



ISSN: 2456-0057
IJPNPE 2019; SP1: 60-61
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(Special Issue- 1)
International Conference
“Sports: An Integral Component of Nation-Building”
(February 19th-20th, 2019)

Impact of yogic Asanas on total cholesterol of women volleyball players

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Abstract

The purpose of the study was to find out the Impact of Yogic asanas on Total cholesterol of women volleyball players. To achieve this purpose of the study, forty female student studying various department from Annamalai University, Chidambaram. (n=40) were randomly selected as subjects and their age ranged between 18 to 22 years. The selected subjects were randomly assigned into two equal groups such as experimental group (EG) and control group (CG) with twenty subjects each (n=20). The experimental groups underwent their respective group for eight weeks three days per week a session on each day. Control group was not engaged to any specific training apart from their curriculum. Total cholesterol was taken as variable for this investigation. The pre and post test were conducted one day before and after the training programmes. Analysis of covariance (ANCOVA) was used to analyze the collected data. The results revealed that the experimental group (EG) produced significant improvement ($p \leq 0.05$) due to Yogic asanas training on Total cholesterol when compared to control group (CG).

Keywords: Yogic Asanas, Volleyball players, Cholesterol

Introduction

In general, yoga can often help resolve mild health problems; they may be ineffective for serious conditions. Yoga therapy tailor's yoga to individuals, taking into account the nature of their medical condition, constitution and life situation. A number of randomized controlled studies exist on the efficacy of yoga. These include asthma, diabetes, heart conditions, hypertension and rheumatoid arthritis. Yoga therapy can also help many other chronic conditions, including back pain, menstrual conditions, migraine, multiple sclerosis and osteoarthritis (Haslock I, Monro R E, 1994).

Ashtanga yoga is comprised of eight limbs including moral injunctions, rules for personal conduct, postures, breath control, sense withdrawal, concentration, meditation and self-realization (Taimini, 1986) [1]. Teachings of the yoga to many health problems including chronic low back pain. The system descended from Ashtanga Yoga, it is distinguished from other styles of yoga by the emphasis on precise structural alignment, the use of props, and sequencing of poses, and by the incorporation of all aspects of Ashtanga Yoga into the practice of postures and breath control (Iyengar, 1989) [2].

Methods

Forty (n=40) students were randomly selected as subjects and their age ranged between 18 to 22 years. The selected subjects were randomly divided into two equal groups of twenty subjects each (n=20). The groups were one experimental group (EG) and one control (CG). During the training period, the experimental groups underwent their respective training programmes for eight weeks 3 days per week and a session on each day apart from their

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regular activities. Control group (CG), who did not participate in any specific training apart from their regular activities. The following yoga were used in this experimentation are parvathasana, vakrasana, ushtrasana, ardhachakrasana, gomukhasana and patchimothaasana. Total cholesterol was selected as dependent variable for this study. It was measured by Oxidase enzymatic method using Boehringer Mannheim kit. The pre and post test were conducted one day before and after the training sessions.

Data analysis

Mean and standard deviation were calculated for total cholesterol for each training group. And the data were analyzed by using analysis of covariance (ANCOVA). All analysis was carried out using SPSS and statistical significance was fixed at 0.05.

Results

Table 1: Analysis of covariance on total cholesterol of experimental group and the control group

Test		Experimental Group	Control Group	SOV	SS	df	MS	F ratio
Pretest	Mean	176.15	170.55	B	313.6	1	313.6	1.007
	SD	15.55	19.53	W	11839.5	38	311.57	
Post test	Mean	145.65	171.50	B	6682.23	1	6683.23	18.5*
	SD	17.90	20.05	W	13723.55	38	361.15	
Adjusted Post test	Mean	143.01	174.14	B	9445.47	1	9445.47	110.35*
				W	3167.16	37	85.6	

F = (df 1, 38) (0.05) = 4.10 & (0.01) = 7.35; (P ≤ 0.05) & (P ≤ 0.01), F = (df 1, 37) (0.05) = 4.11 & (0.01) = 7.37; (P ≤ 0.05) & (P ≤ 0.01).

Table I shows that the pre-test mean of experimental and control groups are 176.15 and 170.55 respectively. The obtained F ratio of 1.007 for pre-test mean is less than the table value 4.10 for df 1 and 38 required for significance at 0.05 level and table value 7.35 for df 1 and 38 required for significant at 0.01 level. The post tests mean of experimental and control groups are 145.65 and 171.50 respectively. The obtained F ratio of 18.5 for post test mean is higher than the table value 4.10 for df 1 and 38 required for significance at 0.05 and table value 7.35 for df 1 and 38 required for

significant at 0.01 level. The adjusted post test mean of experimental and control groups are 143.01 and 174.14 respectively. The obtained F ratio of 110.35 for adjusted post test mean is higher than the required table value 4.11 for df 1 and 37 required for significant at 0.05 and 7.37 for 0.01 level. The result of the study indicated that there was significant differences between the adjusted post tests mean of resistance training group and control group on cholesterol at 0.05 and 0.01 levels.

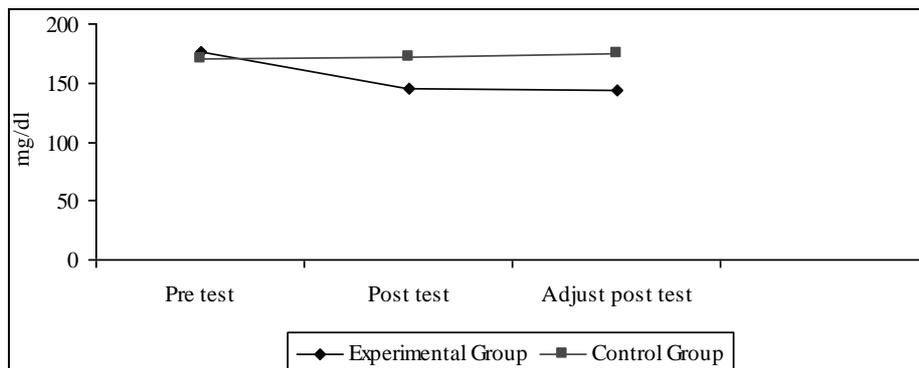


Fig 1: The pre, post and adjusted post test mean values of experimental group and control group on total cholesterol

Conclusion

As health and fitness practitioners, designing the Yogasana programme that alter the individual's total cholesterol in a positive way is an important component to be included in program objectives. Until specific recommendations based on further research are developed, we recommend Yogic asanas are the best method to normalize cholesterol level. In summary, total cholesterol can be improved during the age between 18 and 22 years of female youngsters and favor the prescription of resistance exercise programmes during the initial adaptation period. It is concluded that there was a significant improvement on total cholesterol level due to eight weeks of resistance exercise programmes as compared to control group.

References

1. Taimini IK. The science of yoga: the yoga-sutras of Patanjali in Sanskrit with transliteration in Roman, translation and commentary in English. Madras. India: Theosophical Publication House, 1986.

- Iyengar BKS. Tree of yoga. 1st ed. Boston (MA): Shambala Publishers, 1989.
- EmmaLeah, 2009.
- Fleck SJ. Cardiovascular adaptations to resistance training. *Medicine and Science in Sports and Exercise*. 1988; 20:S146-S151.
- Kraemer WJ. General adaptations to resistance and endurance training programs. In T. Baechle (Eds.), *Essentials of strength training and conditioning*, Champaign: Human Kinetics, 1994, 127-150.
- Pearson A, Budin M, Brocks JJ. "Phylogenetic and biochemical evidence for sterol synthesis in the bacterium *Gemmataobscuriglobus*". *Proc. Natl. Acad. Sci. U.S.A.* 2003; 100(26):15352-15357.
- Ramsay J, Blimkie C, Smith K, Garner S, MacDougell J. Strength training effects in prepubescent boys, *Medicine & Science in Sports & Exercise*. 1990; 22:605-614.
- Stone MH, Fleck SJ, Triplett NT, Kramer WJ. Health- and performance-related potential of resistance training. *Sports Medicine*. 1991; 11:210-231.