control group.

Conclusion

The analysis of co-variance of anger and heart rate level indicated that experimental group I (yogic practices), and group II (Control group), were significantly improved (decreased) the heart rate level. It may be due to the effect of Yogic practices.

The analysis of co-variance of heart rate indicated that experimental group I (yogic practices) and group II (Control group), significantly improved (decreased) the heart rate level. It may be due to the effect of Yogic practices.

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