

PSYCHOLOGICAL DYNAMICS ACCOUNTABLE FOR ELITE AND NON ELITE FEMALE ARCHERS

Neelam Sharma¹, Pravin Kumar² and Kreepa Sharma³

For any sport person psychological factors are considered essential for the participation and performance in varied type of sports. The development of psychological factors in sports demands deliberate intentions, encouragement and motivation. Against this background the present study investigates about the psychological determinants in elite and non-elite archers for talent identifications and sport performance. By using purposive sampling technique 20 female elite and non-elite archers between the age range 19 to 35 years were selected from Sports Authority of India and Guru Nanak Dev University respectively. Semi structured interview was conducted with coaches, to determine the psychological factors among archers. The determinants identified were, will to win, metacognition, emotional intelligence and goal setting. Further the determinants were measured by standardized questioner and scales, T-test was employed to compare the difference between existence psychological determinants of female elite and non-elite archers. All the aforesaid psychological factors is slightly higher among elite as comparison to non-elite due to their positive attitude towards will to win.

INTRODUCTION

Nowadays, game and sport is becoming essential part of our life. It is not only important for success but also important in every walk of life. It includes indoor outdoor and fun activities and builds sense of cooperation, spirit of disciple and teamwork among individual. It also teaches to use energy in a right way and in right time. People who involves in various sports and games have a lot of advantages in comparison with those who don't like and never participated in games and sport. Psychology refers to the study of human behavior and sports psychology deals with the behavior of archers and engaged in competitive sports. Sports psychology is a branch of psychology which intimately connects human behavior on the play field both under practice and competitive situation. Therefore the main aim of the sports psychology is to under master over the behavior of Archers and to modify according to the situation were as physiological responses potential reaches the dead end, the psychology process seems to make the Archers boost the energy to achieve the goal which physiologically seems impossible that is why psychological training and conditioning are now days a part and parcel of sports training. It is still dominated by those who cannot see behind their nose because harder and harder physical effort of which over educated and under educated on mental factors.

¹ Assistant Professor, School of Physical Education, Lovely Professional University, Punjab (India),
E-mail: neelam.sharma@lpu.co.in

² Assistant Professor, School of Physical Education, Lovely Professional University, Punjab (India).

³ Research Scholar, School of Physical Education, Lovely Professional University, Punjab (India).

Many Archers and coaches still try to develop the human capacity for sports performance only by physical conditioning but each and every Archers is unique upon each other. Apart from physiological differences such as height, weight etc. there are certain psychological differences as well. Presently the sports psychologist over the world are busy in developing exotic techniques of investigating the relationship between psychology and performance in verity of sports setting and also refining those already exist. Sports psychology is working in the field performance enhancement through systematic ways such as identification, manipulation and training of every critical psychological variables. Keeping in mind the above facts the researcher tried to investigate the present problem.

Psychology refers to the study of human behavior and sports psychology deals with the behavior of Archers and engaged in competitive sports. Sports psychology is a branch of psychology which intimately connects human behavior on the play field both under practice and competitive situation. Therefore the main aim of the sports psychology is to under master over the behavior of Archers and to modify according to the situation were as physiological responses potential reaches the dead end, the psychology process seems to make the Archers boost the energy to achieve the goal which physiologically seems impossible that is why psychological training and conditioning are now days a part and parcel of sports training. It is still dominated by those who cannot see behind their nose because harder and harder physical effort of which over educated and under educated on mental factors. Many Archers and coaches still try to develop the human capacity for sports performance only by physical conditioning but each and every Archers is unique upon each other. Apart from physiological differences such as height, weight etc. there are certain psychological differences as well. Some Archers are outgoing and extrovert where other may be shy, introvert and withdrawn, and they may also differ in their levels of perceptions. Some Archers are born with strong psychologically where as other are weak disposition.

Talent identification refers to the process of recognizing current participant with potential to become a successful players in a designated sports. "Sports personologists are left in doubt that for a unique personality is not enough for a person to be simply genetically gifted or possess certain inborn traits alone, but also to develop in himself an ability to struggle not just for servable for supremacy" (Kamlesh, 2007). Sports performance, are difficult to define in operational terms epically in sporting context through they, nevertheless, are inductive of the seeds of outstanding performance. (Fleishman, 1964) refers to the ability "as a capacity of the individual that is related to performance of variety of task" It also serve as a trait measure. An individual is not blessed with a single ability only, but several; they are generally defined as a capacity and constitution the bedrock of performance potential. Talent identification program is conducted with a global approach to the athletic performance because raw talent will be a very little use if it cannot be

actualizes within the typical environment of top level competition. To raise at top level performance, better Archers stuff for coaches, gather chance for greater number of Archers in a given number of Archers to reach the international level “higher homogametic of Archers in a given sport and greater confidence in Archers (Bompa, 1985). “Many sports scientist found scientifically valid method to recognizing current participants with the potential to become an elite players by measuring physical, physiological and psychological and sociological attributes” (Renier *et al.*, 1993). Talent identification and its development has become an important area of research in sports performance, due to rapidly increasing participation and performance density, only person who have talent stand a chance if winning a medal in a international competition. Sports talent is sum of total of pre-request and possibilities of their development possessed by person which will enable to achieve higher performance in sports in future.

METHODOLOGY

The study aims to identify psychological factors responsible for performance among elite female archers. It also analyse the difference between elite and non-elite female archers in terms of psychological factors. For this purpose 20 female archers from elite (n=10) and non-elite (n=10) were selected. Elite female archers are those who had participated at international level for one or more than one time and still in practice and were selected from SAI Kolkata and non-elite from Guru Nanak Dev University Amritsar (Punjab) who had participated in inter college level but not selected for higher competitions. Semi structural interview schedule was prepared and face validity of the interview schedule was done and was sent to archery coaches to identify psychological factors which are essential for archery. The data was collected to see the comparison between identified psychological factors like will to win, Emotional Intelligence, , Goal Setting, meta cognition and mental imagery of elite and non-elite female archers.

RESULT AND DISCUSSION

Significant difference was observed in identified psychological factors like will to win, goal setting, emotional intelligence, meta cognition and mental imagery between elite and non-elite female archers. Female elite archers have significantly higher mean score as compared to non-elite female archers. An elite athlete is a rare combination of hard work, talent and the right psychological profile (Young, 2008). Meta cognitive is related to control of cognition. Metacognition has been defined as an individual’s insight control over their own mental processes (Flavell, 1979). Tarricone (2011) indicated that the main interaction between metacognition and self-regulation is to monitor, control and regulate strategies to meet the demands of goals. So it is concluded that the prolonged experience in the particular sports elite archers are much disciplined, focused, have better control over emotions and

have better mental skills in comparison to non-elite archers. Results of the present investigation are also supported by (Tadhg *et al.* 2014) that elite archers are experts in movement execution but conceivably they are also experts in planning, metacognition, and reflection. It was hypothesized that metacognition is a strong determinant of performance among sports person. Although previous studies in physical education and sports setting was not done on archers and athletes but only one study was done on chess in relation to meta cognition.

In the field of sport emotional intelligence is one type of cognitive behavior of a player to understand and manage their emotions in a positive way which facilitates the interpersonal behavior during the game. All learning has an emotional base. Some researchers suggest that emotional intelligence can be learned and strengthened, while others claim it is an inborn characteristic. Zamanie *et al.* (2011) stated that several games like handball and basketball that athlete has higher emotional intelligence in comparison to non-elite athlete because they have to constantly control and manage their emotions under the different conditions. Goleman (1998) unveiled that level of social emotional intelligence always increase as a result of successful performance and a warm social environment with the higher degree of cooperation. Vassiliki (2009) on genius Taekwondo and Judo players reported that emotional intelligence has a relationship with excellent physical image and optimum performance of the athletes who have higher emotional intelligence. Current research findings showed that female elite archers scored significantly better values with regards to emotional intelligence in comparison to non elite female archers. Researcher believes that component of performance in sports is the control over your emotional intelligence and non-elite players have very less control over the emotional intelligence because of the lack of experience. This is reason behind why elite players performed better with high emotional intelligence in comparison to female non-elite archers.

Mental imagery is simply a mental technique that ventures the mind and the body to respond optimally. Fisher (1986) clarified that imagery is the language of the brain in a real sense, the brain really cannot tell the difference between an actual physical event and the vivid visualization of the same event. For this reason imagery can be used by the brain to provide repetition, elaboration, intensification and preservation of important athletic sequences and skills. Thomas *et al.* (1999) unveiled that elite athlete use more mental imagery than non-elite athlete. Further Gould *et al.* (2002) divulged that athlete have higher self-confidence, goal setting and mental imagery. Calmels *et al.* (2003) exposed stated that overall successful elite athlete use imagery more extensively and more systematically, due to this reason elite athletes have better imagery ability as compared to non-elite athlete .Mahammadzahan *et al.* (2014) studied on elite and non-elite volleyball players and reported higher level of mental imagery in elite athlete as compared to non-elite athlete. Hence, findings confirm that female elite archers comprised

significantly better mental imagery skills as compared to the non elite female archers.

Goal setting is a most important skill taught to athlete in order to help athlete to achieve optimal performance. The goal setting helps athletes to understand where they are currently placed and where they want to go. McCarthy *et al.* (2010) stated that goal setting is a way to set a specific standards goal and it refers to reach the level of achievement. It's a way to establish positive performance and achievement. Thelwell and Greenlees (2003) used different techniques of goal setting to enhance feelings of control and to improve e performance. According to (Satooden *et al.* 2012) elite and non-elite male and female taekwondo athlete have a significant difference. According to (Kurug *et al.* 2012) psychological characteristic between talented and less talented long distance runners significant difference was observed in goal setting. Results of this study are substantiated by the Satooden *et al.* (2012), Kurug *et al.* (2012) and Thelwell and Greenlees (2003) that the talented athletes scored significantly better in goal setting than the less talented athletes.

As the sports psychology is the scientific study of a players mind, its emotions and behavior and will to win is one branch of sports psychology. Will to win is the desire of a sports person to achieve the target. It's a mental demand of a player to win in all the way in rigorous competition and because of it he or she feels satisfied and get motivated to continue in the field of sports. In the present study also no significant difference was observed between elite and non-elite archer on the will to win. Will to win is slightly higher among elite as comparison to non-elite. Elite players (athlete and archers) performed better on the variable will to win in comparison to non-elite. The athletes scored high in will to win mainly compete to first position and may have something of win at all cost attitude. (White, 1959) found that will to win is also related with competitive and by acknowledging this, an athlete is able to put in his best and complete the activity successfully. After analyzing all the literature it is concluded for the present study that desire of will to win is similar among elite and non-elite players. Results of the present study are not similar with (Daino, 1985) found that tennis players had significantly higher mean score in will to win than non-sports group. (Kang *et al.*, 1990; Sindhu and Singh, 2006) found similar results among high achievers and low achievers on will to win.

CONCLUSION AND RECOMMENDATION

Sport psychologist must be approached to determine the existence of psychological factors existing in female archers for better performance in archery. As psychological factors are highly associated with the performance of elite female archers, so to enhance the performance of female archers the psychological factors like will to win, emotional intelligence, goal setting, meta cognition and mental imagery must be the part of coaching strategies. Psychological factors should be

identified at the initial stage so pre identified factors can be employed on the time. It has been inferred that female elite archers have strong psychological factors ie like will to win, emotional intelligence, goal setting, meta cognition and mental imagery responsible for making them elite so non elite female archers are to be directed, motivated and encouraged to imbibe psychological factors so that they can come at the level of elite performer.

References

- Abbott, A., Collins, D. (2007). Eliminating The Dichotomy Between Theory And Practice In Talent Identification And Development: Considering The Role of Psychology. *Journal of Sports Sciences*, 22(5), 395-408.
- Anita, E., Pienaar, (1998). Identifying and Developing Rugby Talent Among 10-Year- Old Boys: A Practical Model. *Journal of Sports Science* 16(8) 619-699.
- Bahado, Z., Mohammad, et al. (2011). Review of the Effective Talent Identification Factors of Badminton for Better Teaching To Success. *Procardia - Social and Behavioral Sciences*, 31, 835-836.
- Bompa, T.O. (1985). Talent identification. *Science Periodical on Research and Technology in Sports*. Ottawa, Coaching Association of Canada.
- Danile, W., Katrina, K. (2006). Impact of Talent Identification on Biased Prediction of Player Performance. *Psychological record*, 56(1), 56-5-62.
- Carolina, F., Emanuel, J., et al. (2010). Prediction Function For Identifying Talent In 14- To 15-Year-Old Female Field Hockey Players. *High Ability Study* 13 1 21-23.
- César, M., John, C., et al. (2010) Talent Identification in Soccer: The Role of Maturity status on Physical, Physiological and Technical Characteristics. *International Journal of Sports Science and Coaching* 5(4) 571-592.
- Edward, Z., Suniya, S., et al. (1992). Psychosocial Adjustment among Intellectually Gifted Adolescents: the Role of Cognitive-Developmental and Experiential Factors. *Journal of Child Psychology and Psychiatry* 33(2) 361-375.
- Elferink, T., et al. (2007). Multidimensional Performance Characteristics and Standard Of Performance in Talented Youth Field Hockey Players: A Longitudinal Study. *Journal of Sports Sciences* 25(4) 481-489.
- Fleishman, E. A. (1964). The Structure and Measurement of Physical Fitness. *Englewood Cliffs, NJ*, Prentice Hall.
- Falk, B., Lidor, R., et al. (2007). Talent Identification and Early Development of Elite Water-Polo Players: A 2-Year Follow-Up Study. *Journal of Sports Science* 22 4 347-355.
- Gee, C. (2010). How does Sport Psychology Actually Improve Athletic Performance? A Framework to facilitate athlete and Coaching Understanding. *Behave Modify*, 34(5), 386-402.
- Gould, D., K., Moffett, A. (2010). Psychological Characteristics and Development in Olympic Champions. *Journal of Applied Sport Psychology* 14 3 172-204.
- Gabbett, T., Georgief., B., et al. (2006) Changes in Skill and Physical Fitness Following Training in Talent-Identified Volleyball Players. *Journal of strength conditioning and research*, 20(1), 165-189.

- Guido, S. (1993). Mental Training. 8th World Congress of Sports Psychology, Lisbon.
- Hasan, M., Roel, V., et al. (2009). Anthropometric and Performance Measures for The Development of A Talent Detection and Identification Model in Youth Handball. *Journal of Sports Sciences* 27(3) 257-266.
- Hanspeter, G. (1993). Mental Rehearsal. In Sidonionserp and other, *Proceeding of the 8th World Congress of Sports Psychology*, Lisbon.
- Jorg, S., Joe, B., et al. (2009). Talent Development & Excellence Relative Age, Talent Identification and Youth Skill Development: do Relatively Younger athletes have Superior Technical Skills?. *Talent Development & Excellence*, 1(1), 45-56.
- John. S., Raglin. S. (2012). Psychological Factors in Sport Performance. *Sports Medicine*, 31 (12) 879-890.
- Jonker, L., Marije, T., Gemser., et al. (2010). Differences in Self-Regulatory Skills Among Talented Athletes: The significance of Competitive level and Type of Sport. *Sport. Journal of Sports Science*, 28 (8) 901-908.
- Matthys, S., Vaeyens, R., et al. (2011). A Multidisciplinary Identification Model for youth Handball. *European Journal of Sport Science* 11(5), 355-363.
- Mical, L., et al. (2005). Measurement of Talent In Team Handball: The Questionable Use of Motor and Physical Tests. *Journal of Strength & Conditioning Research* 19(2) 245-408.
- M.L, K. (2007). Key Ideas in Sports Psychology. New Delhi: Friends Publication.
- Morris, T. (2010). Psychological Characteristics and Talent Identification in Soccer. *Journal of Sports Science* 18 9 715-726.
- Meylan, C., Cronin, J., et al. (2010). Talent Identification In Soccer: The Role of Maturity Status on Physical, Physiological and Technical Characteristic. *International Journal of Sports Science and Coaching* 5 4 571-591.
- Nicola, B., Jason., et al. (2009). Talent Identification and Deliberate Programming in Skeleton: Ice Novice to Winter Olympian In 14 Months Initially. *Journal of Sport Sciences*, 27 (4), 397-404.
- N. L. Holt., Mitchell T. (2006). Talent development in English Professional S. *International Journal of Sport Psychology*, 37 (2), 77-98.
- Olufemi, A., et al. (2010). Sport Talent Identification and Development in Olsen, M. (1966) Sports Psychology in Literature. In FerruccioAntonnel. *Proceeding of the First International Conference of Sports Psychology*, Rome.
- Plotz, A., Maine, S. (2006). Comparison of Talented South African and English Youth Rugby Players With Reference to Game-Specific-, Anthropometric-, Physical and Motor Variables. *South African Journal for Research in Sport, Physical Education and Recreation*, 28(1), 101-107.
- Pola, K. (2012). Comparison of Talented Runner with Less Talented Runners. *African Journal for Physical, Health Education, Recreation and Dance*, 18(2) 413-422.
- Rushall, Brent. A. (1989). Sports Psychology: the key to sporting excellence. *International Journal of Sports Psychology*, 20, 154-190.
- Reilly. T., et al. (2010) A Multi disciplinary Approach to Talent Identification in Soccer *Journal of Sports Sciences* 18(9), 695-702.

- R, J. (2005). Sports Psychology. New Delhi: khelShaity Kendra.
- Shahid, B., Rajkumar, P. (2013). A Comparative study of Cardiovascular Fitness between Sports Person and Non-Sports. *Research Journal of Physical Education and Sports Science*, 1(5), 11-13.
- Spamer, J., Emanuel. (2009). Talent Identification and Development in Youth Rugby Players: A Research Review. *South African Journal for Research in Sport, Physical Education and Recreation* 31 2 109-118.
- Vaeyens, R., Gullich, A., *et al.* (2009) Talent Identification And Promotion Programmer of Olympic Athletes. *Journal of Sports Science* 27 (13) 1367-1380.
- Waldron, M., Worsfold, P. (2010). Differences in the Game Specific Skills of Elite and Sub-Elite Youth Football Players. *International Journal of Performance Analysis in Sport*, 10 (1), 9-24.