



EFFECT OF SOCCER TRAINING ON HAEMOGLOBIN LEVEL OF SOCCER PLAYERS

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Abstract

The determination of the study was to effect of soccer training on haemoglobin level of soccer players. For the purpose of the study thirty (30) male soccer players from the clubs – KRYPSA, YPA and KYSPA of Manipur were selected of age ranged between 18-25 years who had participated Inter-collegiate level. Reliable and valid test – Haemoglobinometer (Haemometer) was used to measure the level of players. The subjects were randomly divided into two groups in equal numbers of 15 players as experimental group and control group. In one week, 6 days regular training in the morning was given. The data pertaining was collected the haemoglobin before and after the six weeks (42 days) training programme. To calculate the collected data descriptive analysis, t-test and analysis of covariance (ANCOVA) statistical techniques were employed. Significant level was set at 0.05. By the descriptive analysis of pre and post-test of experimental group and control group explored that the pre and post-tests means \pm standard deviations of experimental group were 13.69 ± 0.99 and 14.12 ± 0.86 respectively and also the pre and post-tests means \pm standard deviations of control group were 13.57 ± 0.87 and 13.67 ± 0.23 . The outcomes revealed that there was significant difference between pre and post-test of experimental group since the calculated t-value (-5.62) was greater than the tabulated value. And also the study revealed that there was significant difference of pre and post-tests means comparison between the experimental and control groups since the calculated value (F = 6.85) was greater than the tabulated value. Therefore, it displayed that the six weeks soccer training programme was active for the enhancement of haemoglobin level of Intercollegiate male soccer players of Manipur.

Keywords: Soccer, Haemoglobin, ANCOVA, Training

Introduction

Famous and extensively spread category of sport in global is soccer. Mostly soccer is aerobic sport of which the aerobic constituent is of countless significance aimed at the world performance of the elite soccer player.

Physiological ability of athletes is one of the utmost vital features of achievement in sports achievements. Aerobic and anaerobic aptitudes are substantial indicators associated to physiological abilities affect motor purposes which reasons achievement in sport competitions.

To contribute in the game competently, system of training has been playing a character on improving the physical, physiological and haematological demands of footballers. Haematological limitations are vital for the football players to be proficiently delivered through sufficient quantity of energy that the game mandatory for the situation aerobic performance claim of the players.

It is likely that the strength of the players' haematological prominence that links through virtuous fitness can be reflected as crucial factors of athletic presentation. Thus, the determination of the study was to effect of soccer training on haemoglobin level of soccer players.

Materials and Method

For the purpose of the study thirty (30) male soccer players from the clubs – KRYPSA, YPA and KYSPA of Manipur were selected as the subject for this study. The age of the subjects ranged between 18-25 years. The minimum participation of subjects was Inter-collegiate level and its equivalent. Reliable and valid test – Haemoglobinometer (Haemometer) was used to measure the level of players and expressed in mmHg. The subjects were randomly divided into two groups in equal numbers of 15 players as experimental group and control group.

Various soccer trainings were administered on experimental group and control group was kept as group without any specific types of training, but the subjects of both groups took part in their daily physical activities. In order to develop the suitable training programme, a pilot study was conducted on five selected subjects and the load intensity was determined. In one week, 6 days regular training in the morning was given except Sunday (Table 1). The data pertaining was collected the haemoglobin before and after the six weeks (42 days) training programme. To determine the effect of soccer training programs on haemoglobin levels of soccer players, descriptive analysis, t-test and analysis of covariance (ANCOVA) statistical techniques were employed. Significant level was set at 0.05.

Table 1: Schedule of training programme for six (6) weeks

Week	Training	Duration
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1 & 2	Soccer drills (kicking, passing, dribbling, receiving, feinting, heading etc.)	1.00 hr
3 & 4	Soccer drills (kicking, passing, dribbling, receiving, feinting, heading etc.)	1:30 hr
4 & 5	Soccer drills (kicking, passing, dribbling, receiving, feinting, heading etc.)	1:40 hr

Results

The statistical analysis of the effect of soccer training programs haemoglobin levels of soccer players on Pre and Post-test of Experimental group and Control group were highlighted.

By the descriptive analysis of pre and post-test of experimental group and control group (Table 2) explored that the pre and post-tests means \pm standard deviations of experimental group were 13.69 ± 0.99 and 14.12 ± 0.86 respectively and also the pre and post-tests means \pm standard deviations of control group were 13.57 ± 0.87 and 13.67 ± 0.23 .

Table 2: Descriptive analysis of Pre and Post-test of Experimental group and Control group

Group	Test	Range	Sum	Mean	SD	SE
Experimental	Pre	3.2	205.4	13.69	0.99	0.26
	Post	2.5	211.8	14.12	0.86	0.22
Control	Pre	3	203.5	13.57	0.87	0.22
	Post	3	205	13.67	0.88	0.23

Table 3 highlighted t-test analysis of pre and post-test of experimental group and control group. The outcomes revealed that there was significant difference between pre and post-test of experimental group since the calculated t-value (-5.62) was greater than the tabulated value. Furthermore, there was no significant difference between pre and post-test of control group meanwhile the calculated t-value (-0.86) was lesser than the tabulated value. Hence, it revealed that by experimental group there was momentous effect of soccer training programs on the haemoglobin levels of Intercollegiate male soccer players of Manipur.

Table 3: Pre and Post-test Means comparison of Experimental group and Control group

Group	Test	MD	SD	SEM	df	t
Experimental	Pre & Post	-0.43	0.29	0.08	14	-5.62
Control	Pre & Post	-0.1	0.45	0.12	14	-0.86

Pre and post-tests means comparison between experimental and control groups by using the analysis of covariance (ANCOVA) were shown on Table 4.

From Table 4 highlighted that there was significant difference of pre and post-tests means comparison between the experimental and control groups since the calculated value ($F = 6.85$) was greater than the tabulated value. Therefore, it shows that the six weeks soccer training programme was active for the enhancement of haemoglobin level of Intercollegiate male soccer players of Manipur.

Table 4: Pre and Post-tests Means comparison between Experimental and Control groups by the analysis of covariance (ANCOVA)

Source	Type III Sum of Squares	Mean Square	df	F
Group	0.89	0.89	1	6.85
Error	3.507	0.13	27	
Total	5813.344		30	

Discussion and conclusion

Quantity enough oxygen to the employed muscles throughout the high severe application need advanced level of haemoglobin. This is also demonstrated that diverse training can progress the aerobic competence of players. Obviously the findings conclude the paired t-test and analysis of covariance (ANCOVA) presented the significant enrichment of six weeks selected soccer training programme on haemoglobin level by equating within and between the pre and post-tests means of experimental and control groups.

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