

**COMPARATIVE STUDY OF COORDINATIVE
ABILITIES OF SOCCER PLAYERS IN RELATION TO
AGE SEX OF RURAL AND URBAN POPULATION**

**SYNOPSIS OF THESIS SUBMITTED TO THE JADAVPUR
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INTRODUCTION

Sports give out as an outstanding physical exercise. Playing sports often involves physical performance like running, jumping and stretching and also appositve expense of power. Exercise generates happiness in a person's body therefore contributing to people psychological happiness Sports create a constructive power. Sports are an important aspect of life, sports play vital role in bringing about physical, mental, and social growth of nation. In recent year Sports are becoming increasingly sophisticated and technical. We have developed new heights and popularity in sports and it is emerging as separate profession with expansion of educational facilities in the country. More young people are taking interest towards sports as a daily feature of their life. The participation in sports promotes good health and high degree of physical fitness which increases an individual's productivity in social life (Singh & Tiwari, 2015).

Sports are as old as human society and it has achieved a universal following in the modern times. It now enjoys popularity, which out strips any other form of social educational process. Millions of fans follow different sports events all over the world with an enthusiasm and devotion. Many people contribute in sports activities for the fun and health. Sports have taken a shape of profession, which includes financial benefit linked with high degree of popularity (Ramier, 1967).Modern soccer is characterized by its high tempo. To play soccer successfully, players must react faster than ever when they receive the ball, as well as making frequent sudden changes of direction, sprints into free space and instant switches from defense to attack. The demands on soccer players are so great that special and systematic training of their running coordination, especially their running technique and rhythm, appears essential. Soccer definitely ranks up there in skill level required. Give each of friends Soccer and tell them to do ten kick-ups without letting the ball touch the ground. Coordination and skill are very important in this game. Something that seems so simple like dribbling Soccer around cones is extremely difficult and re Soccer is the world's most popular sport, played by men and women of all ages, with millions of fans throughout the world. A chief reason for soccer's vast popularity is that it has proved to be among the most accessible and adaptable of the world's sports. Soccer is a game played by two teams on a rectangular field, with the objective the driving ball into the opponent's goal. All that is needed to play is an area of open space and a ball. Much of the world's soccer is played on patches of ground, without field marking or real goals. In many places, the game is played barefoot using rolled-up rags

or newspapers as a ball. Soccer is a game that requires many different skills, often at the same time. Soccer players need to be able to adjust to different situations that change within a split second. On a given play a Soccer player might be required to fight through a defender, run to a precise place on the field, catch the Soccer, and move forward while not losing the ball. Soccer lineman must also be able to react and adapt in a split second. An offensive lineman might have to block a large defensive Tackle then slide off to pick up a streaking cornerback. Reaction and adaptation are two of the most important, yet underdeveloped skills for Soccer players (Kaka, 1991).

Modern soccer is characterized by its high tempo. To play soccer successfully, players must react faster than ever when they receive the ball, as well as making frequent sudden changes of direction, sprints into free space and instant switches from defence to attack. The demands on soccer players are so great that special and systematic training of their running coordination, especially their running technique and rhythm, appears essential. Soccer is one of the most popular sports in Europe and the America. It has interesting history in the world of sports. Early evidence of soccer being play as a sport finds occurrence in China during the 2nd and 3rd centuries BC, when during the Han dynasty people dribbled leather balls by kicking it into a small net. Recorded facts also support the fact that Romans and Greeks used to play ball for fun and frolic. (Harold, 1979).

Soccer is probably the most popular game of the world but there is still limited scientific information available concerning the coordinative abilities and physical fitness qualities of Indian female Soccer player. Soccer is a structured analytical game in which players have to deal with a complex and rapidly changing environment. In competitive sports, beautiful movements are a product of well developed technical skills and coordinative abilities. The speed of learning of skill is directly depends on the level of coordinative abilities. Coordinative abilities are needed for maximal utilization of conditional abilities, technical and tactical skills (Singh, 1991).

While many practitioners of physical education describe coordination in terms of harmony or skill fullness but some scholars in physical education are more emphasizing coordination as a pattern of movement? For instance, “coordinated actions of the human body are executed by the controlled application of muscular forces which produce distinctive patterns of segment motions” (Putnam, 1991). The concept of “Coordinative abilities” stands out from the general and less defined the concept of “agility”,

widespread in everyday life and in literature on physical education. Under the term coordinative abilities, it should be understood, that firstly, it is the ability to construct appropriate integral motor acts, and secondly, the ability to convert the form of action worked out, or switch from one to another, respectively, as the requirements of changing conditions. These features are largely the same, but have their specificity (Ashmarin, 1990).

The Sports scientists have recognized seven coordinative abilities. These are: (1) Reaction ability (2) Orientation ability (3) Differentiation ability (4) Coupling ability (5) Adaptation ability (6) Balance ability (7) Rhythmic ability. (All the coordinative abilities are important for nonstop improvement and variation throughout lengthy training method and learning of sports' new techniques and skill. The level of coordinative abilities depends to a large extent on the motor learning ability. (Mynarski, 2000; Raczek, 2002; Metveev, 1981; Harre, 1989; Singh, 1982).

Soccer coordination is one of the most important skills to possess during a soccer game. Coordination is the base upon which many essential soccer skills are built. It is required for skills like agility, dribbling, accurate passes, heading the ball and many others. Coordination in soccer is important for performing many core soccer skills. It's like the backbone of many major soccer skills. If want to become a professional soccer player, practicing coordination should be on priorities list (Sannan, 2021).

In spite of many studies, there are many gaps in this field yet to be established. Researcher has selected this topic with a view to establishing the thesis title **“comparative study of coordinative abilities of soccer players in relation to age sex of rural and urban population”**.

STATEMENT OF THE PROBLEM

The problem of the present study was stated as **“COMPARATIVE STUDY OF COORDINATIVE ABILITIES OF SOCCER PLAYERS IN RELATION TO AGE SEX OF RURAL AND URBAN POPULATION”**.

OBJECTIVES

Researcher is a prepared and organized study of a problem where a researcher attempts to increase result to a problem and find the right solution, so undoubtedly defined

objectives are very vital. Objective is significant characteristic of a good research study. Therefore the following objectives take the researcher are mention below:

1. To find out the difference in coordinative abilities of male and female soccer players respectively in the age category of 9-13 between Rural and Urban areas.
2. To find out the difference in coordinative abilities of male and female soccer players respectively in the age category of 14-18 between Rural and Urban areas.

HYPOTHESIS

Following hypotheses were formulated to conduct the present study:

- It was hypothesized that there would be no significant difference in coordinative abilities of Male and Female soccer players respectively in the age category of 9-13 between Rural and Urban.
- It was hypothesized that there would be no significant difference in coordinative abilities of Male and Female soccer players respectively in the age category of 14-18 between Rural and Urban areas.

DELIMITATIONS

The researcher defines the delimitation set as the boundaries of his own thesis. Therefore the following delimitations were considered for this study:

The study was delimited to two hundred (n=200) male and two hundred female (n=200), age ranging between 9 to 13 years (100 each) and 14 to 18 years (100 each) of both Male and Female Rural and Urban soccer players selected from different club of South 24 Parganas, North 24 Parganas, Kolkata, Hooghly, Purulia and Bankura district in West Bengal.

Further the study was delimited only district level soccer player.

Study was restricted to the selected coordinative abilities –

- i) Orientation Ability, ii) Differentiation Ability, iii) Balance Ability, iv) Rhythm Ability, v) Reaction Ability, vi) Coupling Ability, vii) Adaptation Ability

Again the Study was restricted to the selected reaction Times –

- i) Visual Reaction Times, ii) Audio Reaction Times, iii) Tactile Reaction Times.

LIMITATIONS

The present study was conducted under the following limitations:-

1. In this study the personal lifestyle, the diet, the daily habits, mental growth were recognized as a limitation.
2. The un- control factors like climatic condition and Environmental temperature were recognized as a limitation.
3. Sociological aspects and Life style of the subject act as limitation for the study.
4. Financial condition and time were also not considered in this study.

REVIEW AND RELATED LITERATURE

Seashore (1947) this study investigates balance ability between children. Also study on development of beam walking test and its use in measuring development of balance in children. The spring field beam walking test was used as a test to measure balance. The researcher further investigated the development of balance from age 5 to 10. The data suggested the presence of particular curve which reach relative method rather early in adolescence. The average age 5-11 was about 10 points; probably the curve would have risen beyond 18 years. Result showed that ability should be according to the development of motor skill rather than merely by age. Males are faster than females in both reaction time as well as movement time. Peak speed is maintained longer by males in movement and longer by females in reaction. Majority of the studies indicated no relationship between speed of reaction and speed of movement.

Vilkner (1981) concluded from his experiments done from 1974 to 1978 on 1600 children upon 7 years to 16 years. He reported that intensive phase of development in simple reaction ability is from 7 years to 12 years of age, low development phase from 12 years to 16 years of age. He also reported that reaction times on acoustic signals are 0.03 to 0.04 seconds, which is less than the reaction time of optic signals. The difference between sports reaction ability performance in male and female children is higher than the performance in simple reaction ability form 7 years to 10 years of age. The girls face stagnation at 10 years, whereas the boys show a slow but continuous development up to the age of 14 years.

Khetmalis (2012) compared the selected coordinative abilities and Motor Abilities of Female Athletes of Selected International Schools in Pune. In the present study Ninety female subjects age ranging from 15 to 17 years were selected from three international schools of Pune, Maharashtra, India. Thirty subjects were selected from each of the schools. The mean, standard deviation and Analysis of variance was applied at 0.05 level of significance. Results: different schools of Symbiosis International School, Victorious Kids, and Mercedes Benz female athletes in relation to Reaction ability was less than the tabulated (3.09), Symbiosis International School, Victorious Kids, and Mercedes Benz female athletes in relation to orientation ability was greater than the tabulated (3.09) Significant difference was found in case of orientation ability, differentiation ability, explosive strength and 12 min. run/walk. No significant difference was found in case of rhythmic ability, reaction ability, speed and agility.

Raghupati (2013) the study assessed to compare the coordinative and balancing abilities between urban and rural school going boys. For this purpose 180 boys age ranging from 10 to 15 years were selected as subjects for the study of which 90 were urban and the remaining 90 students were rural school going from different schools of Bangalore District, Karnataka. For the purpose of comparison variables between rural and urban school going children, 't' ratio and One-way ANOVA statistical technique was used. The level of significance was set at $p < 0.05$ level. The results showed significant differences between rural and urban school boys' coordinative and balancing abilities. Analysis of variance was found significant in relation to orientation ability, static and dynamic balance abilities of school boys among different age categories.

METHODOLOGY

In this chapter methodology and procedure is adopted for the selection of subjects, Selection of variables, Criterion measures, Collection of data, Design of study, Reliability of data, statistical procedure and level of significance for analyzing the data were described.

SELECTION OF THE SUBJECTS

In the present study, subjects were selected from different age groups of male and female also rural and urban populations. The study was selected to two hundred ($n=200$) out of three hundred male and two hundred female ($n=200$) out of three hundred, age ranging

between 9 to 13 years (100 each) and 14 to 18 years (100 each) for Male and Female, Rural and Urban soccer players. In each age group there were 50 subjects. So, the total number of subjects for male section was $50 \times 4 = 200$ and same number of subjects was there for female section. Thus the total number of subjects for the study was 400 (200+200).

CRITERION MEASURES

S.NO	Criterion Variables	Test/Instruments	Unit of Measurement	
1	Co-ordination Ability	Reaction ability	Ball reaction exercise test	Centimeters
2		Orientation ability	Number medicine ball run test	Seconds
3		Differentiation ability	Backward medicine ball throw test	Number of points
4		Balance ability	Bass stick test(Static balance)	Seconds
			Star Excursion Balance test (Dynamic balance)	Centimeters
5		Rhythm ability	sprint at given rhythm test	Seconds
6		Coupling ability	Burpee test or Squat thrust test	Number
7	Adaptation Ability	Alternate hand wall toss test	Number	
8	Reaction Ability	Audio Reaction Time	Multipurpose Reaction Time Apparatus	Seconds
9		Visual Reaction Time		
10		Tactile Reaction Time		

DATA COLLECTION

The data was collected from few districts of West Bengal in male and female football players in rural and urban areas, after obtaining permission from the managers and coaches of different soccer clubs. The managers and coaches allowed their players to serve as subjects for the study and encouraged them to cooperate in the process of data collection for the study.

The researcher started data collection during the winter season between September - 2021 to February - 2022. For this purpose the researcher took help from 15 assistants. The data collection program session started in the morning from 7am to 10am. The Data

collection started with 30 minute of warming up and the subjects were all in proper activity dress. After that there was a rest for few minutes and the subjects were asked to be prepared for the test. Then the subjects were taken to the specified ground with the entire required equipment ready at hand. The subject was divided according to their serial no in equal sections. After that a proper Demonstration of each test item were performed by an expert. Thus the data collection was performed successfully with the help of the subject and the assistant.

DESIGN OF THE STUDY

A comparative statistical group design was prepared to compare the soccer players of two groups (under 9-13 years & under 14-18 years) on the specific coordinative abilities. Each group was comprised of two hundred players from each category i.e. age: (under 9-13 years & under 14-18 years), sex: (male & Female), population: (Rural & Urban) and thus the total number of subjects in all category come to four hundred.

STATISTICAL PROCEDURE

The purpose of comparing the coordinative abilities of soccer players in relation to age, sex, and rural and urban population Descriptive statistics and 't' test was used and the level of significance was set at 0.05.

To determine the homogeneity of variance between two groups the Levene's test for homogeneity of variances was not significant ($p < .05$).

DISCUSSION OF FINDINGS

The present study has been conducted on the two age groups (9- 13 years and 14-18 years) of urban and rural Boys and Girls. Coordination variables measurements of 200 urban and 200 rural Boys and Girls have been taken in order to investigate their Reaction Ability, Orientation ability, Differentiation ability, Balance ability, Rhythm Ability, Coupling Ability, Adaptation Ability and Reaction Times (Visual reaction time, Audio reaction time, Tactile reaction time).

Reaction Ability:

The findings of study indicate that the Reaction ability shows significant differences at 0.05 level of confidence between rural and urban soccer players (Table- 10, 11, 12 &

13). It shows that the rural soccer players are better in Reaction ability than the urban soccer players.

Reaction ability of rural soccer players was better than urban soccer players. The above results are in agree with Stavrou and Kakkos, (2002) who found that the major reasons for participation of women were to improve their health and mood, while (Zervas, 1999) indicated the importance of physical activity for people's psychological health. Probably the cause's life style of people in rural, activity level, body composition, less fat, better physical fitness in rural people lead to increase their reaction quality. Other studies observed varied results regarding physical fitness test among urban and rural young people, there were significant differences for the standing broad jump, sit-ups, 20m shuttle run, and hand grip tests (Tinazci & Emiroglu, 2009).

The present study showed that rural children were better in physical fitness than the urban children, it might be due to more activity-oriented routine in rural areas, engagement in agriculture-related work, more open spaces and playing fields compared to cities, clean air, etc. in the rural areas of West Bengal.

Orientation Ability:

The statistical analysis of data shows that there were significant differences for Orientation Ability between urban and rural soccer players (Table-14, 15, 16 & 17). The results of presents study showed that the rural soccer players had performed significantly better in Orientation Ability, as compared to urban soccer players. As supported by (Raghupati & Krishnaswamy, 2013).

Differentiation Ability:

The results of the present study showed that there were significant differences found in Differentiation abilities between urban and rural both sexes and both age groups soccer players except for Differentiation abilities of 14-18 years girls soccer players (Table- 21). The results of presents study showed that the rural soccer players had performed significantly better in Differentiation Ability, as compared to urban soccer players.

Significant difference between urban and rural soccer players in relation to differentiation ability might be due to the reason that the different level of tuning and harmony of individual movement phase and body part movements. Because

differentiation ability enable the player to separate the different body part during execution with high accuracy which may be significant as shown in the result of the study. Rural school soccer players might have high level of tuning and harmony due to less weight. This result is reliable with the results reached by (Bakhit, 2010).

Balance ability:

The results of the present study showed that there were significant differences found in Balance abilities such as Static balance and Dynamic balance both legs between urban and rural both sexes and both age groups soccer players except for Dynamic balance (Right leg) of 14-18 years girls soccer players (Table-31). The result of the study reveals that the rural soccer players both sexes and both age groups are significantly better in Static balance and Dynamic balance both legs than the rural soccer players both sexes and both age groups except for Dynamic balance (Right leg) of 14-18 years girls soccer players.

Significant difference in the urban and rural soccer players might be due to the reason that rural soccer players have the ability to rhythmically transfer their center of gravity (COG) from left to right and forward to backward with more excursions than urban soccer players (Raghupathi & Krishnaswamy, 2013).

Rhythm Ability:

The results of the present study showed that there were significant differences found in Rhythm Ability between 9-13 years age group of both sexes urban and rural soccer players (Table-34 & 35) and also the result shows that there is significant difference between 14-18 years age group of boys urban and rural soccer players (Table-36). The result of the study reveals that the rural soccer players are significantly better in Rhythm Ability than the urban soccer players.

The living in rural areas is adapted to a physically strenuous type of life. Apart from their household duties they also help their parents in their routine work.

Further the result shows that there is no significant difference between 14-18 years age group of the urban and rural girls soccer players (Table-37) in Rhythm Ability.

Rhythmic ability allows athletes to perceive an externally given rhythm and to reveal it during an action. In addition to this, athletes can reproduce a rhythm which is in the motor memory due to their rhythm abilities (Minz, 2003).

Coupling ability:

The results of the present study showed that there were significant differences found in coupling ability between 9-13 years age group of boys and girls urban and rural soccer players (Table- 38 & 39) and also the result shows that there is significant difference between 14-18 years age group of boys urban and rural soccer players (Table-40). The result of the study reveals that the rural soccer players are significantly better in coupling ability than the urban soccer players.

Further the result shows that there is no significant difference between 14-18 years age group of the urban and rural girls soccer players in Coupling Ability.

Health disparities have consistently been found between rural residents of the United States and suburban and urban residents (Joens-Matre et al., 2008), prompting considerable research to address a critical area of wellness: physical activity (Gilbert et al., 2019;Kegler et al., 2013;Umstatted Meyer et al., 2016;Yousefian et al., 2009).

Adaptation ability:

The results of the present study showed that there were significant differences found in Adaptation ability between 9-13 years age group of boys urban and rural soccer players (Table-42) and also the result shows that there is significant difference between 14-18 years age group of girls urban and rural soccer players (Table-45). The result of the study reveals that the rural soccer players are significantly better in Adaptation ability than the urban soccer players.

It is the ability to adjust or completely change the movement programmed during tire movement on the basis of changes or anticipated changes in the situation. The situational changes may be expected ones or may suddenly take place. The present data also agreed with the Wilczewski et al. 1996; Ozdirenc et al. 2005; Saha and Haldar2012; Das and Chatterjee 2013.The reports from Poland, Turkey and Bengal proposed that rural children were fitter than their urban counterparts.

Reaction time:

Further the result shows that there is no significant difference between the urban and rural boys and girls both age groups soccer players (Table-46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 & 57) in Audio reaction time, Visual reaction time and Tactile reaction time.

Soccer player emphasized a lot of reaction in training during their practice session because they have to tackle the ball with their body and at the same time they need dribbling and fainting maneuvers with their own body. It has been reported in recent studies that environmental factors, lifestyles, diet, family structure, cultural differences, and several other factors are closely related with physical fitness and physical activity (Clark & Ferguson, 2002; Finn et al., 2002; Hussey et al., 2001; Rowlands et al., 1999 & Strauss & Pollack, 2001).

TESTING OF HYPOTHESES

The first hypothesis stated earlier in the introductory chapter regarding the existence of no significant difference in coordinative abilities of Male and Female soccer players respectively in the age category of 9-13years between Rural and Urban areas was hereby rejected as significant difference in coordinative abilities (except Audio, Visual & Tactile reaction time) of urban and rural boys soccer players and (except Adaptation Ability, Audio, Visual & Tactile reaction time) urban and rural girls soccer players for age group (9-13 years) was observed at 0.05 level of significance.

The second hypothesis stated earlier in the introductory chapter regarding the existence of no significant difference in coordinative abilities of Male and Female soccer players respectively in the age category of 14-18 years between Rural and Urban areas was hereby rejected as significant difference in coordinative abilities (except Adaptation Ability, Audio, Visual & Tactile reaction time) of urban and rural boys soccer players and {except Differentiation Ability, Dynamic Balance (Right Leg), Rhythm Ability, Coupling Ability, Audio, Visual & Tactile reaction time} urban and rural girls soccer players for age group (14-18 years) was observed at 0.05 level of significance.

SUMMARY

Soccer coordination is one of the most important skills to possess during a soccer game. Coordination is the base upon which many essential soccer skills are built. It is required

for skills like agility, dribbling, accurate passes, heading the ball and many others. Coordination in soccer is important for performing many core soccer skills. It's like the backbone of many major soccer skills. If one wants to become a professional soccer player, practicing coordination should be on priorities list **(Sannan, 2021)**. Coordinative abilities are primarily dependent on motor control and regulation process of central nervous system. For each coordinative abilities the motor control and regulation process function in a definite pattern when a particular aspect of these functions is improved then the sports person is in a better position to do a certain group of movements which for their execution depends on the Central Nervous System function pattern” **(Singh,1991)**. Every country has two different areas in the society, one is urban area and other is rural area. Rural area is brought in the open natural space and outdoor setting of dynamic life. There are body surface areas, food habit, and exercise, social, cultural and genetic components which in turn prompt the sports performance **(Rampotti, 1960)**. Urban areas are having excellent level of soccer skills and techniques because they get to chance practice under better coach with trainer. But in the rural areas, the players are facing problem to get good skills and techniques of playing soccer and lack of better coach or field infrastructure. So researcher thought to find out whether there is any difference in soccer skill mainly coordinative ability between rural and urban Soccer players. There are lot of differences between rural and urban in every aspects of life i.e. customs, rituals of living etc. Therefore, it is possible that there may be greater differences in body composition, hemoglobin content, blood pressure etc between rural and urban peoples **(Rowney, 1974)**.

In spite of many studies, there are many gaps in this field yet to exist established. Researcher has selected this topic with a view to establishing the thesis title “comparative study of coordinative abilities of soccer players in relation to age sex of rural and urban population”. Therefore, the aim of the study was to find out the difference in coordinative abilities of different ages male and female soccer players of urban and rural areas. To accomplish the purpose of the study two hundred (n=200) out of three hundred male and two hundred female (n=200) out of three hundred, age ranging between 9 to 13 years (100 each) and 14 to 18 years (100 each) for Male and Female, Rural and Urban soccer players selected as subjects. In each age group there were 50 subjects. The subjects were randomly selected from different districts of South 24 Parganas, North 24 Parganas, Hooghly, Kolkata, Bankura and Purulia in West

Bengal. The subjects were homogeneous in respect of socioeconomic status and cultural background.

Keeping in mind the specific purpose of the study to compare the coordinative abilities of soccer players in relation to age sex of rural and urban population, the variables were Coordinative Variables (Reaction Ability, Orientation Ability, Differentiation Ability, Balance Ability, Rhythm Ability, Coupling Ability and Adaptation Ability) and Reaction Variables (Audio Reaction Time, Visual Reaction Time and Tactile Reaction Time) selected for the study. The necessary data on selected coordinative abilities was collected by administering various coordinative ability tests. Reaction ability was measured by the ball reaction exercise sets and was recorded in centimeters. Orientation ability was measured by using numbered medicine ball run test and was recorded in seconds. Differentiation ability was measured by using backward medicine ball throw test was recorded in numbers of points. Balance ability was measured by using Bass stick test (Static balance) was recorded in seconds and Star Excursion Balance test (Dynamic balance) was recorded in Centimeters. Rhythm ability was measured by using sprint at given rhythm test and was recorded in seconds. Coupling ability was measured by using Burpee test and was record in number. Adaptation ability was measured by using Alternate hand wall toss test and was record in number. Also Audio Reaction Time, Visual Reaction Time and Tactile reaction time was measured by using Multipurpose Reaction Time Apparatus and was record in Seconds.

The data was collected from a few districts of West Bengal including both male and female football players from rural and urban areas, after obtaining permission from the managers and coaches of different soccer clubs. The managers and coaches allowed their players to serve as subjects for the study and encouraged them to cooperate in the process of data collection for the study. A comparative statistical group design was prepared to compare the soccer players of two groups (under 9-13 years & under 14-18 years) on the specific coordinative abilities. To compare the coordinative abilities of soccer players in relation to age, sex of rural and urban population, descriptive statistics and 't' test was used and the level of significance was set at 0.05.

The results of the present study showed that the rural soccer players had performed significantly better in Reaction ability, Differentiation Ability, Rhythm Ability, Orientation Ability, Coupling Ability, Balance ability and Adaptation ability as

compared to urban soccer players. The result of the study also reveals that the rural soccer players of both sexes (male and female) and both age groups (9-13 years and 14-18 years) are significantly better except Differentiation ability, Rhythm ability and coupling ability of 14-18 years and Adaptation ability of 9-13 years girls soccer players and Adaptation ability of 14-18 years boys soccer players. Also in Static balance and Dynamic balance both legs than the rural soccer players of both sexes (male and female) and both age groups(9-13 years and 14-18 years) except for Dynamic balance (Right leg) of 14-18 years girls soccer players. Further the result also shows that there is no significant difference between the urban and rural boys and girls both age groups soccer players in Audio reaction time, Visual reaction time and Tactile reaction time.

CONCLUSION

1. It shows that the rural soccer players are better in Reaction ability than the urban soccer players.
2. The results of presents study showed that the rural soccer players had performed significantly better in Differentiation Ability, as compared to urban soccer players.
3. The result of the study reveals that the rural soccer players both sexes and both age groups are significantly better in Static balance and Dynamic balance both legs than the rural soccer players both sexes and both age groups except for Dynamic balance (Right leg) of 14-18 years girls soccer players.
4. The result of the study reveals that the rural soccer players are significantly better in Rhythm Ability than the urban soccer players.
5. The rural soccer players had performed significantly better in Orientation Ability, as compared to urban soccer players.
6. The results of presents study reveals that the rural soccer players are significantly better in Coupling Ability than the urban soccer players.
7. The result of the study reveals that the rural soccer players are significantly better in Adaptation ability than the urban soccer players.
8. Further the result shows that there is no significant difference between the urban and rural boys and girls both age groups soccer players in Audio reaction time, Visual reaction time and Tactile reaction time.

RECOMMENDATIONS

In light of conclusions drawn, the following recommendations were made:

- 1) Longitudinal study should be undertaken to relate physiological fitness with health-related fitness of obese population.
- 2) Comparative study of physiological fitness of school children may be undertaken belonging to different geographical areas.
- 3) Similar study may be undertaken by employing subjects of different age and sex groups.
- 4) The study may be conducted on to compare the other states children.
- 5) To make study more authentic and valid, the study may be repeated in large sample.
- 6) This study can be conducted for other relevant physical fitness variables, skill related to variables and other psychological variables.

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Countersigned by Supervisor

Signature of the Candidate

Date:

Date: