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Ahammed Jaseer M
Physical Education Teacher,
Gems Westminster School
Sharjah, United Arab Emirates

Muhamed Ameen V
Assistant Professor (C),
Department of Physical
Education, KCAET, Tavanur,
Kerala, India

Muhammed Jamshad KC
Assistant Professor, Dept. of
Physical Education, Government
College, Mananthavady, Kerala,
India

Analysis of mental skills among university level cricket players

Ahammed Jaseer M, Muhamed Ameen V and Muhammed Jamshad KC

Abstract
The purpose of the study was to analyse the difference on psychological variables among the university level cricket players. For this purpose sixty (60) University level cricket players were selected from 4 universities in Kerala, fifteen (15) subjects in each Universities. Their age ranged between 18 to 25. Mental skills and their sub-domains of imaginary ability, mental preparation, self-confidence, anxiety and worry management, concentration ability, relaxation ability and motivation are selected as the variables of this study. Bull, Albison and sham book-1996 (Mental Skills Questionnaire) and Personal data sheet were used as a tool for the study. For measuring mental skill, descriptive statistics such as mean, standard deviation, skewness and kurtosis, were used, and the level of significant was fixed 0.05. The collected data were analysed by using analysing variance (ANOVA) test. The finding of the study reviles that, there is a slight statistical difference and there is a significant difference in study on mental skill among university level cricket players of Kerala. Finally concluded that there is significant difference in the score of mental skill among university level cricket players of Kerala, significant difference between Kannur and M.G Universities, and Kannur and Kerala universities in Imagery ability, and There is no significant difference between universities in mental preparation, self-confidence, anxiety, concentration abilities, relaxation abilities and motivation among the university players.

Keywords: Mental skills, cricket and psychological skill

Introduction

Sports is an activity governed by a set of rules or customs and often engaged in competitively. Sports commonly refers to activities where in the physical capabilities of the competitor are the sole or primary determiner of the outcome, winning or losing but the term is also used to include activities. Sports and games are very important for us. This keep as healthy and fit. They offer us a change from the monotony of daily life. It is useful means of entertainment and physical activity.

Sports and game are means of mental and physical growth. During sports we come to learn many things. We learn how to maintain mental balance in the midst of hopes and despair. They make us learn how to tackle the difficult situation. Sports develop a sense of friendliness. They develop in as team spirit.

Psychology

Psychology is defined as "the Science of Behaviour and Cognitive Process". In other words 'Psychologists' are concerned Introduction with obtaining scientific information on everything we think, and that we do. They examine observable behaviour, cognitive process, physiological events, social and cultural influences and largely hidden unconscious process.

Psychology is an extremely exciting and challenging field of knowledge. It continues to go in an accelerating phase each year and it continues to provide answers to basic questions about the human condition. Psychology has enormous potential. Crider (1981) feels that Psychology offers hope of both understanding and improving our lives, our community and planet. Modern psychology in contrast with its early status is objective rather than subjective; experimental rather than speculative science.

Sports Psychology

Sport psychology is a proficiency that uses psychological knowledge and skills to address

Correspondence
Ahammed Jaseer M
Physical Education Teacher,
Gems Westminster School
Sharjah, United Arab Emirates

optimal performance and well-being of athletes, developmental and social aspects of sports participation, and systemic issues associated with sports settings and organizations. Sports psychology in many ways is a fortunate scientific field of inquiry.

The view of sports psychology, as a sub-discipline, within the field of sports and exercise sciences is commonly from Scientists in Physical Education. Horn (1992) reiterates that the academic discipline of Physical Education consists of the study of certain aspects of such fields like Psychology, Physiology and Anatomy.

Mental Skills

Mental skills are also called psychological skills they refer to an athlete's cognitive abilities of efforts used during participation in sport for the purpose of increasing inner satisfaction and enhanced physical performance standards. Like the physical skills involved in sport, mental skills such as maintaining and focussing of concentration, regulation of arousal, positive imagery and self-talk, anxiety and worry management.

Imagery ability

Imagery involves a recollection of information kept in one's memory and reconstructing them into meaningful images (Weinberg & Gould, 2011). These can be used to mentally prepare for future performances. They can also be used to acquire and mentally practise motor skills.

Mental preparation

Mental preparation is a very broad topic within the arena of sports psychology. The purpose of mental preparation is to create a mind-set that lets you consistently perform up to your capabilities and talents in competition.

Self confidence

Self-Confidence is used to describe our "belief in our own ability" (DeAngelis, 1995). Vealey and Knight (2002) believe that sport self-confidence is multidimensional. It encompasses confidence about one's ability to execute physical skills, confidence about one's ability to use psychological skills (e.g., imagery, self-talk), confidence to use perceptual skills (e.g., decision making, adaptability), confidence in one's level of physical fitness and training states, as well as confidence in one's learning potential or ability.

Anxiety and Worry Management

Anxiety is an emotion characterized by an unpleasant state of inner turmoil, often accompanied by nervous behaviour, such as pacing back and forth, somatic complaints, and rumination. It is the subjectively unpleasant feelings of dread over anticipated events, such as the feeling of imminent death. Anxiety is not the same as fear, which is a response to a real or perceived immediate threat, whereas anxiety is the expectation of future threat.

Concentration ability

Concentration is the ability to direct one's attention in accordance with one's will. It means control of the attention. It is the ability to focus the mind on one subject, object or thought and at the same time exclude from the mind every other unrelated thoughts, ideas, feelings and sensations.

Relaxation ability

Relaxation in psychology is the emotional state of a living being, of low tension, in which there is an absence of arousal that could come from sources such as anger, anxiety, or fear. According to the Oxford dictionary relaxation is when the body and mind is free from tension and anxiety.

Motivation

Motivation is what drives behaviour and is very important for athlete's to reach an optimal level of performance. Motivation significantly impacts on an individual's approach to training sessions, games or events. Motivation can be positive or negative, and intrinsic or extrinsic.

Harris, DV and Harris, BL (1984) conducted a study, the purpose of which was to examine athlete''s mental skill use in practice and competition, their mental skills training experience, and their perceptions of success. The Test of Performance Strategies (TOPS) and a perception of success questionnaire were administered to 199 collegiate baseball and softball players.

Methodology
Selection of subjects

For this purpose sixty (60) university level cricket players were selected from 4 universities in Kerala, fifteen (15) subjects in each Universities. Their age ranged between 18 to 25.

Selection of variables

Mental skills and their sub-domains of imaginary ability, mental preparation, self-confidence, anxiety and worry management, concentration ability, relaxation ability and motivation are selected as the variables.

Tools used

The selection of suitable instruments or tools is of vital importance for successful research. The tools that used for the study was.
1. Personal data sheet.
2. Mental Skills Questionnaire (Bull, Albison and sham book-1996).

Results and Discussion

For the purpose of measuring mental skill, descriptive statics such as mean, standard deviation, skewness and kurtosis, were done. The hypothesis was tested at significant level of 0.05 the data were analysed using analysis of variance (ANOVA) test.

Table 1: Descriptive Statistics on Imagery Ability among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	18.6000	20.6667	17.9333	17.4667
Std. Deviation	3.43927	2.55417	3.71227	3.18179
Skewness	-.288	-1.232	-.239	-.294
Kurtosis	-.058	2.272	-1.718	-.457
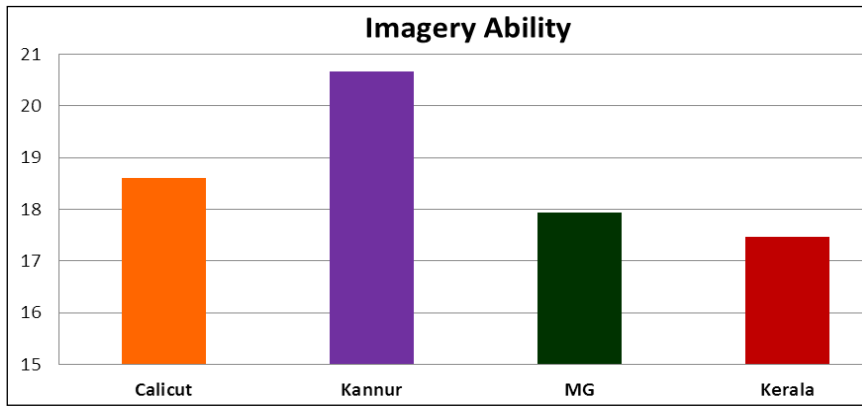
Fig 1: Bar Diagram Showing Means on Imagery Ability

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	89.733	3	29.911	2.831	.046
Within Groups	591.600	56	10.564		
Total	681.333	59			

The table shows the results of one way ANOVA for imagery ability. The F value is 2.831and p-value is 0.046. Since p-value is less than 0.05 there is significant difference between Universities in imagery ability.

Post Hoc Analysis

University (I)	University (J)	Mean Difference	Sig.
Calicut	Kannur	-2.0667	0.087
Calicut	M.G	0.6667	0.577
Calicut	Kerala	1.1333	0.344
Kannur	M.G	2.7333	0.025*
Kannur	Kerala	3.2000	0.009*
M.G	Kerala	0.4667	0.696

From the table it is seen that there are significant differences between Kannur and M.G universities and between Kannur and Kerala universities in imagery ability.

Table 2: Descriptive Statistics on Mental Preparation among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	18.6000	19.2667	19.4667	20.0000
Std. Deviation	3.58170	3.86313	2.92445	1.77281
Skewness	-1.011	-1.280	.079	.266
Kurtosis	.947	1.297	-1.706	-.476
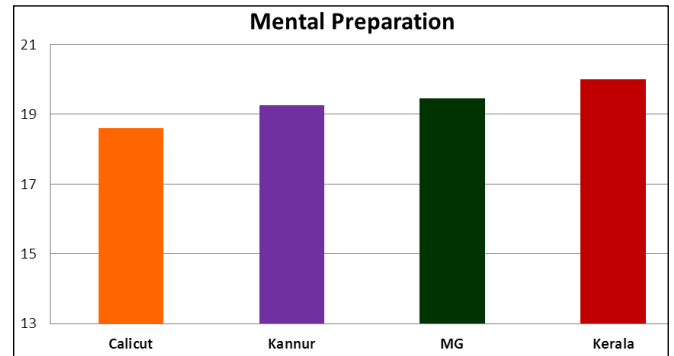
Fig 2: Bar Diagram Showing Means on Mental Preparation

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.067	3	5.022	.509	.678
Within Groups	552.267	56	9.862		
Total	567.333	59			

From the table it is seen F value is 0.509 and p-value is 0.678. Since p>0.05 there is no significant difference between Universities in mental preparation

Table 3: Descriptive Statistics on Self Confidence among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	16.4000	16.4000	16.4667	15.4667
Std. Deviation	4.99714	3.36933	3.52272	1.92230
Skewness	.610	-.525	.117	.894
Kurtosis	-1.263	-.911	-1.131	.761
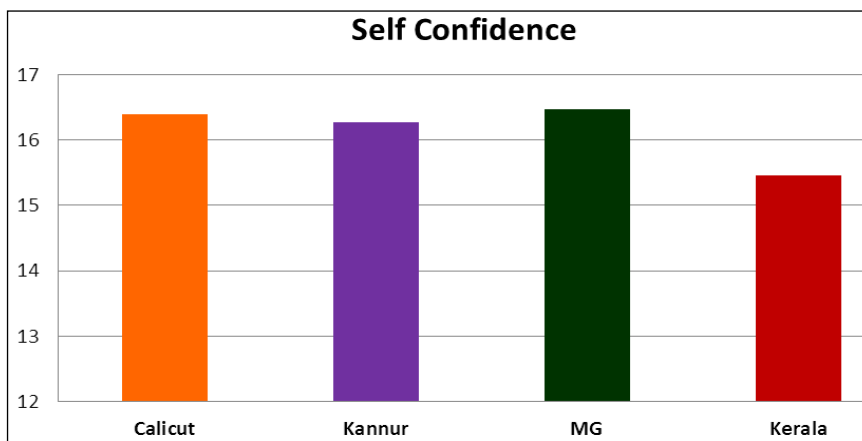
Fig 3: Bar Diagram Showing Means on Self Confidence

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9.650	3	3.217	.245	.864
Within Groups	734.000	56	13.107		
Total	743.650	59			

From the table it is seen that F value is 0.245 and p-value is 0.864. Since p>0.05 there is no significant difference between Universities in self-confidence.

Table 4: Descriptive Statistics on Anxiety and Worry Management among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	14.2667	13.0000	14.2000	12.8000
Std. Deviation	4.02611	3.33809	4.29618	3.70714
Skewness	.904	-.199	.185	-.196
Kurtosis	.137	-.859	-.550	-1.066
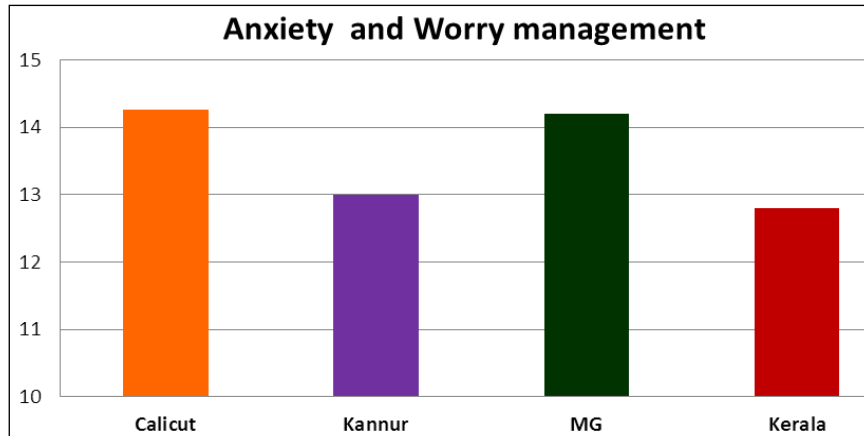
Fig 4: Bar Diagram Showing Means on Anxiety and Worry Management

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.000	3	9.000	.605	.615
Within Groups	833.733	56	14.888		
Total	860.733	59			

From the table it is seen that F value is 0.605 and p-value is 0.615. Since p >0.05 there is no significant difference between Universities in anxiety.

Table 5: Descriptive Statistics on Concentration Ability among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	17.2667	15.0000	16.9333	15.4667
Std. Deviation	4.28397	4.42396	4.63630	3.35659
Skewness	.304	-.171	-.333	.263
Kurtosis	-.901	-.158	-1.222	.879
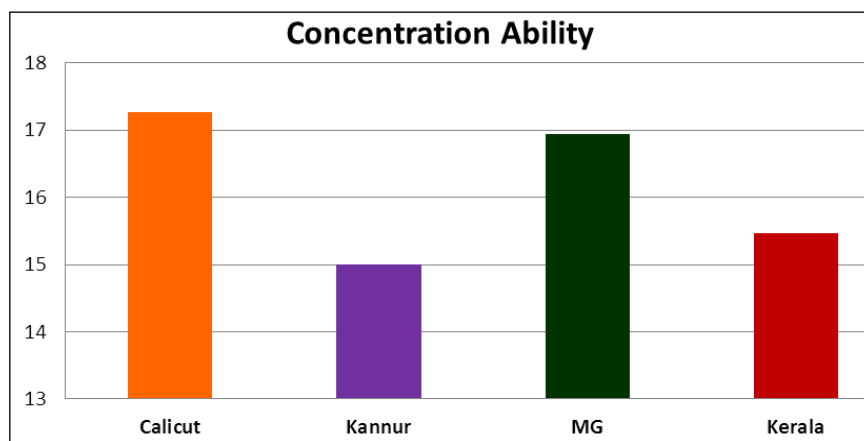
Fig 5: Bar Diagram Showing Means on Concentration Ability

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	54.733	3	18.244	1.032	.385
Within Groups	989.600	56	17.671		
Total	1044.333	59			

From the table it is seen that F value is 1.032 and p-value is 0.385. Since p >0.05 there is no significant difference between Universities in concentration abilities.

Table 6: Descriptive Statistics on Relaxation Ability among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	18.2667	17.0000	17.0000	17.2000
Std. Deviation	2.96327	4.39155	4.20883	2.78260
Skewness	.004	-.987	-.378	1.208
Kurtosis	-.078	.980	-.047	1.837
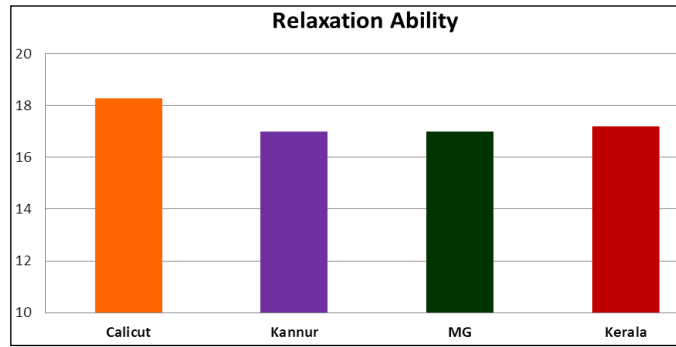
Fig 6: Bar Diagram Showing Means on Relaxation Ability

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.600	3	5.533	.414	.744
Within Groups	749.333	56	13.381		
Total	765.933	59			

From the table it is seen that F value is 0.414 and p-value is 0.744. Since p >0.05 there is no significant difference between Universities in relaxation abilities.

Table 7: Descriptive Statistics on Motivation among University Cricket Players

	Calicut University	Kannur University	MG University	Kerala University
Mean	19.1333	17.6000	17.7333	19.4000
Std. Deviation	3.54293	4.91063	5.32470	3.60159
Skewness	-.527	-.644	-.150	-1.011
Kurtosis	.480	-.729	-1.596	-.186
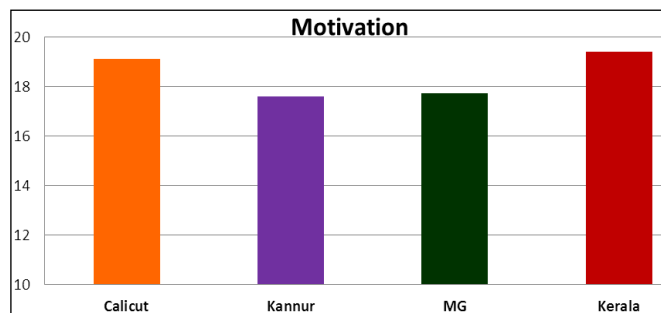
Fig 7: Bar Diagr Am Showing Means on Motivation

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39.067	3	13.022	.668	.575
Within Groups	1091.867	56	19.498		
Total	1130.933	59			

From the table it is seen that F value is 0.668 and p-value is 0.575. Since p >0.05 there is no significant difference between Universities in motivation.

Discussion on Findings

The study shows that there is differences of four universities of Kerala (Calicut University, Kannur University, MG University and Kerala University) significant difference in mean was found among mental skill and seven variables. Based on the result of the study. It was found that there is a slight statistical difference and there is a significant difference in study on mental skill among university level cricket players of Kerala.

Conclusion

1. There is significant difference in the score of mental skill among university level cricket players of Kerala.
2. There are significant difference between Kannur and M.G Universities and between Kannur and Kerala universities in Imagery ability.
3. There is no significant difference between universities in mental preparation, self-confidence, anxiety, concentration abilities, relaxation abilities and motivation among the university players.

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