

PSYCHOMETRIC SKILLS OF INTER-UNIVERSITY LEVEL MALE SOCCER PLAYERS

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ABSTRACT

Purpose of the study was to assess the psychometric skills, i.e. stress reaction, fear control, relaxation and activation of inter-university level, 168 male soccer players; and compare inter-university level male soccer players of different age groups (17 to 19 years and 20 to 25 year of age) playing positions, (defence, half and strikers). The psychosomatic Skills scale (stress reaction, fear control, relaxation and activation) of OMSAT-3 was used Durand Bush et al(2001). Data on fear control indicate statistically significant mean difference between 17 yrs 19 yrs and 23 yrs – 26 yrs age groups (1.70) ; and between 20 yrs – 22 yrs and 23 yrs – 26 yrs (1.81) age groups, as the mean difference between these groups were much higher than the obtained CI of 0.499 and 0.435 respectively . In case of players ability to relax, the differences between 17- yrs -19 yrs and 23 yrs – 26 yrs (1.87) and between 20 yrs-22 yrs and 23 yrs -26 yrs (1.59) were significant. As these mean differences were higher than the required CI of 0.427 and 0.375 respectively. The data on activation level also indicate significant difference between 17- yrs -19 yrs and 23 yrs – 26 yrs (1.87); and between 20 yrs-22 yrs and 23 yrs -26 yrs (1.66) age groups. As these mean difference were higher than the obtained CI of 0.427 and 0.375 respectively. The psychosomatic skills of stress, fear control, relax and activation was higher in lower age groups. In case of stress and fear control the lower age group players seems to be unaffected during competition, they are able to relax easily in comparison to the higher age groups during competition and able to activate themselves as per the demand of ongoing competition.

Keywords : Psychometric, Stress, Fear, Relaxation, Activation, Soccer, Age, Position, Athletes

1. INTRODUCTION

Youth soccer performance is influenced by physical development and physiological maturity. Sports psychologists have focused on developmental difficulties of soccer players, such as age impacts, tactics, and behavior. During adolescence, soccer players' behavior, reasoning, and feelings might change more than their bodies. During that time, kids acquire a deeper sense of self - identity as players and realize individual moral values connected to their sport's environment, resulting in significant behavioral changes. Coaches foster the physical, technical, and personality development of young players, reflecting the view that personality also play a vital part in players' success in the future (Giacobbi et al., 2002). Research has found psychological qualities as "major predictors of performance" in athletics Personality characteristics are typically constant across time and contexts (Aidman and Schofield, 2004), although psychological abilities may alter with context. Therefore, trait or skill conceptualization dictates how frequently to analyze each attribute. Youth soccer players who were categorised as elite and sub-elite based on their ages had their functional capabilities and the mental skills required for competence measured by Taher et al. in 2013. (U16, U15, U14 and U13). The findings showed that elite and sub-elite players' mental attributes differed significantly and substantial differences were discovered between senior and junior, senior and youth players, and senior and senior players in handling adversity and performing at their best under duress. Goal-setting, mental preparation, focus, worry-free play, confidence, accomplishment motivation, and coachability were other areas where senior and junior, senior and young, and junior and youth players differed significantly. According to Thomas et al. (1999), older athletes utilized fewer cognitive abilities, particularly imagery, than younger athletes, but they also employed less activation techniques and greater automaticity. As young athletes progress in athletics, they experience psychological and emotional changes (Wiese-Bjornstal, LaVoi, &Omli, 2009). The term "mental skills" refers to procedures or approaches that enable control or direction of the critical to performance-related thoughts, strategies, sentiments, and emotions. The use of methods to hone mental abilities is becoming more and more popular among athletes and has been shown to be successful.

Being physically talented is not enough to achieve at the top level in today's high level soccer competition. Soccer greatness is a challenging endeavor that calls for a precise balancing of motor and cognitive abilities. On or off the field, high levels of stress or poor coping mechanisms may change cognitive evaluation and attention, which can affect muscle tension and physical coordination, impairing physical performance. As crucial as technical and tactical knowledge is the impact of mental condition on performance. This is why training regimens need to give it the same weight. A mental skill is defined in sport psychology as a competence that controls thoughts, emotions, and actions. It is a tool created "in a particular job or a narrow set of tasks" (Famose& Durand, 1988). Athletes don't always have the tools to utilize and manage their potential since different abilities are needed to apply acquired tactics and plans throughout practices and contests (Demontrond et al., 2006). Additionally, a number of circumstances may modify these abilities. The "playing position" is a significant factor that may be connected to mental aptitude in soccer. Every job has different cognitive demands. A few studies looked at athletes in the same sport who played various positions and found connections between mental abilities (Cox &Y oo, 1995). Because demands on athletes vary depending on playing position, this seems to be a crucial subject for investigation. Purpose of the study

2. METHODOLOGY

Purpose of the study was to assess the psychometric skills, i. e. stress reaction, fear control, relaxation and activation of inter-university level,168 male soccer players; and compare inter-

university level male soccer players of different age groups (17 to 19 years and 20 to 25 year of age) playing positions, (defence, half and strikers).

The psychosomatic Skills scale (stress reaction, fear control, relaxation and activation) of OMSAT-3 was used Durand Bush et al (2001). The player's response is given on a 7-point Likert type scale ranging from "Strongly disagree" (1) to "Strongly agree" (7). The score is seen as a high value when it is 6 or 7, medium or moderate between 3 to 5 and low if it is 1 or 2. Different sub-scales of OMSAT demonstrated high levels of internal consistency (alpha levels above 0.78), and acceptable levels of test-retest reliability (r levels above 0.63). Overall, the OMSAT provide a potentially useful assessment and diagnostic tool for both understanding, and potentially, counseling athletes of different ability levels. It was hypothesized that Psychometric skills (stress reaction, fear control, relaxation and activation) inter university soccer players will differ significantly on the basis of age and playing position.

The players were divided on the basis of their playing position and further divided in three age group i.e. 17 to 19 years, 20 to 22 years and 23 to 26 years of age.

3. RESULTS

Multivariate analysis with playing position and age groups of India university level soccer players based on different Psychosomatic skills indicated significant main effect of age ((Wilks Lambda, $F_{0.05}(8,306)=34.150$). whereas the main effect of playing position was statistically insignificant (Wilks Lambda, $F_{0.05}(12,405)=1.30$).

TABLE – 1
MEAN AND STANDARD DEVIATION OF INDIAN INTER-UNIVERSITY LEVEL MALE SOCCER PLAYERS OF DIFFERENT PLAYING POSITIONS AND AGE GROUPS ON DIFFERENT PSYCHOSOMATIC SKILLS

Variables	Playing Position	Age	Mean	Standard Deviation	Number
Stress	Goal Keeper	17 to 19	3.2883	0.56856	6
		20 to 22	3.3317	0.64207	6
		23 to 26	.2800	0.84573	4
		Total	3.8025	1.07925	16
	Defender	17 to 19	3.1700	0.71982	8
		20 to 22	2.9114	0.92652	29
		23 to 26	4.7031	0.69782	16
		Total	3.4913	1.15228	53
	Mid Fielder	17 to 19	2.8262	1.22964	8
		20 to 22	3.3128	0.73788	25
		23 to 26	4.9033	0.56502	12
		Total	3.6504	1.11074	45
Forward	17 to 19	2.7725	0.90062	20	
	20 to 22	2.9300	0.92124	18	
	23 to 26	4.5394	0.95381	16	
	Total	3.3485	1.19720	54	

TABLE ! (CONTINUED)

Variables	Playing Position	Age	Mean	Standard Deviation	Number
	Total	17 to 19	2.9321	0.89786	42
		20 to 22	3.0767	0.85703	78
		23 to 26	4.7467	0.78223	48
		Total	3.5177	1.14890	168
Fear Control	Goal Keeper	17 to 19	3.5000	0.54772	6
		20 to 22	3.2667	0.60222	6
		23 to 26	4.5500	0.78951	4
		Total	3.6750	0.79289	16
	Defender	17 to 19	3.4250	0.85815	8
		20 to 22	2.6193	1.05774	29
		23 to 26	4.5719	0.87330	16
		Total	3.3304	1.29583	53
	Mid Fielder	17 to 19	2.9925	1.08201	8
		20 to 22	3.0200	0.73824	25
		23 to 26	4.6583	0.70254	12
		Total	3.4520	1.07155	45
	Forward	17 to 19	2.6200	1.01960	20
		20 to 22	2.8789	1.13719	18
		23 to 26	4.8094	1.08539	16
		Total	3.3550	1.42839	54
	Total	17 to 19	2.9700	0.99263	42
		20 to 22	2.8574	0.96378	78
		23 to 26	4.6708	0.88647	48
		Total	3.4037	1.24078	168
Relaxation	Goal Keeper	17 to 19	3.1050	1.08819	6
		20 to 22	3.7733	0.50127	6
		23 to 26	4.8100	0.81294	4
		Total	3.7819	1.03722	16
	Defender	17 to 19	3.2463	1.20288	8
		20 to 22	3.8338	0.71939	29
		23 to 26	5.0794	0.82100	16
		Total	4.1211	1.05556	53
	Mid Fielder	17 to 19	3.9900	0.59673	8
		20 to 22	3.1560	0.92260	25
		23 to 26	5.6008	0.60966	12
		Total	4.1562	1.19203	45
	Forward	17 to 19	3.4720	0.98165	20
		20 to 22	3.7717	1.06248	18
		23 to 26	5.4356	1.16024	16
		Total	4.1537	1.34520	54
	Total	17 to 19	3.4752	0.99035	42
		20 to 22	3.7129	0.85920	78
		23 to 26	5.3060	0.91665	48
		Total	4.1087	1.18481	168

TABLE ! (CONTINUED)

Variables	Playing Position	Age	Mean	Standard Deviation	Number
Activation	Goal Keeper	17 to 19	2.8000	0.56569	6
		20 to 22	3.4000	0.76942	6
		23 to 26	5.7000	0.93095	4
		Total	3.7500	1.37889	16
	Defender	17 to 19	3.5500	0.74642	8
		20 to 22	3.9241	0.69573	29
		23 to 26	5.3781	1.03004	16
		Total	4.3066	1.07918	53
	Mid Fielder	17 to 19	3.6250	0.95879	8
		20 to 22	3.4480	0.68381	25
		23 to 26	5.1125	0.85815	12
		Total	3.9233	1.05624	45
	Forward	17 to 19	3.7100	0.87172	20
		20 to 22	4.0000	0.71948	18
		23 to 26	5.5781	0.85770	16
		Total	4.3602	1.13932	54
	Total	17 to 19	3.5333	0.85957	42
		20 to 22	3.7487	0.73462	78
		23 to 26	5.4052	0.91694	48
		Total	4.1682	1.13588	168

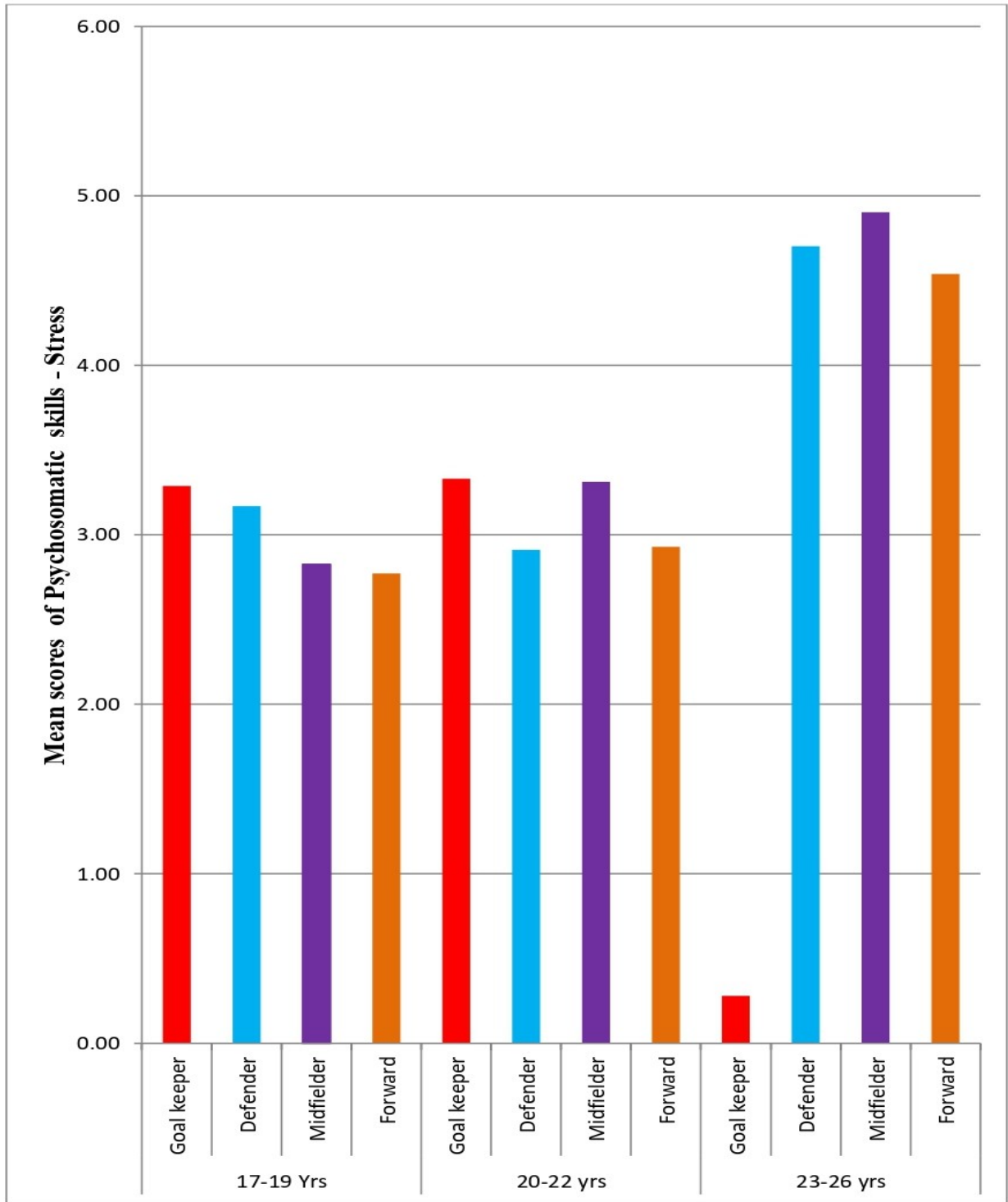


Fig-1 : Mean scores of Inter-University level soccer players of different age groups on Stress

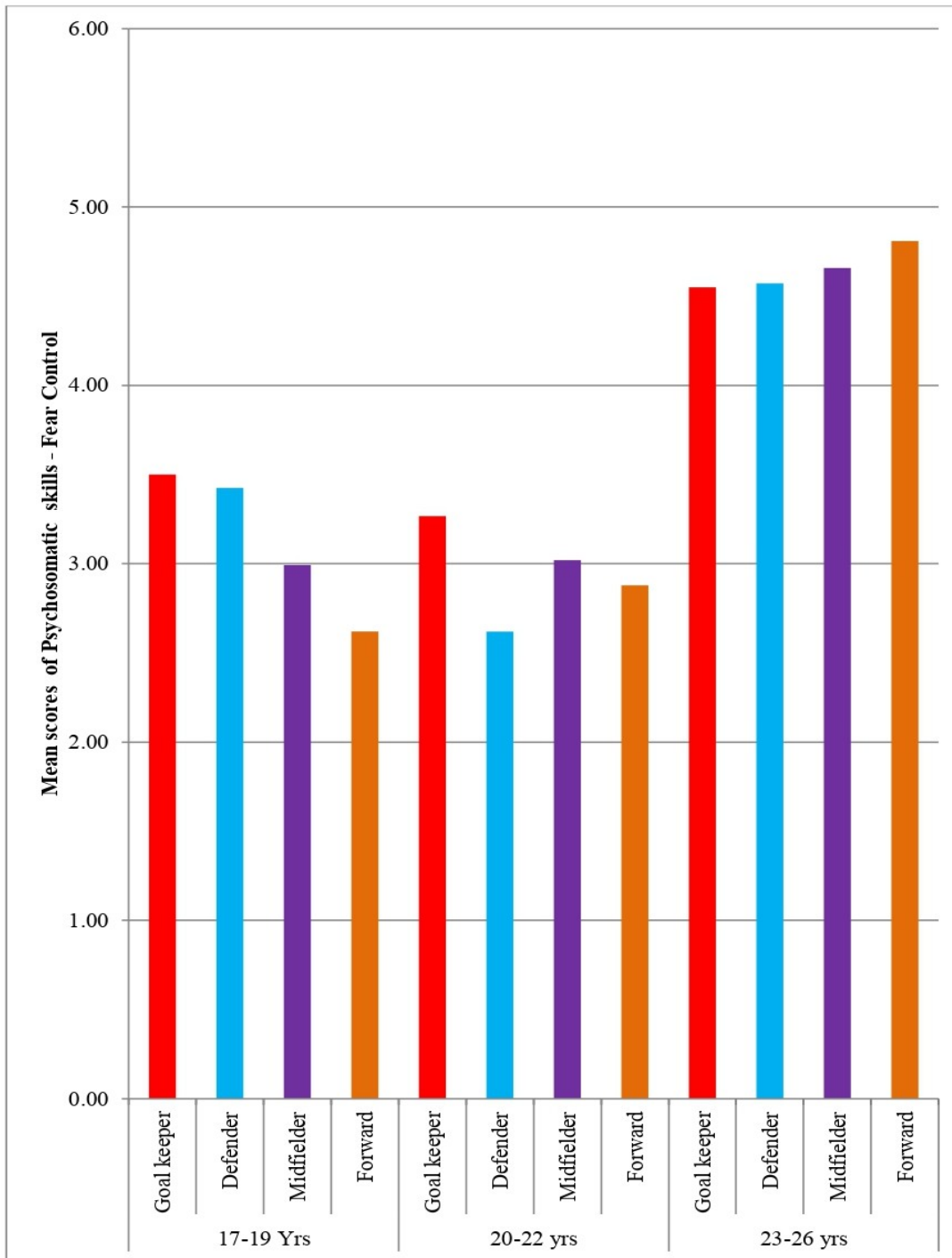


Fig-2 : Mean scores of Inter-University level soccer players of different age groups on Fear control

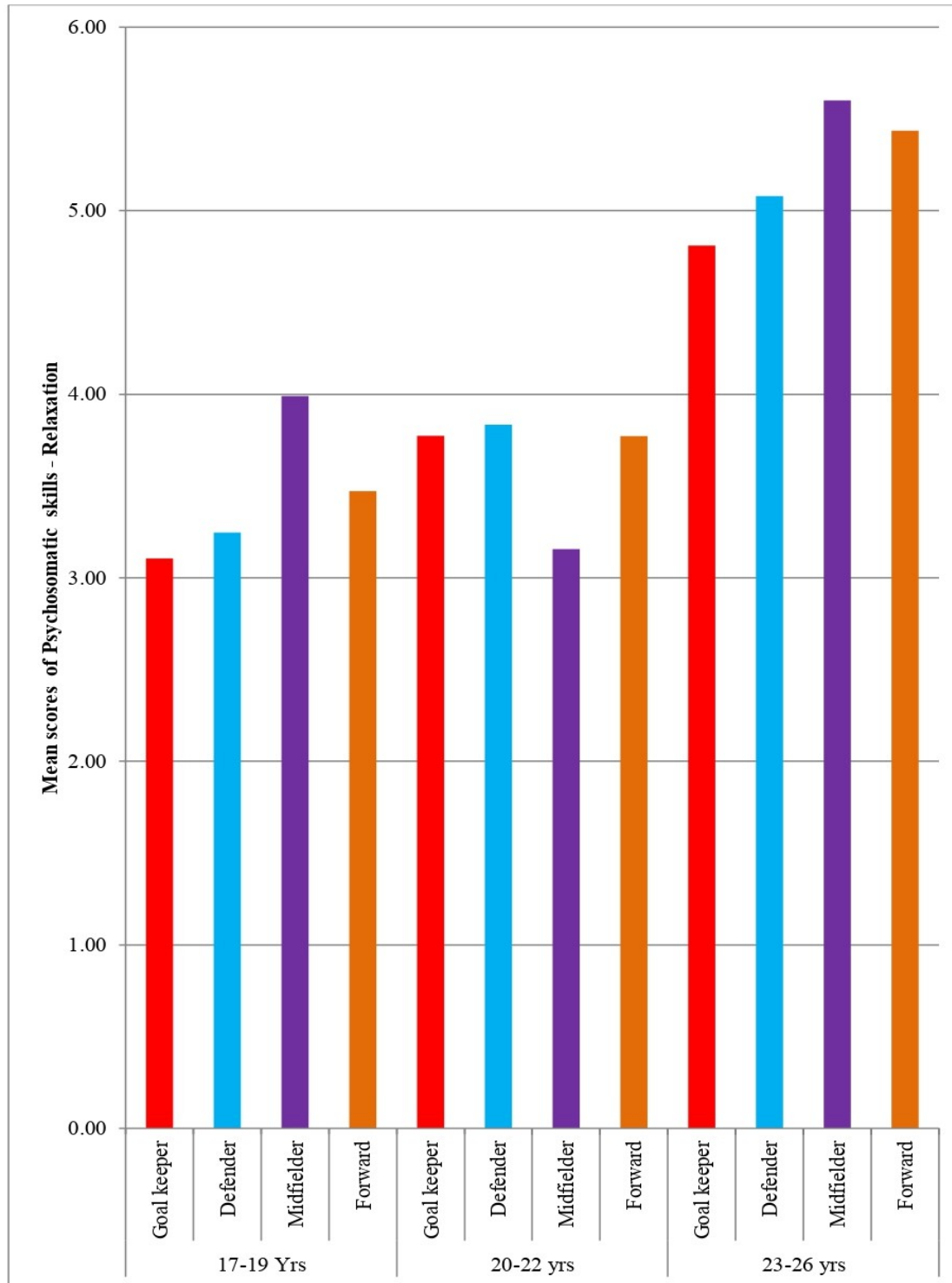


Fig-3: Mean scores of Inter-University level soccer players of different age groups on Relaxation

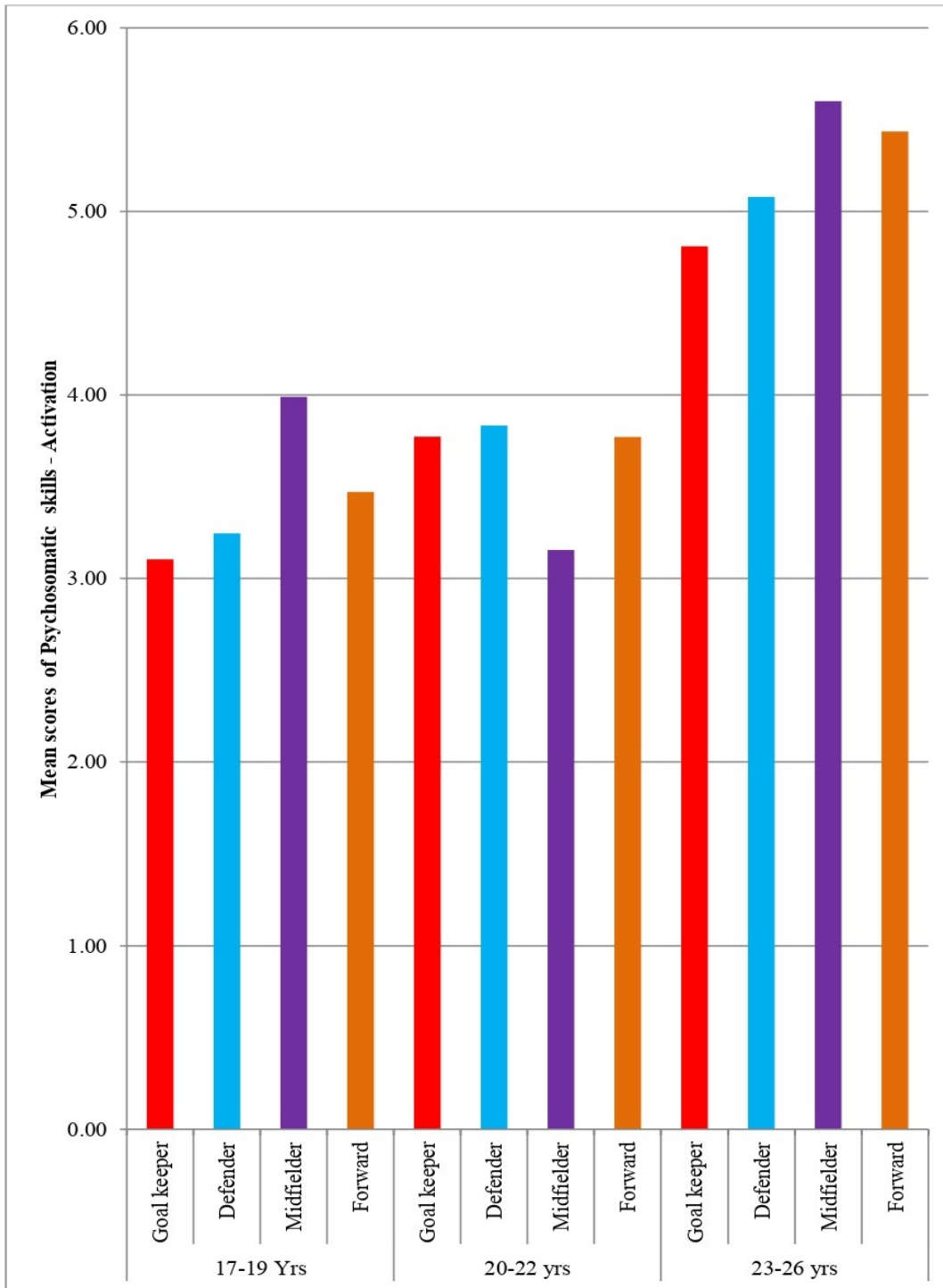


Fig-4: Mean scores of Inter-University level soccer players of different age groups on Activation

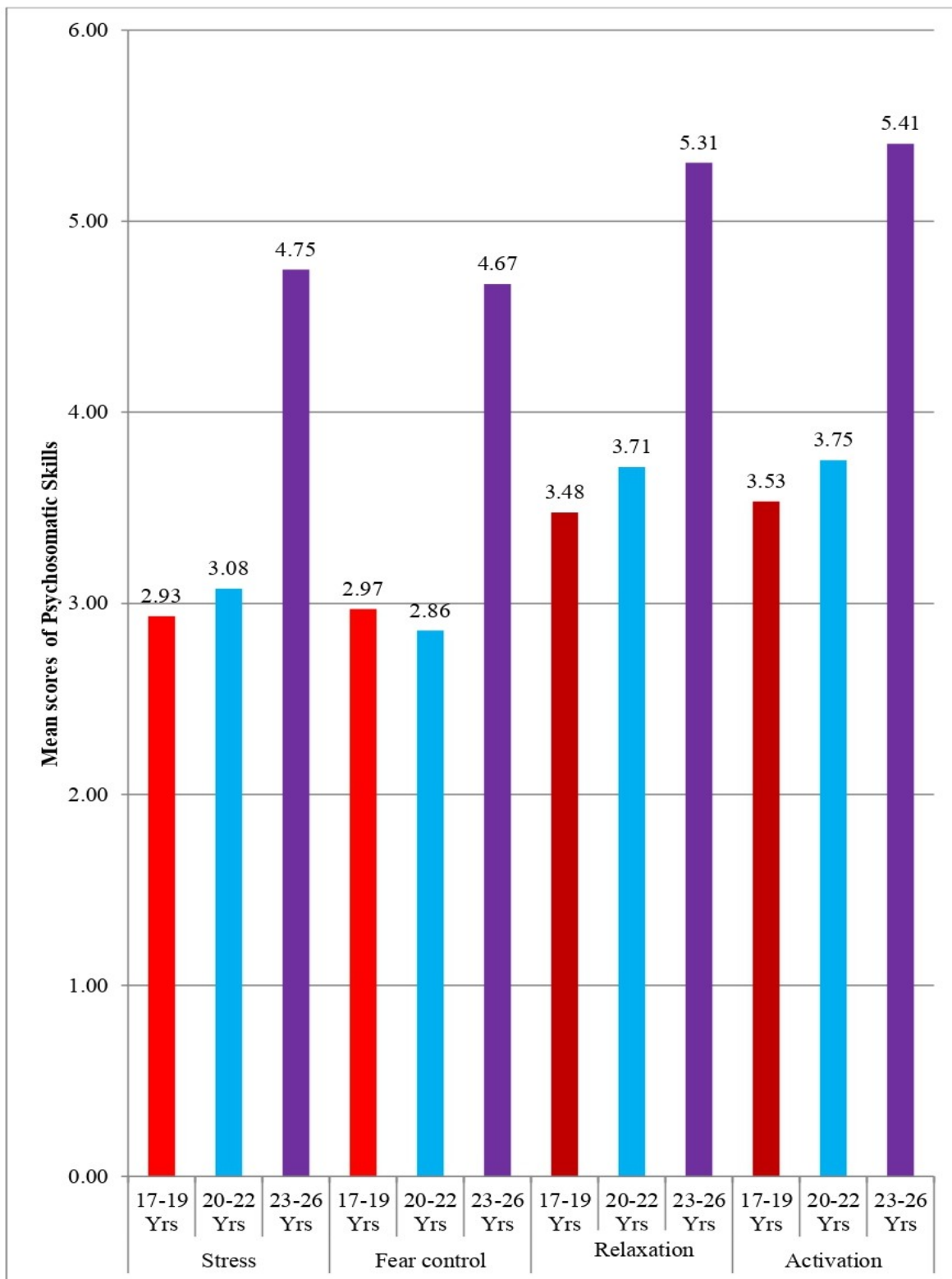


Fig – 5: Age group and sub factor wise total mean scores of psychosomatic skills

TABLE - 2
UNIVARIATE ANALYSIS OF VARIANCE OF MAIN EFFECT OF AGE GROUPS ON
DIFFERENT PSYCHOSOMATIC SKILLS OF INDIAN
INTER-UNIVERSITY LEVEL MALE SOCCER PLAYERS

DV	Source of Variance	Sum of Squares	df	Mean Square	F-ratio
Stress	Treatment	102.070	2	51.035	71.141*
	Error	118.367	165	0.717	
Fear Control	Treatment	108.246	2	54.123	59.991*
	Error	148.855	165	0.902	
Relaxation	Treatment	97.884	2	48.942	59.140*
	Error	136.548	165	0.828	
Activation	Treatment	104.103	2	52.051	77.12*
	Error	111.364	165	0.675	

*Significant at .05 Level

$F_{.05}(2,156)=3.04$

It is quite obvious from table-5 that there were significant differences at .05 level on different Psychosomatic skills among Inter - University level male Soccer players of different age groups. As the obtained 'F' values of 51.04; 54.12; 59.14 and 77.12 for stress, fear control, relaxation and activation respectively were much higher than the $F_{.05}(2,168)=3.04$.

To find out the significance of difference between ordered paired means on Psychosomatic skills of Indian Inter University level male Soccer players of different age groups; Scheffe's post hoc test was used.

TABLE - 3
POST HOC ANALYSIS OF SIGNIFICANCE OF DIFFERENCE BETWEEN ORDERED
PAIRED MEANS OF DIFFERENT PSYCHOSOMATIC SKILLS F INDIAN INTER
UNIVERSITY EVEL ALE SOCCER LAYERS F DIFFERENT AGE GROUPS

Psychosomatic Skills	Age Groups			Mean Difference	C. I.
	17-19yrs	20-22yrs	23-26yrs		
Stress	2.9321	3.0767	-	0.1446	0.409
	2.9321	-	4.7467	1.8146*	0.442
	-	3.0767	4.7467	1.6700*	0.389
Fear control	2.97	2.8574	-	0.1126	0.449
	2.97	-	4.6708	1.7008*	0.499
	-	2.8574	4.6708	1.8134*	0.435
Relaxation	3.4752	3.7129	-	0.2377	0.435
	3.4752	-	5.306	1.8308*	0.474
	-	3.7129	5.306	1.5931*	0.412
Activation	3.5333	3.7487	-	0.2154	0.390
	3.5333	-	5.4052	1.8719*	0.437
	-	3.7487	5.4052	1.6565*	0.375

* Significant at .05 level

The data in table – 3 indicate significant mean differences on stress 1.81 (between 17-19 yrs and 23-26 yrs) and 1.67 (between 20-22 yrs and 23.26 yrs) age groups, as they are much higher than the obtained CI of 0.442 and 0.389 respectively.

Data on fear control indicate statistically significant mean difference between 17 yrs -19 yrs and 23 yrs – 26 yrs age groups (1.70) ; and between 20 yrs – 22 yrs and 23 yrs – 26 yrs (1.81) age groups, as the mean difference between these groups were much higher than the obtained CI of 0.499 and 0.435 respectively

In case of players ability to relax, the differences between 17- yrs -19 yrs and 23 yrs – 26 yrs (1.87) and between 20 yrs-22 yrs and 23 yrs -26 yrs (1.59) were significant. As these mean differences were higher than the required CI of 0.427 and 0.375 respectively. The data on activation level also indicate significant difference between 17- yrs -19 yrs and 23 yrs – 26 yrs(1.87); and between 20 yrs-22 yrs and 23 yrs -26 yrs (1.66) age groups. As these mean difference were higher than the obtained CI of 0.427 and 0.375 respectively

4. DISCUSSION

The psychosomatic skills of stress, fear control, relax and activation was higher in lower age groups. In case of stress and fear control the lower age group players seems to be unaffected during competition, they are able to relax easily in comparison to the higher age groups during competition and able to activate themselves as per the demand of ongoing competition.

The MANOVA indicated insignificant mean differences among Inter-university level male Soccer players playing on different position i.e. forward, goal keeper, midfielder or defender, where as the age based differences on different mental attributes were found statistically significant.

Age based Univariate analysis and follow up post-hoc test indicated significant differences on different psychosomatic skills of Inter-university level male Soccer players of different age groups.

In case of foundation skills and cognitive skills higher age group soccer players were better, whereas the lower age group players were better on psychosomatic skills.

The hypothesis that Psychosomatic skills (Stress, Fear Control, Relaxation and Activation) of Inter-university level soccer players will differ significantly on the basis of age and playing positions was partially accepted and partially rejected as the players of different playing positions did not differ significantly on different psychocomatic skills skills but the age group based differences were statistically significant.

5. CONCLUSION

The Psychosomatic skill of stress, fear control, relaxation and activation was higher in lower age groups. In case of stress, fear control the lower age group players seems to be unaffected during competition, they are able relax easily in comparison to the higher age groups during competition and able to activate themselves as per the demand of ongoing comparison.

Recommendation

- Results of the study indicated need of training of players in difference mental attributes at an early stage or age0 .
- The players with better level in these qualities has acquired these qualities through playing or life experience 23 yrs to 26 yrs which is quite late. Thus the cause of difference should be investigated.

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