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A Study of Selective Anthropometric and Physical Fitness Components Empowers on Playing Ability among Sudan and Indian Children Aged Between 6 and 10 Years in Qatar

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Abstract – The purpose of the study was to find out A Study of Selective Anthropometric and Physical Fitness Components Empowers on Playing Ability among Sudan and Indian Children Aged between 6 and 10 Years in Qatar. To achieve the purpose of the study N=95 Sudan boys' and N=95 Indian boys' were selected as subject from Ideal Indian School Doha- Qatar by applying random sampling method. The age of the subject was ranged from 6 to 10 years. Heights, weight, Body mass index (BMI) were calculated. The test battery's following AAHPER youth physical fitness test was used to Assess physical fitness components including Strength (Standing Broad jump), Speed (50yard / 45m Running), Agility (4x 10m Shuttle Run) and Endurance (4min walk or Run). The test scores of Indian's and Sudan's were statistically examined by the dependent't' test and analysis of co-variance (ANCOVA). Result can be concluding that Sudan and Indian students had normal BMI. In the case of physical fitness components Indian students have better agility, speed and strength than Sudan Students. But in the case of endurance Sudan students have better performance than Indian Students aged between 6 and 10 years.

Key Words: BMI, Speed, Agility, Strength, Endurance

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INTRODUCTION

Health, Vitality and Long life are desirable goals for everyone. But they are not achieved without effort. Physical fitness and wellness are inter-related to each other. It is the sum of the fine motor abilities namely strength, endurance, speed, flexibility and coordinative abilities. Exercise is an essential element in the achievement and maintenance of physical fitness and wellness of human beings. Physical fitness implies that the body systems are capable for carrying on their activities satisfactorily –**Edward Bortz**. The current research has proved that lack of exercise and sedentary life style plays a vital role in many health related physical fitness problems in children. Because physical fitness is an integrated measurement of all the physiological functions like cardiorespiratory, musculoskeletal, metabolic, psychological and posture of children. Participating regular physical activity influence the achievement level of physical fitness development which is help to improve general and specific fitness development of children. Due to urbanization of all over the world, the environmental factors of living area gained important change according to its relation- children physical fitness also change in the last few decades.

Development of media, mass communication and social network sites like face book, WhatsApp, Instagram, twitter, television, videogames and computer play stations are influenced decreasing outdoor activities that faster sedentary habits. It is showing that children who are living in rural areas are involved more physical activities outside because of the natural possibilities that are associated with rural environment that's free space, no danger by traffic, lack of mass communication and media.

Children aged between 6 and 10 years need physical activity to build strength, speed, coordination,

endurance, balance, flexibility, agility and confidence. Ground work will help to improving physical fitness. School aged children should have more chance to participate in a variety of activities. Sports and games fit for help to improve personality, ability, age and interest. Through four practical method children can improve and maintain their physical fitness through exercising. Develop interest in at least one competitive sport like ball game or swimming and practice regularly once in a week, walk every day 30 min continuously, practice muscle strengthening and flexibility training twice a week during physical education lesson, and actively participate in open events and receive right amount of training during preparation.

STATEMENT OF THE PROBLEM

A study of selective anthropometric and physical fitness components empowers on playing ability among Sudan and Indian children aged between 6and 10 years in Qatar.

METHODOLOGY

95 Boy's student from Indian nationality and 95 boy's students from Sudan nationalities are selected as subject from Ideal Indian School Doha Qatar. Subject ranged between 6 to 10 years. All subjects were selected by randomly. Students also engage in physical activities during the physical education period. Roger's Physical Fitness Test and AAHPER Youth Physical Fitness Test are used for analyzing the data. The following variables considered for conducting study. The variables are Height of the students measured by measuring tape with nearest centimeter; Weight was measured by digital weighing machine with nearest gram without zero error. BMI was calculated by using BMI percentile calculation software for child. Other physical fitness components are Speed measured by 50 yards run with nearest seconds, Coordination was measured by 4 x 10m shuttle run with nearest seconds, Strength was measured by standing Broad Jump with nearest centimeter and Endurance was measured by 600 yards running with nearest seconds. The researchers not considered the subjects social economic backgrounds.

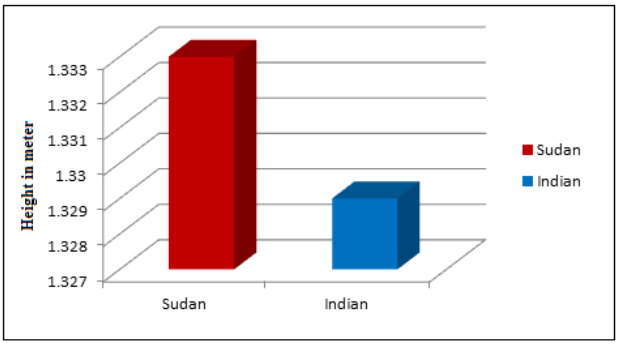
ANALYSIS OF DATA

Height

The Table I show the mean height and SD of Indian students were 1.329 and 0.0899 and the mean height and SD of Sudan students were 1.333 and 0.0878 respectively. The M D between the nationalities is 0.0021. The 't'value of the data was -0.1962 was not significant P‹ 0.5.

Components		Sudan	Indian	M.D	't' Value
Height	Mean	1.333	1.329	0.0021	-0.1962
	S D	0.0878	0.0899		

Table 1: Descriptive statistics for the Sudan and Indian Students height



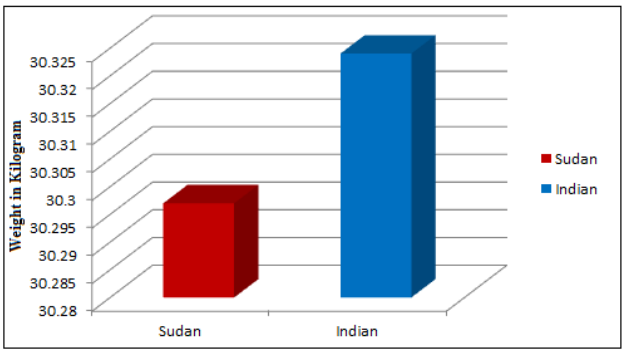
Graph1: Comparison of height components of Sudan and Indian students in Qatar

Weight

The Table II shows the mean weight and SD of Indian students were 30.234 and 7.7712 and the mean weight and SD of Sudan students were 30.297 and 7.7712 respectively. The M D between the nationalities is 0.2039. The 't'value of the data was -0.01476 was not significant P‹ 0.5

Components		Sudan	Indian	M.D	't' Value
Weight	Mean	30.297	30.324	0.2039	-0.01476
	S D	7.9751	7.7712		

Table II: Descriptive statistics for the Sudan and Indian Students weight



Graph1I: Comparison of Weight components of Sudan and Indian students in Qatar

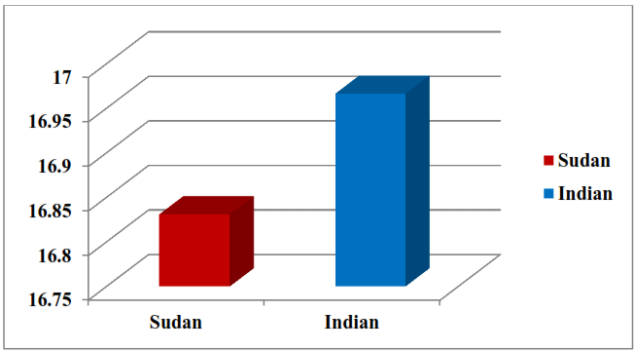
BMI

The Table III shows that the mean BMI and SD of Indian students were 16.9664 and 3.0406 and the mean BMI and SD of Sudan students were 16.8310 and 3.1132 respectively. The M D between the

nationalities is 0.1354. The 't'value of the data was -0.1893 was not significant P‹ 0.5

Components		Sudan	Indian	M.D	't' Value
BMI	Mean	16.8310	16.9664	0.1354	-0.1893
	S D	3.1132	3.0406		

Table III: Descriptive statistics for the Sudan and Indian Students BMI



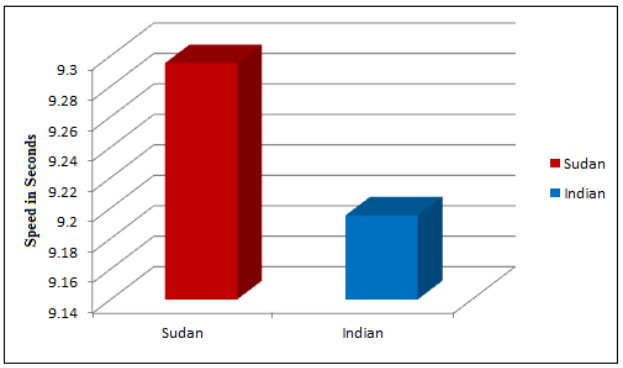
Graph III: Comparison of BMI components of Sudan and Indian students in Qatar

Speed

The Table IV shows that the mean speed and SD of Indian students were 9.1952 and 1.0642 and the mean speed and SD of Sudan students were 9.2951 and 0.9550 respectively. The M D between the nationalities is 0.1092. The 't'value of the data was -0.4275 was not significant P‹ 0.5

Components		Sudan	Indian	M.D	't' Value
Speed	Mean	9.2951	9.1952	0.1092	-0.4275
	S D	0.9550	1.0642		

Table IV: Descriptive statistics for the Sudan and Indian Students Speed



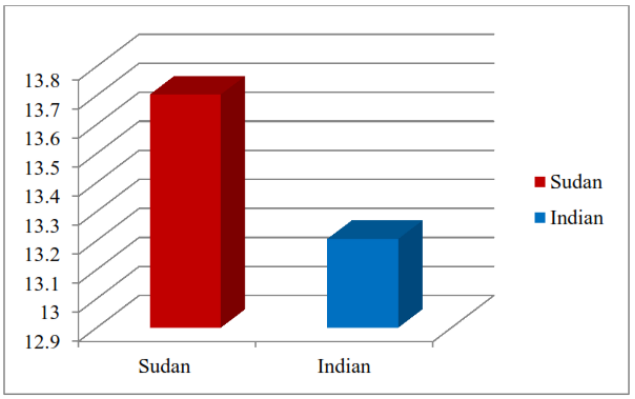
Graph IV: Comparison of Speed components of Sudan and Indian students in Qatar

Coordination

The Table V shows that the mean coordination and SD of Indian students were 13.7035 and 1.1949 and the mean coordination and SD of Sudan students were 13.7035 and 1.1683 respectively. The M D between the nationalities is 0.0266. The 't'value of the data was -1.824 was significant to P‹ 0.5

Components		Sudan	Indian	M.D	't' Value
Coordination	Mean	13.7035	13.2057	0.0266	-1.824
	S D	1.1683	1.1949		

Table V: Descriptive statistics for the Sudan and Indian Students coordination



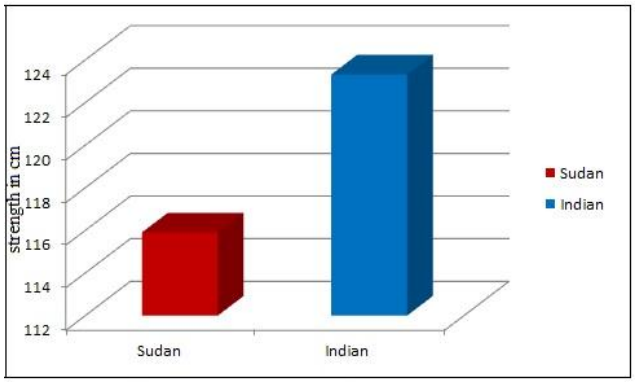
Graph V: Comparison of Coordination components of Sudan and Indian students in Qatar

Strength

The Table VI shows that the mean strength and SD of Indian students were 123.32 and 21.6421 and the mean strength and SD of Sudan students was 115.91 and 13.4523respectively. The M D between the nationalities is 8.1898. The 't'value of the data was -1.77 was significant to P‹ 0.5.

Components		Sudan	Indian	M.D	't' Value
Strength	Mean	115.91	123.32	8.1898	-1.77
	S D	13.4523	21.6421		

Table VI: Descriptive statistics for the Sudan and Indian Students strength



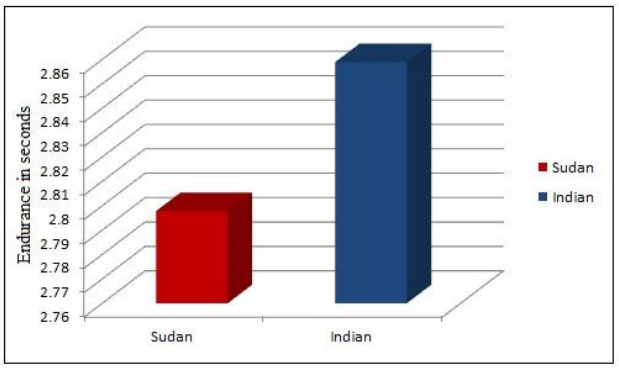
Graph VI: Comparison of Strength components of Sudan and Indian students in Qatar

Endurance

The Table VI shows that the mean endurance and SD of Indian students were 2.8589 and 0.5163 and the mean endurance and SD of Sudan students was 2.7978 and 0.5484 respectively. The M D between the nationalities is 0.0321. The 't'value of the data was 0.3533 was not significant to P‹ 0.5

Components		Sudan	Indian	M.D	't' Value
Endurance	Mean	2.7978	2.8589	0.0321	0.3533
	S D	0.5484	0.5163		

Table VII: Descriptive statistics for the Sudan and Indian Students Endurance



Graph VII: Comparison of Endurance components of Sudan and Indian students in Qatar

RESULT AND DISCUSSION

The present research study had two purposes. The first was evaluated the physical fitness and anthropometric measurement between Sudan and Indian students aged between 6 to 10 years. Secondly, to compare the result of anthropometric and physical fitness from Sudan children with those of their Indian children looking for the difference of fitness components and their recommendation. In this selected physical fitness comparative study, we found that some of the anthropometric and physical fitness components had significant difference between Sudan and Indian student's age ranged between 6 to 10 years. The anthropometric measurements of both Indian and Sudan students were same, and the BMI of Sudan and Indian was 16.83 and 16.96 respectively. This BMI percentile of child shows that both categories of students were healthy.

In the case of selected physical fitness components of Speed, the analyzed data shows that Indian students are faster than Sudan students with an M D of 0.1092. Similarly agility and strength, the comparison of two data of agility shows that Indian students had more coordination than Sudan student's age between 6 to 10 years. The analyzed data of M D was 0.0266. In the case of strength also shows that Indian students had more muscle strength than Sudan students those who are lived in Qatar, age range between 6 to 10 years, and the analyzed data proved that M D of strength was 8.1898 and there was significant difference between the Sudan and Indian students in the case of strength. But in the case of endurance, the analyzed data was proved that Sudan students had more endurance than Indian students with an M D of 0.94.

CONCLUSION

On the basis of result it can be conclude that Sudan and Indian students had normal BMI. In the case of physical fitness components Indian students have better agility, speed and strength than Sudan Students. But in the case of endurance Sudan students have better performance than Indian Students aged between 6 and 10 years.

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