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## **A Cross-Sectional Assessment of Mental Skills between Medalist and Non-Medalists Male Archery Players**

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**Received:** 05 July, 2017; **Accepted:** 13 July, 2017; **Published:** 21 July, 2017

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**Abstract:** The aim of the study was to find out the significant difference of mental skills between Medalist and Non-Medalists male Archery Players. For present study total 50 Medalist and Non-Medalists male Archery Players selected as a sample of the study (25 Medalist and 25 Non-Medalists). The age of subjects ranging between 19-27 years was selected randomly from Punjabi university. Mental Skills Questionnaire established by Hardy and Nelson, 1996 was used for this study. After collecting the relevant data descriptive statistic and t test was applied. The level of significance was set at 0.05. The outcome of the study shows that significant differences of mental skill variables between Medalist and Non-Medalists male Archery Players.

**Keywords:** *Mental skills, imagery ability, mental preparation ability, self-confidence level, anxiety and worry management.*

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### **Introduction:**

Mental skills are inner capability that help athletes to manage their mind efficiently and consistently while achieving sports related goals. Mental skill training provides the methods and techniques not only to develop skills such as, concentration and positive body language, but also to foster personal characteristics such as self-esteem and positive competitive skills and behaviour. Mental skill technique helps the athletes to adjust their thoughts, actions, feelings, and physical feelings in order to improve their games. Mental skills training involve different interrelated activities. Many of these activities may be used alone but most successful outcomes are achieved when all are combines. Hardy and Nelson (1996) [3] confirmed that imagery ability, mental preparedness, self-confidence, anxiety and worry management, relaxation ability and concentration ability are very important for athletes.

Some studies indicated that the use of mental skills such as imagery, relaxation, goal setting and self-talk is important areas in the field of Sport Psychology (Vealey, 2007; Williams & Harris, 2001) [8, 9]. It has long been approved that psychological skills are critical for athletes at elite level.

Taghian (2001) [7] concluded that the degree of motivation in controlling of mental picture-making and their targeting affairs is higher than the superior athletes significantly than non-superior athletes. Ghadiri (2005) [2] concluded that the degree of mental skills in elite athletes of karate is significantly higher than non-elite karate athletes. Investigation findings of Burton & Raedeke, 2008; Vealey, 2007 [1, 8] & Williams, 2001 [9] have exposed that elite and successful athletes are more committed, motivated, self-confident, focused and able to cope with adversity. Players learn and develop many skills, based on information and training provided by their coaches and trainers.

### **Hypothesis**

There would be no significance difference of mental skills between Medalist and Non-Medalst male Archery Players.

### **Methodology Selection of Subjects**

For present study total 50 Medalist and Non-Medalst male Archery Players selected as a simple of the study (25 Medalist and 25 Non-Medalst). The age of subjects ranging between 19-27 years was selected randomly from Punjabi university.

### **Selection of variable**

1. Mental skills

### **Tool**

Mental Skills Questionnaire established by Hardy and Nelson, 1996 [3] was used for this study.

### **Administration of test**

Mental Skills Questionnaire

Hardy and Nelson mental skills questionnaire was used to assess level of mental skills. The questionnaire contains 24 questions measuring six dimensions of mental skills and each dimension is measured by four questions, with a six point likert scale. The questionnaire has been presented in the appendix A.

**The six dimensions of Hardy and Nelson's mental skills Questionnaire are as follows:**

1. Imagery ability
2. Mental Preparation ability

3. Self-Confidence level
4. Anxiety and worry Management
5. Concentration ability
6. Relaxation ability

**Purpose**

This questionnaire identifies common mental strength and weakness level of the players.

**Description**

Each player/subjects was given a questionnaire and a pencil. The researcher were asked to subjects read each statement carefully and then circle the appropriate number to indicate the extent to which one agrees with the statement. This was based on a six point scale from strongly agree to strongly disagree.

**Scoring**

The rating is based on six point scale from strongly agree to strongly disagree. The lower score represents weakness level and higher score represents stronger level of mental ability. (Hardy and Nelson, 1996) [3].

**Statistical Technique**

After collecting the relevant data descriptive statistics and t test was applied. The level of significance was set at 0.05.

**Results**

**Table 1:** Represent Mean and Standard deviation results with regard to Mental Skills questionnaire (Sub parameters: Imagery ability, Mental Preparation ability, Self-Confidence level, Anxiety and worry Management, Concentration ability and Relaxation ability) between Medalist and Non-Medalist male Archery Players.

Variables	Group	Mean	S.D	T value
Imagery Ability	Medalist	19.15	2.16	1.208
	Non-Medalist	19.88	2.11	
Mental Preparation	Medalist	23.00	0.29	0.29
	Non-Medalist	22.87	0.35	
Self confidence	Medalist	16.93	2.09	0.75
	Non-Medalist	16.33	2.09	
Anxiety & Worry Management	Medalist	16.33	3.87	2.77
	Non-Medalist	12.67	3.35	
Concentration Ability	Medalist	21.6	2.44	2.32
	Non-Medalist	18.4	4.75	

Relaxation Ability	Medalist	20.73	3.86	2.28
	Non-Medalist	17.93	2.76	

„t“.05 (48) = 2.011

Table 1: shows the Mean and SD values of Imagery Ability of male Medalist and Non-Medalist male Archery Players were 19.15±2.16 and 19.88±2.11 respectively. The obtained “t” value

1.208 was found statistically insignificant, (P<.05) .05 level of significance. Table represent the Mean and SD values of Mental Preparation of male Medalist and Non-Medalist male Archery Players were 23.00±0.29 and 22.87±0.35 respectively. The obtained “t” value 0.29 was found statistically insignificant, (P<.05) .05 level of significance.

Table illustrate that the Mean and SD values of Self confidence of male Medalist and Non-Medalist male Archery Players were 16.93±2.09 and 16.33±2.99 respectively. The obtained “t” value 0.75 (2.011) was found statistically insignificant, (P<.05) .05 level of significance.

Table depict that the Mean and SD values of Anxiety & Worry Management of male Medalist and Non-Medalist male Archery Players were 16.33±3.87 and 12.67±3.35 respectively. The obtained “t” value 2.77 was found statistically significant, (P<.05) .05 level of significance.

Table shows that the Mean and SD values of Concentration Ability of male Medalist and Non-Medalist male Archery Players were 21.6±2.44 and 18.4±4.75 respectively. The obtained “t” value 2.32 was found statistically significant, (P<.05) .05 level of significance.

Table represent the Mean and SD values of Relaxation Ability of male Medalist and Non-Medalist male Archery Players were 20.73±3.86 and 17.93±2.76 respectively. The obtained “t” value 2.28 was found statistically significant, (P<.05) .05 level of significance.

**Table 2:** Represent mean and standard deviation results with regard to mental skills between Medalist and Non-Medalist male Archery Players

Group	Mean	S.D.	T value
Medalist Archery Players	111.25	10.25	3.789
Non-Medalist Archery Players	100.58	9.98	

„t“.05 (48) = 2.011

Table 2 statistically depict that the mean and standard deviation with regard to Medalist Archery Players is 111.25±10.25 where as in case of Non-Medalist Archery Players is 100.58±9.98 respectively. The calculated t-value is 3.789, which is more than the tabulated t-

value. So, it indicates that there is significant difference of mental skill variable between Medalist and Non-Medalist male Archery Players.

### **Discussion of the finding**

Descriptive statistics indicated that the significance differences of overall mental skill between Medalist and Non-Medalist male Archery Players. In mental skill-: Sub factors Medalist male Archery Players are better than the on-Medalist male Archery Players viz Mental Preparation ability, Self-Confidence level, Anxiety and worry Management, Concentration ability and Relaxation ability but in Imagery Ability Non-Medalist better. Outcome of the study represent the significance differences in mental skill-: Anxiety and worry Management, Concentration ability & Relaxation ability and Imagery Ability, Mental Preparation ability and Self-Confidence level shows insignificance results. On the basis of analysis of the data, investigator found that the earlier study of Singh and Singh (2015) [6] & Pashabadi, et al. (2011) [5] & Paikarathodi, S. (2015) [4] sported the present study.

### **Discussion of Hypothesis**

There would be no significance difference of mental skills between Medalist and Non-Medalist male Archery Players. This hypothesis was rejected because significance difference was found in mental skills between Medalist and Non-Medalist male Archery Players.

### **Conclusion**

The results of study shows that Medalist Archery Players significantly better on mental skills as compare to Non-Medalist players. It indicates that Non-Medalist Archery players are having lower level of mental skills as compare to Medalist Archery players.

### **References**

1. Burton, D., & Raedeke, T. (2008). Sport Psychology for Coaches. Champaign, IL: Human Kinetics.
2. Ghadiri, F. (2005). Comparison of Mental Skills Perspective between Elite and Non-Elite Male Karate Players. Unpublished M.A. Dissertation, Teacher Training College, Tehran.
3. Hardy, L., & Nelson, K. (1996). Mental Skills Questionnaire.
4. Paikarathodi, S. (2015). Effects of Progressive Muscle Relaxation Technique on Mental Skills of Kerala Male Volleyball Players. International Journal of Physical Education,

- Sports and Health, 2(1), 74–76.
5. Pashabadi, A., Shahbazi, M., Hoseini, S.M., Mokaberi, M., Kashanai, V., & Heidari, A. (2011). The Comparison of Mental Skills in Elite and Sub-Elite Male Volleyball Players. *Procedia – Social and Behavioral Sciences*. Published by Elsevier Ltd.
  6. Singh, M., & Singh, J. (2015). Comparison of Mental Skills between Medalist and Non-Medalst Football Players. *Scholarly Research Journal for Interdisciplinary Studies*, II(XI), 1283–1291.
  7. Taghian, F. (2001). Comparison of Some Mental Skills of Elite Male Volleyball Players and Non-Elite Ones. M.A. Thesis, Teacher Training College.
  8. Vealey, R.S. (2007). Mental Skills Training in Sport. In G. Tenenbaum, R.C. Eklund, & R.N. Singer (Eds.), *Handbook of Sport Psychology*. New Jersey: Wiley.
  9. Williams, J.M., & Harris, D.V. (2001). Relaxation and Energization Techniques for Regulation of Arousal. In J.M. Williams (Ed.), *Applied Sport Psychology: Personal Growth to Peak Performance*. California: Mayfield Publishing Company.
  10. Nathial, M.S. (2014). Analysis of Set Shot in Basketball in Relation with Time to Perform the Course and Displacement of Centre of Gravity. *American Journal of Sports Science*, 2(5), 122–126. doi:10.11648/j.ajss.20140205.13
  11. Singh, M. (2010). Evaluation and Improvement of Sports Techniques through Biomechanical Updated Analyzing Technology. *University News: Journal of Higher Education Association of Indian Universities*, 48(5), 45–57.
  12. Nathial, M.S. (2014). A Study of Adjustment and Emotional Intelligence of University Coaches in India. *American Journal of Applied Psychology*, 3(6), 122–126. doi:10.11648/j.ajap.20140306.11
  13. Nathial, M.S. (2016). A Comparative and Analytical Study of Self-Esteem and Job Satisfaction in Athletes and Non-Athletes. *Journal of Advances in Social Science and Humanities*, 2(10). doi:10.15520/jassh210123
  14. Singh, M., Kour, R., & Kour, A. (2022). A Collaborative Diversified Investigation of Respective Responses of Sports Persons, Coaches and Organizations on Criminalization of Doping. *International Journal of Health Sciences*, 6(S3), 11295–11310. doi:10.53730/ijhs.v6nS3.8641