Comparison of Mental Skills between Elite and Non Elite Male Athletes of Kerala

[*]**Drbaby Shijansha KP**

Abstract

The purpose of the study was to analyze the mental skills of elite athletes from the state of Kerala.The samples comprised of One hundred and twenty (nm = 120) randomly selected. Sixty (n_m = 60)elite male and sixty (n_f = 60) elite female was selected from state of Kerala. Their age ranged from 18 years to 24 years. The following mental skills variables were examined for this study and are classified as follows; (1) Foundation skills – Goal Setting, Self Confidence and Commitments; (2) Psychological Traits - Stress Reaction, Fear Control, Relaxation and Energizing (Activation) and (3) Cognitive Skills – Imagery, Mental Practice, Focusing, Refocusing and Computation Planning measured by using Ottawa Mental Skills Assessment Tool (OMSAT-3): The OMSAT was developed and validated by Durand – Bush, N., Shamela,J.H., and Green – Demers, I. (2001) and Performance in those respective sport (Subjective judgment by five experts). Descriptive statistics, independent t test, one way ANOVA were used for comparison. Pearson's Product moment correlation was used to correlate the mental skills in relation to the performance of athletes of Kerala. The calculated numerical results were interpreted meaningfully. In all cases, the criterion for statistical significance was set at 0.05 level of confidence ($P < 0.05$). The findings of the study are, On the basis of the findings of the study, the following conclusions were drawn; In this study, many of the mental skills variables were examine and found that female athletes were more dominant than the male player. On analysis of mental skill variables among male athletes from different types of sports disciplines it was found that individual, team and racket game male athletes were dominating in most of the variables and combative players were dominating in a very few of the them. Out of twelve sub variables of mental skills all the male athletes were similar in nature. Among female athletes, none of the variables of mental skills were found similar between each group. Individual, team and racket game players were dominating in most of the variables and in a very few variables combative game players dominated. The study revealed that most of the variables of mental skills were similar in nature among elite athletes from different types of sports disciplines. After the study the research scholar concluded that, the conditions and reasons of the findings of this study might be as follows; in the state of Kerala, more numbers of female athletes participated in the international and national level championship and secured individual achievements comparing the Kerala male athletes. In the selected subjects, most of the combative game players secured positions and participated in the south zone national championships. In the case of racket game players, the selected subjects were high of socio economic status than the rest of the other sports disciplines.

[*]Assistant Professor, Department of Physical Education, Sir Syed College, Taliparamba, Kannur 670142, Kerala India, Mobile: 9061585858, Email: shijanshah@gamil.com

Introduction

By analyzing the nature of sport we will be able to identify the times when mental skills are crucial. Depending on the nature of sports (whether it is individual sports or team sports) there will be different demands for sports. One common factor will be the time when they decide   to take break from their performance. This may be due to injuries

demand different mental skills from each individual due to the different demands of their specific role they require to perform within their team. For example needs of goal keeper will be different from those who take penalty corners. Likewise the required needs for the role that is responsible for restarting a particular phase (example hooker in rugby) will be different. It is the responsibility of coach to identify their needs through careful observations and assessment. This assessment usually done through mental skills profiling .This could be done through many ways and it is the duty of the coach to help the individual to be self-aware of the performance of the mental demands required of him or her.

Sport includes every type of competitive physical activity or games that, through casual or organized participation, aim to use, maintain or

or may be part of the game (time in between the game such as half time), individual breaks (consulting umpires, referees or breaks between execution of skills (example is trap shooting golf etc)(hodge   ,K,Slievert   G   and Mekenzie1996)

Unlike individual game sports team   sport   will improve physical ability and skills are also providing enjoyment to participants, and in some cases, entertainment for spectators. A lot of sports exist, from those between single contestants, through to those with a lot of simultaneous participants, either in groups or competing as individuals. In some sports like racing, several contestants could participate, simultaneously or consecutively, with one winner; in others, the competition (a match) is between two sides, everyone making an attempt to exceed the other. Some sports allow a tie game; others give tie-breaking strategies to confirm one winner and one loser. A lot of contests may be arrayed in a tournament producing a champion. Many sports leagues often created an annual champion by conducting games in a regular sports season, followed in some cases by playoffs. (Sport Accord, 2011).

Statement of the problem

The purpose of the study was to compare the mental skills of elite and non-elite male athletes from the state of Kerala.

Objectives of the study

1. To compare the foundation skills of mental skills between male elite and non-eliteathletes from the state of Kerala.
2. To compare the psychological traits mental skills of mental skills between male elite and non-eliteathletes from the state of Kerala.
3. To compare the cognitive skills mental skills of mental skills between male elite and non-eliteathletes from the state of Kerala.

Selection of Subjects

The samples comprised of two hundred and twenty (N = 120) randomly selected. Sixty (n_e= 60) elite male and sixty (n_{ne}= 60)non elite male athletes wereselected from state of Kerala. Their age ranged from 18 years to24years.Elite athletes in the sense, those who had participated or medal winner in the International and National level competition and, medal winners in the University level competitions.

Selection of Variables

The following mental skills variables were examined for this study and are classified as follows; (1) Foundation skills – Goal Setting, Self Confidence and Commitments; (2) Psychological Traits - Stress Reaction, Fear Control, Relaxation and Energizing (Activation) and (3) Cognitive Skills – Imagery, Mental Practice, Focusing, Refocusing and Computation Planning.

Selection of test item

For assessing Mental skills of elite athletes,**Ottawa Mental Skills Assessment Tool (OMSAT-3):**The OMSAT was developed and validated by **Durand – Bush, N., Shamela,J.H., and Green – Demers, I. (2001)**. The Ottawa Mental Skills Assessment Tool (OMSAT-3) is a comprehensive measure that can assesses 12 mental skills. These mental skills are grouped under three broader factors: foundation skills, psychosomatic skills and cognitive skills.

Statistical tools

Shapiro – Wilk test and Box Plot were used to determine the collected data was normally distributed or not. Then With the consultation of statistical expert we were chose appropriate statistics for comparing between elite and non-elite male athletes. The calculated numerical results were interpreted meaningfully. In all cases, the criterion for statistical

significance was set at 0.05 level of confidence (P < 0.05). All the data was analyze with the help of SPSS version 23.

Analysis

Shapiro – Wilk test and Box Plot were used to determine the collected data was normally distributed or not.

Table 1

Normality test of mental skills of elite athletes

	Gender	Shapiro-Wilk		
		Statistic	df	Sig.
Foundation Skills	Elite	0.91	60	0.00*
	Non Elite	0.97	60	0.11
Psychological Traits	Elite	0.98	60	0.32
	Non Elite	0.98	60	0.42
Cognitive Skills	Elite	0.98	60	0.56
	Non Elite	0.97	60	0.12

** Significant at the 0.05 level of confidence*

In the table indicated that, in the case of foundation skills, *p* value (0.00) of elite male was lesser than the chosen alpha level (0.05 level) whereas *p* value (0.11) of non-elite male was higher than the chosen alpha level (0.05 level), then the null hypothesis is rejected and there is evidence that the data tested are not normally distributed.

In the case of psychological traits and cognitive skills, *p* value (0.32 and 0.42 respectively) of elite and non-elite male athletes was higher than the chosen alpha level (0.05 levels), then the null hypothesis was accepted and there is evidence that the data tested are normally distributed.

In the case of Cognitive skills, *p* value (0.56 and 0.12 respectively) of elite and non-elite male athletes was higher than the chosen alpha level (0.05 levels), then the null hypothesis was accepted and there is evidence that the data tested are normally distributed.

Figure 1
Normality test of mental skills of
elite and non-elite male athletes
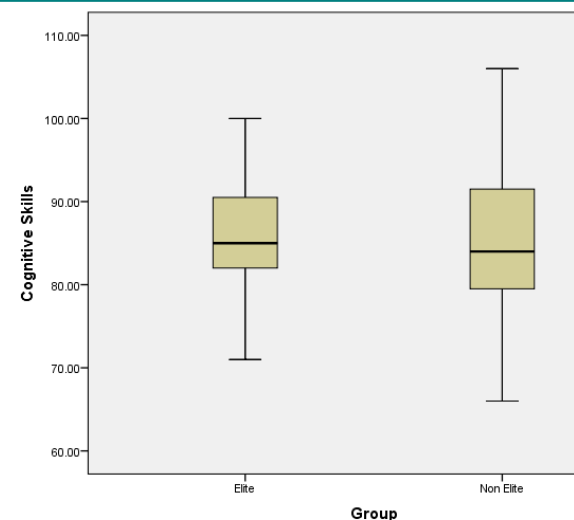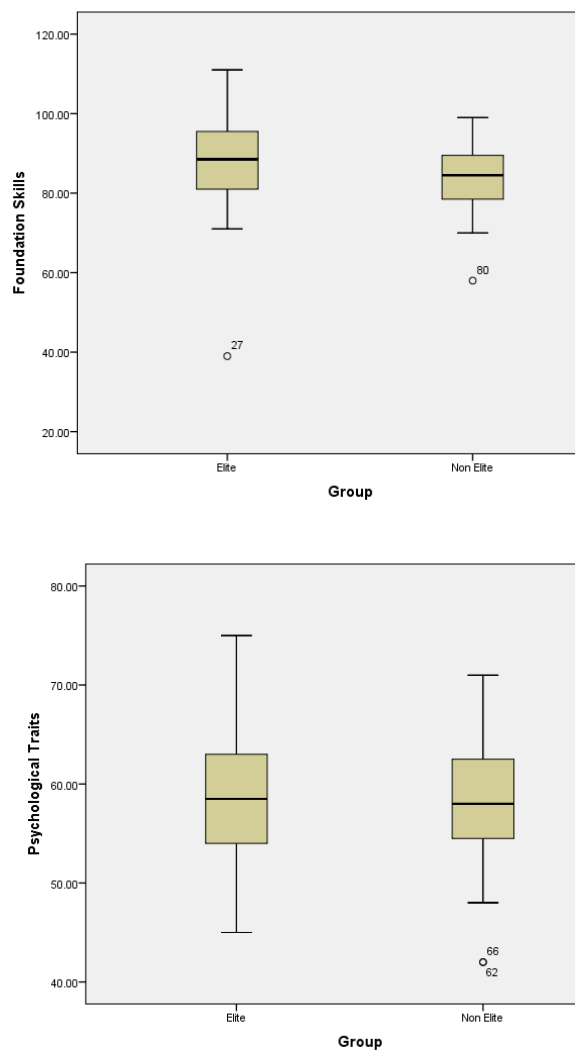
In these evident shows that, with the consultation of statistical expert, the data were not normally distributed in all the cases such as foundation skills, psychological traits and cognitive skills. In these cases for comparison between elite and non-elite male athletes Mann Whitney U test (Non parametric test)was used.

Table 3

Comparison of mental skills between elite and non-elite male athletes

	Gender	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Foundation Skills	Elite	60	68.65	4119.00	1311.00	3141.00	-2.57*	0.01
	Non Elite	60	52.35	3141.00				
	Total	120						

Psychological Traits	Elite	60	61.76	3705.50				
	Non Elite	60	59.24	3554.50	1724.50	3554.50	-0.40	0.69
	Total	120						
Cognitive Skill	Elite	60	61.92	3715.00				
	Non Elite	60	59.08	3545.00	1715.00	3545.00	-0.45	0.65
	Total	120						

* Significant at the 0.05 level of Significance

In this table showed that, foundation skills in the elite male athletes are statistically higher than the non-elite male athletes, since p value ($U = 1311$, $p = 0.01$) was lesser than the chosen alpha level (0.05 level).

In the case of psychological traits,in the elite and non-elite male athletes was not significant since p value ($U = 1724$, $p = 0.69$) was higher than the chosen alpha level (0.05 level). Thus it concluded that in the case of psychological traits were similar in nature.

It can also be concluded that cognitive skills in the elite and non-elite male athletes was not significant since p value ($U = 1715$, $p = 0.65$) was higher than the chosen alpha level (0.05 level).

Thus it concluded that in the case of cognitive skill were similar in nature.

Figure 2

Comparison of mental skills between elite and non-elite male athletes
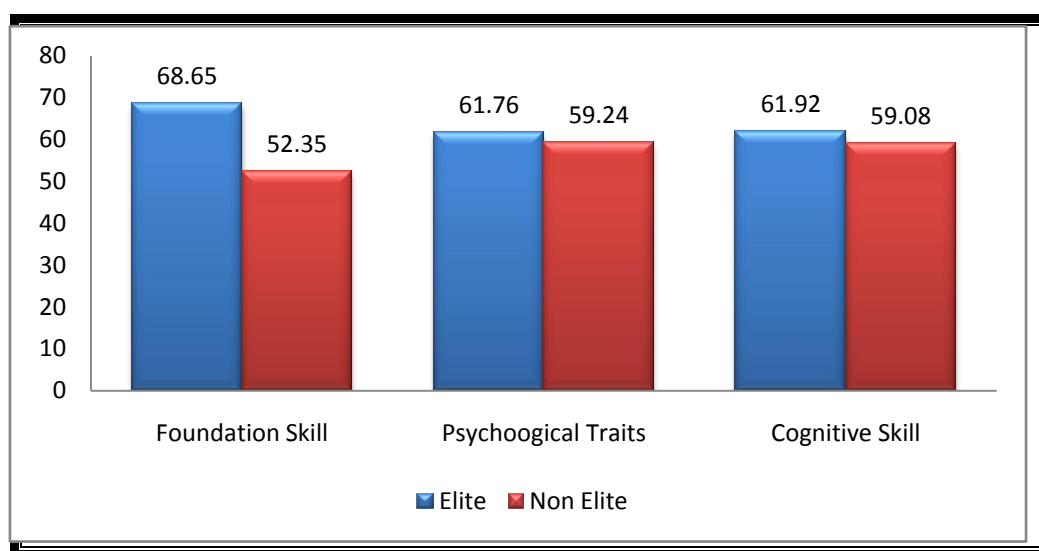
Findings

In this study, the research scholar tries to find out the comparison of mental skill of elite and non-elite male athletes of Kerala. The selected mental skill variables were considered for this study under the following classifications; Foundation Skills, Psycho-Somatic Skills and Cognitive Skill. These skills are related with cognitive processes such as learning, preparation, memory and thinking. After collecting data the scores obtained from standardized test of mental skill were statistically treated.One of the important aspects of sports and performance psychology is that mental skills are major determinants of performance involving cognitive (thinking) abilities which can be improved through mental skills training. The object of which is to provide a set of

psychological strategies for improving performance, while successfully recovering from sport injury, and also to help maintain a positive life-balance between sport and other aspects of life, including family.

In this study, foundation skills were examined and found thatelite male athletes were more dominant than the non-elitemale player. But in psychological traits and cognitive skills both elite and non-elite male athletes were similar in nature. After the study the research scholar concluded that, the conditions and reasons of the findings of this study might be as follows; in the state of Kerala, limited numbers of male athletes participated in the international and national level championship and secured individual achievements comparing the Kerala female athletes. The research scholar

categorized the total subjects in to elite male and non-elitemale athletes and scholar got only a limited number of international medalists. Most of the players participated in national and inter university level championship in their respective games.

Conclusions

Following conclusions are drawn on the basis of the findings of the study;

1. Significant differences were obtained in the foundation skillbetween elite and non-elite male athletes were dominated.

2. No significant differences were obtained in the following mental skill variables such as; psychological traitsand cognitive skill in the category wise comparison.

Recommendations

1. The findings of the present study can be used by the players for understanding elite and non-elite male athletes' mental skill level.

2. The findings of the present study can be used by coaches and trainers for assessing mental skill of their players

3. The study will further help to select the mode of motivation during the training, coaching and competition sessions

4. The selected mental skill variables will help to identify the talents, selection and team preparation to achieve top performance.

References

1. Durand-Bush, N. ; Salmela, J. H. ; Green-Demers, I., School of Human Kinetics, University of Ottawa, ON, K1N 6N5, Canada, Sport Psychologist 2001 Vol.15 No.1 pp.1-19 ref.53

2. Durand-Bush. N.. J.H. Salmela and I. Green-Demers. 2001. The Ottawa Mental Skills Assessment Tool (OMSAT-3 *). Sport Psychologist. 15(1): 1-19.