

Journal of Physical Education Research, Volume 2, Issue III, September 2015, pp.53-61 ISSN: Print-2394 4048, Online-2394 4056, IBI Factor: 4.29

AGGRESSION AND MENTAL TOUGHNESS AMONG INDIAN UNIVERSITIES BASKETBALL PLAYERS: A COMPARATIVE STUDY

ZAMIRULLAH KHAN¹, ANWAR ALI², NASEEM AHMED³

¹Department of Physical Education, Aligarh Muslim University, Aligarh, INDIA. **Email**: zamir.amu@gmail.com ²Department of Physical Education, Aligarh Muslim University, Aligarh, INDIA. ³Mumtaz P.G. College Lucknow, Lucknow, INDIA.

How to cite this article: Khan, Z., Ali, A., & Ahmed, N., (September, 2015). Aggression and mental toughness among Indian universities basketball players: A comparative study. Journal of Physical Education Research, Volume 2, Issue III, 53-61.

Received: March 22, 2015

Accepted: September 12, 2015

ABSTRACT

The purpose of this study was to compare the aggression and mental toughness of men and women basketball players of all India intervarsity. One hundred (50 men & 50 women) basketball players were randomly selected as the subjects. Aggression inventory constructed and standardized by Srivastava (1984), and Mental toughness questionnaire prepared by Goldberg (1995) was used to collect players responses on aggression and mental toughness, respectively. The data were analyzed by applying descriptive statistic i.e. mean, standard deviation and t-test. The significance level was set at 0.05. The findings of the study showed that there is no substantial significant difference in mental toughness and aggression between men and women all India universities basketball players.

Keywords: Aggression, mental toughness, basketball, players, Indian universities.

1. INTRODUCTION

All over the globe, the concept of sports psychology has changed. Today, players face sharp and unique challenges. The competition standards are higher (Alderman, 1974; Silva, & Weinberg, 1984)). All sports include psychological as well as physical strains (Cratty, 1968; Edwards, 2003). They involve mental images (Honari, Heidary, Moradi, & Emami, 2011), thought patterns (Jones, 2002), one's mind and physical conditioning (Tapp, 1991). If one has trained more and better, his/her present capacity will be higher than the one who has trained less or less well. Recent research has proved that mental toughness is

Correspondence: Zamirullah Khan, Ph.D., Professor, Department of Physical Education, Aligarh Muslim University, Aligarh, INDIA, Tel: +919411465571, Email: zamirullahkhan@gmail.com

largely important to achieve success in sports (Thelwell, Weston, & Greenlees, 2005). It is a quality, which differentiates the winner from the loser, the champion from the rest of the field. Basically, sportsmen with mental toughness have the ability to raise their game to the highest level at crucial moments in a match (Crust, & Clough, 2005). This also implies that the mental toughness gives them the necessary focus and ability to concentrate on the goal (Gucciardi, Gordon, & Dimmock, 2000; Rani, Malik, & Thapa, 2012).

Mental toughness is the ability to concentrate on the proceeding of a particular sporting discipline and not let the pressure of the match situation or the sense of occasion to get the better of the players (Fox, 2000; Golby, Sheard, & Lavallee, 2003; Gucciardi, 2011). Aggression among human is as old as the human race. Aggression is defined as the deliberate to harm another person. This includes physical, psychological as social harm is the primary focus (Jones, Bray, & Olivier, 2005; Grange, & Kerr, 2010; Katko, Meyer, Mihura, & Bombel, 2010). On the other hand, highly tough behaviour within the rules of the games is not aggression (Gazar, & Raziek, 2010). Aggression is defined as the infliction of an oversize stimulus physical, verbal or gestural upon one person by another (Berkowitz, 1962). In sports psychology, the term aggression is generally defined as any behavior that is intended to harm another individual who does not want to be harmed (Baron & Richardson, 1994). It is an ability to constantly sustain over the ideal performance state during an adversity in competition. It is also being defined as that unshakable perseverance and conviction towards some goal despite pressure or adversities. Weinberg and Forlenza (2012) defined mental toughness is a view embedded in a multidimensional framework that includes personal characteristics e.g., winning attitude, handling pressure, concentration and situations (e.g., playing environment, injury, or mental and physical preparation). Research has identified tough mindedness and aggressiveness as a personality trait which coincide positively with athletic ability and success (Salam, & Sardar, 2010; Rascle, Traclet, Souchon, Coulomb, & Petrucci, 2010). Researchchers have performed numerus of studies concerning problems related to aggression and mental toughness. Kumar, and Chandrappa (2011) in their study documented that athletes are aggressive because of vicarious and operant reinforcements. They see other players regarded in terms of cheers and high monitory prizes and salaries for being aggressive and violent and they follow suit. Mudimela (2010) in his study found champion athletes to be significantly distinguished than other athletes as the former manifested high aggression. Sidhu, Singh, and Singh, (2011) reported that aggression is significantly associated with success in athletic skill. Gazar, and Raziek, (2010) in their investigation found that the gold medallist wretsler are more aggressive than the non medallist wretsler. Mishra (2001) found high achieving female athletes are more aggressive as compared to low achievers. Mishra (2010) found sprinters possessing high

aggressive tendencies performed better in competitive sports than the kho-kho players possessing low aggressive tendencies.

In this modern era of competition the psychological preparation of a team is as much important as teaching the different skill of a game on the scientific line (Katko, *et al.*, 2010; Kannur, Reddy, & Reddy, 2010). The team are not only to play the games, but to win the games & for running the games, it is not only the proficiency in the skill which bring victory, but more important is the will, spirit, desire of the player which they play & perform their best in the competition (Kaur, 2010; Ali, Hussain, & Rahaman, 2010). There are studies which reveal differences in performance among men and women players, but such studies are not often in India (Bandura, Ross, & Ross, 1961; Buss, 1961; Baron, & Richardson, 1994; Barimani, Sina, Niaz-Azari, & Makerani, 2009; Mohammad, & Hasan, 2015).

The present researchers wanted to examine aggression and mental toughness among basketball players during competition and also find out any possible difference between men and women basketball players. The study might help the players and coach to analyze the level of aggression and mental toughness. The knowledge of the aggression and mental toughness will help the coach to handle the players of the team in a better way. The study would help to prepare and/or modify the psychological training program, according to the level of the players. The purpose of the study was to compare the aggression and mental toughness variables of the all India Intervarsity basketball players.

2. METHODS AND MATERIALS

2.1 Subjects

For the purpose of this study one hundred (100) basketball players (men= 50, women = 50), who participated in all India Intervarsity (Satayabama University, Chennai and Banasthai University, Jaipur, India) basketball competitions, were considered as subjects. The age of the subjects ranged between 18 to 28 years.

2.2 Tools

The data were collected for all the subjects by administering the Srivastava (1984) sports aggression inventory and Goldberg (1995) mental toughness questionnaire. Mental toughness questionnaire consists of 60 items measuring the mental toughness in four areas i.e. handling pressure, concentration, mental rebounding and winning attitude. Sports aggression inventory consists of 25 items. These were only true/false or yes/no reply option.

2.3 Procedure

The questionnaire was administered to the subjects during all India intervarsity basketball tournaments. Prior to data acquisition, investigators contacted team managers, captains and coaches to seek permission to collect the data of the subjects on the psychological variables. After acquiring consent questionnaires were administered to the subjects.

2.4 Statistical Analysis

The data thus collected were statistically analyzed by using statistical package of Social Science (SPSS) version 16.0 software. The data were analyzed by applying descriptive statistic i.e. mean, standard deviation and *t*-test. The significance level was set at 0.05.

3. RESULTS

 Table 1: Mean, SD and t value of aggression of all India intervarsity (men and women) basketball players

Groups	Ν	Mean	SD	<i>t</i> value	
Men	50	12.9	3.09	0.40	
Women	50	12.23	2.49	0.40	
			Tab. $t_{0.05}$ (98)= 1.98		

From the table 1, it is evident that the obtain *t*-value (0.40) is found lesser than table value (1.98) at 0.05 level with 98 df. Thus, there is no significant difference in aggression between men and women all India intervarsity basketball players.

Figure 1: Graph depicting the mean comparison between men and women all India intervarsity basketball players in their aggression

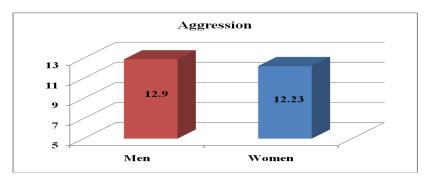
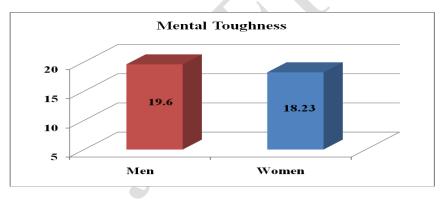


Table 2:	Mean,	SD	and	t value	of	mental	toughness	amongst	all	India
intervarsity (men and women) basketball players										

Groups	Ν	Mean	SD	<i>t</i> value	
Men	50	19.6	3.34	0.97	
Women	50	18.23	3.76		
			Tab. $t_{0.05}$ (98)= 1.98		

From the readings of the above table 2, it is vivid that the obtain *t*-value (0.97) is found lesser than table value (1.98) at 0.05 level with 98 df. Thus, there is no significant difference exist in mental toughness between men and women all India intervarsity basketball players.

Figure 2: Graph depicting the mean comparison between men and women all India intervarsity basketball players in their mental toughness



4. DISCUSSION

The study was designed with the purpose to determine the significant difference between men and women all India intervarsity basketball players on the variable of aggression and mental toughness. The results of the study revealed that there was no significant difference found between men and women all India intervarsity basketball players on the variable of aggression and mental toughness.

This result documented that at all India intervarsity level completion men and women did not differ significantly as far as aggression and mental toughness is concerned. This result is supported by the Naseer and Singh (2013) as their finding showed that there was no significant difference between aggression and mental toughness of the armed force sportsperson and civilian sportsman. Further

the findings of this study also supported by the findings of Peter (2014) and Kumar (2013).

5. CONCLUSIONS

The study showed that there was no significant difference between men and women all India Intervarsity level basketball players in their aggression as well as mental toughness. This clearly reveals that all India Intervarsity basketball player whether they are men or women required similar quantity of aggression and mental toughness as they involve themselves for various competitions.

6. REFERENCES

- Alderman, R. B. (1974). *Psychological behavior in sports*. Philadelphia: W.B. Saunders Co.
- Ali, J. Hussain, I., & Rahaman, A. (2010). A comparative study of aggression and sports achievement motivation of hockey players of Manipur. AMASS Multilateral Research Journal, 2(2), 23-26.
- Bandura, A., Ross, D., & Ross, S.A. (1961). Transmission of aggression through limitation of aggressive models. *Journal of Abnormal and social Psychology*, 63(3), 575-582.
- Barimani, A., Sina, F. S., Niaz-Azari, K., & Makerani, F. K. (2009). Comparing and examining the amount of aggression between the athletic and nonathletic students. *World Applied Sciences Journal*, 6(4), 460-463.
- Baron, R.A., & Richardson, D.R. (1994). *Human aggression* (2nd ed.). New York: Plenum.
- Berkowitz, L. (1962). *Aggression: A social psychological analysis*. New York: McGraw-Hill Co.
- Buss, A. H. (1961). The psychology of aggression. New York: Wiley.
- Cratty, B.J. (1968). *Psychology and physical activity*, (p.15). New Jersey: Englewood Cliffs, Prentice hall Inc.
- Crust, L., & Clough, P.J. (2005). Relationship between mental toughness and physical endurance. *Perceptual and Motor Skills*, 100(1), 192-194.
- Edwards, S. D. (2003). Physical exercise and psychological wellness in health club members: A comparative and longitudinal study. *South African Journal for Research in Sport, Physical Education and Recreation, 25 (1):* 23-33.
- Fox, K.R. (2000). Physical activity and mental health promotion: The natural partnership. *International Journal of Mental Health Promotion*, 2: 4-12.
- Gazar, I. A., & Raziek, M.M.A. (2010). Sport aggression and its relationship with ranking of the junior Egyptian wrestlers. *World Journal of Sport Sciences*,

3(5), 252-257.

- Golby, J., Sheard, M., & Lavallee, D. (2003). A cognitive-behavioural analysis of mental toughness in national rugby league football teams. *Perceptual Motor Skills*, 96(2), 455-462.
- Grange, P., & Kerr, J. H. (2010). Physical aggression in Australian football: A qualitative study of elite athletes. *Psychology of Sport and Exercise*, 11, 36-43.
- Gucciardi, D.F. (2011). The relationship between developmental experiences and mental toughness in adolescent cricketers. *Journal of sports and exercise Psychology*, *33*(3), 370-393.
- Gucciardi, D.F., Gordon, S., & Dimmock, J.A. (2000). Advancing mental toughnesss research and theory using personal construct psychology. *International Review of Sport and Exercise Psychology*, 2(1), 54-72.
- Honari, H., Heidary, A., Moradi. M. and Emami, A. (2011). A consideration of the relationship between fitness and mental preparation of non-athlete and athlete students in Alame Tabatabaei University, Iran. *Journal of PE and Sports Management*, 2 (2): 21-25.
- Jones, G. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, 14(3), 205-218.
- Jones, M.V., Bray, S.R., & Olivier, S. (2005). Game location and aggression in rugby league. *Journal of Sports Sciences*, 23(4), 387-393.
- Kannur, N.G., Reddy, I.B., & Reddy, P.V. (2010). A comparative study of aggression and achievement motivation among the M.Ed and M.P.Ed students. *Osmania Journal of Physical Education*, *4*, 07-12.
- Katko, N.J., Meyer, G.J., Mihura, J.L., & Bombel, G. (2010). A principal components analysis of rorschach aggression and hostility variables. *Journal of Personality Assessment*, 92(6), 594-598.
- Kaur, A. (2010). The comparative study of aggression between female players and non-players. *Journal of Health and Fitness*, 2(2), 30-34.
- Kumar, A., Kumar, J., & Maurya, S.K. (2010). A study of anxiety, aggression and achievement motivation of university level kabaddi players. *AMASS Multilateral Research Journal*, *3*(1), 36-39.
- Kumar, P.U., & Chandrappa (2011). A comparative study on anxiety and aggression among athletes and non-athletes. *International Journal of Health, Physical Education and Computer Science in Sports, 2*(1), 134-135.
- Kumar, R. (2013). Comparative study of aggression in women cricket players of different levels of participation. *International Journal of Physical Education, Sports and Yogic Sciences* 2(2), 17-18.
- Mishra, S. (2010). A study of aggression, anxiety and achievement motivation of

university level kho-kho players. *AMASS, Multilateral Research Journal,* 2(1), 59-60.

- Mishra, V. (2001). Assessment of aggression and anxiety among players of selected sports. *Indian Journal of Sports Studies*, 6(2), 24-27.
- Mohammad, A., & Hasan, M. (2015). Aggression of Indian female field hockey players at different levels of competitions. *International Journal of Sports and Physical Education*, 1(1), 9-13.
- Mudimela, S.S.R. (2010). Impact of level of participation on aggression, anxiety, achievement motivation and performance among soccer players. *British Journal of Sports Medicine*, 44(S1), 61.
- Naseer, M.K.A., & Singh, T.D. (2013). Comparison of aggression and mental toughness between armed force sportsmen and civilian sportsmen. *Academic Sports Scholar*, 1(12), 01-06.
- Peter, V.F. (2014). The study of group cohesion and aggression between all India inter university and national female hockey player's. *Research Journal of Physical Education Sciences*, 2(7), 4-7.
- Rani, P., Malik, N. and Thapa, G. (2012). A study of mental health of sports and non-sports senior secondary school students. *South Asian Academic Research Journals*, 2 (3): 219-231.
- Rani, U., & Mathana, S. K. (2010). Difference in aggression of school and college level volleyball players. *Journal of Physical Education and Yoga*, 1(2), 129-131.
- Rascle, O., Traclet, A., Souchon, N., Coulomb, C.G., & Petrucci, C. (2010). Aggressor-victim dissent in perceived legitimacy of aggression in soccer: the moderating role of situational background. *Research Quarterly for Exercise and Sport*, 81(3), 340-348.
- Razeena, K.I. (2004). Comparative relationship of state anxiety and aggression of defensive and offensive women hockey players. *Journal of Sports and Sports Sciences*, 27(4), 103-128.
- Salam, C., & Sardar, S. (2010). Aggression and violence behaviour among the spectators of contact and non-contact games. *Journal of Health and Fitness*, 2(2), 21-29.
- Sardar, S., & Das, P. K. (2010). Violence and aggression behaviour of spectators. *AMASS Multilateral Research Journal*, 3(1), 87-92.
- Schat, A. C. H., & Frone, M. R. (2011). Exposure to psychological aggression at work and job performance: the mediating role of job attitudes and personal health. *Work and Stress*, 25(1), 23-40.
- Sharma, K. Khan, K.A., Haider, Z., & Khan S. (2012). Aggressive behavior in field soccer players: A comparative study. *International Journal of Physical and Social Sciences*, 2(8), 387-393.
- Sheard, M. (2009). A cross-national analysis of mental toughness and hardiness in

elite university rugby league teams 1. *Perceptual and Motor Skills, 109* (1), 213-223.

- Sidhu, J.S., Singh, K., & Singh, C. (2011). Anxiety and aggression level between male and female athletes at university level: An empirical study. *Journal of Health and Fitness*, *3*(1), 84-88.
- Silva, J.M., & Weinberg, R.S. (1984). *Psychological foundation of sports*. Champaign, I.L.: Human Kinetic Publisher, Inc.
- Tapp, J. (1991). Mental toughness. Referee, 16, 44-48.
- Thelwell, R. Weston, N. & Greenlees, I. (2005). Defining and understanding mental toughness within soccer. *Journal of Applied Sport Psychology*, 17(4), 326-332.