



THE ROLE OF ARCHERY IN WOMEN EMPOWERMENT (SPECIAL REFERENCE JODHPUR)

SHIKHA GUPTA ¹

¹ RESEARCH SCHOLAR, BUSINESS FINANCE AND ECONOMICS, JAI NARAYAN VYAS UNIVERSITY, JODHPUR.

ABSTRACT:

KEYWORDS:

INTRODUCTION

Archery is the Sport, Practice or skill of using a bow to shoot arrows. The word comes from the Latin arcus meaning bow. Historically archery has been used for hunting and combat. In modern times it is mainly a competitive sport and recreational activity. Archery plays a very important role in women empowerment also.

Deepika kumari is the first Indian archer to achieve world number 1 rank in Woman's Individual Recurve. She achieved this feat on 14 June 2012. She has won an individual gold medal in archery at the 2010 Commonwealth Games, beating Olympic bronze medallist Alison Williamson. She has also won 5 medals in world cup finals which include 4 individual silver medal. She has also won 2 silver medals in world archery championship as part of the women's recurve team. Dola Banerjee became first Indian world champion in archery by winning the gold medal in the women's individual recurve competition at the archery world cup final held at Dubai in November 2007. Dola is the second woman archer to be honored with the Arjuna Award by the Govt. of India in 2005. In commonwealth games 2010 in New Delhi, she won gold medal in women's team recurve with Deepika Kumari.

Jyoti Surekha Vennam is the first Indian female archer to win an individual medal in women's individual compound event in world archery championship. She won a bronze medal at 2019 world archery championship.

REVIEW OF LITERATURE

Vogel, E et al (2014) studied to related crossbow injuries to the thumb. Archery injuries resulting in significant digital impairment are uncommon. The purpose of this study is to review seven patients treated at our institution for injuries of the left thumb sustained during recreational use of a crossbow. These injuries were treated with standard techniques. Injuries sustained during recreational crossbow use result from trauma to the left thumb which is placed in a forward position on the

crossbow stock. Increasing popularity of crossbow usage has made these injuries more prevalent. Standard techniques of treating hand trauma are sufficient to manage these injuries. With proper education and safety mechanisms, these injuries are preventable.

Shinohara, H et al (2014) studied to related does shoulder impingement syndrome affect the shoulder kinematics and associated muscle activity in archers? Archery related injuries, such as shoulder impingement syndrome are caused by repeated motion of the shoulder. The aim of this study was to analyze differences in the shoulder kinematics and the associated muscle activity between archers with shoulder impingement and uninjured archery play. Thirty male archers, who were divided into an impingement group and an uninjured group, were included in this study. The angle of scapular elevation, shoulder joint abduction, horizontal extension, and elbow joint flexion as well as the electromyography activity of the upper trapezius, lower trapezius, deltoid middle, deltoid posterior, biceps brachia, and triceps brachia muscle at the point of stabilization during shooting were measured. Variables differing between impingement and uninjured groups were identified, and a stepwise regression analysis was performed to identify a combination of variables that effectively impingement syndrome. The results indicated that the angle of scapular elevation was significantly greater than that uninjured group ($P < 0.05$). The angle of horizontal extension in the impingement group was significantly smaller than that in the uninjured group ($P < 0.05$). The angle of elbow flexion in the impingement group was significantly smaller than that in the uninjured group ($P < 0.05$). The levels of upper trapezius and deltoid middle muscle activity were significantly higher in the impingement group, while the level of lower trapezius muscle activity was significantly lower ($P < 0.05$) when compared to the uninjured group. The impingement group had a greater angle of scapular elevation, smaller angle of

horizontal extension, smaller angle of elbow flexion, higher the levels of upper trapezius, lower the levels of lower trapezius, higher deltoid middle muscle activity and higher UT/LT ratio (all differences were significant). A logistics model for predicting impingement syndrome showed that UT/LT ratio was significantly related impingement syndrome ($P < 0.05$). The authors concluded that archers with shoulder impingement syndrome exhibit different kinematics and muscle activity compared to uninjured archers. Therefore, in order to prevent shoulder joint impingement during archery, training is necessary what can make lower trapezius muscle activity increased to decrease the UT/LT ratio.

Kim, H, B et al (2014) the studied was related to the relative importance of performance factors in Korean archery. This study explored the factors affecting archery performance, by calculating their relative importance in Korean archery. The result indicate performance factors identified in this study and their relative importance in determining successful performance can be used in training for optimal archery performance worldwide.

Zemkova, E et al (2014) the studied was related to sport-specific balance. This review includes the latest findings based on experimental studies addressing sport-specific balance, an area of research that has grown dramatically in recent years. Though this may be true for shooting or archery, findings have shown that in many other sports, highly skilled athletes are able to perform successfully in spite of increased postural sway. These findings may contribute to better understanding of the postural control system under various performance requirements. It may provide useful knowledge for designing training programs for specific sports.

Chang, Y et al (2010) the studied was related to the neural correlates of motor imagery for elite archers. Motor imagery is a mental rehearsal of simple or complex motor acts without overt body movement. Therefore, the difference in cerebellar activation between archers and non-archers provides evidence of the expertise effect in the mental rehearsal of archery. In conclusion, the relative economy in the cortical processes of elite archers could contribute to greater consistency in performing the specific challenge in which they are highly practiced.

SE. palsbo et al (2012) the studied was related to the epidemiology of recreational archery injuries; implications for archery ranges and injury prevention. The aim of this paper was to assess the incidence of injuries in the general population caused by participation in the sport of target archery or bow hunting. Descriptive analysis of a national probability sample of hospital based treatments for archery-related injuries, over a 10-year per the leading injuries were lacerations (62+-2%), which most often occurred through mishandling hunting arrows. Puncture wounds accounted for 8+_1% and foreign bodies' 6+_1%, arising from feathers or vanes embedding in the hand, falling onto an arrow, or a rupturing arrow shaft. Contusions and abrasions, often caused by the bowstring hitting the arm, accounted for 6+_1% of injuries. Nearly all

(99+_0.4%) of cases were treated and released. The overall injury rate is 4.4/10000 participants age 6 and over. Contrary to the prevailing perception that archery is inherently dangerous, the evidence shows that recreational archery is a very safe sport safer than popular field sports where people risk collisions or falls, such as soccer, basketball or baseball. The injury rate from lacerations could be significantly reduced if bow hunter education courses emphasized safe handling of broad head arrows. The result shown that nearly all acute injuries in target archery can be prevented through participation in an accredited training program and the use of basic protective gear (arm guards and shooting gloves). All archery education programs should focus on proper archery stance and joint strengthening to minimize chronic shoulder and back injuries.

Park, j, k et al (2010) the studies was related to the case report; Thoracic outlet syndrome in an elite archer in full-draw position. One possible path mechanism of thoracic outlet syndrome (TOS) is shoulder abduction and extension inducing backward motion of the clavicle which causes compression on the brachial plexus. This position occurs during the full-draw stage of archery, by drawing and holding the bowtie 28-year-old elite archer presented with a feeling of weakness and dull shoulder pain, and experienced decreased grip power and hypoesthesia in the ulnar nerve dermatome in the full-draw position. On CT angiography, the cross-sectional area of the subclavian artery in the costoclavicular space decreased to 40% compared with that of the subclavian artery in a noncompressed state. This patient had first rib resection through the supraclavicular approach with a clavicle osteotomy. At 3.5 year postoperatively, the patient maintained his job as a professional coach and did not have any specific complaints when teaching and demonstrating archery. Literature review revealed numerous causes of TOS, ranging from congenital abnormalities to repetitive postures related to sports activities. The abduction and external rotation (ABER) position (shoulder at 90° abduction and external rotation) has been suggested for detecting TOS and is a documented cause of compression of the brachial plexus and subclavian vessels. We present the case of an archer with TOS association with repeated use of the ABER posits should be suspected when athletes repeatedly use shoulder extension and abduction for their sports if other pathologic conditions can be ruled out.

Carrillo, A, C et al (2011) the studies was related to the autonomic nervous system modulation during an archery competition in novice and experience archers. We assessed autonomic nervous system modulation through changes in heart rate variability during an archery competition as well as archery performance by comparing novice and experience adolescent archers. The result shown that these characteristics of experienced archers are appropriate for optimal performance during competition.

Roy, J et al (2011) the studied was related to the temporal patterns of subjective experiences and self-regulation

during Ramadan fasting among elite archers; a qualitative analysis. The result showed changes in the patterns of experiences among the major domains across the temporal dimension. Athletes reported increased subjective experiences in mental factors toward the latter half of the fasting period. Practitioners should emphasize on mental aspects of training, as these appear to be salient in archery perform.

Boudhina(2009)Conducted a study on anthropometric, physiological, and performance characteristics of an elite international handball team. In conclusion, performance abilities between positions in elite team-handball players appear to be very similar. Single leg horizontal jumping distance could be a specific standardized test for predicting sprinting ability in elite handball players.

Perciavalle(2014)investigated on 21 elite male swimmers was to assess whether the Ape Index (the ratio between the individual's arm span and height) and/or the second-to-fourth digit length ratio (2D:4D), i.e., the ratio between the length of the second and the fourth fingers of the right hand, are associated with the performance of high-level swimmers, when mood and/or executive function are covered. The results showed no statistically significant correlation between the Ape Index and 2D:4D ratio, performance, executive function, or mood. In contrast, statistically significant correlations were found between 2D:4D ratio and performance, executive function, and mood. Regressions indicated that 2D:4D ratio and not Ape Index is related to the performances of a sample of male swimmers.

Ostjic (2006) Studiedto describe structural and functional characteristics of elite Serbian basketball players and to evaluate whether players in different positional roles have different physical and physiological profiles The results of the present study demonstrate that a strong relationship exists between body composition, aerobic fitness, anaerobic power, and positional roles in elite basketball.

Landers (2013) examined the physical, psychological and perceptual/visual variables related to elite archers' shooting performance. This analysis indicated that relative leg strength, reaction time, depth perception, endomorphic, imagery usage, confidence, and focus on past mistakes were variables associated with archery performance. Finally, the total sample was classified into two groups on the basis of the shooting scores. Discriminant function analysis indicated that 81% of the archers were classified correctly on the basis of these significant predictors.

Gabbett (2009) Investigate Physiological and anthropometric characteristics of junior elite and sub-elite rugby league players, with special reference to starters and non-starters. The result indicated that sub-elite starters were taller and had greater change of direction speed than non- starters. A high estimated maximal aerobic power was a common discriminator between starters and non-starters for both elite and sub-elite competitors. These

findings demonstrate that some physical qualities can discriminate starters and non-starters in elite and sub-elite junior rugby league teams

Andrew (2006) Studied to identify physical and performance variables that discriminate elite American junior-aged men weightlifters from non-elite performers. The resulting regression equations correctly classified 84.35% of the weightlifters as elite or non-elite . Five variables significantly contributed to the discriminant analysis (Walks [LAMBDA]= 0.6637392, [chi]²= 44.880, df = 5, p < 0.0001, adjusted R² = 0.67). Body mass index accounted for 23.13% of the total variance, followed by vertical jump (22.78%), relative fat (18.09%), grip strength (14.43%), and torso angle during an overhead squat (0.92%). The use of these 5 easily administered field tests is potentially useful as a screening tool for elite American junior men weightlifters.

Reilly (2000) conducted a study on anthropometric and physiological characteristics of soccer players with a view to establishing their roles within talent detection, identification and development programmers. Thus the result indicated that midfield players and full-backs have the highest maximal oxygen intakes (> 60 ml•kg⁻¹ •min⁻¹) and perform best in intermittent exercise tests. On the other hand, midfield players tend to have the lowest muscle strength. Although these distinctions are evident in adult and elite youth players, conclude that anthropometric and physiological criteria do have a role as part of a holistic monitoring of talented young players.

OBJECTIVES

1. The main objective of this project is the women empowerment in the field of archery and the problems of women for participate in archery.
2. Study of the Help and facility given by Govt. of India to the women archers.

SIGNIFICANCE OF THE STUDY

The sports is the very important part of life of any person while male or female. Sports is very necessary for development of Physically, mentally and intellectually of man or woman.

There is no difference between reachness, poorety, man or woman, castizm in sports.

By participation of women in sports women became strong at socially and increase the women empowerment.

METHODOLOGY

In the Presented project we are talking about participation of women in archery specially in the reference of Jodhpur (Raj.). We tried to find out the problems, information's etc. of women participants in archery in Jodhpur. We used primary and secondary data from authorised sources. We prepared a question air and also interviewed the sports women for data collection.

Name	Age	Game	Practice Years	Level	Still play or not
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Krati Swami	21	Archery	10	National medalist	yes
Ekta Vaishnav	15	Archery	2	State	Yes
Anusuya	18	Archery	3	State	No
Rajshree	16	Archery	3	National	No
Mrinalini	16	Archery	2	State	No
Nandita	17	Archery	4	State	No
Gunjan	18	Archery	1	State	No
Harshita	20	Archery	2	State	No
Saima Haque	22	Archery	3	State	No

FINDINGS

Why the women archers of Jodhpur escape in very short period from archery.

1. Equipments are very costly. Parents can't afford to buy the equipments of archery
2. Equipments is mainly imported from Korea and USA. So the custom duty is very high on these equipments.
3. There is no grounds available for practice of archery from schools and Govt.
4. If parents arrange the ground at their own level, the nonsense people break the equipments, target, target stand etc. also tries to close the game.
5. There is no authorised coaches and ground from the govt.
6. Govt. is not helping the archers of Jodhpur for equipments and practice.

INTERPRETATION

With the help of questionnaire it is known on the basis of information that like the women of India and Rajasthan in Jodhpur city the women player of Jodhpur turned towards Archery to wish for a bright future according to some information till now about 9 girls chosen the game of archery whose age between about 15 to 22 years and they have been doing practice this sports for 1-10 years. Only 2 players is continued in archery from out of 9 players, the remaining 7 players left from archery. They gave many reasons to left the game, which have been mentioned in the further study. Out of this 2 women players have shown their performance at national level. Only one player Krati Swami won Silver medal in National games.

CONCLUSION

After thorough the above study we can say that the women players of Jodhpur also have the same strength and enthusiasm as Dipika Kumari, if they get facilities from Govt. Just the Govt. needs to pay a little attention to this game and parents also needs to bring their daughter with little help. The Govt. can make Archery a means of women empowerment in Jodhpur by providing proper facilities at the right place at the right time. So that the women players here can bring glory to the country by winning medals at

international level.

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