

Effect of Hatha Yoga Shadhna on Selected Physiological Psychological and Clinical Variables Among Anorexia Syndrome College Girls

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Abstract - These days, many teenage girls express dissatisfaction with their bodies. According to Anorexia Nervosa and Related Eating Disorders, Inc., one in 100 teenage girls between the ages of 10 and 20 have anorexia. And according to the CDC's 2007 Youth Risk Behaviors survey, more than 53 percent of female students surveyed had eaten less food to lose weight in the past 30 days, 7.5 percent of girls reported taking diet pills and 6.4 percent reported vomiting or taking laxatives to lose weight. And the obsession with weight starts early the National Eating Disorders Association (NEDA) reports that 42 percent of first- to third-grade girls want to be thinner, and 82 percent of 10-year-olds are afraid of getting fat. Many teenage girls strive to look like fashion models, but the NEDA reports that most fashion models are thinner than 98 percent of the population. This preoccupation with appearance and weight can become extreme and develop into an eating disorder. An eating disorder is a serious mental illness during which a person takes drastic measures to control his or her weight. Although the popular press paints eating disorders as affecting only girls, they can also affect boys, with the same devastating consequences.

INTRODUCTION

Traditional definitions of physical health prior to the onset of modern medicine would have considered someone physically healthy if he or she was not stricken with a serious illness. With modern medical innovations came longer life spans, which changed the way we define physical health. Today's definition can consider everything ranging from the absence of disease to fitness level. While physical health consists of many components, here is a brief list of the key areas that should be addressed, these days, and many teenage girls express dissatisfaction with their bodies. According to Anorexia Nervosa and Related Eating Disorders, Inc., An eating disorder is a serious mental

illness during which a person takes drastic measures to control his or her weight. Although the popular press paints eating disorders as affecting only girls, they can also affect boys, with the same devastating consequences, The word Yoga is derived from the Sanskrit root Yuj. The meaning is to bind, join, and attach and yoke, to direct and concentrate one's attention on, to use and apply. It also means union or communion. It means the disciplining of the mind, intellect, the emotions, the will, which yoga presupposes, it means a poise of the soul which enables one to look at life in all its aspects evenly, this time period represents the creation of the Yoga Sutra, authored by Patanjali during the 2nd century. Patanjali writings will pave the way for the standardization of the Classical Yoga that now serves as the basis for the practice and philosophies of Raja Yoga. At this point, the eight limbs of yoga were established as follows: yama or social restraints, niyama or personal observance of discipline, asanas or physical postures, pranayama or proper breathing control, pratyahara or sense withdrawal, dharana or concentration, dhyana or meditation, and samadhi or Self-realization. 1.14 Now that Panjatali was able to establish the eight-limbed paths toward the ultimate goal of practicing yoga, this period witnesses the gradual spread of yoga and its teachings. This was evident not only in practice, but also in the growth of literature dedicated to the proliferation of the teachings and principles of yoga. One of the major focus of the practice of yoga during this time period is the focus on the present moment. It also resulted to the formation of the five principles of yoga, which are proper relaxation, proper exercise, proper breathing, proper diet, and proper meditation, nowadays yoga is understood as asanas or physical postures. However, asanas were implied as physical

postures in which one can comfortably sit and practice higher practices of yoga like pranayama, dharana and dhyana, the word pranayama is comprised of two roots: prana plus ayama. Prana means 'vital energy' or 'life force'. It is the force, which exists in all things, whether animate or inanimate. Although closely related to the air we breathe, it is subtler than air or oxygen. Therefore, pranayama should not be considered as mere Breathing exercises aimed at introducing extra oxygen into the lungs. Pranayama utilizes Breathing to influence the flow of prana in the nadis or energy channels of the pranayama kosha or energy body.

The variables studied in this study have a direct significance to the treatment variable selected, such as clinical, physiological and psychological which are suitable and could be treated through yoga. Moreover the treatment of yoga is likely to create a great impact on these variables, the variables selected for the study are, Physiological Variables, Heart Rate, Systolic Blood Pressure, Diastolic Blood Pressure Clinical Variables, Haemoglobin, Total Cholesterol, Calcium Psychological Variables, Depression, Emotion, Anxiety In physiology study how different parts or organs of an organism work together to achieve a particular function. In the body, for example the digestion of food involves the action of hormones and other chemical produced by the stomach, liver and pancreas. Muscle contraction occurs through the action of chemical messages produced by nerves that supply the muscle. If learnt how the boy functions normally, then can be understand what happens when organs function abnormally and can take care of our body

OBJECTIVES OF THE STUDY

1. To explore whether the practice of hatha yoga sadhana shows any changes on selected Physiological variables among Anorexia syndrome teenage girls.
2. To examine the effect of hatha yoga sadhana on selected Psychological variables among Anorexia syndrome teenage girls. 50
3. To find out the impact of hatha yoga sadhana on selected Clinical variables among Anorexia syndrome teenage girls.
4. To analyze the effect of Hatha yoga sadhana on Physiological, Psychological and Clinical

variables among Anorexia syndrome teenage girls.

Reason for the Selection of the Topic: - The researcher has taken this study to create awareness among the public on the effects and benefits of yoga on health. The researcher selected hatha yoga sadhana to identify the changes on physiological, psychological, and clinical variables among Anorexia syndrome teenage girls. Physiological, Psychological, and Clinical variables are needed to analyze the various changes that take place in their physical and mental level before and after the training period. The researcher took this study due to the lack of literature and limited studies in this field and especially for Anorexia syndrome College girls.

Reasons for the Selection of the Variables: - An anorexia syndrome teenage girl is increasing day by day because of current lifestyle and food habits and lack of exercises. Anorexia syndrome teenage girls have high cholesterol deposit, abnormal haemoglobin more sweating, increased systolic and diastolic blood pressure and heart rate etc., as well as psychological like depression, anxiety and emotional maturity etc. Thus, the investigator has chosen these variables for the present study. The physiological, Psychological and Clinical variables are selected as dependent variables where hatha yoga sadhana are selected as independent variables.

Methodology: - The Research methodology involves the systematic procedure by which researcher starts from the initial identification of the problem to its conclusion. The role of the methodology is to carry on the research work in a scientific and valid manner. The purpose of the study was to find out the significant influence of hatha yoga sadhana on selected physiological, psychological, and clinical variables among anorexia syndrome teenage girls. This chapter provides an overview of the method used in the study for the selection of subjects, selection of variables, experimental design, and reliability of data, training schedule, training program, collection of data and statistical technique which has been explained in detailed

Selection of Subjects: - For the present investigation thirty (30) anorexia syndrome College girls were

selected randomly from Jawaharlal Nehru Homoeopathic Medical College, Parul University, Limda, vadodara. Totally Twelve weeks (12) of training were given on hatha yoga sadhana to the subjects. All the anorexia syndrome teenage girl subjects were divided into two groups one being an experimental group and the other as control group each group consists of 15 subjects. Experimental group underwent hatha yoga sadhana practice and Control group did not undergo any special training, Selection of Variables: - The investigator reviewed the available scientific literature pertaining to the study from books, journals, periodicals, magazines, research papers and available sources from Swarnim Gujarat Sports University, Gandhinagar, Gujarat, with help of professional experts in yoga, the following physiological, clinical and psychological variables were selected

Selection of the Dependent Variables and Test: -
 Physiological Variables: -1. Heart Rate, 2. Systolic Blood Pressure, 3. Diastolic Blood Pressure
 Clinical variables: - 1. Haemoglobin, 2. Total Cholesterols, 3. Calcium
 Psychological Variables: - 1. Depression, 2. Emotional Maturity, 3. Anxiety

TABLE - I

Sr No	Physiological Variables	Test/Tool	Units
1	Heart Rate	Stopwatch and Stethoscope	per minute
2	Systolic Blood Pressure	Sphygmomanometer and Stethoscope	mm/Hg
3	Diastolic Blood Pressure	Sphygmomanometer and Stethoscope	mm/Hg
	Clinical Variables		
1	Haemoglobin	Standard Laboratory test	mg/dl
2	Total Cholesterol	Standard Laboratory test	mg/dl
3	Calcium	Standard Laboratory test	mg/dl
	Psychological Variables		
1	Depression	Questionnaire	Scoring
2	Emotional Maturity	Questionnaire	Scoring
3	Anxiety	Questionnaire	Scoring

Training Programmer: - The subjects were selected at random and were divided into two groups and the experimental group underwent hatha yoga sadhana from 6.00 am to 7.00 am from Monday to Friday (5 days/week) for 12 weeks, whereas the control group underwent 122 no training. The hatha yoga sadhana for the selected experimental group were presented in the following order. 1. Experimental Group I - Hatha yoga sadhana (loosening exercises, surya Namaskar, asanas, pranayama, meditation, and relaxation) 2. Control Group - No training

Group	Training	Duration of Training	Training section
Group – I (Experimental)	Hatha Yoga Sadhana practice	12 weeks (Monday to Friday)	5 days / week 1hour / day (6am to 7am)
Group – II (Control)	No training		

Training Schedule for Experimental Group: - Experimental group - I Hatha yoga sadhana for 60 min, proper warm up and relaxation were given to the subjects during the experimental period. The yogic training program was scheduled for one session in the morning between 6.00 am to 7.00 am for 5 days (Monday to Friday) a week and the same was continued for 12 weeks. Five to ten min warm up and relaxation were also included.

Collection of Data: - To achieve the purpose of the study two groups consisting of 15 subjects each were selected at random; the experimental group was treated with hatha yoga sadhana for about twelve weeks (5 days/week). After the training period all subjects were tested on selected criterion variables at different levels as pre and post training. The pre and post test data on the selected criterion variables were collected by administering the test as per the standardized procedures before and after the twelve 156 weeks of the training programme. Similarly, the blood sample was collected from individuals

Statistical Analysis: - The data obtained were analyzed by Analysis of Covariance (ANCOVA) to assess the significant difference among the groups between the pre-test and post-test on physiological, psychological and clinical variables to find out the effect of Hatha yoga sadhana on selected physiological, psychological

and clinical variables among Anorexia syndrome teenage girls. The normality of the data collected was tested through F test (ANCOVA). The data and the regression were plotted and found to be in the standing straight line and thus tested for normality of data and found the data are normal. The investigator has analyzed scientific results obtained by application of various methodologies discussed above and the results are analyzed and presented in form of detailed discussion graphs and various tables in the next chapter.

Suggestion for Further Research: - During the course of the research study, the investigator came across a Number of ideas, based on which the following suggestions are made for further

RESEARCH IN THIS AREA

1. Similar study can be undertaken to find out the changes on Hatha yoga sadhana Practices between male and female.
2. Similar study can be undertaken for college girls also.
3. Similar study can be undertaken for teen age boys also.
4. Similar study can be undertaken for rural and urban Anorexia syndrome teenage Girls.
5. This type of study can be undertaken on different age groups.

REFERENCE

- [1] Bhavanani Anandha Balayogi (2004), "A Primer Yoga theory, Sathya Press, Ananda Ashram, Pondicherry.
- [2] Clarke, Harrison H and David H. Clarke, (1972), "Advanced statistics", Englewood Cliffs, N.J: Prentice hall, Inc, pp.31-34
- [3] Davidson. G.C and Neal J.M (1990) "Abnormal psychology" Published by John Wiley & Sons New York Fifth Edition, pp.1
- [4] Frost, Reuben B. (1983). Psychological Concepts Applied to Physical Education, Los Angles: Prentice Hall, Inc., (1983).
- [5] Gharote, M.L. (1982). Guidelines for Yogic Practices, Lonawala: Medha Publications, pp.51
- [6] Indira Devi (1967), "Yoga: The Technique of Health and Happiness", Bombay: Jaico Publishing House, pp. 20.
- [7] Iyengar BKS (1999), "The Gift of Yoga", New Delhi: Harpers Collins Publications India Pvt Ltd., pp.394.
- [8] Iyengar. B. K. S, (2001), Light on the yoga Sutras of Patanjali, New Delhi: HarperCollins Publishers, India, pp.9-40.