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EFFECT OF SAHAJA YOGA MEDITATION ON THE NUTRITIONAL STATUS OF PHYSICAL EDUCATION STUDENTS

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ABSTRACT

Background: The objective of the study was to determine the "effect of Sahaja Yoga Meditation on nutritional status of University students". Method: Total sixty (60) male physical education students (Mean ± s; age 21.40 ± 1.649 years) were randomly selected from the department of physical education, Seba Bharati Mahavidyalaya, Paschim Medinipur and distributed in two equal groups. The practice of Sahaja yoga meditation was considered as an independent variable and nutritional status was considered as a dependent variable. The nutritional status was measured by body mass index through formula given by Garrow (1987), Pre-test - post-test randomized group design which consists of a control group (CG) (n=30) and a Sahaj yoga group (SG) (n=30) was used for the present study. The subjects in the experimental group participated in a Sahaj yoga program for the period of twelve weeks, sixty minutes per session, three times per week; each and every session was possessed with 45 minutes workout, 5 minutes concentration pranayama while the control group did not get any kind of training. All data were presented as mean and standard deviation. To examine changes after the intervention percentage change and an analysis of covariance (ANCOVA) was used to evaluate differences between the groups. The alpha level for significance was set at $p < .05$. Results: The result showed that there was significant ($F(1,57) = 89.709$, $p < .05$, $w^2 = .30$) effect of Sahaja yoga meditation on nutritional status of physical education students. There was a 9.25% greater gain in nutritional status for SG compared with the CG. Conclusions: It is concluded that practice of Sahaja yoga meditation improves nutritional status of physical education students by reducing psychological workload and improving physiological alterations.

Keywords: Sahaja Yoga, Meditation, Nutritional Status.

Introduction

Assessment of nutritional status can provide valuable information concerning nutrient intake and requirement and can identify students who are at risk for various nutritional disorders. Malnutrition is a relatively common problem among college students. It can be secondary to poor nutrient intake, increased losses in body weight and increased protein catabolic rate. For all these reasons nutritional assessment is of paramount importance, which can be done by various methods, which are interlinked to each other. The body mass index (BMI), or Quetelet index, is a statistical measurement, which compares a person's weight and height. Though it does not actually measure the percentage of body fat, it is a useful tool to estimate a healthy body weight based on how tall a person is. The Belgian polymath Adolphe Quetelet invented it between 1830 and 1850 (Jahan and Uppal, 2009). Sahaj Yoga is a form of "Kundalini Yoga" which

describes a simple technique to arouse the latent potential of man by a simple meditative process. Sahaj Yoga has shown a beneficial effect in the management of Hypertension, Bronchial asthma (Chugh, 1987 and 1997) and epilepsy (Panjwani, Gupta, Singh, Seivamurthy and Rai, 1995). Previous scientific studies on Sahaj Yoga have also demonstrated its role in reduction in anxiety levels (Batra, 1 999), improvement in sensory-motor functioning, reaction time (Ravi, 1 998) and better autonomic control (Rai, Sethi and Singh, 1988) in health practitioners. However, executive functions have not been studied yet. Therefore, the alternative approaches of Sahaj yoga with potential effects on nutritional status (body mass index), if any, have been explored in this study. The objective of the study was to determine the "effect of Sahaja yoga meditation on nutritional status of physical education students."

Methodology

Total sixty (60) male physical education students (Mean ± s; age 21.40 ± 1.649 years) were randomly selected from the department of physical education, Seba Bharati Mahavidyalaya, Paschim Medinipur and distributed in two equal groups. Thirty participants (21.27 ± 1.660 y) were randomly allocated into Sahaj yoga group (SG). A further thirty participants (21.53 ± 1.655 y) were assigned to a no-yogic activity group i.e. control group (CG). Variable: Practice of Sahaja yoga meditation was considered as an independent variable and nutritional status was considered as dependent variable. Criterion Measure: The nutritional status was measured by body mass index through formula given by Garrow (1987) to classify the individual as normal, obese or underweight.

$$\text{Body mass index} = 1 + \frac{weight\ (kg)}{Height\ 2\ (m)}$$

BMI Classifications (Anonymous. 2006)

BMI Class	WHO classification
< 18.5	Underweight
18.5-22.9	Normal
>23	Overweight
>25	Obese I
>30	Obese II

Experimental Design

Pre-test - post-test randomized group design which consists of a control group (n=30) and an experimental group (n=30) was used for the present study. Equal numbers of subjects were assigned randomly to each group. One group served as an experimental group on which treatment was assigned and the other group served as the control group.

	T	
Sahaj Yoga Group (SG)	O^1	O^2
Control Group (CG)	O^1	O^2

Where O_1 = Pre Observation (Pre-Test), O_2 = Post Observation (Post-Test), T = Treatment

Collection of Data

The treatment was administered on an experimental group for the period of 12 weeks while the control group did not get any kind of training. Before the administration of Sahaj yoga, the height and weight of the subjects were measured and converted in BMI score with the formula as pre-test data. After the completion of twelve weeks of Sahaj yoga, again the same test was conducted to collect the post-training data.

Administration of Training

The subjects in the experimental group participated in a Sahaj yoga program for the period of twelve weeks, sixty minutes per session, three times per week; each and every session was possessed with 45 minutes workout, 5 minutes concentration pranayama while the control group did not get any kind of training. Subjects performed the practice of Sahaja Yoga as per following details under the supervision of investigator: (I) Right in the beginning a lamp was lightened in front of the portrait of Shree Mata Ji Nirmala Devi. (2) Subjects assumed the position of comfortable posture (Sukhasana), (3) Performed "Kundalini Bandhan" and (4) Took "Bandhan". (5) Placed left forearm on the left knee with palm facing upward and right palm on the floor by the side of the body and prayed " Shree Mata Ji, with your blessings, absorb the barriers and defects of my 'tarno' qualities in earth". (6) After feeling vibrations on left palm, subjects placed right forearm on right knee with palm facing upward and lifted left hand(palm facing then towards sky and prayed "Shree Mata Ji, with your blessings, absorb the barriers and defects of my 'Rajo' qualities in the sky". (7) Placed left palm on the right side of the abdomen (right forearm remained on right knee) and prayed "Shree Mata Ji, with your blessings, keep my mind free of thoughts". (8) Placed right palm on the heart and prayed "Shree Mata Ji, with your blessings, i am 'Atma'". (9) Placed right palm horizontally on the forehead, with slightly leaning forehead forward, prayed "Shree Mata Ji, with your blessings, I forgive everyone with my heart and I am not having anger for anyone in my mind". (10) Placed middle part of right forearm on vertex with straight fingers and rotated seven times clockwise and prayed "Shree Mata Ji, with your blessings, allows me to feel self-realization (In steps 8 to 10, left forearm remained on left knee). (11) Placed both forearms on respective knees and meditated for 1 5 minutes with fixing mind on "Sahasrara Chakra". (12) Performed the practice of 3rd step. (13) Performed the practice of 4th step. In addition to above procedure, Sahaja Yoga Meditation was performed by the subjects with attention under the supervision of Sahaja Yoga Expert, Mrs Versha Pradhan. Meditation was performed with the following steps: Subject kept their 'Chitta' on central heart. After that, they kept their 'Chitta' on 'Sahastrar? After that, subjects brought their 'Chitta' in the sky and tried to feel vibrations. In the last step, subjects kept their 'Chitta on 'Anahata Chakra'.

Statistical Analysis

All data were presented as mean and standard deviation. Data were analysed with the Statistical Package for Social Science for Windows software (SPSS 16, USA). To examine changes after the intervention percentage change and an analysis of covariance (ANCOVA) was used to evaluate differences between the groups. Preintervention values were used as covariates for the main effect. The alpha level for significance was set at $p < .05$.

Findings

Mean and the standard deviation were conducted on pre and post-test for nutritional status. The percentage change was also calculated to see the changes occurred after the twelve weeks of interventions the result showed that changes in nutritional status for groups: SG and CG were 9.8% and .55% respectively (See Table 1). There was a 9.25% greater gain in nutritional status for SG compared with the CG.

Table I: Mean and standard deviations for the pre and post test scores for the nutritional status and the percentage change

Group	Pre Test	Post Test	% Change
SG	18.37± 1.15	20.17 ± 1.48	9.8 %
CG	18.31 ± 1.02	18.41 ± 1.08	.55%

A one-way analysis of covariance (ANCOVA) was conducted for nutritional status. The independent variable, groups, included two levels: SG and CG. The dependent variable was the nutritional status on the post-test and the covariate was the nutritional status of the students on the pre-test. A preliminary analyses evaluating the homogeneity-of-regression (slopes) assumption indicated that the relationship between the covariate and the dependent variable did not differ significantly as a function of the independent variable, Ff I, 56} = .573, p = .452. The ANCOVA was significant, F(l,57) = 89.709, p < .05 (See Table 2). However, only *(co*^{2} = .30) of the total variance in nutritional status was accounted for by the two levels of groups controiir*§ for the effect of the nutritional status of the students on the pre-test.

Table-2: Analysis of co-variance for nutritional status by experimental group for interventions effect

Source	SS	df	MS	F	P
Pre Test	70.450	1	70.450	145.964	.000
Group	43.299	1	43.299	89.709	.000
Error	27.511	57	.483		
Total	144,323	59			

Discussion

The significant 9.8% change was found in the present study due to the Sahaja yoga meditation for, example, a technique that evokes thoughtless awareness on a daily basis, presumably via activation of in short and long-term practitioners compared to controls.

There are several research studies conducted on the association between stress and body mass index, shows inconsistency in findings but several previous studies of stress and BMI have generally been interpreted to indicate the presence of positive association (Kivimaki, Head, Ferrie, Shipley, and Marmot, 2006). Block, He, Zaslavsky, Ding and Ayanian (2009) found psychosocial! Stress may limit weight gain among overweight and obese men and women. Overgaard et al. (2004) found weak positive associations between elements of psychological workload and overall body weight. Van Jaarsveid et al. (2009) Persistent stress was associated with higher waist circumference and BMI in adolescence. Wardle et al. (201 1) psychosocial stress is a risk factor for weight gain. Ostry et al.(2006) positive associations between high effort, high psychological demand, long working hours and BMI.

Conclusions

It is concluded that the practice of Sahaja yoga meditation improves nutritional status of University students by reducing psychological workload and improving physiological alterations. Sahaja Yoga meditation significantly improves the nutritional status of physical education students. Sahaja yoga meditation (SYM) should be incorporated into the routine of physical education students to enhance their nutritional status, as it leads to significant improvements by reducing psychological workload and improving physiological alterations. It acts as a beneficial lifestyle intervention for better health and emotional wellness.

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