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## Comparative study of motivation and mental toughness between India and Sri Lanka female volleyball players of 12<sup>th</sup> South Asian games

Sunil Kumar and Ratna Das

### Abstract

The purpose of the study was “Comparison of motivation and mental toughness between India and Sri Lanka female Volleyball players”. The subject for this study was 12<sup>th</sup> South Asian Games 2016, which was organized by India in Guwahati (Assam). Total 24 (Thirty) female Volleyball players, 12 players of India and 12 player of Sri Lanka were (20-35 years of age) selected. The sports motivation scale (sms28) developed by Luc G. Pelletier, Michelle Fortier, and the Sports Mental Toughness Questionnaire developed by ADr. Alan Goldberg (2012) were selected for this. The selected variables were motivation and mental toughness. The obtained data were analyzed by applying independent ‘t’ test in order to comparison of motivation and mental toughness differential between India and Sri Lanka female Volleyball players. Further, the level of significance was set at 0.05 level of confidence. The finding of the study reveals that there was no significant difference was found in case of motivation and mental toughness between India and Sri Lanka female Volleyball players may be due to the reason both teams undergone with the high training schedule, good intellectual ability, very high fitness level, more highly motivated to win the Gold medal in 1<sup>th</sup> South Asian Games. They might have equal level of experience in terms of competition which must have been probable cause for the insignificant difference

**Keywords:** motivation, mental toughness and India Volleyball players, Sri Lanka Volleyball players

### Introduction

In Search of Mental Toughness Sport psychologists (researchers and practitioners), coaches, sports commentators, sports fans, and athletes acknowledge the importance of mental toughness in sporting performance. Athletes and coaches felt that at least fifty percent of success is due to psychological factors that reflect mental toughness. Despite widespread agreement on the importance and benefits of mental toughness and calls to identify psychological attributes that create champions, high quality research into mental toughness is limited.

The definition that resulted from this study is as follows: “Mental toughness is having the natural or developed psychological edge, that enables you to generally cope better than your opponents with the many demands (competition, training, and lifestyle) that sport places on a performer, and specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure”

Coaches and athletes often recognize that success in sport cannot be accomplished without the necessary mental skills. Most coaches conservatively estimate that the mental aspects of sport constitute at least 50% of an athlete's performance (Loehr, 1982) [5]. Moreover, at the higher levels of competition, the importance of mental skills is not able salient due to the comparable physical skills of athletes and an increase in the frequency of stressful situations elite athletes experience (Cherry, H. R., 2005) [4].

Motivation refers to “the reasons underlying behavior” (Guay *et al.*, 2010, p. 712) [1]. Paraphrasing Gredler, Broussard and Garrison (2004) [2] broadly define motivation as “the attribute that moves us to do or not to do something” (p. 106). Intrinsic motivation is motivation that is animated by personal enjoyment, interest, or pleasure. As Deci *et al.* (1999) [3] observe, “intrinsic motivation energizes and sustains activities through the spontaneous satisfactions inherent in effective volitional action. It is manifest in behaviors such as play, exploration, and challenge seeking that people often do for external rewards” (p. 658).

Researchers often contrast intrinsic motivation with extrinsic motivation, which is motivation governed by reinforcement contingencies. Traditionally, educators consider intrinsic motivation to be more desirable and to result in better learning outcomes than extrinsic motivation (Deci *et al.*, 1999) [3]. Motivation involves a constellation of beliefs, perceptions, values, interests, and actions that are all closely related. As a result, various approaches to motivation can focus on cognitive behaviors (such as monitoring and strategy use), non-cognitive aspects (such as perceptions, beliefs, and attitudes), or both. For example, Gottfried (1990) [6] Defines academic motivation as “enjoyment of school learning characterized by a mastery orientation; curiosity; persistence; task-endogeny; and the learning of challenging, difficult, and novel tasks” (p. 525). On the other hand, Turner (1995) [7]. Considers motivation to be synonymous with cognitive engagement, which he defines as “voluntary uses of high-level self-regulated learning strategies, such as paying attention, connection, planning, and monitoring” (p. 413).

### Review of related literature

Balaji and Jesudass (2011) [8] Studied to find out the differences in Mental Toughness among Cricket Players of different age groups. To achieve this purpose, ninety Cricket players at the age group of 10-21 years were selected from Chennai District, who regularly practice the game and participate in various tournaments. —Mental Toughness Questionnaire a standardized sports psychological inventory designed by Dr. Goldberg, was responded by all the subjects. The collected data was analyzed using simple analysis of variance (ANOVA). The results of the study showed that there was a significant difference in Mental Toughness among Cricket Players group 18 -21 years showed significantly greater mental toughness than the other two age groups. This may be due to their experience in the game.

Bhambri *et al* (2005) [9] Studied the effect of psychological interventions such as general relaxation, imagery and combination of both on the mental toughness dimensions of table-tennis players. The study was carried out on 32 national level table –tennis players in the age group of 12-17 years. Loehr psychological performance inventory was administered to assess their mental toughness on seven variables viz. self-confidence, negative-energy, attention control, visual and imagery control, motivational level, positive energy and attitude control. The data obtained was analyzed using ANOVA, t test and percentage distribution. The results indicate that all the 3 psychological interventions enhanced mental toughness dimensions of sportspersons. However combined intervention consisting of both relaxation and imagery therapies showed the maximum effect on mental toughness dimensions.

Mohamad *et al.* (2009) [10] Explore the effect of higher score of mental toughness in the early stage of the league towards winning among Malaysian football players. The instrument used in this study was the questionnaire of Psychological Performance Inventory (PPI), Loehr, 1986 [13]. The difference between the mental toughness between the categories of elite and non-elite, professional and amateur players was measured. Other than that, the relationship between the players' category, status and achievement with the seven dimension of mental toughness (Self-confident (SC), Negative energy control (NE), Attention control (AT), Visual imagery control (VI), Motivational (MT), Positive energy control (PE) and Attitude control (AC) was evaluated. The results from the descriptive analysis showed that the mental

toughness of Malaysian football players is at an excellence level. Duda (1988) [11] Examined the relationship between goal perspectives and selected motivation behavior (i.e., persistence and intensity) among intra-mural league participation. Persistence was defined as the number of years of participation in the sports whereas intensity was optimized as the hours and weeks spent practicing the recreational sports in the student's free time. Results indicated that greater persistence and intensity corresponded to the student's emphasis on task involvement in sports

Whitehead and Robert (1989) [12] Investigated motivational outcomes consequent to participation in physical fitness testing procedure. Seventh and eighth grade school children (N = 165) were administered on the intrinsic motivation inventory before and after participating in a fitness test where they received bogus positive, negative or no verbal feedback (control). Manova and casual modeling procedures revealed that positive feedback increased intrinsic motivation while negative feedback decreased it. Analysis showed that changes in intrinsic motivation were mediated by change in perceived competence. In a second experiment seventh and eighth graders (N = 370) participated in either the president's challenge or the Fitness 29 Gram fitness tests. Because of their different evaluative procedures and incentive schemes, it was hypothesized that these tests would have different effects on intrinsic motivation, Manova and Anova revealed no significant differences between fitness test groups on intrinsic motivation or physical self-worth. However, there was a clear gender effect on the perceived competence aspect of intrinsic motivation and self-worth. These results partially support the case for applying the trends of cognitive evaluation theory and reflectance motivation theory of fitness testing situations in order to provide threats to intrinsic motivation.

### Objective of the study

The objective of the present study was to compare the motivation and mental toughness between India female and Sri Lanka female Volleyball players of 12<sup>th</sup> South Asian Games.

### Selection of Subjects

For the purpose of present study 24 female Volleyball players (12 players of India, 12 players of Sri Lanka) female were selected from 12th South Asian Games which was held in Guwahati, Assam (2016).

### Procedure

Total 24 female Volleyball players (20-35 years of age) selected from South Asian Games-2016 which was organized by India in Guwahati (Assam). The selected variable was mental toughness. After obtaining approval for the human subjects protocol from the tournament organizer, prospective team coaches were contacted about taken the data.

### Tool Used

1. Mental Toughness: The Sports Mental Toughness Questionnaire developed by A Dr. Alan Goldberg was also selected for this study, because it is most reliable, valid and suitable test to measure mental toughness of sportsman.
2. The motivation score of the subjects was obtained by using sports motivation scale (sms28) developed by Luc G. Pelletier, Michelle Fortier.

**Measures**

Mental toughness was measured by applying mental toughness questionnaire developed by Dr. Alan Goldberg (1998) [14]. Mental toughness questionnaire consists of 30 items measuring the mental toughness in five areas, i.e. rebound ability, ability to handle pressure, concentration, confidence and motivation. There was only true/false answers option in this questionnaire and subjects have to tick only one option.

Sport motivation scale (SMS; Pelletier *et al.*, 1995) [15] the scale was designed to assess individuals' level of motivation towards sport, using the self-determination theory framework. Participants reported the extent to which the listed reasons for practicing their sport corresponded with their own personal reasons. Participants' motivation was assessed using a 7-point Likert scale ranging from 1 (Does not correspond at all) to 7 (Corresponds completely). The scale consisted of the 28 items measuring seven factors (three types of intrinsic motivation, four types of extrinsic motivation, and amotivation).

**Hypothesis**

It was hypothesized that there may be significant difference in motivation and Mental Toughness between India and Sri Lanka (female) Volleyball players of 12th South Asian Games.

**Statistical Technique**

The obtained data were analyzed by applying independent 't' test in order to comparison of motivation and Mental Toughness differential between India and Sri Lanka (female) Volleyball players. The level of significant was set at 0.05.

**Results**

Comparison of Motivation between India and Sri Lanka (female) Volleyball Players

Team	N	Min	Max	Mean	SD	'T'
India Female	12	80	129	112.67	13.28	.431
Sri Lanka female	12	94	149	115.83	21.73	

t'(2, 22) = 2.074

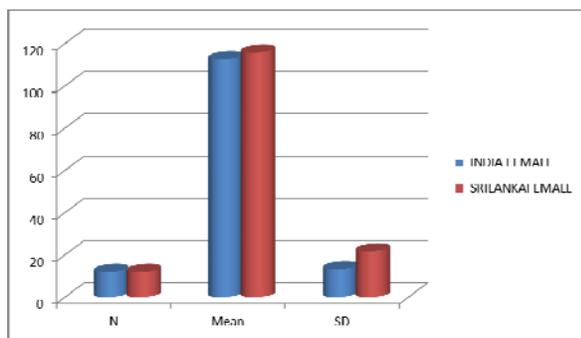


Fig 1

From the above table-1, It is revealed that there was no insignificant difference in case of motivation test as calculated 't' value [.431] was less than tabulated 't' value [2.074] at 0.05 level of significance. Thus it may be concluded that there was no significant difference between India and Sri Lanka (female) Volleyball players related to motivation test, in which mean motivation test is insignificantly higher for Indian and Sri Lanka (female) Volleyball players at 0.05 level of significance. The finding of the table 1 are presented above in fig. 1

Comparison of Mental toughness between India and Sri Lanka (female) Volleyball Players

Team	N	Min	Max	Mean	SD	't'
India Female	12	10	19	15.50	2.54	-14.18
Sri Lanka female	12	13	20	16.83	2.03	

t'(2, 22) = 2.07

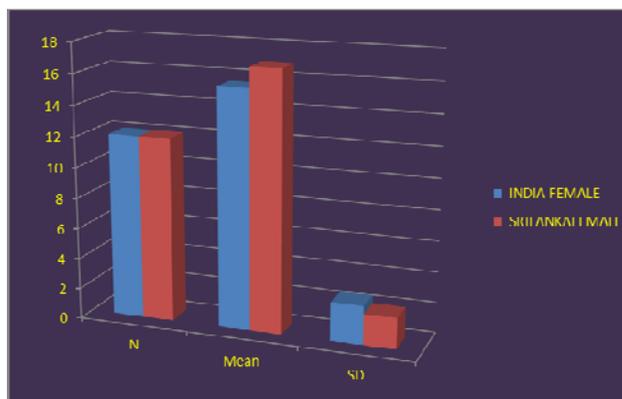


Fig 2

From the above table-2, It is revealed that there was no significant difference in case of mental toughness test as calculated 't' value [.431] was less than tabulated 't' value [2.074] at 0.05 level of significance. Thus it may be concluded that there was no significant difference between India and Sri Lanka (female) Volleyball players related to motivation test, in which mean motivation test is insignificantly higher for Indian and Sri Lanka (female) Volleyball players at 0.05 level of significance. The finding of the table 1 are presented above in fig. 2.

**Discussion of Finding**

The finding of the study reveals that no significant difference was found in case of motivation and mental toughness between India and Sri Lanka (female) Volleyball players. It may be due to the reason both teams undergone with the high training schedule, good intellectual ability, very high fitness level, more highly motivated to win the Gold medal in 1th South Asian Games. They might have equal level of experience in terms of competition which must have been probable cause for the insignificant difference

**Conclusion**

Within the limitation of the study the following conclusion may be drawn

1. There is no significant difference in case of mental toughness between India and Sri Lanka (female) Volleyball players.
2. There is no significant difference in case of motivation between India and Sri Lanka (female) Volleyball players.

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