

LEVEL OF AGGRESSION AMONG ATHLETES AND NON ATHLETES

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ABSTRACT:

The present research examines the level of aggression among athletes and non-athletes males and females. Sample consists of 100 athletes and 100 non-athletes, among these 100 athletes, 50 are male and 50 are female and among 100 non-athletes 50 are male and 50 are female, taken from National University of Computers and Emerging Sciences (FAST-NUCES) (25 athletes, 25 non-athletes), International Islamic University Islamabad, IIUI (25 athletes, 25 non-athletes), National University of Science and Technology, NUST (25 athletes, 25 non-athletes) and Bahria University (25 athletes, 25 non-athletes). Buss and Perry's Aggression scale (1992) was used to measure the level of aggression and its different types like physical aggression, verbal aggression, anger and hostility. It was hypothesized that male athletes have more aggression including physical aggression, verbal aggression, anger and hostility as compared to female athletes, male non-athletes have more aggression including physical aggression, verbal aggression, anger and hostility as compared to female non-athletes and athletes have more aggression including physical aggression, verbal aggression, anger and hostility as compared to non-athletes. It was found that male non-athletes are more aggressive than female non-athletes. There was non-significant difference between athletes and non-athletes and male and female athletes on Buss and Perry's Aggression scale

Keywords: athletes, non-athletes, aggression, physical aggression, verbal aggression, anger and hostility

Level of Aggression among Athletes and Non-athletes

The term aggression refers to a range of behaviors that can result in both physical and psychological harm to oneself, other or objects in the environment. Aggression can be of different types depending on the situation one is facing. Agg-

ression in athletes is although more while they are playing but less in daily life as compared to non-athletes because they vent it out through what they play. The expression of aggression can occur in a number of ways, including verbally, mentally and physically ([Cherry, 2012](#)).

Bredemeier (1983) defined aggressive behavior as the intentional initiation of violent and harmful behavior. Aggressive behavior is a deliberate beginning of brutal behavior. Aggression in sports can be caused by a number of factors. The most identifiable ones are the rules of the game (level of physical contact), frustration, arousal, environmental cues, self-control and also the behavior of those around. Other factors may include personality, media, coaching, role models and the society (Russell, 2008).

Frustration is believed to play a key role in aggression. It can be innate or learned and occurs in different circumstances. Dollard et al. (1939) found that aggression is innate and only occurs in a frustrating situation. Berkowitz (1969) found that arousal is increased by frustration which can be felt as anger or psychological pain. Sports events can increase arousal and can boil over if a frustrating situation occurs for example; missing an important penalty, being fouled or wrongly penalized etc adds arousal (Arehart, 2002).

Katherine Simpson (2001) has found evidence about the role of testosterone and its impact on aggression. Changes in the concentration of hormones can have profound effects on mood and behavior in humans. Sex differences have

also been considered as contributing factors to aggression. Evolutionary Psychology states that all Aggression is not cathartic i.e., it does not lead to a reduction in the desire to aggress. Aggression only leads to an increase in aggression as tempers flare and as the behavior becomes learned.

Miller (1941) found that some athletes may not show aggression during their game in respect of their profession. For example if a coach under estimates a player, he, in respect of coach and his profession may not show aggression. However, this could affect his personal and social life where he directs his aggression (Sacks & Watson, 2002).

Emotion and energy in a game and the rules though can result in assertive behavior. As Hussman and Silva (1984) found this behavior as goal directed (instrumental) and said that it does not break rules of the game. Although it is not intended to harm, it can still be seen as aggressive behavior in a non-sports event (Kerr, 2002).

Children learn aggressive behavior as rewarding. They observe and imitate actions and increase the use of aggression in sports

activities. A child aggressive acts threaten their opponents will increasingly become more aggressive as it gets them more rewards. (Anderson & Bushman, 2002). Cognitive belief to aggression can result in a child thinking that aggression can positively affect success. In 1970's the BoBo doll experiment highlighted the effects that peer pressure enforced on others caused conformist behavior to a certain group i.e. aggression. The coverage from media and television can be an influence on a child, with the focus of violence (replays of bad challenges, fights among athletes etc) promoting the act of aggression and impersonation (McCarthy and Kelly, 1978).

Vigorous athletic activity can be classified as assertive behavior, instrumental aggression, or hostile aggression (Tenenbaum, Stewart, Singer, & Duda, 1997; Wann, 1997). In assertive behavior, the player employs legitimate force within game rules. In instrumental aggression, the player tries to inflict physical damage as a step towards the higher goal of winning. In hostile aggression, the player is angry and primarily bent on physically harming an opponent. Although such behaviors have been linked to

team success, hostile aggression is particularly controversial (Ca-ron, Halteman, & Stacy, 1997; Huang, Cherek, & Lane, 1999). While it is not clear if it improves performance by increasing arousal to an optimal level or causes it to deteriorate by distracting the player from the task at hand (Cox, 2002). Because hostile aggression involves physical harm, it is likely to be more frequent in contact than in no contact sports (Buss & Perry, 1992). It is also thought that sports involving intensive physical activities such as football and rugby are more likely to incite aggression off the field (L. Patrice, M. J. Stuart, & S. Dale, 2002).

The idea that aggression breeds aggression is also part of cognitive neo-association theory, according to which ventilating aggression activates aggressive thoughts and angry feelings, thereby increasing the possibility of further aggressive behavior (Bushman, 2002). Inability to attain a goal leads to frustration which triggers an aggressive drive, and the like-lihood of aggressive behavior is enhanced by cues in the environment. Contact sports are particularly likely to provoke aggression because they provide many aggressive cues

(Wann, 1997, Kerr, 2005).

The present study is conducted to compare the level of aggression among athletes and non-athletes of different institutes and organizations. Aggression leads to many hostile situations and it affects the social relationships as well as the environment. It is affecting personal and social lives negatively.

Hypothesis-1: Male athletes have more aggression including physical aggression, verbal aggression, anger and hostility than female athletes.

Hypothesis-2: Male non-athletes have more aggression including physical aggression, verbal aggression, anger and hostility than female non-athletes.

Hypothesis-3: Athletes have less aggression including physical aggression, verbal aggression, anger and hostility than non-athletes.

Method

Buss-Perry Aggression Questionnaire

The Buss-Perry Aggression Questionnaire was designed by Arnold Buss and Mark Perry in

1992. It is a 29 item questionnaire where participants rank certain statements along a 5 point continuum from "extremely uncharacteristic of me" to "extremely characteristic of me." The scores are normalized on a scale of 0 to 1, with 1 being the highest level of aggression. The questionnaire measures four dimensions of aggression including physical aggression, verbal aggression, anger and hostility. The internal consistency of the four factors and the total score ranged between .72 and .89. As far as the test-retest reliability is concerned, the analyses yielded a group of indexes, ranging between .72 and .80 (Buss & Perry, 1992).

Sample

The sample consists of 100 athletes and 100 non-athletes from different organizations and institutes, purposively selected from different universities of Islamabad i.e., FAST-NUCES (25 athletes, 25 non-athletes), NUST (25 athletes, 25 non-athletes), IIUI (25 athletes, 25 non-athletes) and Bahria University (25 athletes, 25 non-athletes). Each group of athletes and non-athletes consists of 50 male athletes, 50 female athletes, 50 male non-athletes and 50 female non-athletes with age range of 15 to 35 years.

Procedure

The data was collected by administering the scales on male and female athletes and non-athletes. Firstly, informed consent was taken. Secondly, the respondents were instructed to complete the scales by giving response to every item of each scale. All the respondents were assured that the data will be kept confidential. After getting data, scoring and analysis were done.

Results

Table-1
Alpha Reliability Coefficient of Buss and Perry Aggression scale and its subscales

Scales	No. of items	Alpha Coefficient
Buss and Perry Aggression Scale	25	0.71
Physical Aggression	8	0.57
Verbal Aggression	4	0.64
Anger	6	0.59
Hostility	7	0.61

Table-1 shows Alpha Reliability Coefficient of subscales of Buss and Perry Aggression scale. It varies from 0.57 to 0.71.

Table-2
Mean, Standard Deviation and t-value of male athletes and female athletes on Buss and Perry Aggression scale and its subscales.

	Male athletes (n=50) M (SD)	Female athletes (n=50) M (SD)	t	p	LL	UL	Cohen's d
Aggression	72.86(11.50)	73.44(11.68)	0.25	0.80	-5.18	4.02	0.05
Physical aggression	22.74(4.51)	23.60(7.65)	-0.68	0.49	-3.35	1.63	0.13
Verbal aggression	12.68(3.08)	12.56(3.33)	0.18	0.85	-1.15	1.39	0.03
Anger	16.88(3.88)	16.74(3.96)	0.17	0.85	-1.41	1.69	0.03
Hostility	20.56(4.63)	20.54(3.90)	-0.02	0.98	-1.68	1.72	0.004

Table-2 shows the non-significant differences between male and female athletes on Buss and Perry Aggression Scale and its subscales including physical

aggression, verbal aggression, anger and hostility.

Table-3
Mean, Standard Deviation and t-value of athletes and non-athletes on Buss and Perry Aggression scale and its subscales.

	Athletes (n=100) M (SD)	Non-athletes (n=100) M (SD)	t	p	LL	UL	Cohen's d
Aggression	73.15(11.54)	74.88(14.29)	0.94	0.34	-5.35	1.89	0.13
Physical aggression	23.17(6.26)	23.91(5.58)	0.88	0.37	-2.39	0.91	0.12
Verbal aggression	12.62(3.19)	13.01(3.21)	0.86	0.39	-1.28	0.50	-0.121
Anger	16.81(3.90)	17.95(4.64)	1.87	0.06	-2.33	0.05	0.26
Hostility	20.55(4.26)	20.01(4.80)	0.84	0.40	-1.72	1.80	0.11

Table-3 shows the non-significant differences between athletes and non-athletes on Buss and Perry Aggression Scale and its subscales including physical aggression, verbal aggression, anger and hostility.

Table 4
Mean, Standard Deviation and t-value of Male non-athletes and Female non-athletes on Buss and Perry Aggression scale and its subscales.

	Male non-athletes (n=50) M(SD)	Female non-athletes (n=50) M(SD)	t	p	LL	UL	Cohen's d
Aggression	77.78(16.49)	71.98(11.11)	2.06	0.042	0.21	11.38	0.41
Physical aggression	24.76(6.29)	23.06(4.69)	1.53	0.129	-0.50	3.90	0.306
Verbal aggression	13.64(3.64)	12.38(2.60)	1.98	0.050	0.002	2.51	0.397
Anger	18.10(3.17)	17.80(4.09)	0.32	0.749	-1.55	2.15	0.064
Hostility	21.28(5.14)	18.74(4.09)	0.49	0.627	0.69	4.38	0.546

Table-4 shows significant differences between male non-athlete and female non-athlete on Buss and Perry Aggression Scale and its subscales including physical aggression, verbal aggression, anger and hostility.

Discussion

Present research examined the comparison between level of aggression among athletes and non-

athletes and effect of some demographic variable like gender. Sample consisted of 200 individuals, 100 athletes and 100 non-athletes. And these groups were further divided into 50 male athletes, 50 female athletes, 50 male non-athletes and 50 female non-athletes. The Buss and Perry's Aggression scale (1992) was used to measure the level of aggression.

Firstly, there was a non-significant difference found between male and female athletes on aggression and its other dimensions including verbal aggression, physical aggression, anger and hostility. This verity may have the reasons like sports are the institution which teaches its followers to practice patience and tolerance among both male and female athletes. Sports enable a person to express his innate tendencies like aggression in a channelized manner. It was found that vigorous sports activity is healthy because it allows participants to "let off steam" in acceptable ways, thereby decreasing aggressiveness in everyday life. In other words, sports participation serves as a protective function (Bushman, Baumeister, & Stack, 1999).

Secondly, a comparison between male and female non-athletes for having aggression and its other dimensions including verbal ag-

gression, physical aggression, anger and hostility showed that there was a significant difference between male and female non-athletes on aggression. There could be several explanations for this finding including the biological and social factors. Studies have found that various neurotransmitters and hormones have a positive correlation with aggressive behavior. Hormones are chemicals that circulate in the body affecting cells and the nervous system, including the brain. A hormone "testosterone" has discovered to be involved in the role of aggression. Testosterone is a steroid hormone from the androgen group, which is mostly linked to the prenatal and postnatal development of the male gender and physique, which in turn has been linked on average to more physical aggression in many species. In one study, it was noted that concentration of testosterone most clearly correlated with aggressive responses involving frustration. Several studies of the concentration of testosterone of convicted male criminals who committed violent crimes compared to males without a criminal record or who committed non-aggressive crimes revealed in most cases that men who were

judged aggressive had higher concentrations of testosterone than others. Studies of testosterone levels of male athletes before and after a competition revealed that testosterone levels rise shortly before their matches. This is the time when the players become a bit aggressive (Simpson, 2001). Testosterone is present to a lesser extent in females that is why females are less subjected to aggressiveness than males. (Goozen, 2005). In a society, aggression in males becomes increasingly motivated by issues of social status and self-esteem, and also by varying degrees of aggressive reactivity to personal defy. Traditionally, males are believed to be generally more aggressive than females (Coie & Dodge 1997, Maccoby & Jacklin 1974). It has been found that majority of murders are committed by men (Buss 2005). This is one of the most strong and consistent behavioral gender differences, and it has been found across many different age groups and cultures. It is evident that males are much more vulnerable to physical aggression. While Bjorkqvist et al. (1994) and others found that females are less likely to get aggressive as compared to males.

Thirdly a variation among athletes and non-athletes on aggression was found which shows that there is a non-significant difference between aggression in athletes and non-athletes. They usually have same level of aggression including physical aggression, verbal aggression, anger and hostile behavior. In Pakistan, sports culture is not so encouraged and developed. Athletes and other sportsmen are having fewer opportunities for growth and so, they do not feel free for excelling in their career. A non-significant difference in level of aggression among athletes and non-athletes show that due to same rank of prospect for sportsmen and lay people, their thinking pattern and frustrations are same and so, there is no difference in their aggression level. Dollard et al. (1939) found that athletes would not show aggression in their profession. There is a common assumption that athletes have high level of tolerance and patience, and so, they do not allow themselves to get aggressive. A common concept of "sportsman ship" has set the standards for sportspersons like endurance, staying powerful and persistence. So, athletes with their aspect of sports-

manship share the same level of aggression as compared to non-athletes (Arehart, 2002).

Limitations and Suggestions

Following are the limitations and suggestions of this research:

- It only explored one demographic variable (gender). Other variables like age and occupation could be included.
- Sample size was small and selected from a limited area of Rawalpindi and Islamabad and so, the results cannot be generalized. Other cities and regions of country could also be included in order to obtain versatile results.
- Aggression is only one emotion in athletes. Other emotions can also be studied.

Conclusion

The aim of this study was to investigate the level of aggression among athletes and non-athletes on the basis of gender. The results have shown that athletes either male or female did not show any sort of aggression either it was verbal, physical, anger or hostility. Being an athlete means having a

sense of power and persistence due to which they have high levels of control and patience which in turn, do not allow them to become aggressive. However, the results on the basis of gender in non-athletes, have shown the traditional outcomes i.e. males are more aggressive than females due to so many factors including biological and social factors. It has also been concluded that males are more vulnerable to physical aggression as compared to verbal aggression, anger and hostility.

Implications

Present study can help to provide an insight about the level of aggression in male and female athletes. Usually, it is assumed that males are more aggressive than females and the current study is incongruence with this fact. However, the level of aggression in male and female athletes have shown to be same which means that regardless of gender, sports endows with equal prospect of frustration in sports persons. This finding can help in introducing anger management interventions for athletes. Such interventions could be effective in athlete's performance.

nce within the field as well as off-the-field. This in turn, will positively affect their personal, social and professional life.

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