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Structural Integration Yoga and Training Methods are taught in the Anatomy

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ABSTRACT

It started in the past, when elders taught the young ones important information and abilities for their social structure. Physical activity and exercise on a regular basis can help you stay healthy, active, and independent as you age. Exercise is essential in preventing health problems such as heart disease and stroke. Many studies have demonstrated the health advantages of regular exercise. This report examines the evidence regarding the health benefits of exercise across the board. Physical activity and exercise can help to lower stress and anxiety, enhance happy neurotransmitters, promote self-confidence, boost brain function, improve memory, and strengthen our muscles and bones. It also aids in the prevention and treatment of heart disease, obesity, blood sugar swings, cardiovascular disease, and cancer.

Keywords: sports, need, exercise, benefits, physical activity, importance

1. INTRODUCTION

Education is a vital component of a person's life that begins at birth and continues until death. Thus, education is only a means of growth by which the body, mind, and spirit may be properly taught and developed. "Activities related to Sports and Physical Education are essential components of human resource development, helping to promote good health, comradeship, and a spirit of friendly competition, which has a positive impact on the overall development of the youth," according to the Preamble of the National Policy of Sports. Physical education, according to Merriam Webster, is "a course of study providing training in

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hygiene, gymnastics, and the performance and management of athletic games, ranging from simple calisthenic exercises to a course of study providing training in hygiene, gymnastics, and the performance and management of athletic games." Physical educators' views on yoga have evolved from ancient times to the present day. Yoga's ultimate purpose has shifted from religious belief to being fit and healthy at all ages and for both sexes. As a result, yoga has become an important part of today's physical education curriculum. Both formal and informal procedures are equally essential in teaching and learning. Through an effective and organised physical education programme, a balanced curriculum plan incorporates efficient body and limb motions. Many educational goals are met through physical activities such as sports, gymnastics, games, dancing, and exercises. Physical education is necessary for the development of the entire personality.

2. REVIEW OF LITERATURE

Burdette and Whitaker (2005) conducted a cross-sectional survey in 20 large United States cities. In this survey, daily time of outdoor play, duration of television viewing, and the body mass index of 3 year old children were measured. The data was collected with the mothers of the selected children. Neighbourhood Environment for Children Rating Scale was used to assess the maternal perception of neighbourhood safety. 3141 children were selected as a sample for the present study, 35% of which were lived in households with incomes below the United States poverty threshold. Monyeki et al. (2005) studied the relationship of five body composition characteristics include body mass index (BMI), sum of skinfolds (SSF), body fat percentage (%BF), waist-to-hip ratio (WHR) and fat-free mass (FFM) with 9 physical fitness items in undernourished rural primary school children of Ellisras, South Africa. The cross-sectional study includes a sample of 462 boys and 393 girls of age 7- 14 years. Five body composition measures (body mass index, sum of skinfolds , body fat percentage , waist-to-hip ratio and fat-free mass) were assessed and nine physical fitness test items (standing long jump, sit-ups, bent arm hang, 50 m sprint, 10 x 5 m shuttle run, 1600 m run, sit and reach, flamingo balance and plate tapping) were assessed. The result revealed that body mass index (BMI) was highly correlated with fat-free mass (FFM). Nassis et al. (2005) investigated about the influence of cardio-respiratory fitness on total and truncal fatness among children. The study was an observational cohort study conducted in the primary and secondary schools

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of Athens, Greece. Sample consisted of 1362 healthy children of age group 6 to 13 years. There were 742 boys and 620 girls who became a part of the collected sample. The calculated data includes measurements of anthropometric measures including height, skin folds thickness, percent body fat and body mass. The sample was grouped into two groups' non-overweight group and overweight/obese group. Endurance shuttle-run test was applied to assess cardio-respiratory fitness (CRF). Katja (2006) conducted a research on physical activity, fitness, abdominal obesity, and cardiovascular risk factors in Finnish men and women. The researcher disclosed that cardiovascular disease is directly associated with low cardio-respiratory fitness and physical inactivity. Many researchers suggested that individuals who were engaged in physical activity or cardio-respiratory fitness at a satisfactory level, have chances of cardiovascular disease. The study consists of 13,437 adults (both men and women) of age 25 to 74 years and selected through stratified random sample according to age groups of 10 years each, gender and area.

3. RESEARCH METHDOOGY

The study was an experimental research. According to Babbie (1998) experimental research adheres to scientific research design strictly. The research design consists of a hypothesis to be tested, a variable which has a probability of manipulation and can be calculated, measured and compared. Controlled environment is an important aspect of experimental research in which it is completed. Data will be collected and results will drawn out on the bases of which hypothesis is either supported or rejected. This research method is referred to testing of hypothesis or deductive research method.

3.1 SAMPLE

The population included in the present study comprised of the adolescents of age from 14 to 17 years residing in the state of Punjab. 300 adolescent students were selected for the present study. The sampling process was divided into various phases. In phase I, three regions of state Punjab, viz. Majha, Malwa and Doaba were considered. There are total 22 districts in Punjab, out of which 4 belong to Majha, 14 to Malwa and 4 to Doaba. Since Malwa region is the largest one with 14 districts, so 150 students were selected from the Malwa region. Rest 150 were selected from the region of Majha and Doaba. 75 were selected from Majha and 75

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from Doaba districts. Further the DAV schools were selected, as these are distributed across the state and in all the three regions of Punjab. In third phase only obese students were included by applying Body Mass Index. The sampling technique used was purposive sampling. In last phase, the students were selected with systematic random sampling, where students with odd roll numbers were included in the sample.

3.2. OBJECTIVE OF THE STUDY

To frame the physical exercise training program and yoga training program for school going obese children of class X standard.

3.3. GROUPING OF STUDENTS

As the present research is an experimental study, therefore there are three groups in which sample have been distributed., as shown below:

Table 3.1: Group-wise Distribution of Sample

Group	Group Nomination	No. of Students	Boys	Girls
I	Controlled (No intervention)	100	50	50
II	Intervention with Physical Training	100	50	50
III	Intervention with Yoga	100	50	50
	Total	300	150	150

The students were randomly assigned to the groups. 100 students were included in each group. The present experimental design was Randomised Groups, Pre-Test-Post-Test Design. Koul (2009) revealed that in this design, the subjects are randomly assigned to the controlled and experimental groups. Pre-test is administered after assigning the groups and then intervention is provided to the experimental group/s only for a specific time. At the end of the

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treatment, post-test is administered as a measure of dependent variable. The difference between means of pre-test and post-test is found and tested for the significance with appropriate statistical techniques.

3.3 THE EXPERIMENTAL DESIGN

As discussed above the experimental design for the present study was Randomised Groups, Pre-Test-Post-Test Design. After pre-test the intervention programme was given to the two experimental groups whereas one of the groups was controlled one with no intervention. The intervention was given for 6 weeks of experimental period and was given six days a week. So, total 36 days of intervention programme was planned and implemented. The intensity of the programme was of 60 minutes per day. The session was conducted during the morning hours, i.e. from 6:00 AM to 7:00 AM daily.

Table 3.2: Randomised Groups, Pre-Test-Post-Test Design

<table>
<tr><td rowspan="4">Pre-Test</td><td>Controlled
(No intervention)
(N=100; Boys=50, Girls=50)</td><td rowspan="4">Post-Test</td></tr>
<tr><td>Intervention</td></tr>
<tr><td>Experimental
Intervention with Physical Training
(N=100; Boys=50, Girls=50)</td></tr>
<tr><td>Experimental
Intervention with Yoga Training
(N=100; Boys=50, Girls=50)</td></tr>
</table>

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3.4 TOOLS FOR DATA COLLECTION

For pre-test and post-test data collection, Demographic profile along with Body Mass Index (BMI), Skin Fold Measurement, Height, Weight and body fat percentage was calculated. Body composition measurements include height and weight. Anthropometric Rod (Bertapelli, Machado, Roso and Guerra-Junior, 2017) was used to find out height (in CM) of the subjects. Weight machine (Scotland, 2017) was used to measure the weight of subjects (in KG). Body Mass Index (BMI) was calculated by applying the formula given by Kerekes, Fielding and Apelqvist (2017). Body fat was determined by using Skin-Fold Calliper. Both BMI and body mass were calculated in percentage. The other instruments that were used are stopwatch and measurement tape.

3.5 THE EXPERIMENTATION PROCESS

As discussed earlier there were three groups that undergo experimentation according to Randomised Groups, Pre-Test-Post-Test Design. One group (Group I) was controlled while two were experimental. Pre-test and post-test were applied on the controlled group without intervention. From the two experimental groups, one group (Group II) underwent Physical Training while the other (Group III) underwent Yoga for 6 weeks.

3.5.1 INTERVENTION WITH PHYSICAL TRAINING

Six week physical training was planned and applied to Group II. The intensity of training was easier in first three weeks whereas in later three weeks the intensity of physical training was increased. The physical training was given six days a week except Sunday. Different exercises were planned on the different days of a week. The duration of physical training was of an hour during the morning from 6 AM to 7 AM. A systematic scheme of physical training was given as under

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Table 3.3: Physical Training Prescribed for Group II during 1st, 2nd and 3rd Week

Week 1st, 2nd and 3rd					
	Day	**Exercise**	**No. of Sets**	**Duration of Exercises**	**Density Between Sets**
Warming Up Timing 10 to 15 Minutes	Monday	Medium Race	1	7 to 10 Minutes	3 to 5 Minutes
		Hoping (25 Steps)	1		
		Bounding (25 Steps)	1		
		Fartlak (2 KM)	1	20 to 23 Minutes	
	Tuesday	30 Meter (Medium Speed)	3		2 to 5 Minutes
		30 Meter Full Speed	3		
		60 Meter Full Speed	2		
		Core Exercise	1	12 to 15 Minutes	
	Wednesday	Fartlak (2 KM)	1	20 to 23 Minutes	3 to 6 Minutes
		ABC	1	20 to 25 Minutes	
	Thursday	Stair Exercise	6 to 7 Minutes		4 to 6 Minutes

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	Friday	60 Meter (Power Dragger)	3		2 to 4 Minutes
		120 Meter	3		
		30 Meter	6		
		Rail Grip			
	Saturday	ABC	1	20 to 25 Minutes	4 to 6 Minutes
		Game (Any Choice)	1	20 to 25 Minutes	

Table 3.3: Physical Training Prescribed for Group II during 4th, 5th and 6th Week

Week 4th, 5th and 6th					
Warming Up Timing 10 to 15 Minutes	**Day**	**Exercise**	**No. of Sets**	**Duration of Exercises**	**Density Between Sets**
	Monday	Bounding (25 Steps)	4		2 to 3 Minutes
		Hoping Right Foot/ Left Foot (25 Steps)	6		
		Fartlak (2 KM)	1		
		Core Exercise	1	10 to 12 Minutes	
	Tuesday	Running 3 KM	1		3 to 6

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		ABC	1	10 to 15 Minutes	Minutes
	Wednesday	120 Meters	3		
		800 Meters	3		3 to 6 Minutes
		200 Meters	3		
	Thursday	Running (4 KM)	1		3 to 6 Minutes

		Core Exercise	1	10 to 15 Minutes	
	Friday	600 Meters	3		3 to 6 Minutes
		Game (Any Choice)		20 to 25 Minutes	
	Saturday	30 Meters (Medium Speed)	5		2 to 3 Minutes
		30 Meters (Full Speed)	4		
		30 Meters (Full Speed)	4		
		Running (4 KM)	1		5 to 6 Minutes

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3.5.2 Intervention with Yoga

4. RESULTS AND DISCUSSIONS

The results showed that, total number of screened sample 14.75% of the boys were abese, 13.96% of the girls were obese. The results also revealed that 85.24% of the boys were non obese in weight and 86.03% of the girls were in non obese in nature. Table number one shows the prevalence of obesity by gender among the school going students of class X standard. While obesity seems to be growing in children regardless of sex, it can be noted that there is a gender wise variation in the prevalence of overweight and obesity in children irrespective of the place as revealed in many studies done in Punjab. The present study also compares the sex wise variation seen in children. The results of table number 2 depicts that 14.75% of the boys were abese, 13.96% of the girls were obese as already discussed in previous table. When gender wise comparison in terms of over weight was made, it was found out that 27.63% of the boys were over weight and 26.51% of the girls were over weight. It was also noted that out of a totall of 2412 students class X standard screened, 1288 were boys, and 1124 were girls. The prevalence of obesity among boys was found to be higher than that of girls. The significance results showed that experimental group improved health due to participation of physical activities. In other hand the results indicated that there was slight improvement had been observed on their physical fitness except BMI . The correlation coefficient of experimental group on muscular strength and flexibility showed moderate significant positive correlation.

5. BIBLIOGRAPHY

1. Abuse, D., Disease, A., Lateral, A., Fibrillation, A., Deficit, A., Pain, B., … Diabetes, G. (2016). 101 Health Conditions Benefited by Yoga (as found in scientific studies as of October 2016), (October). https://doi.org/10.3233/JAD-150653.
2. American Marketing Association. (1960). *Marketing definitions: A glossary of marketing terms. American Marketing Association*.
3. Arankalle, D. V, & Kumar, M. S. (2013). Effect of yoga techniques practice in obese adults, *3*(3).
4. Article, O. (2013). Yoga for Physical Fitness and Wellbeing, *4*(March), 108–110.
5. Article, O., Hassanpour-dehkordi, A., & Jivad, N. (2014). Comparison of regular aerobic

P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2019.25.01.019

and yoga on the quality of life in patients with multiple sclerosis, 1–7.

6. Article, R. (2007). Role of Yoga in Diabetes, *55*(February), 121–126.
7. Ashwell, M., Gunn, P., & Gibson, S. (2012). Waist-to-height ratio is a better screening tool than waist circumference and BMI for adult cardiometabolic risk factors : systematic review and meta-analysis, *2008*(March), 275–286. https://doi.org/10.1111/j.1467-789X.2011.00952.x
8. Benavides, S., & Caballero, J. (2009). Complementary Therapies in Clinical Practice Ashtanga yoga for children and adolescents for weight management and psychological well being : An uncontrolled open pilot study. *Complementary Therapies in Clinical Practice*, *15*(2), 110–114. https://doi.org/10.1016/j.ctcp.2008.12.004
9. Berg, S. W. Van Den. (2007). Genetic contribution to obesity : a literature review, 1–33.
10. Bertapelli, F., Machado, M. R., Roso, V., & Guerra-júnior, G. (2017). Body mass index reference charts for individuals with Down syndrome aged 2- -. *Jornal de Pediatria*, *93*(1), 94–99. https://doi.org/10.1016/j.jped.2016.04.005
11. Bertz, F. (2012). *Fredrik Bertz Department of Internal Medicine and Clinical Nutrition Institute of Medicine Sahlgrenska Academy at University of Gothenburg Gothenburg 2012*.
12. Bhardwaj, P. R., & Bhardwaj, A. K. (2015). Therapeutic Applications of Yoga for Weight Reduction in Obese Population : An Evidence- Based Overview, *1*(1), 1–5.
13. Bhatnagar, P., Srivastava, M., & Vinay, A. (2015). Physiological Responses of Yogic Breathing Exercise in Young Females, *3*(7), 9–12. https://doi.org/10.17354/ijss/2015/467
14. Bmi, W. H. O., & Bmi, T. W. H. O. (2004). Public health Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies, *363*, 157–163.
15. Bmi, W. I., Index, B. M., Control, D., & Bmi, A. (2012). Facts and Concerns About School-Based BMI Screening , Surveillance and Reporting, 1–4.
16. Body, I., & Ibw, W. (2012). Ideal Body Weight (IBW), Growth Charts , and Body Mass Index (BMI), 1–5.
17. Borman, A. Sen, Chowdhary, B., & Mahato, D. (2015). Effect of Eight Weeks Conditioning On Body Mass Index of College Students, *2*(3), 1–6. https://doi.org/10.9790/6737-0230106
18. Borodulin, K. (2006). *Physical Activity , Fitness , Abdominal Obesity , and*

P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2019.25.01.019

Cardiovascular Risk Factors in Finnish Men and Women The National FINRISK 2002 Study.

19. Bryan, S., & Zipp, G. P. (2014). The Effect of Mindfulness Meditation Techniques During Yoga and Cycling, *20*(6), 306–316. https://doi.org/10.1089/act.2014.20609
20. Calculation, B. M. I., Bmi, T., Bmi, B. M. I. P., The, B. M. I., Bmi, T., & Bmi, T. (2007). The formula for calculating BMI is :
21. Cardozo, R. N. (1965). An Experimental Study of Consumer Effort, Expaction and Satisfaction. *Journal of Marketing Research*, *2*, 244–249.
22. Chdp, C., Subcommittee, N., Services, H. C., & Branch, M. S. (2013). Assessing Child Growth Using Body Mass Index (BMI) -for-Age Growth Charts, (July).
23. College, D. (2014). Effects of 12-week yoga programme on physiological parameters- (Lipid profile- LDL , HDL and cholesterol) Ms . Anjum Padyal, 12–13.
24. Council, C., & Yoga, I. N. (2008). Research Institutes/Units state-wise with research projects and other activities during the last three years and the current year, (1).
25. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. https://doi.org/10.1007/BF02310555