Effect of Psychological Skills of University Level Male Volleyball Players of Various Universities in Kerala

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Abstract

The purpose of the study was to analyse the level of psychological skills among inter colligate male volleyball player from four universities of Kerala state. Age of selected students ranged from 18 to 25. Athletic Copying Skills Inventory was used for the study (ACSI-28 of Smith et al. 1995) The two way ANOVAs and LSD post hoc analysis used to find significant difference between groups and independent variables (confidence, achievement and motivation, coachabilty goal setting, concentration, copying with adversity, Peeking under pressure, freedom from worry). The results of the study clearly show that the different universities are different in developing the psychological skills of players.

KEYWORDS: psychological skills, volleyball players, gender, universities and Kerala

INTRODUCTION

Researchers found that athletes with high levels of psychological skills performed more consistently than athletes with low levels of psychological skills (Nideffer et. al., 2001). This could be explained by the fact that higher levels of psychological skills have been shown to have a positive correlation with better execution of general motor and cognitive tasks (Hird, Landers, Thomas & Horan, 1991), especially when athletes are fatigued and under physical stress (Booras, 2001). In accordance with these findings, research by Feltz and Landers (1983), as well as Greenspan and Feltz (1989), has confirmed that subjecting athletes to the approaches inherent in various thought processes has a beneficial impact on motor skill performance. The question arises whether a specific selection of psychological skills exists that would facilitate exceptional sports performance when developed optimally Morris (2000) states that elite athletes must constantly be under a high level of pressure, and it is therefore not surprising that psychological characteristics often distinguish successful elite athletes from those less successful ones. Because of this, it is obvious that volleyball success does not depend purely on corresponding anthropometric characteristics, motor and functional abilities, and technical and tactical knowledge, but also on psychological skills. Indeed, Mac Namara, Button &Collins (2010) determined that psychological factors play a key role in the development of an athlete's talent and the achievement of top sports results.

The purpose of the study was to evaluate psychological skills of male intercollegiate volleyball players belonging four leading Universities in Kerala. The result of the study can contribute towards strengthening an awareness of the importance psychological constructs and their application at all levels of the game. It was hypothesized that there would be differences between universities on the basis of performance in psychological tributes of players.

Materials and Methods

The participants in the study were 178 male volleyball players of Kerala University, MG University, Calicut University and Kannur University, who secured first, second, third and fourth position in their respective inter collegiate competitions. The details of the subjects of the study were presented on Table 1:

Table 1: Details of female participants in the study

Group	University	N
1	Kerala University	48
2	M G University	48
3	Calicut University	46
4	Kannur University	36
	Total	178

Instrumentation

The ACSI-28 of Smith *et al.* (1995) was employed to assess the psychological skills of the participants. The ACSI-28 is a popular multidimensional assessment that provides a trait-like measure of psychological skills. It consists of seven sport-specific subscales, i.e., coping with adversity, peaking under pressure, goal setting/mental preparation, concentration, freedom from worry, confidence, achievement motivation, and coachabilty. Four items contributed to each subscale and the items were measured on a four-point Likert-type scale ranging from "almost never" [0] to "almost always" [3]. Each of the seven subscales scores can range from 0 to 12, and summed and averaged to provide a total personal coping resource score, which is assumed to reflect a multi-faceted psychological skill construct indicating an athlete's overall coping ability. A goodness of fit psychometric analysis has been done on the ACSI-28 to assess its reliability and validity. Specifically, the test-retest reliability (over a period of one week for a group of 1000 high-level athletes) ranged from 0.47 (coachabilty) to 0.87 (peaking under pressure), and five of the seven subscales had coefficients above 0.70. Internal consistency statistics (Cronbach alpha) ranged from 0.62 (concentration) to 0.78 (peaking under pressure), indicating adequate reliability (Smith *et al.*, 1995). Initial validity testing indicated that the respective subscales correlated well with existing sport-psychological questionnaires (Smith *et al.*, 1995).

Data Collection

The measurement was conducted over a 1 month of period in 2015 November. The samples were taken from the intercollegiate male volleyball players of Kerala state who participated in university level competition during 2014-2015 academic years. Participants are as lead to respond to sports mental toughness questionnaire (SMTQ)14 items questions and it was a score on calculating total score of variables (confidence, achievement and motivation, coachabilty goalsetting, concentration, Copying With Adversity, Perking Under Pressure, Freedom From Worry) Participants were given assurances of confidentiality and each provided written consent prior to completing the questionnaires. Most questionnaires were completed following training sessions

Data Analysis

The Volleyball players belong to different colleges of four universities in the state of Kerala (Kerala University, M.G University, Calicut University and Kannur University). The univariate analysis of variance (ANOVA) was computed to assess difference on mean scores on mental toughness. The data were analyzed by using SPESS version 20.0 (SPSS inc. Chicago, IL) Schaffe post hoc analysis was performed when satisfied significance (p<.05) was obtained to identify pair wise differences.

Results And Discussion

Table 2: Confidence, achievement and motivation, coach ability, Goal setting, concentration, copying with adversity, peeking under pressure, freedom from worry

Variable	Kerala (N=48)	MG (N=48)	Calicut (N=46)	Kannur (N=36)
Confidence, Achievement And Motivation	12.54	11.69	11.94	11.94
Coach Ability	12.98	11.69	11.74	12.8
Goal Setting	12.98	13.02	12.37	12.87
Concentration	13.65	12.35	12.15	12.44
Copying With Adversity	12.25	11.77	11.52	10.78
Peeking Under Pressure	12.35	11.48	10.89	1.83
Freedom From Worry	9.58	9.06	9.80	9.89

Psychological skill variable of Confidence, achievement and motivation of Kerala University players mean was 12.54 with standard deviation of 2.221., MG University players mean was 11.69 with standard deviation of 2.380., Calicut University players mean was 11.59 with standard deviation of 2.227 and Kannur University players mean was 11.94 with standard deviation of 2.083.

Psychological skill variable of coach ability of Kerala University players mean was 12.98 with standard deviation of 1.804., MG University players mean was 11.69 with standard deviation of 2.407., Calicut University players mean was 11.74 with standard deviation of 2.070 and Kannur University players mean was 12.08 with standard deviation of 1.697.

Psychological skill variable of goal setting of Kerala University players mean was 12.98 with standard deviation of 2.236., MG University players mean was 13.02 with standard deviation of 2.068., Calicut University players mean was 12.37 with standard deviation of 2.069 and Kannur University players mean was 12.81 with standard deviation of 2.278.

Psychological skill variable of concentration of Kerala University players mean was 13.65 with standard deviation of 1.707., MG University players mean was 12.35 with standard deviation of 2.410., Calicut University players mean was 12.15 with standard deviation of 2.118 and Kannur University players mean was 12.44 with standard deviation of 2.035.

Psychological skill variable of copying with adversity of Kerala University players mean was 12.25 with standard deviation of 2.099., MG University players mean was 11.77 with standard deviation of 2.815., Calicut University players mean was 11.52 with standard deviation of 2.218 and Kannur University players mean was 10.78 with standard deviation of 2.269.

Psychological skill variable of peeking under pressure of Kerala University players mean was 12.35 with standard deviation of 2.236., MG University players mean was 11.48 with standard deviation of 2.881., Calicut University players mean was 10.89 with standard deviation of 2.243 and Kannur University players mean was 10.83 with standard deviation of 2.197.

Psychological skill variable of freedom from worry of Kerala University players mean was 9.58 with standard deviation of 3.002., MG University players mean was 9.06 with standard deviation of 3.118., Calicut University players mean was 9.80 with standard deviation of 2.993 and Kannur University players mean was 9.89 with standard deviation of 3.115s.

The results of the study clearly indicate that Kerala University having higher mean score on all the selected dependent variable followed by MG University and Calicut University. In total lowest score was attained by Kannur University but their mean score on dependent variable group interaction social was higher than the MG university male volleyball players. Graphical representations of the mean scores are given in Fig 1.
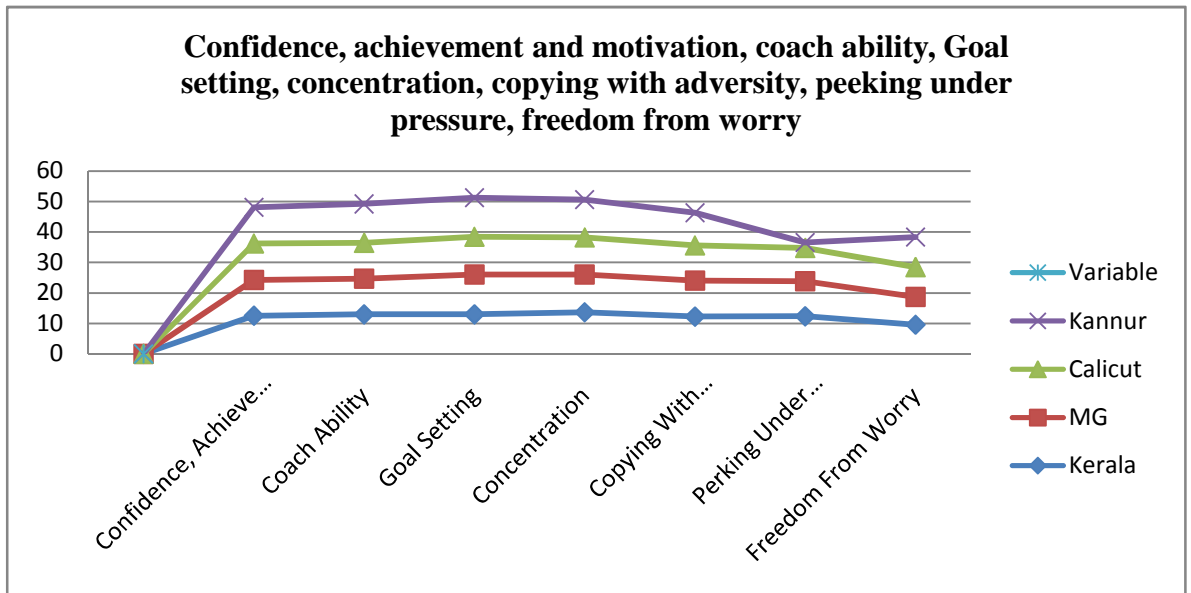

Fig 1: Mean scores of psychological skill variables of different Universities

Table 3: ANOVA between subject effects

Source	Type III sum of squares	df	Mean	F	Sig
Confidence, Achievement and Motivation	26.168	3	8.723	1.738	.161
Coach Ability	51.117	3	17.039	4.124	.007
Goal Setting	12.404	3	4.135	.888	.449
Concentration	64.662	3	21.554	4.956	.003
Copying With Adversity	46.084	3	15.361	2.724	.046
Peeking Under Pressure	67.276	3	22.425	3.824	.011
Freedom From Worry	18.546	3	6.182	.663	.576

The results of ANOVA reveals that there was a significant differences between Universities on psychological skill variable coach ability [F (3.154) = 4.124, p=.007], concentration [F (3.154) = 4.956, p=.003] and peeking under pressure [F (3.154) = 4.956, p=.011]. No significant differences were found between other dependent variables.

Table 4: Post-hoc test on significant Dependent Variables

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.
Coachabilty	Kerala (M=19.56)	M.G	1.292[*]	.415	.002
		Calicut	1.240[*]	.419	.004
		Kannur	.896[*]	.448	.047
	M.G (M=17.58)	Kerala	-1.292[*]	.415	.002
		Calicut	-.052	.419	.902
		Kannur	-.396	.448	.378

	Calicut (M=18.13)	Kerala	-1.240[*]	.419	.004
		M.G	.052	.419	.902
		Kannur	-.344	.452	.448
	Kannur (M=17.06)	Kerala	-.896[*]	.448	.047
		M.G	.396	.448	.378
		Calicut	.344	.452	.448
Concentration	Kerala (M=10.12)	M.G	1.292[*]	.426	.003
		Calicut	1.494[*]	.430	.001
		Kannur	1.201[*]	.460	.010
	M.G (M=12.53)	Kerala	-1.292[*]	.426	.003
		Calicut	.202	.430	.639
		Kannur	-.090	.460	.845
	Calicut (M=12.3)	Kerala	-1.494[*]	.430	.001
		M.G	-.202	.430	.639
		Kannur	-.292	.464	.530
	Kannur (M=11.46)	Kerala	-1.201[*]	.460	.010
		M.G	.090	.460	.845
		Calicut	.292	.464	.530
Peeking under pressure	Kerala (M=10.12)	M.G	.875	.494	.078
		Calicut	1.463[*]	.500	.004
		Kannur	1.521[*]	.534	.005
	M.G (M=12.53)	Kerala	-.875	.494	.078
		Calicut	.588	.500	.241
		Kannur	.646	.534	.228
	Calicut (M=12.3)	Kerala	-1.463[*]	.500	.004
		M.G	-.588	.500	.241
		Kannur	.058	.539	.914
	Kannur (M=11.46)	Kerala	-1.521[*]	.534	.005
		M.G	-.646	.534	.228
		Calicut	-.058	.539	.914

The table 4 shows that there is significant difference between coach ability variable Kerala University and MG University (MD = 1.292), Kerala University and Calicut University (MD = 1.240), Kerala University and Kannur University (MD = .896). No significant difference between MG University and Calicut University, MG University and Kannur University and Calicut University and Kannur University.

There is a significant difference between variable concentration Kerala University and MG University (MD = 1.292), Kerala University and Calicut University (MD = 1.494) and Kerala University and Kannur University (MD = 1.201). No significant difference found between MG University and Calicut University, MG University and Kannur University and Calicut University and Kannur University.

There is a significant difference between variable peeking under pressure Kerala University and Calicut University (MD = 1.463) and Kerala University and Kannur University (MD = 1.521). No significant difference found between Kerala University and MG University MG University and Calicut University, MG University and Kannur University and Calicut University and Kannur University.

CONCLUSION

Volleyball teams evolution and score dynamics in international competitions (Olympic Sports, World Championships) showed that psychological skills are related to volleyball players. Psychological skills are decisive in winning matches. In most statements the volleyball coaches and players gave at the end of thecompetitions, often the following psychological aspects occur as defining in winning matches: combativeness, aggressive, lucidity, self-confidence, players fail to maintain concentration throughout the match, players have the ability to overcome difficult moments and return to the game, players can remain calm and play a pragmatic and precise game. The results of this study showed that there were significant differences among different Universities of Kerala on psychological skills, coachability, concentration, and peeking under pressure. In order to test which of the University volleyball players is better than the other ones, post hoc analysis was made and the Kerala University was significantly better than MG University, Calicut University and Kannur University volleyball players on psychological skills, coachability. Calicut University was significantly better than Kerala University, MG University & Kannur University on psychological skills concentration. Kannur University was significantly better than Kerala University, MG University & Calicut University on psychological skill peeking under pressure. As for psychological variable concentration Kerala University was found to be significantly better than Calicut University volleyball players.

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