RELATIONSHIP OF MENTAL TOUGHNESS AND ANXIETY LEVELS OF ARCHERS WITH THE SUPPORT FROM PARENTS, FRIENDS, TEAM MATES AND COACH

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Abstract

The purpose of this study was to find out the co-relation between the level of cognitive, somatic anxiety and mental toughness of archers participating both at the basic and advance levels with the support they receive from parents, friends, team mates and coach. The sample size taken was 38, i.e. 18 (female) and 20 (male). Participants were given 2questionnaires, Competitive State anxiety Inventory CSAI-2 and Mental Toughness Inventory (MTI)-36-item questionnaire. Their Cognitive, somatic anxiety and self-confidence was measured through the CSAI-2 rating scale; and through MTI, 12 components of mental toughness namely self-efficacy, personal bests, goal commitment, stress minimization, task specification, self belief about potential, perseverance, positive comparison, task value, task familiarity, positivity and mental self concept were measured. Through the same test the participants also rated the amount of support received in archery from their parents, friends, team mates and coach. Scores obtained in each trait were then co-related with the support received by each of the four support functions. The results showed a positive co-relation between the mental toughness component - self belief about potential (0.42) with parents, task specific attention (0.31) with friends and stress minimization (0.31) with team mates. The results were significant at 0.05 level, one-tail. The results indicated negative correlation between task value (-0.39) with friends and personal bests (-0.32) with Coach, which were found significant at 0.05 level, one-tail. On the other hand there was no significance between mental toughness components and the anxiety scale.

Keywords: Mental Toughness, Anxiety, Friends and Parents.

Introduction

It has long been acknowledged that psychological skills are critical for athletes. Athletes with the requisite "mental toughness" are more likely to be successful. In the past, it was assumed that these skills were genetically based, or acquired early in life. Now, it is commonly accepted that athletes and coaches are capable of learning a broad range of psychological skills that can play a critical role in improving the performance. The specialized field of sports psychology has developed rapidly in recent years. Psychological training should be an integral part of an athlete's holistic training process, carried out in conjunction with other training elements.

The world Archery Federation is the governing body of the Sport of Archery. It's base is in Lausanne, Switzerland. It is composed of 156 national federations and other archery associations, and is recognized by the Inter National Olympic Committee. Para archery, University archery and 3 D archery are most common. The field archery and target archery are practiced common. The main distinctions between the different events are the distances from the target, field and the bows they used to perform. World championships are conducted in outdoor Target Archery, Indoor target Archery and field Archery. Events in those outdoor championships are held involving fixed targets at set distances, using a variety of bows, the re-curve bow from 1931 and the compound bow since 1995are used. World archery Championship events such as Outdoor, Indoor, Field, Ski Archery, Para, Youth and University. Archery Association of India (AAI) is the National Governing body of Archery as a sports In India, who conducts all National Competitions and carries out the selection of the National players. Mental Toughness is a physiological edge that enables you to be consistent, confident, focused, and determined during high pressure situations in order to perform at maximum potential. Mental Toughness definitely helps in performing well and achieving success. Anxiety is a psychological and physiological state characterized

by cognitive, somatic, emotional,and behavioural components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, apprehension, fear, or worry.

When athletes feel good physically and mentally, they have a better chance to perform at their best while an athlete who is troubled by events off the field may come to the field of play with anxiety and fear. This can lead to below-average play, failure or even choking, a term that all athletes hate. In some rare cases, athletes may use that anxiety in their favour and still find a way to succeed. Support systems like parents, friends, and coach and team mates play a major part in every athlete's life and in shaping up their mental toughness and anxiety levels. Mental Toughness and Anxiety levels play an important role in determining the performance of Archers like any other sports.

There are some related studies have been conducted by Mohamad Nizam, A (University Putra Malaysia), Omar-Fauzee, M.S (University Putra Malaysia), Abu Samah, B (University Putra Malaysia) on the Effect of Higher Score of Mental Toughness in the Early Stage of the League towards Winning among Malaysian Football Players and the study concluded that the level of mental toughness among the players were excellent. Only a few were found moderate but not even one player put themselves in the low category.

Another study was conducted by the Department of Research, Wingate Institute, Israel on 55 archers. The state-trait anxiety and self-control questionnaires were used to collect data. Archery performance was recorded on 7 competitive occasions. Analysis indicated archery performance is dependent more on anxiety state than on anxiety trait and self-control. Highly skilled archers were less anxious and performed better across all competitions than moderately skilled archers but did not differ on self-control and anxiety trait. The assumption that increased anxiety negatively affects performance.

Methodology

The objective of this study was to find out whether the mental toughness and anxiety levels of archer is related to the support they receive from their parents, friends, and coach and team mates in their archery career. The sample comprises of Thirty eight Archers including eighteen Females and Twenty Males from Vidhyadhiraja College of Physical Education and Research Panvel, Raigad district, Maharashtra and Pillais College of Architecture, New Panvel , Raigad District, Maharashtra were selected for the study, Variable 1 as Mental toughness and Anxiety Levels and Variable 2 as Support from Parents, Friends, team mates and coach.

Two questionnaires were given to Participants, Competitive State anxiety Inventory CSAI-2 and Mental Toughness Inventory (MTI)-36-item questionnaire. Their Cognitive, somatic anxiety and self-confidence was measured through the CSAI-2 rating scale; and through MTI, 12 components of mental toughness namely self-efficacy, personal bests, goal commitment, stress minimization, task specification, self belief about potential, perseverance, positive comparison, task value, task familiarity, positivity and mental self concept were measured. Through the same test the participants also rated the amount of support received in archery from their parents, friends, team mates and coach.
Mental Toughness Inventory (MTI)

The MTI is a 36-item self-report instrument designed by Middleton et al. (2005; 2004b) to measure twelve components of mental toughness. They are Self-Efficacy, Task Value, Self belief about Potential, Task Familiarity, Personal Bests, Stress Minimization, Mental Self-Concept, Positivity, Perseverance, and Positive Comparison. Task Specific Attention and Goal Commitment. Participants respond to the items using an 8-point true/false response scale.
Competitive State Anxiety-CSAI-2

The CSAI-2 is an instrument used to measure state cognitive state anxiety, somatic state anxiety and state self-confidence in competitive situations. The test indicates to choose the answer that corresponds with how they feel at this point in this time, at this moment.

According to Martens et al. (1990) the scoring of the CSAI-2 is achieved in the following way. A person rates how they are feeling right now by circling one of the presented answers. The four-presented answers include not at all (1), somewhat (2), moderately so (3) and very much so (4).

Sosamma John

The tests namely MTI and CSAI-2 were administered to archers at two archery targets at, Vidhyadhiraja college of Physical Education, NewPanvel and Pillai's College of Architecture, New Panvel, Raigad District, Maharashtra. A general interview was taken by the researcher to understand their approach towards the sport and the support they receive from family, peers and coach. Both the tests were given and the researcher sat through the test to guide them if needed or only the instructions were given before filling the test. The instructions were given according to the tests administered. The samples were collected over a period of one week.

Results and Discussion

15x4 = 60 Pearson co-relation was conducted between each support system and each sub-scale of Mental Toughness Inventory and Competitive State Anxiety Inventory (CSAI-2). Scores obtained in each trait were then co-related with the support received by each of the four support functions.

TABLE 1
MEAN SCORES OF THE MTI SUB-SCALES

S. No.	MENTAL TOUGHNESS	MEAN SCORES	LEVEL
1	Goal Commitment	19.11	HIGH
2	Personal Bests	20.92	HIGH
3	Stress Minimization	17.05	MODERATE
4	Self Efficacy	18.37	HIGH
5	Task Specification	16.68	MODERATE
6	Self About Potential	20.5	HIGH
7	Perseverance	20.08	HIGH
8	Positive Comparison	14.79	MODERATE
9	Task Value	22.05	HIGH
10	Task Familiarity	19.66	HIGH
11	Positivity	17.87	MODERATE
12	Mental Self Concept	17.75	MODERATE

Table 1 represents the Mean scores of all the sub-scales of the MTI. The mean scores are moderate on stress minimization, task specific attention, positive comparison, positivity and mental self- concept; high on goal benefit, personal bests, self efficacy, self belief about potential, perseverance, task value and task familiarity. This shows that the range of samples collected is wide.

TABLE 2
MEAN SCORES OF THE CSAI-2 SUB-SCALES

S. No.	ANXIETY LEVELS	MEAN SCORES	LEVEL
1	Cognitive Anxiety	21.76	Moderate
2	Somatic Anxiety	20.55	Moderate
3	Self Confidence	24.81	Moderate

Table 2 represents the Mean scores of all the sub-scales of the Anxiety levels. The mean scores are moderate on all three sub-scales namely, cognitive, somatic and self-confidence. This shows optimum anxiety levels and moderate self confidence.

Sosamma John

TABLE 3
MEAN SCORES OF THE SUPPORT SYSTEMS

S. No.	SUPPORT SYSTEMS	MEAN SCORES	LEVEL
1	Parents	7.02	HIGH
2	Friends	6.05	HIGH
3	Coach	7.03	HIGH
4	Team Mates	5.76	MODERATE

Table 3 represents the Mean scores of all the support systems that are parents, friends, coach and team mates. This shows that the samples receive more support from parents, friends, and coach as compared to team mates in respect to their shooting.

TABLE 4
CO-RELATION OF ALL FOUR SUPPORT SYSTEMS

S. No.	MENTAL TOUGHNESS	PARENTS	FRIENDS	COACH	TEAM MATES
1	Goal Commitment	0.23	-0.14	-0.17	-0.2
2	Personal Bests	-0.01	-0.16	-0.32	0.17
3	Stress Minimization	-0.2	-0.05	-0.17	0.31
4	Self Efficacy	-0.009	0.2	0.05	0.18
5	Task Specific Attention	0.08	0.31	-0.08	-0.13
6	Self Belief About Potential	0.42	0.28	0.22	-0.01
7	Perseverance	0.05	-0.22	-0.2	-0.05
8	Positive Comparison	0.07	0.29	0.1	0.04
9	Task Value	0.04	-0.39	-0.03	0.22
10	Task Familiarity	-0.07	-0.16	0.02	0.11
11	Positivity	-0.02	-0.06	-0.15	0.14
12	Mental Self Concept	-0.06	-0.03	-0.18	0.2
	ANXIETY				
1	Cognitive	-0.02	0.18	0.14	0.1
2	Somatic	-0.02	0.17	0.26	-0.05
3	Self Confidence	0.2	-0.07	0.05	0.21

Table 4 represents the co-relation of all the 15 sub-scales of MTI and CSAI-2 with the support received from parents, friends, and coach and team mates. The results were found positively significant at 0.05 level, one-tail (Pearson).It showed a positive co-relation in the mental toughness component - self belief about potential (0.42) with parents, task specific attention (0.31) with friends and stress minimization (0.31) with team mates. This shows that the support from parents helps shooters to build up their self belief about the potential they have in the sport; support of friends helps them increase their task specific attention i.e. their focus in the sport; and support of team mates helps them to minimize their stress. The results were found negatively significant on task value (-0.39) with friends and personal bests (-0.32) with coach, which showed a negative co-relation of the same. This shows that if there is too much support of friends it

Sosamma John

reduces the task value of the shooter and if the coach support the shooter too much the latter's personal bests are hampered and may lead to low mental toughness and high anxiety levels. On the other mental toughness components and the anxiety scales there was no significance, therefore the support from parents, friends, team mates and coach had no effect on the anxiety levels and the other components of mental toughness on archers.

Conclusion

The results showed a positive co-relation in the mental toughness component - self belief about potential (0.42) with parents, task specific attention (0.31) with friends and stress minimization (0.31) with team mates; negative co-relation on task value (-0.39) with friends and personal bests (-0.32) with Coach, which were found significant at 0.05 level, one-tail. On the other hand there was no significance between mental toughness components and the anxiety scales. The overall mental toughness was most likely high and the anxiety level was moderate. Therefore we can conclude that the mental toughness and anxiety levels of Archer are related to the support received from parents, friends, coach and mental toughness.

References

Fernald LD(2008). Psychology: Six perspectives (pp. 12-15). Thousand Oaks, CA: Sage Publications.

Smith, A and Stewart, B. (1999). Sports Management: A Guide to Professional Practice. Sydney, Allen and Unwin. Thomas. Hockenbury and Hockenbury. Psychology. Worth Publishers, 2010.

Mental Toughness and athletes use of psychological strategies, European Journal of Sports Science.

O'Neil, H F.;cited in Coon, D.;Mitter, J.O (2008). Introduction to Psychology:Gateways to mind and behavior (12th ed., pp. 15-16). Stamford, CT: Cengage Learning.

www.break through sports.net

http://en.wikipedia.org/wiki/Psychology

www.scholastic.com

Pharam.D, Rauino.L, Restint. V &Saklob.J,Effect of selected parenetral feeding on survival in head. International journal of nutrition and injuries process.2014;6(7):45-50.

Sharma.N.P,Comman sports injury and their recommended.Handbook of sports mediciene.Friends publication. New delhi; 2006:14-3.

Sharma.N.P,Diet nutrition and sports performance.Handbook of sports mediciene.Friends publication. New delhi;2006:14-31.

Willian.J,the effect of Creatine and tratade on the recovery process of the hormones .Journal of orthopaedic research.2003;22(3):209-218.