

A Survey on Fitness Component Game Specific Skills and Playing Ability Among Three Different Age Groups of Football Player

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Abstract

The objective was to find out the differences in selected fitness parameters among three different age groups of Football players. A total of 30 students were selected as subject for the present study, out of which 10 were 12-15 years, 10 were 16-19 year and rests were 20-23 years. From table 15 it was clear that playing ability of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys. This result was significant 0.05 level, as the mean difference exceeds the critical difference.

Introduction

Football is one of those games which may gather a lot of people under one shade. Has an enormous power to encourage others. Team work is the main part of it which make learn stay together and work together. Hard work and dedication is the foremost criteria of this game.

Football is the most popular and attended spectacular game in the world. Now, it is a very skilful and technical game. Modern concept football is not only technical but also it required theoretical knowledge. It involves kicks, passes, dodging runs, fast runs and combination cum co- ordination of each player with other while playing. Without strength, speed, stamina, skill and strategy a member of a team could never expect to become a good player.

Study Objective:-

To find out the differences in selected fitness parameters among Selected age groups.

To observe the differences in Football skill among Selected age groups.

To find out the playing ability differences among Selected age groups.

Hypothesis of the study

H₀: There might be no significant difference in selected fitness parameters among the groups.

H₀: There might be no significant difference in Football playing ability among the groups.

H₀: There might be no significant difference in Football skill among the group.

Significance:-

The study would be helpful in future for screening and selecting the aspiring players.

Possibly the result would be helpful to selecting and constructing training program for the future players.

It will be used in further research.

SELECTION OF THE SUBJECTS

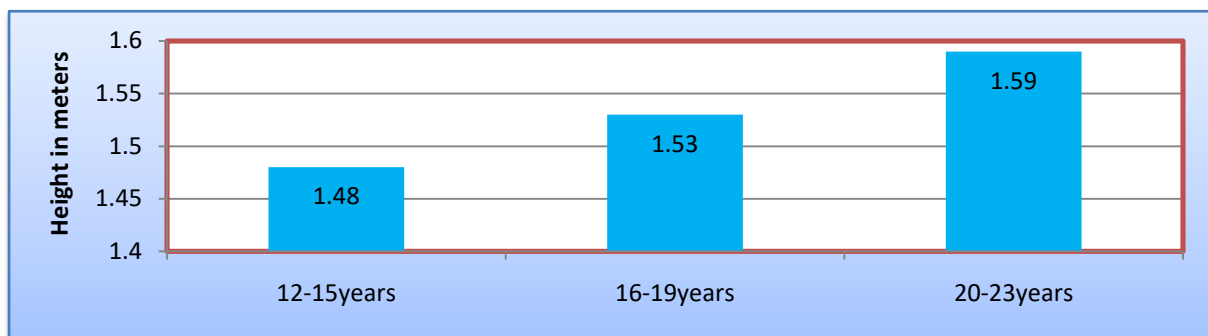
A total of 30 students were selected as subject for the present study, out of which 10 were 12-15 years, 10 were 16-19 year and rests were 20-23 years.

COLLECTION OF DATA

The study group was selected from different training camps and institutions practicing in the play field of Jadavpur University and Ajoy Nagar Club near Jadavpur University.

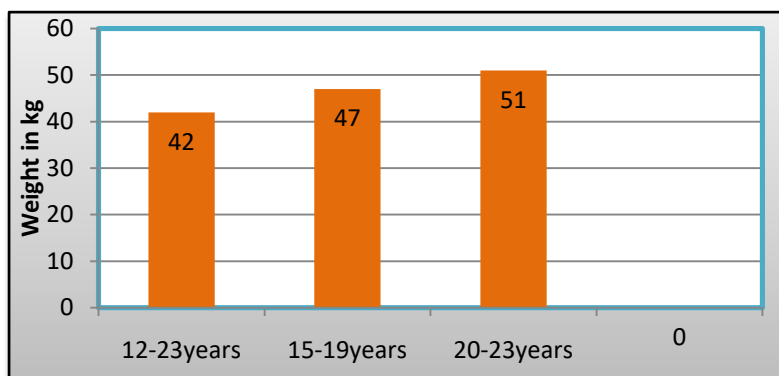
Analysis of the data and results of the study

From the above figure it was also clear that the Football players of the age group 20 – 23 years have their age advantage.



Showed mean score of height of the selected group of the subject

From the above figure it was also clear that the Football player of the age group 20 – 23 years were taller than the other group.



Showed mean of weight of the selected group of the subject.

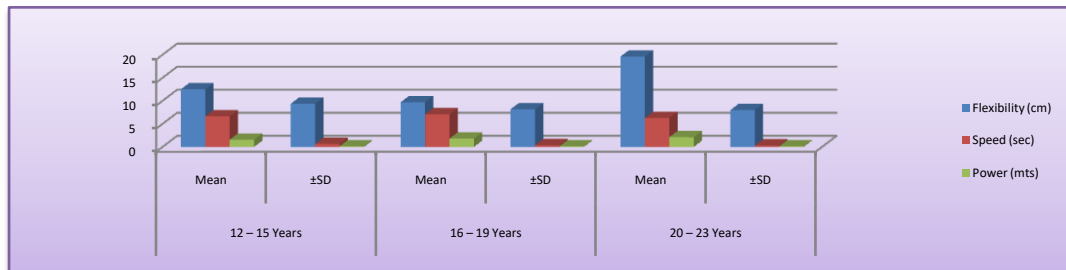
From the above figure it was also clear that the weight of the 20 – 23 years Football players were heavier than the other two groups.

Mean and SD of flexibility, speed and power of 12-15years 16-19 years and 20-23 years had been presented in table-2

Mean and SD of flexibility, speed and power of different age group

Fitness parameters	12 – 15 Years		16 – 19 Years		20 – 23 Years	
	Mean	±SD	Mean	±SD	Mean	±SD
Flexibility (cm)	12.5	9.37	9.7	8.17	19.60	8.00
Speed (sec)	6.66	0.64	7.09	0.37	6.29	0.32

Power (mts)	1.57	0.15	1.8	0.13	2.11	0.14
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Graphical representation of Mean and SD of Flexibility, Speed and Power

From table 2 and figure 4, it was clear that mean and SD of flexibility of 12-15, 16-19 and 20-23 years age group were 12.5 & ± 9.37 , 9.7 & ± 8.17 and 19.60 & ± 8.00 . It was also observed that mean and SD of speed of 12-15, 16-19 and 20-23 years age group were 6.66 & ± 0.64 , 7.09 & ± 0.37 and 6.29 & ± 0.23 . Finally mean and SD of speed of 12-15, 16-19 and 20-23 years age group were 1.57 & ± 0.15 , 1.8 & ± 0.83 and 2.11 & ± 0.14 .

Significance of statistical difference of flexibility among three age groups

Flexibility	Sum of Square	D F	Mean Square	F	Sig.
Between Groups	526.550	2	263.275	3.611*	.041
Within Groups	1968.625	27	72.912		
Total	2495.175	29			

*Significant, Tabulated F at 0.05(2,27)=3.35

Inter-group comparison of Flexibility among different age groups of Football players.

(I)Athletic group	(J)Athletic group	Mean difference (i-j)	Std. Error	Sig.	95% confidence interval	
					Lower Bound	Upper Bound
12-15 years	16-19 years	2.80000	3.81869	.470	-5.0353	10.6353

	20-23 years	-7.15000	3.81869	.072	-14.9853	.6853
16-19 years	12-15 years	-2.80000	3.81869	.470	-10.6353	5.0353
	20-23 years	-9.95000*	3.81869	.015	-17.7853	-2.1147
20-23 years	12-15 years	7.15000	3.81869	.072	-.6853	14.9853
	16-19 years	9.95000*	3.81869	.015	2.1147	17.7853

* Significant

From table 4 it was clear that flexibility of 20-23 years Football players were better than 16-19 years boys. This result was significant 0.05 levels, as the mean difference exceeds the critical difference.

Significance of statistical difference of Speed among three age groups

Speed	Sum of Squares	Degree of freedom	Square mean	F test	Significance
In between	3.674	2	1.837	8.421*	.001
Within	5.891	27	.218		
Total	9.565	29			

*Significant, Tabulated F at 0.05(2,27)=3.35

From table 5, it was clearly revealed significant difference of Speed among three different age categories of Football players at 0.05 level of significance as the calculated value of F was greater than the table value($F=8.421 > 3.35$).

Inter group comparison of Speed among different age groups of Football players

(I) Group of athletes	(J) Group of athletes	Difference of mean (I-J)	Standard error	Significance	95% Confidence Interval	
					Lower	Upper
12-15 years	16-19 years	.33600	.20889	.119	-.0926	.7646
	20-23 years	.85100*	.20889	.000	.4224	1.2796

16-19 years	12-15 years	-.33600	.20889	.119	-.7646	.0926
	20-23 years	.51500*	.20889	.020	.0864	.9436
20-23 years	12-15 years	-.85100*	.20889	.000	-1.2796	-.4224
	16-19 years	-.51500*	.20889	.020	-.9436	-.0864

* Significant

From table 6 it was clear that Speed of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys. This result was significant 0.05 level, as the mean difference exceeds the critical difference.

Significance of statistical difference of Power among three age groups

Power	Sum of Squares	Degree of freedom	Square mean	F test	Significance
In between	1.035	2	.518	23.707*	.000
Within	.589	27	.022		
Total	1.624	29			

*Significant, Tabulated F at 0.05(2,27)=3.35

Inter group comparison of Power among different age groups of Football players

(I) Group of athletes	(J) Group of athletes	Difference of mean (I-J)	Standard error	Significance	95% Confidence Interval	
					Lower	Upper
12-15 years	16-19 years	-.15000*	.06608	.031	-.2856	-.0144
	20-23 years	-.44700*	.06608	.000	-.5826	-.3114
16-19 years	12-15 years	.15000*	.06608	.031	.0144	.2856
	20-23 years	-.29700*	.06608	.000	-.4326	-.1614
20-23 years	12-15 years	.44700*	.06608	.000	.3114	.5826
	16-19 years	.29700*	.06608	.000	.1614	.4326

*Significant

From table 8 it was clear that power of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys. And it was also evident that the power of 16-19 years age category was better than the 12-15 years age category. This result was significant 0.05 level, as the mean difference exceeds the critical difference.

Mean and SD of ball control ability and kicking accuracy of 12-15years 16-19 years and 20-23 years had been presented in table-9

Mean and SD of ball control ability and kicking accuracy of different age group

PERFORMANCE PARAMETERS	12 – 15 years		16 – 19 years		20 – 23 years	
	Mean	±SD	Mean	±SD	Mean	±SD
Ball control ability(no.)	10	2.50	12	2.28	15	2.75
Kicking accuracy(mts)	21	7.19	28.1	5.57	31	7.08

From table-9 and figure 5 it was clear that mean and SD of Ball control ability of 12-15, 16-19 and 20-23 years age group were 10 & ±2.50, 12 & ±2.28 and 15 & ±2.27. It was also observed that mean and SD of Kicking accuracy of 12-15, 16-19 and 20-23 years age group were 21 & ±7.19, 28.1 & ±5.57 and 31 & ±7.08 respectively.

Table 10 represents significant of statistical difference of Ball Control ability among three groups

Significance of statistical difference of Ball control ability among three age groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	72.800	2	36.400	6.556*	.005
Within Groups	149.900	27	5.552		
Total	222.700	29			

*Significant, Tabulated F at 0.05(2,27)=3.35

The Post hoc (LSD) test of Ball control ability of different age groups of Football players have been presented in Table no-11

Inter group comparison of Ball Control ability among different age groups of Football players

(I) Group of athlete	(J) Group of athlete	In between mean difference (I-J)	Standard error	Significance	95% Confidence Interval	
					Lower	Upper
12-15 years	16-19 years	.20000	1.05374	.851	-1.9621	2.3621
	20-23 years	-3.20000*	1.05374	.005	-5.3621	-1.0379
16-19 years	12-15 years	-.20000	1.05374	.851	-2.3621	1.9621
	20-23 years	-3.40000*	1.05374	.003	-5.5621	-1.2379
20-23 years	12-15 years	3.20000*	1.05374	.005	1.0379	5.3621
	16-19 years	3.40000*	1.05374	.003	1.2379	5.5621

*Significant

From table 11 it was clear that ball control ability of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys. This result was significant 0.05 level, as the mean difference exceeds the critical difference.

Table 12 represents significant of statistical difference of Kicking Accuracy among three groups

Significance of statistical difference of Kicking Accuracy among three age groups

Kicking Accuracy	Sum of Squares	Degree of freedom	Square mean	F	Significance
In between	220.560	2	110.280	2.596	.093
Within	1147.087	27	42.485		
Total	1367.647	29			

*Significant, Tabulated F at 0.05(2,27)=3.35

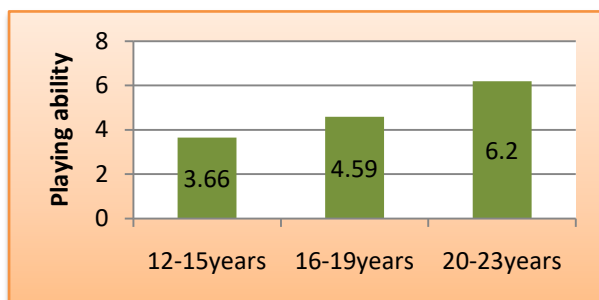
From table 12, it was clearly revealed insignificant difference of Kicking Accuracy of three different age categories of Football players at 0.05 level of significance as the calculated value of F was less than the table value ($F=2.596 > 3.35$).

Mean and SD of playing ability of 12-15years 16-19 years and 20-23 years had been presented in table-13

Mean and SD of playing ability of different age group

PLAYING ABILITY	12-15 yrs age		16-19 yrs age		20-23 yrs age	
	Mean	±SD	Mean	±SD	Mean	±SD
Playing ability	3.66	1.06	4.49	0.74	6.2	0.71

It was observed from table 13 and fig. 6 that mean and SD of playing ability of three different Football player were 3.66, ± 1.06 ; 4.59 ± 0.74 and 6.2 ± 0.71 respectively.



Showed mean score of Playing ability among three groups

Significance of statistical difference of Playing Ability among three age groups

P.Ability	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	41.737	2	20.868	28.888*	.000
Within Groups	19.505	27	.722		
Total	61.241	29			

*Significant, Tabulated F at 0.05(2,27)=3.35

Inter group comparison of playing ability among different age groups of Football players

(I) Group of athlete	(J) Group of athlete	In between difference (I-J)	Standard error	Significance	95% Confidence Interval	
					Lower	Upper
12-15 years	16-19 years	-.49900	.38010	.200	-1.2789	.2809
	20-23 years	-2.71400*	.38010	.000	-3.4939	-1.9341
16-19 years	12-15 years	.49900	.38010	.200	-.2809	1.2789
	20-23 years	-2.21500*	.38010	.000	-2.9949	-1.4351
20-23 years	12-15 years	2.71400*	.38010	.000	1.9341	3.4939
	16-19 years	2.21500*	.38010	.000	1.4351	2.9949

From table 15 it was clear that Playing ability of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys. This result was significant 0.05 level, as the mean difference exceeds the critical difference.

Conclusions

In terms physical fitness, football skill, playing ability :

1. Flexibility of 20-23 years Football players were better than 16-19 years boys.
2. Speed of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys.
3. Power of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys. 16-19 years boys showed better performance in terms of speed than 12-15 years boys.
4. In Football skill, ball control ability of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys.
5. Kicking accuracy showed similar attributes among different age groups of Football players
6. Playing ability of 20-23 years Football players were better than 16-19 years boys as well as 12-15 years boys.

DISCUSSION OF FINDING

From the above results it was observed that physical variables vary according to the different age categories of the Football players. In case of physical fitness parameters namely agility, speed and power differ significantly in accordance with the age. Football Reports of match analyses revealed that an elite Football player tends to have more physical fitness as the level of game progresses. So the results of the present study showed exactly same characteristics in relation with the study of Boone J. et al., 2012.

It was also seen from the study that Football skill especially ball control ability proved to be significant as the age progresses. Playing ability of the higher age category was proved to be significant compare to other age category. As the transition from junior to senior sport is a key point in the young practitioners' career, this transition is often described as challenging, as it also coincides with important changes in life in general (Enoksen E. 2011). Knowledge of the players' overall game situation in terms of age development is proved to be essential to have better playing ability,. Monitoring talented players' playing ability, including Football skill ability directed by their club, should therefore be an important part of age development. In that case, one acknowledges that it is reasonable that training age of player is also a important factor.

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