

# What Makes Elite Players Different: A study on Motivation and Psychological Skills of Wushu Players

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## ABSTRACT

*The present study is an attempt to understand what makes elite players different from the sub-elite players in terms of their sports motivation and the psychological performance. The sample consisted of 20 Elite and 45 Sub-Elite Wushu Players, within the age range of 16 to 24 years, residing in the Centre of Excellence (COE) and Special Area Games (SAG), SAI, NERC, Imphal, respectively. The Sports Motivation Scale (Luc G.Pelletiere/ al, 1995) and Psychological Performance Inventory (Loehr, 1986) were utilised for the purpose of the study. Pearson correlation and Independent t-tests were used for testing hypotheses. Significant difference were found in intrinsic motivation to accomplish ( $0.045 < .05$ ) and positive energy control ( $0.023 < .05$ ). Further positive correlation were found between sports motivation and psychological performance ( $r = 0.075$ ) though insignificant statistically.*

**Keys words:** Elite, Sub-Elite, Sports Motivation and Psychological Performance Skills.

## INTRODUCTION

It is well known that sports performance is a psychomotor performance; and it depends upon the quality of heart and head of the players. It is generally recognised that psychological factors play crucial role in high level of competition (M.A. Khan & M. Islary, 2016). Athletes, coaches and applied sports psychologist have consistently referred to mental toughness as one of the most important psychological characteristics related to outcomes and success in elite sports, although researchers have, until recently devoted little time to studying this concept (L. Crust, 2011). Earlier in 2007, V.D Heever et. al, clearly mentions that it is not possible to ignore

the role of mental skills to achieve maximum performance because the athletes nearly have the same physical abilities and have different mental skills. Moreover, Cox and Yoo (1995) indicated that success in professional sports not only depends on the physique of players and technical aspects but also on psychological skills. Jaswinder Kaur (2016), mentions that, irrespective of the kind of sport, an athlete's success or failure is dependent on a combination of physical and psychological abilities. Motivation and psychological skills has been widely studied in Sports Psychology. Performing at the elite level requires one to be highly hard working and obsessed with achieving success (K. E. Dahl, 2012). An Elite

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athlete is a rare combination of talent, hard work and the right psychological profile. The difference between the good and the elite is the mental qualities of the athletes ( K.Mouloud& B.A. El-Kaddar, 2016). Loehr (1982, 1986)also emphasised that athletes and coaches felt that atleast 50% of success is due to psychological factors that reflect mental toughness.

Taking various literatures in to account, the present study is an attempt to study the psychological components which make elite athletes different from the sub-elite Athletes. The present study emphasises on the sports motivation and psychological performance of the elite and sub elite Wushu players of Sports Authority of India, North East Regional Centre, Imphal. Wushu encompasses all types of Chinese martial arts. It began as an art of self defense to protect against wild animals and other humans. It was later used in combat, including war and then gradually maturing into a fully developed international sport (G. Kuan & J.Roy, 2007)

Motivation has been well defined as an internal energy that can determine aspects of our behaviour as it impacts our thinking, feeling and interacting with others. It can be defined as the driving force behind all the actions of the individual. The individual's needs and desires both have a strong impact on the direction of their behaviour. M. A. Khan and M.Islary (2016) used the concept of achievement motivation in

sports to explain how an athlete needs to constantly challenge themselves and how they thrive on accomplishing their goals and conquering things that are difficult. Motivation has also been explained through Self Determination Theory (Deci & Ryan, 2000). Self Determination Theory distinguishes among three types of behavioural regulation that are associated with varying degrees of self determined motivation. One form of motivation is intrinsic motivation that refers to those circumstances in which individual engage in activities that they find to be interesting and enjoyable and which provide the opportunity for learning. Second form of motivation is extrinsic motivation in which individuals engage in activity because they value to the associated outcomes. The third form of motivation is a motivation which constitutes a psychological state in which people lack either a sense of efficacy or a sense of control with respect to attaining a desired outcome.

On the other hand, psychological skills have been very well studied. Optimal performance of players depends on physical skills and mental fitness. Psychological skills or mental toughness has always been an area of study in sport psychology. A clear definition of mental toughness is still being researched. However, Jones, Hanton & Cannaughton (2002) have defined mental toughness as having natural or developed psychological

edge that enables generally, cope better than the opponents with the many demands (competition, training lifestyle) that sport places on a performer, especially, be more consistent and better than your opponent in remaining determined, focused, confident and in control under pressure. Many researches has identified 'mental toughness' as a crucial attribute to success in competitive sport and the development of sports performers (e.g., Durand-Bush & Salmela, 2002; Gould, Dieffenbach & Moffet, 2002). Moran (2004) mentions mental toughness as a synonym for determination or resilience. Mental toughness and its importance in competitive sports have been documented in literature. Gould et al, (2002) studied the psychological characteristics of Olympic champions and identified mental toughness as a significant contribution to sports performance enhancement.

The present study is an attempt to understand what makes elite players different from the sub elite athletes in terms of their sports motivation and the psychological performance.

### **Hypotheses**

1. There will be significant difference in the level of sports motivation between elite and sub-elite Wushu players.
2. There will be significant difference in the level of Psychological Performance between elite and sub-elite Wushu players.
3. There would be a significant

positive correlation between sports motivation and psychological performance.

## **METHODOLOGY**

### **Participants**

The participants comprised irrespective of 20 elite and 45 sub-elite Wushu players ranging in the age range of 16 to 24yrs residing the Centre of Excellence (COE) and Special Area games (SAG), Sports Authority of India, Imphal, respectively.

### **Measures**

1. The Sports Motivation Scale (SMS, 1995)

The Sports Motivation Scale was developed by Luc G. Pelletier, Michelle Fortier, Robert J. Vallerand, Nathalie M. Briere, Kim M. Tuson and Marc R. Blais, in 1995. It assesses 7 types of motivation: intrinsic motivation toward knowledge, accomplishment, and stimulation, as well as external, introjected, and identified regulations, and a motivation. It contains 28 items 4 items for each of the 7 sub-scales assessed on a 7-point scale.

2. Psychological Performance Inventory (PPI, Loehr, 1986):

The Psychological Performance Inventory(PPI) was developed by James, E. Loehr in 1986. The PPI is a 42-item self-report instrument designed to measure factors that reflect mental toughness. All questions in the PPI were answered using a 5-point Likert Scale, ranging from T (Almost Always) to '5' (Almost never). Six items subsume each



of the following seven factors: self-confidence, negative energy, attention control, visual and imagery control, motivation level, positive energy control and attitude control.

### Procedure

Purposive sampling technique was utilised for the study. Consents were taken from both the coaches and athletes. Rapport was established both with the players and the coaches. The participants were provided with proper instruction of the questionnaires. The questionnaires were conducted face to face so that their doubts could be

cleared, spontaneously.

### RESULTS & DISCUSSION

The data were analysed using SPSS 17.0 version. Independent t-test was used to find the difference on sports motivation and psychological skills among the elite and the non elite Wushu players. The study further extended to find the relation between sports motivation and psychological skills and therefore Pearson correlation was used to find the difference and the correlation between the two variables, respectively. The details of the finding are given in this section.

**Table-1.: Showing the Mean, Std. deviation, t - value, df and p value on two category i.e. Elite and Sub-Elite Athletes**

Sports Motivation	Category	N	Mean	S.D	t-value	df	p-value
Intrinsic Motivation to know	Elite Athletes	20	25.80	--	1.255	63	0.214
	Sub- Elite Athletes	45	24.53	±4.30			
Intrinsic Motivation to Accomplish	Elite Athletes	20	26.10	± 1.97	2.046	63	0.045*
	Sub-Elite Athletes	45	24.86	±2.35			
Intrinsic Motivation to Experience Stimulation	Elite Athletes	20	25.25	±3.44	1.639	63	0.106
	Sub-Elite Athletes	45	23.82	±3.14			
Extrinsic Motivation to be identified	Elite Athletes	20	24.85	±3.45	-0.142	63	0.887
	Sub-Elite Athletes	45	24.95	±2.40			
Introjected Extrinsic motivation	Elite Athletes	20	23.90	±3.09	0.124	63	0.902
	Sub-Elite Athletes	45	23.80	±2.95			
External Regulation	Elite Athletes	20	23.90	±3.02	1.284	63	0.204
	Sub-Elite Athletes	45	22.91	±2.79			
Amotivation	Elite Athletes	20	9.15	±5.94	1.296	63	0.200
	Sub-Elite Athletes	45	7.5	±4.05			
Overall Sports Motivation	Elite Athletes	20	157.90	± 10.32	1.679	63	0.98
	Sub-Elite Athletes	45	152.44	± 12.77			

Intrinsic Motivation to Accomplish\* p <0.05

In the above Table 1, it is seen that the means of the total sports motivation of elite and sub-elite Wushu players is 157.90 and 152.44, respectively.

However, it is not statistically significant as the p value (0.98)>0.05. The domains of sports motivation were also analysed, to find the difference between the elite

and the sub-elite Wushu players. Significant difference were found in the intrinsic motivation to accomplish as indicated by the p- value  $0.045 < 0.05$  and the mean value of 26.10 and 24.86 of elite and sub-elite athletes, respectively. Hence, the Intrinsic motivation to accomplish was found to be significant at 0.05 level. However, the remaining other domains of sports motivation were not found to be significant indicated by their means and p-values as indicated in Table 1. The means of the elite athletes on other domains of sports motivation were found to be higher than that of sub-elite Wushu players but were not significant statistically.

The above findings is indicative that the elite Wushu players exhibit higher pattern of intrinsic motivation to

accomplish. This component of intrinsic motivation can be use as an attribute to what makes an elite athletes different from other sub-elite athletes. Intrinsic motivation to accomplish can be best explained through Achievement Motivation Theory (McClelland, 1961; Atkinson, 1974) which explains why certain individuals are more motivated to achieve than others. The theory is based on two psychological principles - the motives of an individual to achieve success and the motive of an individual to avoid failures. This theory is also considered as a trait-centred approach because achievement motivation is a personality trait. Therefore, the higher degree of 'Intrinsic Motivation to Accomplish' among the elite Wushu players can also be attributed as their inner personality traits which compel

**Table-2: Showing the Mean, Std. deviation, t- value, df and p value on two category i.e. Elite and Non Elite Wushu athletes on Psychological Skills.**

Psychological skills	Category	N	Mean	S.D	t-value	df	p-value
Self Confidence	Elite Athletes	20	25.6500	2.36810	.519	63	.605
	Sub-Elite Athletes	45	25.1778	3.73734			
Negative Energy Control	Elite Athletes	20	22.1500	3.04830	.996	63	.323
	Sub-Elite Athletes	45	21.3333	3.05257			
Attentional Control	Elite Athletes	20	21.9000	2.80788	-.262	63	.794
	Sub-Elite Athletes	45	22.1333	3.51361			
Visual & Imagery Control	Elite Athletes	20	26.3000	2.63778	1.347	63	.183
	Sub-Elite Athletes	45	25.0222	3.85232			
Motivational Control	Elite Athletes	20	26.3500	1.75544	1.021	63	.311
	Sub-Elite Athletes	45	25.7111	2.53720			
Positive Energy Control	Elite Athletes	20	26.3000	2.07998	2.323	63	0.023*
	Sub-Elite Athletes	45	24.9111	2.28456			
Attitude Control	Elite Athletes	20	25.5000	2.68524	.369	63	.713
	Sub-Elite Athletes	45	25.2222	2.85155			
Total Psychological Performance	Elite Athletes	20	174.0500	12.04586	1.392	63	.169
	Sub-Elite Athletes	45	168.7333	15.05656			

Positive Energy Control Significant at 0.05 level as the p value  $< 0.05$  level.

them to strive for challenging tasks in order to achieve success.

It is evident from the above Table 2 that the Means and S.D of the elite and sub - elite wushu players, on total psychological performance, are  $174.05 \pm 12.04$  and  $168.73 \pm 15.05$  respectively. The t-value is 1.392 which is insignificant. Therefore, there is no significant difference in the psychological performance of the elite and the non elite Wushu players. However, the domains-wise analysis of the psychological performance indicated a significant difference in the positive energy control. The Mean and S.D for the elite and the non elite are  $26.30 \pm 2.07$  and  $24.91 \pm 2.28$ , respectively. This finding is suggestive that the elite Wushu players have a better control over their positive energy i.e. they can better handle their excitement, overwhelming emotions which in some events leads to poor performance outcomes. This phenomenon can also be explained through Inverted U-Hypothesis (Yerkes-Dodson, 1908), which states that optimal performance occurs at an intermediate level of arousal while both high and low level of arousal will result in impaired performance. The elite Wushu players may be able to maintain their arousal level, at the optimal level, and thereby able to give their best performance. This can also be attributed to the self confidence gained due to more exposure to the winning situation and their higher accomplishment. On the other hand the

sub-elite athletes might not be able to maintain their arousal level due to lack of confidence or underestimation of their ability. Moreover, the Multi-dimensional Anxiety Theory (Martens et al, 1990) also states that performance can be predicted by three separate factors - cognitive anxiety, state self-confidence and somatic anxiety. The 'state self-confidence' refers to the degree of certainty athletes possess about their ability to be successful in an upcoming competition. Therefore, the higher achievement in elite players can also be explained through the 'State self-Confidence'. Earlier Loehr (1994) also suggested that it is an athlete's emotional response to problem which brings either success or failure as a competitor. Therefore, the higher achievement in the elite players may be attributed to higher degree of positive energy control and as a result they have better control and maintain their arousal level arising during the competition situation. This finding partially fulfils our hypothesis that elite Wushu players have higher psychological performance skills than the sub-elite athletes.

The Means of the elite Wushu players, on other domains, were found to be higher than that of the sub-elite Wushu players; but, it was found to be statistically insignificant. However, based on the mean difference, it can also be concluded with caution that the elite Wushu players are better than the sub-elite players.



**Table-3: Showing the correlation between Sports Motivation and Psychological Performance.**

Parameter		Sports Motivation	Psychological Performance
Sports Motivation	Pearson Correlation	1	0.075
	Sig (2-tailed)		0.552
	N	65	65

Correlation is not significant at 0.05 level.

In the above Table 3. It is evident from the Table that the correlation coefficient of sports motivation and psychological performance  $r = 0.075$ , which is not significant statistically. However, it is suggestive that there exists some form of positive correlation between sports motivation and psychological performance where an increased in the sports motivation will enhance their psychological performance and vice versa.

### CONCLUSION

The present study was an attempt to understand what makes elite Wushu players different from non elite Wushu players. Therefore, this study aims to find the difference in the sports motivation and psychological skills among the elite and sub-elite Wushu players. The study further extended to find the correlation between sports motivation and psychological skills. Through analysis, it was found that the degree of sports motivation and psychological performance were found to be higher in elite players as compared to their sub-elite counterparts. Statistical analysis shows that there is a

significance difference in the level of intrinsic motivation to accomplish among the elite and the sub elite Wushu players. Moreover, their positive energy control were also found to be significantly different. The findings can be used to conclude that there are certain psychological elements which makes the elite athletes to stand out from their other counterparts. Therefore, it can be also concluded that players need psychological skills training to make the best out of their journey towards Championship.

### Limitation and Implication

The study had some limitation in categorisation of the players as elite and sub-elite as there are no preset norms to classify them into categories; however, for the purpose of the study, the players residing in Centre of Excellence (COE) were taken as elite and players from Special Area Games (SAG) as sub-elite. However, taking the limitation into consideration, the study also comes out with certain implication for the need of psychological skills training to enhance the overall performance to push up to the level of Olympians.

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