

INFLUENCE OF A SMALL – SIDED SOCCER TRAINING PROGRAM ON BMI AND CARDIOVASCULAR ENDURANCE AMONG OBESE MEN

Dr. SORAISHAM SUNILKUMAR SINGH

Assistant Professor & Football Coach, Department of Physical Education
National College (Autonomous) Tiruchirappalli-620001
Affiliated to Bharathidasan University, Tiruchirappalli-620024, India

AJEETH KHANNA

Research Scholar Department of Physical Education,
National College (Autonomous) Tiruchirappalli -620001
Affiliated to Bharathidasan University, Tiruchirappalli-620024, India

Dr. Ajijul Rahaman Khan

Assistant Professor & Director, Department of Physical Education
Vimaltai Mahila Mahavidyalaya, Saoli, 441225

MD.WAQAR YUNUS

Research scholar, Department of Physical Education and Sports Science,
Dhanamanjuri University, Manipur, INDIA, 795001

TC MERAN CHARANGA

Research scholar, Department of Physical Education and Sports Science,
Annamalai University, Chidambaram, Tamilnadu, India, 608002

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ABSTRACT

The purpose of this study was to determine the influence of a small-sided soccer training program on BMI and cardiovascular endurance among obese men. To achieve this, 30 male from Tiruchirappalli district, Tamil Nadu, India, were selected as subjects. The ages of the participants ranged from 30 to 40 years. The subjects were divided into two equal groups (N=15 each). Group I underwent small-sided soccer training, while Group II served as the control group and did not participate in any specialized training program beyond their regular daily activities. BMI and cardiovascular endurance were selected as the dependent variables and were assessed using the BMI formula and Cooper's 12-minute run/walk test, respectively. The subjects were concerned with their particular training for a period of six weeks, six days per week. The collected data from two groups prior to and immediately after the training programme on selected criterion variables. To compare the mean differences between the initial and final scores of the experimental and control groups, a dependent t-test was used. Significant improvements were observed in both BMI and cardiovascular endurance in the experimental group.

Keywords: Small – Sided Soccer, Body Mass Index and Cardiovascular Endurance.

Introduction

Small – Sided Soccer

The creation along with execution particular sessions is invariably influenced by aspects related to your group's situation and goals. variables including the participant's determined skills, an time phase, restoration phase in connection to post or pre-game, the

group's goal setting, the skilled level of participants, or the quality of cooperation need to be taken into account when creating workouts. Actually, the appropriateness of workout particular for a given situation may be a significant aspect when assessing active performance. As a result, the extent of workout difficulty is precisely proportional to those earlier established contumacy components. Nonetheless, even at the factual level, certain details cannot be addressed as an individual group strategy, phase stage, or environment. Yet, current research (e.g., Hill-Haas, Dawson, Impellizzeri, & Coutts, 2011) indicate that small-sided games are extremely important for improving training efficacy and accuracy. However, have beyond technological or physiological processes could be enhanced throughout small sided games; into actuality, current research shows these limitations (i.e., playing area and number of players) support increased degrees of pleasure and passion between players, growing, concurrently, their level of playing (**Wall &Côté, 2007; Sampaio, Abrantes&Leite, 2009**).

Body Mass Index

Further for the National Institutes of Health, having a large waist circumference (WC) has a connection about a higher probability over diabetes type 2, this condition, high blood pressure, and heart attack while BMI ranges from 25 and 34.9. A BMI below 25 is regarded as overweight, and a BMI below 30 is assessed obese. (As an example, a participant with enhanced strength might have a BMI below 25, indicating overweight along the basis of BMI, but a WC assessment might probably suggest that they or she was not overweight). Adjustments in WC over a period may suggest a growth or reduced fat on the abdomen. Elevated belly fat is linked to a greater likelihood of heart attack or stroke (**Thakar, A. G. (2015)**).

Cardiovascular endurance

According to research by **Shemelis (2010)**, aerobic exercises are a good way to build up your cardio-respiratory endurance. In essence, aerobic activities are those in which the body has access to enough oxygen to meet its needs. Common aerobic exercises include jogging, walking, rowing, swimming, cycling, aerobic dance, running, tread milling, and somewhat continuous activities. By adjusting the tempo, the intensity of the workload can be readily controlled for prolonged high-level performance.

Aerobic exercise benefits the body and mind by stimulating the heart, lungs, and every functioning group of muscles. Aerobic activities on a daily basis determine many physiological changes (**Shahana et al., 2010**).

Methodology

To achieve the purpose of the study, 30 male were selected from Tiruchirappalli district, Tamil Nadu, India, as subjects. The ages of the participants ranged from 30 to 40 years. The subjects were divided into two equal groups (N=15 each). Group I underwent small-sided soccer training, while Group II served as the control group and did not participate in any specialized training program other than their daily routine. The experimental group engaged in small-sided soccer training, which included jogging, stretching, passing, dribbling, and short-duration small-sided soccer games. BMI and cardiovascular endurance were selected as the dependent variables and were assessed using the BMI formula and Cooper's 12-minute run/walk test respectively, The subjects were concerned with their particular training for a period of six weeks, six days per week. The collected data from two groups prior to and immediately after the training programme on selected criterion variables. To compare the

mean differences between the initial and final scores of the experimental and control groups, a dependent t-test was used. Significant improvements were observed in both BMI and cardiovascular endurance in the experimental group.

Table I: Training Schedule

SL.No	Weeks	Activities (Duration)
1	Week 1 & 2: Adaptation Phase (Low to Moderate Intensity)	Warm-up (15 min): Jogging, Dynamic Stretching, Mobility drill Technical Drills (10 min): Passing, dribbling, (low intensity). Main Training SSG (5v5 or 7v7, 4x7 min games, 5 min rest) Focus on movement & positioning. Cool-down (15 min) Static Stretching, Deep Breathing, Meditation
2	Week 3 & 4: Progressive Overload Phase (Moderate Intensity)	Warm-up (15 min): Jogging, agility ladder drills, dynamic stretching. Technical Drills (10 min): Quick passing drills, controlled dribbling under pressure. Main Training SSG (5v5 or 7v7, 5x8 min games, 3 min rest) Encourage quick transitions. Cool-down (15 min) Static Stretching, Deep Breathing, Meditation
3	Week 5 & 6: High-Intensity & Competitive Phase	Warm-up (15 min): High-knee jogging, dynamic stretching, short sprint drills. Technical Drills (10 min): Fast-paced passing, shooting under pressure. Main Training SSG (5v5 or 7v7, 4x10 min games, 3 min rest) – Game-like scenarios, encourage sprinting & pressing. Cool-down (15 min) Static Stretching, Deep Breathing, Meditation

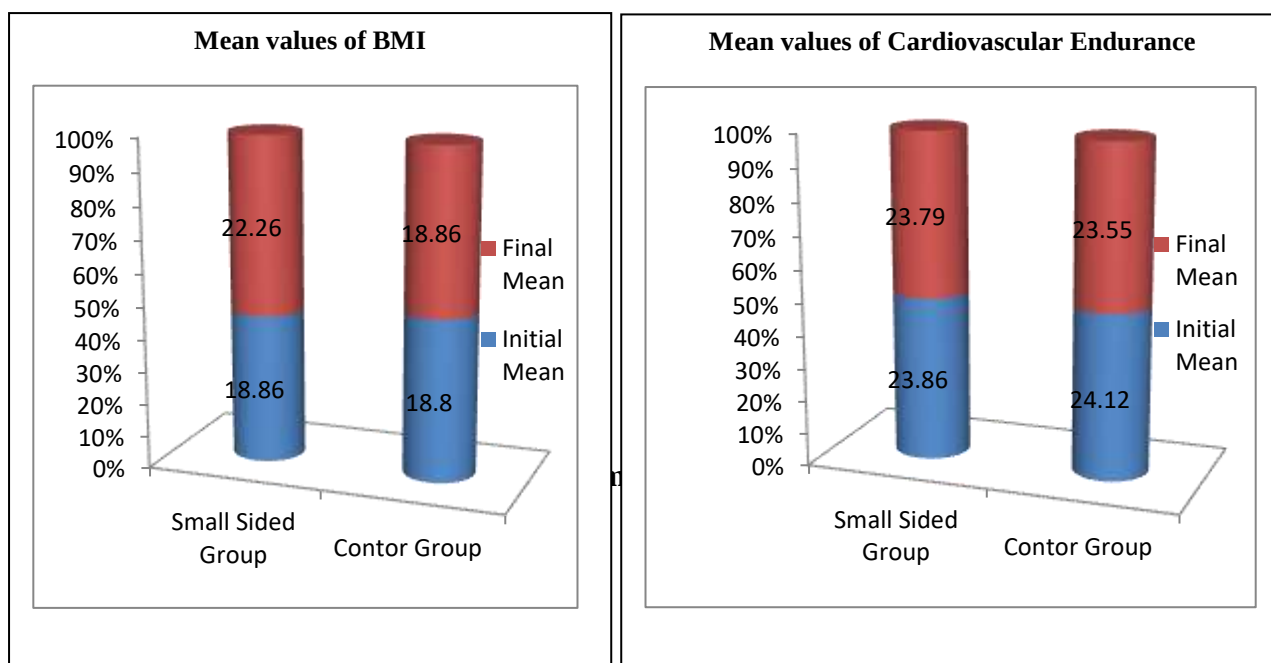
RESULTS

Groups	N	Initial Mean	Final Mean	Mean Difference	S.E.M	'T' ratio
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(BMI) Small – Sided	15	18.86	22.26	3.40	0.19	17.87*
Control Group	15	18.80	18.86	0.06	0.44	03.55
(CVE) Small – Sided	15	23.86	24.12	3.44	0.18	35.39*
Control Group	15	23.79	23.55	0.05	0.34	04.12

‘t’ value needed for significance at 0.05. Level with 14 degrees of freedom was 3.242

This chart exhibits that during the small-sided group, significant adjustments in body mass index were observed after six weeks of small-sided football training, as the 't' value achieved for body mass index was 17.87, which is greater than the value of 3.242. There were no significant differences among the control groups.This chart exhibits that during the small-sided group, significant adjustments in cardiovascular endurancewere observed after six weeks of small-sided football training, as the 't' value achieved for body mass index was 35.39, which is greater than the value of 3.242. There were no significant differences among the control groups.



The result of the study indicates that the experimental group namely as small – sided training had significantly improved in the selected dependent variables namely as body mass index and cardiovascular endurance. The results of the studies are in line with the studies of obese men.

Conclusion

The main goal of this paper was to show the real importance of small-sided soccer game for the coaches. Globally, studies showed the real importance of manipulate factors as number of players or field dimensions on small-sided soccer games, modifying Body Mass

Index and cardiovascular endurance. In fact, literature suggests that may vary the constraints as field dimensions or number of players, promoting statistical differences among small-sided soccer games. Therefore coaches before implement the exercises and their task constraints, need to consider the level and the context in order to improve the main goals for specific players. Consequently, coach need to consider, in first instance, the main goal of exercise and, after this consideration, manipulate the constrains that improve the effectiveness of exercise.

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