# Psychological skills of Indian Gymnasts

Amit Ghosh\*

University of Engineering & Management, Kolkata. University Area, Plot No. III - B/5, New Town, Action Area - III, Kolkata, West Bengal , Kolkata, West Bengal - 700160, India

Psychological skills account for significant amounts of athletic performance. Studies reveal that the good performers are good in psychological skills as compared to poor performers. So in the light of this, present study assessed level of psychological skills in relation to Indian gymnasts performance, using Psychological Skills assessment scale questionnaire which measured the skills such as imagery, self-awareness, self-confidence, attention, motivation, arousal regulation, goal setting and psychic energy management, the data collected from artistic gymnasts from different universities those who participated in inter varsity championship in patiala, 2010. The athlete sample comprised 28 above average gymnasts and 42 below average (age range 17 to 27 yrs.). Analyses revealed that there is no significant difference among the above average and below average gymnasts. Whereas studies show that, high potential athletes have high psychological skills-level. Though, in present study the above average gymnasts did not report any amplitude in the psychological skills. The reason could be the casual approach towards filling the questionnaire and inability of the subjects to understand the statements of the questionnaire due to the poor understanding of the Hindi and English language as the mother tongue of the subjects were different.

Keywords:

### I. INTRODUCTION

Psychological Skills are the mental or psychological qualities or abilities which are determinant for the purpose of enhancing performance, increasing enjoyment, or achieving greater sports and physical activity self-satisfaction in the competitive sports. PST program helps the athletes to have tremendous abilities to psych themselves up for competition to manage their stress; to concentrate intensely and to set challenging but realistic goals, to have the ability to visualize themselves being successful and then doing what they visualized as a part of training and to excel in the world of competitive sports (Murphy and Tamen, 1998). PST may be taught and learned. There are three phases to PST: Educational Phase, Acquisition Phase and Practice Phase.

A great deal of research effort has been proposed that sport psychologists can enhance performance by enhancing psychological skills of the players. Some of the most important mental skills are goal setting, relaxation, visualization, self-talk, self-awareness and control, concentration and confidence. (Robert S. weinber and Daniel Gould, 2003).

As in other sports, Gymnasts success or failure also result from the combination of physical and mental abilities. Most coaches consider that sport is at least 50

The researcher has tried to find out the level of psychological skills of the Indian gymnasts in relation to their performance levels, so that the Indian gymnastics which is gaining its raised platform at the national and international level due to their hard, regular and vigorous train-

\*Email:

**American Journal of Applied Mathematics and Computing** 

US ISSN: 2689-9957

US ISSN: 2689-9957

website: https://ajamc.smartsociety.org/

ing, can do much better to gain the higher results not only by one Indian gymnast but some more who are almost equally capable by their physical skills and abilities. Scientifically it is often said that gymnastics is 90% mental and 10% physical(Howard,2011) If that is true, certainly there should be some training time devoted to the mental aspects of the sports and psychological training tools. So the study of psychological aspect of the Indian gymnasts may be helpful to understand their mental side and prepare the mental training program to train them to overcome fears and blocks and perform to their potential under pressure. Keeping in view the above mentioned aspects it is necessary to assess the psychological skills level of the Indian gymnasts, to make it possible to understand their psychological skills level and prepare an effective PST program to enhance their performance.

## II. PROCEDURE AND METHODOLOGY

## A. Selection of Subjects

A total of seventy artistic male gymnasts were taken as the subjects. The subjects were selected from Allahabad university. Calcutta university, Lakshmibai National University of Physical Education, Gwalior, Punjab University, Bareli University, Pune University. The gymnasts were divided into above average and below average on the basis of their performance in Inter varsity championship held at Patiala,2010. The average performance score 70 gymnasts was 37.05%, so scholar took 40% as the average and divided gymnasts into Above Average those who scored above 40% of the points and Below Average, those who scored below 40%.

TABLE I	Descri	ptive S	Statistics.
---------	--------	---------	-------------

	MEAN AVERAGE			
DEPENDENT	PERFORMANCE LEVELS			
VARIABLES	ABOVE AVERAGE	BELOW AVERAGE		
Imagery	27.71	28.24		
Self-awareness	24.89	26.19		
Self-confidence	18.00	18.97		
Attention	11.75	12.04		
Motivation	11.75	12.23		
Arousal-regulation	9.39	8.97		
Gaol-setting	19.07	20.09		
Psychic energy management	14.75	16.35		
Total	137.32	142.76		

### B. Selection of Variables

In order to asses the psychological skills of the Indian gymnasts, the following eight psychological skills were selected for the purpose of the study, namely, Imagery, Self-confidence, Attention, Motivation, Arousal Regulation, Psychic Energy Management and Goal setting.

#### C. Criterion measures

The Psychological Skills Assessment scale developed and authenticated by Sharma, Tiwari and kaur (2008) was adopted to assess the psychological skills of the gymnasts.

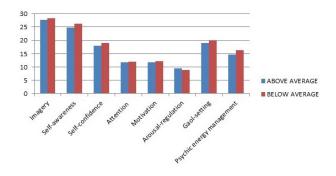


FIG. 1: Statistics of dependent variable for above average and below average performers.

# D. Administration of Questionnaire

The research scholar made personal visit to the gymnastics Inter varsity championship held in, 2010, and distributed the questionnaire to the respondents. The purpose of the study was clearly explained to the respondent before administering the questionnaire. The respondents were requested to read the instructions carefully before giving the final response to the questions.

### E. Statistical techniques

For the purpose of the present study following statistics was employed step wise: 1.Descriptive statistics 2.Comparative statistics

#### III. RESULTS AND DISCUSSION

The above table indicates that the dependent variable Imagery has mean average of 27.71 above average performers and 28.24 below average performers. The dependent variable Self-awareness has mean average 24.89 of above average performers and 26.19 of below average performers. The dependent variable Self-confidence has mean average of 18.00 of above average performers and 18.97 of below average performers. The dependent variable Attention has mean average of 11.75 of above average performers and 12.04 of below average performers. The dependent variable Motivation has mean average of 11.75 of above average performers and 12.23 of below average performers. The dependent variable arousal-regulation has mean average of 9.39 of above average performers and 8.97 of below average performers. The dependent variable Goal-setting has mean average of 19.07 above average performers and 20.09 below average performers. The dependent variable Psychic energy management has mean average of 14.74 of above average performers and 16.35 of below average performers and the total mean of above average performers is 137.32 and below average performers is 142.76.

A number of studies have been done in foreign countries to assess the relation between performance and the psychological skills and it has been found positive in most of the studies. Studies reveals that the good performers are good in psychological skills as compared to poor or average performers. A number of studies have compared successful and less successful athletes in terms of their psychological skills and characteristics. Summarizing this research, (Williams and Krane, 2001) it had concluded that more successful athletes were characterized by higher confidence, greater self-regulation of

DEPENDENT VARIABLES	T - VALUE	Df
Imagery	0.683	68
Self awareness	1.567	68
Self confidence	1.429	68
Attention	0.625	68
Motivation	1.115	68
Arousal regulation	0.902	68
Goal setting	1.527	68
Psychic energy management	2.413	68
Total	1.553	68

TABLE II: INDEPENDENT SAMPLES TEST.

arousal, better concentration-focus, an in-control but not forcing-it attitude, positive thoughts and imagery and more determination and commitment. The successful athletes also achieved peak performance by employing the mental skills of goal setting, imagery, arousal regulation and management, thought control and competitive plans, coping strategies and mental preparation routines.

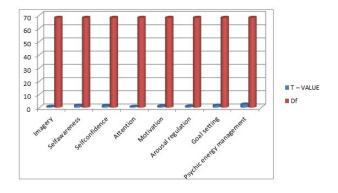


FIG. 2: Statistics of dependent variable against t-values and  $\operatorname{Df}$  .

## IV. CONCLUSION

The analysis of data reveals that the above average gymnasts psychological skills are weaker than the below average gymnasts, where as the available literature has shown the positive relationship between performance and the psychological abilities. So the results of the

presents study are contradicting with the available literature, the researcher could conclude that the reason behind this could be the casual approach towards the filling the questionnaire and inability of the subjects to understand the statements of the questionnaire due to the poor understanding of the Hindi and English languages as the mother tongue of the subjects were different.

In the present study after analyzing and screening the data, it show that the above average performers are weak in their psychological skills as compared to the below average performers. It can be revealed that the Indian Gymnasts are not using the psychological skills training in their training sessions or competitions, as neither the players nor the coaches are well trained and equipped with psychological skills. Research Scholar by herself interviewed some elite Indian gymnasts Ashish Kumar (CWG Medallist), Alok Ranjan, Iqrar Hasan and Rakesh Patra and Coaches during the India Olympics Camp, held in Delhi. Through the interview it could be understood that coaches have lack of knowledge, concept and uses of psychological skills and the even the elite level Indian gymnasts are unaware of the application and use of psychological skills in their training as have never been exposed to the psychological skills training to enhance their performance level.

So it is necessary to provide the coaches and the Indian Gymnasts with psychological skills training program so that they become efficient to apply those skills such as Relaxation techniques, Self-confidence, Self-awareness, Self-talk, Motivation, Attention, Concentration, Psychic energy management, Imagery etc into their training sessions to enhance the performance levels.

<sup>[1]</sup> Calmels, C., & Fournier, J (1999). Assessment of the possibility of enhancing performance and imagery ability with

a mental training program combined with physical training.

- [2] Howard (coach), March 3, (2011), Sport Psychology, Goals and Motivation
- [3] Murphy & Tammen, (1998) Exploring sports and Exercise Psychology, Sports Psychology Library.
- [4] Williams, J.M, & Krane, V. (2001). Psychological characteristics of peak performance. Applied sports psychology
- (4th ed pp 162-178) mountain view.
- [5] Weinberg, R.S, & Gould, D, (2003) Foundation of sports & exercise psychology (3rd ed.)
- $\begin{tabular}{l} [6] $http://gymnasticszone.com/sport-psychology-goals-and-motivation \end{tabular}$