

RELATION BETWEEN BURNOUT AND AGGRESSION IN AMATEUR ATHLETES' PERFORMANCES AMONG MALE AND FEMALE UNIVERSITY STUDENTS

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ABSTRACT

Burnout is a state of physical, mental and emotional exhaustion. Research shows that burnout affects not only physical and mental health, but behavior as well. Aim of the present study is to assess burnout and its relationship with aggression in amateur athletes' performances in university games. Methods: In this empirical study 169 amateur athletes were selected from Sindh University, Jamshoro using the Convenient Sampling Technique. Two structured questionnaires Buss-Perry Aggression Questionnaire (BAQ) and Athlete Burnout Questionnaire (ABQ) were used to collect data along with demographic sheet. The results of simple linear regression indicated that aggression predicts burnout ($R^2 = .043$, $F = 7.49$, $p = .007$). However, no significant gender differences were observed in aggression and burnout. Conclusion: Burnout is strongly correlated with mental health including irregular and unmonitored onset of aggressive behavior of amateur athletes. The negative effects of burnout at the individual, collective and organizational level prompt researchers to look for the specific factors associated with the syndrome that seem to influence its occurrence.

Keywords: *Burnout, Aggression, Amateur Athletes, Chronic Stress, Emotional Strain.*

INTRODUCTION

Exercise science and sports science mainly deal with how human body works, to know its optimal functioning and to find out the factors that impact its optimum functioning. One such factor is burnout in which sports persons and athletes experience physical, mental as well the social exhaustion from the game at large. As a result, we see sports devaluation along with reduction, if not failure, of the athletic accomplishment (Cox, 2002). Burnout is psychological and physiological response to the chronic stress and emotional strain of the body of an athlete. As a result, the athlete stops participating and withdraws from sports and all other physical activities because of the belief that he/she is physically as well as mentally not capable to do such activities (DiFiori et al., 2014). The word burnout has various connotations commonly found in physical training literature. These include overloading, overtraining, overreaching, and staleness (Weinberg & Gould, 2007). Experts are of the view that the burnout is an umbrella term that includes two syndromes mainly: Overreaching Syndrome and Overtraining syndrome. The former could either be functional or nonfunctional. Functional overreaching involves high intense interval training (HIIT) that can generate fatigue and leads to a *short period of decreased performance* (Meur, Pichon, Schaal, Schmitt, Louis, Gueneron, & Hausswirth, 2013), while non-functional overreaching involves a *longer period of decreased performance* and is accompanied by increased psychological and/or neuro-endocrinological symptoms (depression and mood swings). Both functional and nonfunctional overreaching results in full recovery after a rest period (Meur, Pichon, Schaal, Schmitt, Louis, Gueneron, & Hausswirth, 2013).

On the other hand, overtraining syndrome, which is commonly known as burnout, is an athlete's condition of decreased sports performance and experience of fatigue despite of continuous and increased training (Budget, 1990 & Kreher, & Schwartz, 2012). 30% to 35% of adolescent athletes are

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afflicted with the symptoms of burnout, which is really an alarming number for sports organizations, media, educationists, parents and government as well to intervene to take control of the situation (Eklund & Cresswell, 2007).

All dropout athletes cannot be termed as burnouts. There are some dropouts to burnout with negative or inadequate feelings and cynical behavior. The one who burns-out or give up exercise sports participation does not end up only to sports only, rather give up the important health benefits including avoidance of disease and increase health parameters. They even adopt sedentary lifestyle and ignores assemblage of modifications of the body and/or supplements to the body, hence weakens his interpersonal and intrapersonal relationships. It is likely that this weak relationship, developed in young age continue over adulthood, as active youth are more likely to develop active adults and vice versa. (Bask & Salmela-Aro, 2012).

Despite mounting evidence between causal association between burnout and excessive stress and pressure (Gustafsson et al., 2011; Smith, 1986), there are other explanations of burnout phenomenon in sports. Burnout is a multidimensional construct and one could have the feeling of entrapment as a consequence of fatigue and exhaustion. The athlete who feels a sense of entrapment, has had devoted a lot of time and energy to the sport, but receives no reward for participating in or enjoying the sport. The costs gradually outweigh the benefits and will eventually lead to burnout and to dropout (Raedeke, 1997). Coakley's (1992) burnout model points out that young athletes drop out of a sport because they see sport participation as an obstacle to developing personal autonomy. He theorizes that a desire for personal control over one's life is a possible cause of burnout in youth sports.

When you find someone who is solely interested and participating in and specialized in only one sport, chances of burnout increases multifold. You can identify this phenomenon either through physical, behavioral and/ or psychological symptoms and you can accordingly rush for rescue in the initial or preliminary stage before it goes out of control at least. The physical signs include tension, fatigue, irritability, decreased energy, sleep disorders, frequent illnesses spells, irregular performance and exhaustion. Behavioral indicators of burnout include depression, feelings of helplessness, anger, disappointment feelings, and gut feelings of being unimportant or insignificant (APA, 2017). Burnout victims often feel like failures and have great feelings of guilt, it is not uncommon for these feelings to turn to anger and resentment when the stress persists and you feel out of control. Initially, anger may take the form of interpersonal tensions with co-workers, family, or friends. As burnout becomes more severe, anger can increase and lead to temper tantrums and serious fights at home, work, and/or play. You may have thoughts of violence towards colleagues or family or the player of the other team, and in extreme cases this can border on actual violence (Visotskayaa et al., 2015).

Aggression is rather aims to hurt or harming a person physically and/ or non-physically including verbally or emotionally who is motivated to avoid such treatment. It can be hostile or instrumental. The former is characterized by an impulsive act with intention to harm or injure someone, while the later is characterized by a predetermined act with intention to achieve a particular goal and does not want to harm or injure others but it could harm others as by doing so it increases the probability of success (Atkins, Stoff, Osborne, & Brown, 1993). A soccer player who deliberately and illegally trips an opponent with the sole purpose of injuring him is an example of hostile aggression, whereas an athlete who attempts to injure an opponent because (s)he believes that doing so will increase his chances of victory is a case of an instrumental aggression.

Recent research into player aggression has identified several factors that can contribute to violence in sports (Morris, 2012). Weather conditions can have a dramatic effect on the sportsmen in their performance. High temperature interact with the provocation to increase the likelihood that batters will be hit by a pitch (Larrick, Timmerman, Carton, & Abrevaya, 2011). Another factor contributes in players' aggression is the difference in points between the two teams, the highest aggression occurs when teams are separated by a large margin (Fruchart, & Rulence-Pâques, 2014). In addition, winning and losing players have different patterns of aggression as the game progresses. As the aggressive behavior of teams wining increase steadily during the competition, on the other hand, teams losing are particularly aggressive at the beginning and less aggressive in the middle of the game. Athletes in unsuccessful teams are likely to come to the conclusion that their aggressive actions are ineffective, and thus move to less aggressive strategies to achieve better performance (Fruchart, & Rulence-Pâques, 2014). After all, an overall team's position can affect and determine each player's level of aggression.

In fact, first-place teams tend to show less aggression than lower order teams that have to settle for second and last, who have difficulty justifying their poor performance.

Heidari (2013) conducted a study in Iran, she was of the view that identifying gender differences in athlete burnout is important for timely intervention. Her study found reduced sense of accomplishment (one sub-dimension of burnout) was higher in both men and women, however, burnout syndrome was significantly higher in female athletes than male counterparts in all its three dimensions of ABQ, i.e. reduced sense of accomplishment, emotional exhaustion, and devaluation. In another study, Dubuc-Charbonneau et al. (2014) reported female student athletes had significantly higher levels of emotional and physical exhaustion than their male counterparts.

Hypotheses

Following hypotheses are formulated for this study

H01: Burnout would predict aggression among the amateur athletes

H02: Male athletes would show more aggression in their game as compared to their female counterparts.

H03: Female athletes would have more burnout syndrome than the male athletes.

METHODOLOGY

This is a cross-sectional study design that intends to assess the relationship between Burnout and Aggression among amateur university athletes.

Inclusion and Exclusion criteria of the Sample: The sample of the present study comprised of N=169 amateur athletes (males: N=92 ; female: N= 77) having age M=20, SD=3.64, studying in graduate and post graduate programs in the University of Sindh, Jamshoro. Sample of the participants was drawn using convenient sampling technique. These participants were eligible to participate in this research study if they have had participated in either National games, Club level games, Regional sports activities, First Class matches and/ or International Amateur games.

Procedure: The study participants were debriefed about the objectives, nature and purpose of this study. They were informed that their participation was voluntary and they could withdraw anytime they like, without giving even a reason or without any cost. Their informed consent was sought before they were handed over the questionnaire. They were all assured that the data that they were sharing would be treated confidentially. Students were approached during their official class timings by the researcher who briefed them regarding the general goal of the study and the procedure/scope of the data assessment. All participants filled in the questionnaire individually, which consumed not more than 20 min. on average.

Measures: Following instruments were applied to the participants:

Athlete Burnout Questionnaire (ABQ) (Raedeke, & Smith, 2001) is 5-item scale rated on a 5-point Likert scale which was developed to assess sport specific burnout. The response options ranging from 1 to 5 (1= Never, 2= Seldom, 3= Sometimes, 4= Very Often, 5= Always) measure the feelings and attitudes reflecting of athlete's emotional/ physical exhaustion, sense of accomplishment and game devaluation. Internal consistency reliability of three subscales of was examined. Alpha coefficients lies between .78 and .89 of three subscales Emotional/Physical Exhaustion (EPE), Sport Devaluation (SD) and Reduced sense of Accomplishment (RA). Items 1 and 12 are reverse scored. (Raedeke & Smith, 2001).

The Buss–Perry Aggression Questionnaire (BAS) (Buss & Perry, 1992) is a 29 item self-administered questionnaire wherein the respondents rate on a 7 points Likert scale. The 7 point continuum shows how much uncharacteristic or characteristic each of the statement describing them. Items 09 and 16 are reverse scored. The questionnaire returns scores for 4 dimensions of aggression: (1) Physical Aggression (9 items), (2) Verbal Aggression (5 items), (3) Anger (8 items), and (4) Hostility (8 items). The internal consistency coefficients of BAS are as follows: Physical Aggression, $\alpha = .85$; Verbal Aggression, $\alpha = .72$; Anger, $\alpha = .83$ and Hostility, $\alpha = .77$, with the internal consistency being $\alpha = .89$. Test-retest reliability (nine weeks) for the subscales and total score ranged from $\alpha = .72$ to $\alpha = .80$ (Buss & Perry, 1992).

Demographic Information collected information such as age, gender, year of experience in sports, participation in national and international events and/or any medals won etc.

RESULTS

Psychometric properties of the instruments

Table 1 shows internal consistency of the measures in this study. Buss & Perry Aggression Questionnaire yielded a strong Cronbach's alpha value of .89 while the Athlete Burnout Questionnaire fell below the acceptable value of .70.

Table No. 1 Internal Consistency of the Measures of the Study

Measure	N of Items	Cronbach's Alpha	Mean	SD
Athlete Burnout Questionnaire	15	.57	36.53	6.88
Buss & Perry Aggression Questionnaire	29	.89	73.69	19.66

Characteristics of the Sample

The sample of the present study comprised of 169 athletes (males = 92, females = 77), belonging to middle socioeconomic class, having age range from 16 to 36 (M = 20, SD = 3.63) with Mean of 5.6-year experience in sports.

Table No. 2 Personal Demographic Characteristics of the Sample for Nominal Variables

Variable	N	%
Gender		
Male	92	54.4
Female	77	45.6
Marital status		
Single	163	96.4
Married	6	3.6
Degree Program		
Intermediate	38	22.5
Graduation	114	67.5
Postgraduation	17	10.1
Participation in National Games		
No	138	81.7
Yes	31	18.3
National Medal Won		
No	157	92.9
Yes	12	7.1
Participated in International Games		
No	166	98.2
Yes	3	1.8
International Medal Won		
No	167	98.8
Yes	2	1.2
Family Type		
Nuclear	73	43.2
Joint	96	56.8
Smoker		
No	152	89.9
Yes	17	10.1
Disease		
No	150	88.8
Yes	19	11.2

Table No. 3 Demographic Characteristics of the Sample

	<i>Mean</i>	<i>SD</i>
Age	20.07	3.64
Experience in years	5.67	4.60
Family size	8.11	4.40

Hypothesis 1

Hypothesis 1 stated that athlete burnout would predict aggression in the athletes. We computed Simple Linear Regression to test this hypothesis and found a statistically significant predictive relationship between athlete burnout and aggression ($R^2 = .043$, $F = 7.49$, $p = .007$). Results indicate that there is a positive association between athlete burnout and aggression with the strength of $r = .21$ as indicated by R in table 4. The *R-Squared* value indicates that athlete burnout accounts for 4.3 % of the variance in the level of aggression in the current sample while the value of *Adjusted R-Square* indicates that the likelihood of this variance in population is expected to be 3.7%. The B value indicates that there is .54 increase in aggression level with 1-point increase in the score of athlete burnout.

Table No. 4 Regression Results: Predicting Aggression from Athlete Burnout (N = 169)

Predictor	<i>R</i>	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
AB	.21	.59	.22	.21	2.74	.007
<i>R-Squared</i>		.043				
<i>Adjusted R-Squared</i>		.037				
<i>F</i>		7.49				
<i>Df</i>		1,167				

Note. *AB* = Athlete Burnout, *B* = Unstandardized Beta, *SE B* = Standard Error of Unstandardized Beta, β = Standardized Beta, *df* = Degrees of Freedom

Hypothesis 2

In second hypothesis, we predicted that male athletes would score higher on aggression than females. To test this hypothesis, we computed an independent sample t -test and no statistically significant gender difference on the level of aggression was found ($t = .31$, $p > .05$). Table 3 shows that mean scores on aggression for male and female group are 73.26 and 74.19 respectively.

Table No. 5 Independent Sample t-test Results of Aggression between Genders

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Male	92	73.26	20.45	2.13	.31	.760
Female	77	74.19	18.78	2.14		

Hypothesis 3

In third hypothesis, we predicted that female athletes would have higher level of athlete burnout syndrome than their male counterparts. To test this hypothesis, we computed another independent sample t -test and no statistically significant gender difference was observed on the level of athlete burnout ($t = 1.89$, $p > .05$). Table 4 shows that mean scores on athlete burnout for male and female group were 35.62 and 37.61 respectively.

Table No. 6 Independent Sample t-test Results of Athlete Burnout between Genders

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Male	92	35.62	6.86	.72	1.89	.061
Female	77	37.61	6.78	.77		

DISCUSSION

Amateur athletes are those athletes who do sports activities largely or entirely without remuneration as their hobby and not as their job. In this study, these amateur athletes were evaluated from different perspectives such as age, gender, socioeconomic status, education level, family type and size, sports experience in years and workout in periods in association of their experiences of aggression and burnout. It is especially important for this study to evaluate the burnout levels of amateur athletes at the verge of their peak performances and energy level. The present study investigated the relationship between burnout and aggression and gender differences on the same variables among amateur athletes

of University of Sindh. Aggression could be classified into three broad sub-groups including destructive or hostile aggression, passive aggression and assertiveness or positive aggression. Whereas, passive aggression could destroy self-respect, social status, cutting offensive and abusive jokes, gossip and group exclusion (Çetin, Gezer, Yıldız & Yıldız, 2013). The first hypothesis was that athlete burnout would predict aggression in the athletes. As mentioned earlier in the results there is a positive association between athlete burnout and aggression with the strength of .16, we can say that in the presence of one, we can expect the other. A very important finding from this study is that the *R-Squared* value indicates that athlete burnout accounts for 2.6 % of the variance in the level of aggression while the value of *Adjusted R-Square* indicates that the likelihood of this variance in population is expected to be 2%. The *B* value indicates .54 increase in aggression with 1-point increase in the score of athlete burnout. Scores of assertiveness of amateur footballers seems much lower than that of professional players. Amateur footballer scored higher on assertiveness scale. It is assumed that assertiveness increases with the passage of time and age growth. In his study, Güner (2006) recorded destructive aggression between footballers $X = 27.42$ mean and passive aggression $X = 22.00$ mean and on assertiveness scale $X = 36.52$ mean. Another study by Topuz, Sanioğlu, and Çağlayan (2010) found footballers scored $X = 35.94$ for destructive aggression, $X = 41.36$ for assertiveness, and $X = 30.17$ for passive aggression. In another study by Tutkun, Güner, Ağaoğlu, and Soslu (2010) showed people participating in team sports scored $X = 27.9$ for destructive aggression, $X = 32.3$ for assertiveness and $X = 23.8$ for passive aggression. Dogon et al. (2002) found that athletes displayed significantly higher levels of disruptive aggression and assertiveness than non-athletes. The current study results are similar to those of Güner (2006), Topuz, Sanioğlu and Çağlayan (2010), Tutkun, Güner, Ağaoğlu and Soslu (2010). The findings of the present study also support our other two hypotheses (see Table 05 & 06).

CONCLUSION

Athlete burnout, which is very common in youth sports in the modern times, is verily an avoidable phenomenon and could easily be prevented. Knowing what causes burnout, what are the significant signs and symptoms to look for, and how to treat them can help someone to have a positive sports experience. If you come-across a burned-out athlete, and if happens in the beginning or his primary stage of you fatigue and depression, there are good chances of his/ her resurrection. As such a struggling athlete who is no longer participating may return to the same sport or participate in a different sport in the future.

This study was an initial attempt to investigate the relationship between aggression and athlete burnout in amateur university students. Professional sportsmen and coaches repeatedly observed and report that aggression is positively related to the athlete burnout. They rather report it as frustration, not aggression, and burnout as the same phenomenon. This in turn negatively impact upon their positive relationship with sports participants, specifically amateur athletes. The coach-athlete relationship is positively related to team efficacy which is negatively related to aggression. Communication of this aggression has a direct impact upon coach-athlete relationship and team efficacy at large. This study sheds light on finding the relationship between onset of aggression drive and its comorbidity with burnout syndrome among male and female amateur athletes. Regulating the one, of course reduces the chances of frequency and intensity of the other. In this regard, coaches should focus on improving communication skills to help athletes control their aggression. Whereas previous research has mainly focused on which variables can improve sports performance to optimize team performance and victory; however, not much research has investigated the factors that hinder team success. With this insight, the present study provided important practical information for coaches, athletes, physical education teachers, and counselors.

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