Volume 19 Issue 10
Originally issued as A4



Global Journal of human-social science: A
Arts & Humanities - Psychology
Volume 19 Issue 4 Version 1.0 Year 2019
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

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

By Pramod R, Dr. Divya K & Karthik K

University of Alagappa

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 a subject from Ideal Indian School Doha- Qatar by applying random sampling method. The age of the subject is ranged from six to ten years. Heights, weight, Body mass index (BMI) are 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 are statistically examine by the dependent't' test and analysis of covariance (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 six and ten years.

Keywords: *BMI, speed, agility, strength, endurance.*

GJHSS-A Classification: *FOR Code: 160199*



Strictly as per the compliance and regulations of:



© 2019. Pramod R, Dr. Divya K & Karthik K. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

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

Pramod R[α], Dr. Divya K[σ] & Karthik K[ρ]

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 a subject from Ideal Indian School Doha- Qatar by applying random sampling method. The age of the subject is ranged from six to ten years. Heights, weight, Body mass index (BMI) are 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 are statistically examine by the dependent't' test and analysis of covariance (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 six and ten years.

Keywords: *BMI, speed, agility, strength, endurance*.

I. 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 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 of carrying on their activities satisfactorily –Edward Bortz. The current research has proved that a lack of exercise and sedentary lifestyle 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 cardio respiratory, musculoskeletal, metabolic, psychological and posture of children. Participating in regular physical activity influence the achievement level of physical fitness development which is helping to improve general and specific fitness development of children. Due to urbanization of all over the world, the environmental factors of living area gained significant 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 Facebook, WhatsApp, Instagram, Twitter, Television, Videogames, and computer play stations had been influenced by 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 a rural environment that's free space, no danger by traffic, lack of mass communication and media.

Children aged between six and ten years need physical activity to build strength, speed, coordination, endurance, balance, flexibility, agility and confidence. Groundwork will help in improve physical fitness. School aged children should have more chance to participate in a variety of activities. Sports and games fit for help to develop personality, ability, age and interest. Through four practical method children can improve and maintain their physical fitness through exercise. Develop interest in at least one competitive sport like a 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 the right amount of exercise during preparation.

II. Statement of the Problem

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

Author α: *MP.Ed, M.Phil, UGC-NET, NIS Athletics, FSTO, STA Level II Swimming, Ph.D Research Scholar, University of Alagappa, India. PGT Physical Educatio Teacher, Doha-Qatar.*
e-mail: pramodrviis@gmail.com
Author σ: *Research Guide, Assistant Professor, University of Alagappa.*
e-mail: divyakalimuthu777.kd@gmail.com
Author ρ: *MP.Ed, M.Phil, Physical Education Teacher, Doha-Qatar.*
e-mail: karthiksportsman@gmail.com

© 2019 Global Journals

III. 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 from six to ten 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 were used for analyzing the data. The following variables considered for conducting the study. The variables are Height of the students measured by measuring tape with nearest centimeter; Weight was measured by digital weighing machine with the nearest gram without zero error. BMI was calculated by using BMI percentile calculation software for the 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 the nearest centimeter and Endurance was measured by 600 yards running with nearest seconds. The researchers not considered the subjects social, economic backgrounds.

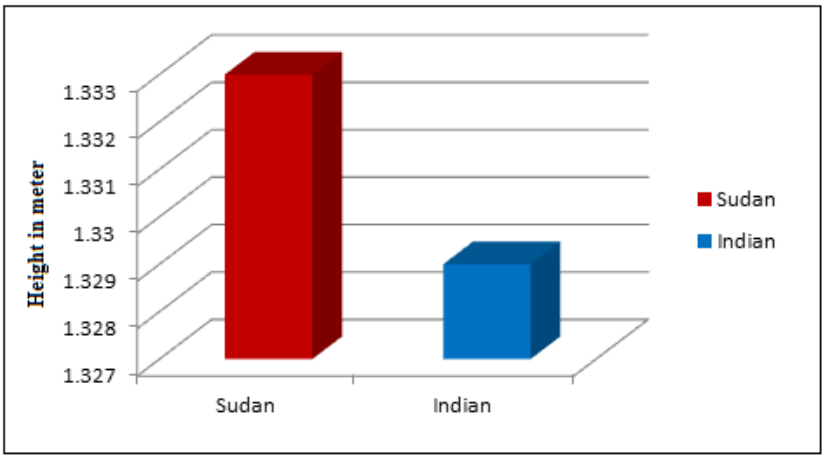
IV. Analysis of Data

a) Height

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.

Table I: Descriptive statistics for Sudan and Indian Students height

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



Graph I: Comparison of height components of Sudan and Indian students in Qatar

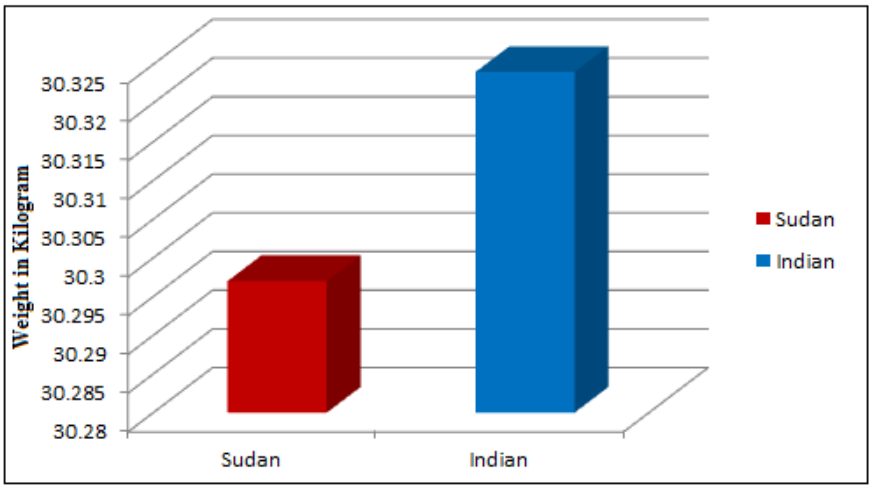
b) Weight

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.

Table II: Descriptive statistics for Sudan and Indian Students weight

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

© 2019 Global Journals



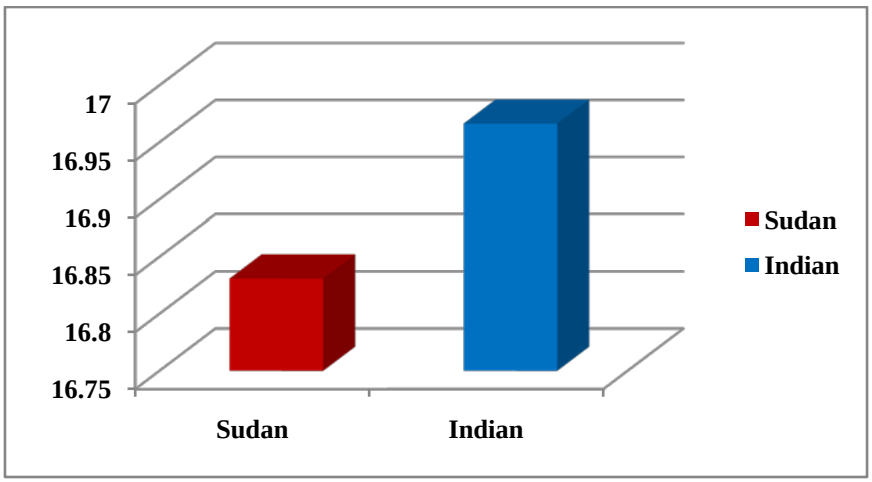
Graph II: Comparison of Weight components of Sudan and Indian students in Qatar

c) BMI

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.

Table III: Descriptive statistics for Sudan and Indian Students BMI

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



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

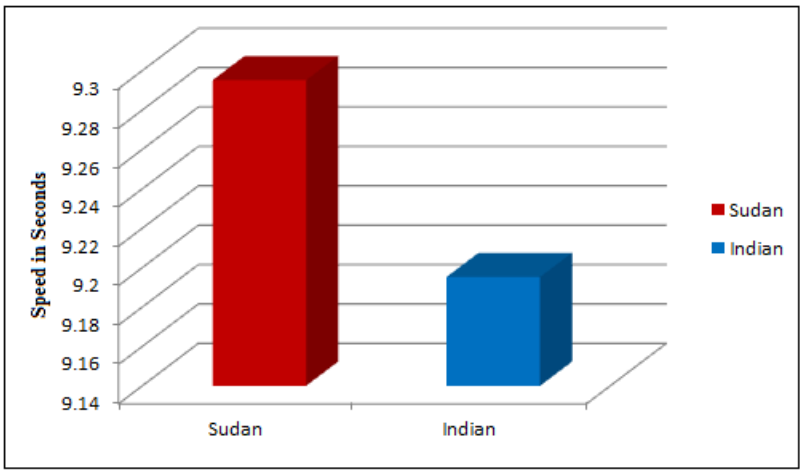
d) Speed

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.

Table IV: Descriptive statistics for Sudan and Indian Students Speed

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

© 2019 Global Journals



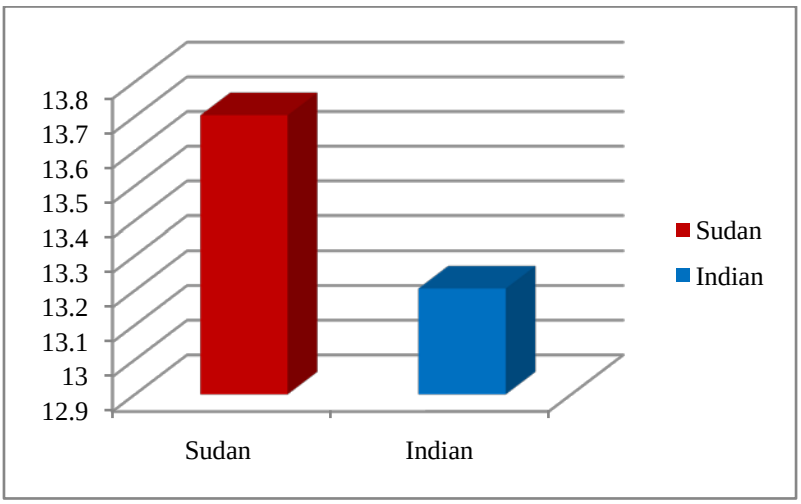
Graph IV: Comparison of Speed components of Sudan and Indian students in Qatar

e) Coordination

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.

Table V: Descriptive statistics for Sudan and Indian Students coordination

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



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

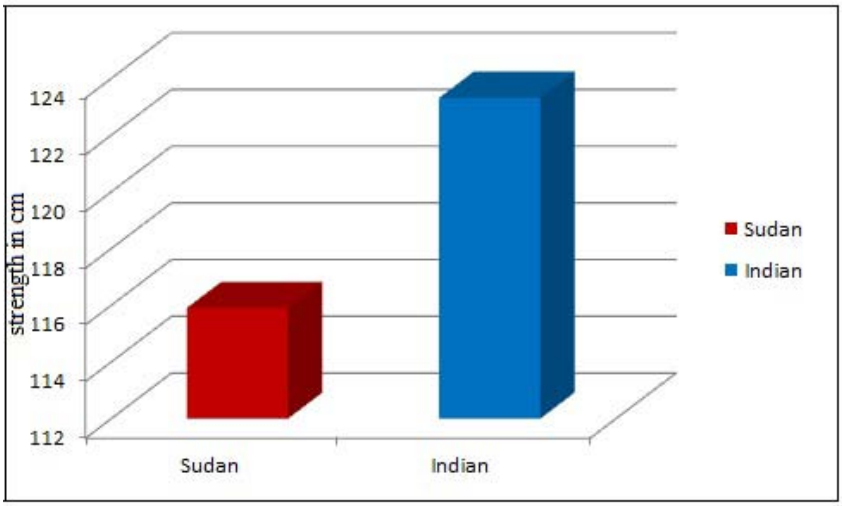
f) Strength

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 were 115.91 and 13.4523 respectively. The MD between the nationalities is 8.1898. The 't'value of the data was -1.77 was significant to P‹ 0.5.

Table VI: Descriptive statistics for Sudan and Indian Students strength

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

© 2019 Global Journals



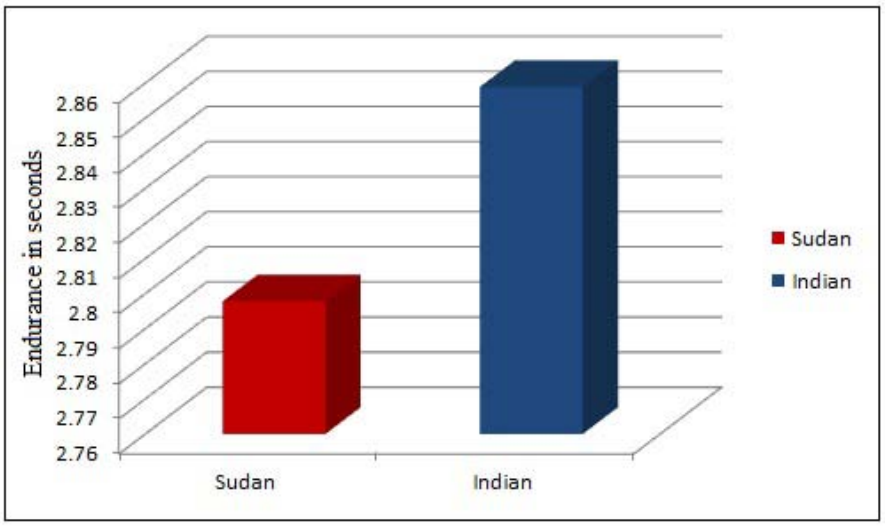
Graph VI: Comparison of Strength components of Sudan and Indian students in Qatar

g) Endurance

Table VII shows that the mean endurance and SD of Indian students were 2.8589 and 0.5163 and mean endurance and SD of Sudan students were 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

Table VII: Descriptive statistics for Sudan and Indian Students Endurance

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



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

V. Result and Discussion

The present research study had two purposes. The first is 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 a 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 the same, and the BMI of Sudan

© 2019 Global Journals

and Indian was 16.83 and 16.96 respectively. This BMI percentile of the 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 show 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 living 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 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.

VI. Conclusion

By the result it can be concluded 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 six and ten years.

References Références Referencias

1. Hopkins. WG and Walker.NP., (1988) The meaning of physical fitness. Prev Med, Nov17 (6), 764-73.
2. Osama Abdhul Karim., etc. all.(2015) A comparative study of physical fitness among Egyptian and German children aged between 6 and 10 years. Advances in Physical Education, March 2015.
3. Shekhar Mandal., etc all. (2015) Comparison of selected physical fitness components between Bangladeshi and Indian girls aged 7 to 9 years old. Journal of Sports and Physical Education. 2(4) 07-11.
4. Lippincott Williams &Wilkins.,(2013).ACSM´s Health-Related Physical Fitness Assessment Manual, ACSM, American College of Sports Medicine (4th ed.). Philadelphia:
5. http://medium.Com/the-healthy-city-of-urbanization
6. https://kidshealth.org/en/parents/fitness-6-12.html

© 2019 Global Journals