

Psychological skills and burnout in sports performance – an analysis of Olympic wrestling

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Abstract

Background & Study Aim:

The athlete's psychological skills are critical for optimal sport performance, as is the role which various problems may play on a sportsman or woman's psychological functioning, as in the case of burnout. The objectives of this study are knowledge about the psychological skills relate to performance of young competitors wrestling, depending on gender and competitive level and also about the levels of burnout in the sample and their relationship with those skills.

Material & Methods:

We applied the Spanish version of the Psychological Performance Inventory (PPI) and the Athlete Burnout Inventory (IBD) in a sample of 96 athletes (61 male, 35 female), with a mean age of 17.5 years. According to their competitive level, two groups of wrestlers both sexes were constituted: amateur (36 male, 23 female); elite (25 male, 12 female).

Results:

The results confirm a higher motivational level in females and higher levels of self- confidence in elite athletes of both genders, compared to amateur wrestlers. Regarding burnout, females show higher average values in the three IBD scales, and increased Control of Coping among those who reported less emotional exhaustion and depersonalization, finding in turn higher personal accomplishment related to higher motivational levels.

Conclusions:

Women show higher levels of motivation that should certainly be a good predictor in the absence of the syndrome, although particularly in this study the affected subjects were women. Self-confidence is confirmed as a variable more closely related to higher competitive level, being a feedback process that allows the athlete to improve performance.

Key words:

Athlete Burnout Inventory • combat sport • Maslach Burnout Inventory • Psychological Performance Inventory • sport psychology

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Burnout – noun a feeling of depression, fatigue and lack of energy caused by stress and overworking the body [35].

Sports psychology – noun the scientific study of the mental state of sportspeople, looking at issues such as motivation, concentration, stress and self-confidence [35].

INTRODUCTION

Wrestling is a combat sport which requires high physical, technical, tactical and psychological abilities for an optimal performance in the competitive arena. The three first abilities have received a special interest from applied research in sport science. However, despite the limited contributions that have sought to prove their important role, different studies have reinforced the conception that the psychological aspects of athletic performance are key contributors to success in Olympic wrestling [1, 2]. Rushall [3] argues that generally, the higher the level of performance is, the greater importance psychological issues achieve in sports, and particularly in wrestling.

About key psychological variables for wrestling, verifying essentials skills for optimal performance has been sought. Gould et al. [4-6] point specific skills and strategies as determining for competition: thought control, emotional control, behavioral strategies and task-focus strategies.

Regardless of the necessary characteristics to achieve higher performance in sport, research has shown the potential problems that affect the proper psychological functioning of the athlete [7-10]. Psychopathological aspects such as depression, maladaptive anxiety levels, or the negative effects of stress and negative moods, can lead to performance deterioration [11-13]. This study focuses on the role of one of these problems in sport: the burnout syndrome.

Historically, it has been considered that burnout can happen in any area, mainly in those contexts where the person must respond to overwork pressures, and it has been studied primarily in helping professions. In sporting contexts the study of burnout has received special attention in recent years. In this area, for its definition and understanding most of the research carried out has taken as a reference the theoretical framework developed by Maslach and Jackson [14] in work environment. They propose a three-dimensional model to explain the loss of thrill, unhappiness and dissatisfaction at work. These three dimensions are manifest as *emotional exhaustion* (feelings of a large decrease in the physical and emotional capacities), *depersonalization* (distant and impersonal responses towards close people), and *reduced of personal accomplishment* (loss of confidence and enthusiasm in one's work and a negative self-concept).

Among the theoretical proposals provided by sport research, the tentative theoretical model of Garcés

Los Fayos and Canton [15] of burnout syndrome in athletes is quite remarkable. It suggests that three groups of predictor variables are assumed as the source of the problem (family, social, sporting and personal variables) and all of them can lead to negative effects such as increased stress and decreased motivation. The syndrome development observable consequences would be made visible in three areas: in sports, in the immediate environment related and, finally, on a personal level. Finally, one of the most common and expectable consequences could happen: the retirement from sport.

Focusing on young athletes with ages prior to the changeover to high performance sport, from the beginning of the study of burnout syndrome in Spain, Garcés Los Fayos [16] indicated that the most obvious cause of burnout in these young athletes is the tendency for early withdrawal. Regarding the consequences of burnout, as it happens in school environment, negative consequences appear, such as frustration, reduced of personal accomplishment, psychosomatic disorders and behavioral problems, as well as the aforementioned abandonment of the sport practice. Several authors [17-19] also suggest physical problems (suffering from illness and injuries), dissatisfaction with the sport role, unfulfilled expectations, decreased original amusement, negative feelings and affective components, concentration problems and feelings of isolation.

The objectives of this study are knowledge about the psychological skills relate to performance of young competitors wrestling, depending on gender and competitive level and also about the levels of burnout in the sample and their relationship with those skills.

MATERIAL AND METHODS

Participants

The study involved 96 wrestlers (61 male and 35 female). They were all members of the National Sports Technification Program of the Royal Spanish Federation of Olympic Wrestling and Associated Disciplines (Associated Wrestling Styles), in the categories cadet and junior. The mean age was 17.56 years.

According to their competitive level, two groups of wrestlers both sexes were constituted: the elite group and amateur group. Elite group (25 men and 12 women) consisted of wrestlers who had participated at least once in international tournaments representing their country. In addition, they had more than four

seasons of experience in the systematic training of the fight. Moreover, the amateur group (36 men and 23 women) included the athletes who had been finalists or semi-finalists in their respective categories in the national championship last season, and who had not participated in international tournaments.

The local Ethics Committee approved the study.

Instruments

The instrument used to assess psychological variables associated with athletic performance was an adaptation of Hernandez [20] with Spanish sport population of the Psychological Performance Inventory (PPI) by Loehr [21]. This instrument comprises 42 items, with five-points Likert scale (ranging from 1 – “never or almost never” to 5 – “always or almost always”), grouped into seven scales: (1) *self-confidence*, (2) *negative energy control*, (3) *attentional control*, (4) *visual and imagery control*, (5) *motivational level*, (6) *positive energy control*, (7) *attitude control*.

Burnout was assessed with the Athlete Burnout Inventory (IBD) by Garcés Los Fayos [19], adaptation of Maslach Burnout Inventory [14] to sport population. This 26-item instrument measures the following aspects or subscales: *emotional exhaustion*, *depersonalization* and *reduced personal accomplishment*. All items were scored on a five-point Likert scale ranging from 1 (“I’ve never felt or thought this”) to 5 (“I think or feel this every day”). Percentiles exceeding 66 in *emotional exhaustion* and *depersonalization*, and below the percentile 33 in *reduced personal accomplishment*, would be indicators of

burnout [22]. The reliability coefficient (Cronbach’s alpha) for the three subscales was: $\alpha=0.782$ for *emotional exhaustion*; $\alpha=0.775$ for *reduced of personal accomplishment*; $\alpha=0.823$ for *depersonalization*.

The criterion of Maslach and Jackson [14] was used to examine the relationship between burnout and psychological characteristics.

Statistics analyses

Several descriptive analysis were performed to test the differences between groups, including means descriptions, standard deviations, and independent-samples t-test to compare the means between all groups (p value of <0.05). The Statistical Package for Social Sciences Software (SPSS; version 15.0, SPSS Inc., Chicago, Illinois, EEUU) was used to analyze the data.

RESULTS

Higher mean scores obtained by the women group in five of the seven scales of PPI (Table 1). Statistically significant differences were obtained in “Motivation” scale level by T-test ($t_{94}=2.299$; $p=0.010$). The average score for women was 25.34 against 23.84 for men. For all the IBD scales, women had a statistically significant higher average than men in *emotional exhaustion* ($t_{94}=5.414$, $p=0.000$), *reduced of personal accomplishment* ($t_{94}=5.759$, $p=0.000$), and *depersonalization* ($t_{94}=5.877$, $p=0.000$).

Mean scores were slightly higher in the elite group for all PPI scales except *motivation*, which got a

Table 1. Psychological Performance Inventory (PPI) and Athlete Burnout Inventory (IBD) scales by gender.

Empirical variable	Men (n=61)		Women (n=35)	
	Mean	SD	Mean	SD
Self-confidence	23.07	4.520	22.34	3.481
Negative energy control	19.70	4.279	18.77	4.081
Attentional control	20.80	4.523	21.89	3.886
Visual and imagery control	23.10	4.339	24.43	3.042
Motivational level	23.84	3.541	25.34	2.071
Positive energy control	24.20	3.750	24.74	2.605
Attitude control	23.03	3.559	23.11	3.684
Emotional exhaustion	14.54	3.695	19.49	5.215
Reduced personal accomplishment	16.54	4.689	22.83	5.874
Depersonalization	15.74	4.542	24.06	7.635

higher average in the amateur group (Table 2). T-test just found statistically significant differences in *self-confidence* between men ($t_{59}=-1.918$, $p=0.049$) and women ($t_{33}=-2.018$, $p=0.042$), with higher averages obtained by elite wrestlers. Differences between women in *attitudinal control* ($p=0.069$) also tended to statistical significance.

Scores exceeding the percentile 66 in *emotional exhaustion* and *depersonalization*, and below the percentile 33 in *reduced personal accomplishment*, would be indicators of burnout in athletes. Using this criterion, only two cases presented the three conditions, both women. Five other athletes presented two conditions and three of them presented just one condition. Considering each scale separately, 6 cases were above 66th percentile in *emotional exhaustion* and 4 cases in *depersonalization*, and 10 athletes are below the 33rd percentile in *reduced of personal accomplishment*.

The number of wrestlers who meet the criteria is insufficient, and there is a huge difference in the size of the groups. Comparisons is not possible, so we decided to make a division by groups of athletes with high and low scores on the scales of IBD to compare their scores with the means of the variables measured through PPI. The new groups were formed by adding or subtracting one standard deviation to the mean score on each scale (Table 3). Following this less restrictive criterion larger groups were obtained,

which enabled to compare each scale separately: *emotional exhaustion* (low $n=23$, high $n=17$), *reduced of personal accomplishment* (low $n=23$, high=11) and *depersonalization* (low=20, high=14).

Statistically significant differences on several scales were obtained using this criterion. Wrestlers with low scores on *emotional exhaustion* ($t_{38}=2.072$, $p=0.048$) had a higher average in *negative energy control* (21.27). Similarly, the group with low scores on *depersonalization* had a higher average (20.95) in *negative energy control* ($t_{32}=2.760$; $p=0.027$). Finally, athletes with high scores on *reduced of personal accomplishment* showed better motivational level (25.13) than the low group ($t_{32}=-2.748$, $p=0.009$). Unlike other scales, the lower the score in *reduced of personal accomplishment*, the greater feeling of having that feature.

DISCUSSION

The greatest motivational level of women highlighted compared to that of men. These results are opposite to the vast majority of studies and authors, who have generally pointed to greater motivation of men. Many attempts have been proposed to explain this issue. Such differences in the level of motivation could be attributed, for example, to the family sports climate or to the gender stereotypes. On the one hand, parents often provide a greater encouragement to sons than daughters [23]. On the other hand,

Table 2. Psychological Performance Inventory (PPI) and Athlete Burnout Inventory (IBD) scales by competitive level and gender.

Empirical variable	Men (n=61)				Women (n=35)			
	Amateur (n=36)		Elite (n=25)		Amateur (n=23)		Elite (n=12)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self-confidence	22.61	4.208	24.74	4.001	21.52	3.301	23.92	3.397
Negative energy control	19.44	3.975	20.08	4.743	18.09	3.813	20.08	4.420
Attentional control	20.12	4.124	21.28	5.052	21.74	3.922	22.17	3.973
Visual and imagery control	22.88	4.129	23.25	4.702	24.26	3.151	24.75	2.927
Motivational level	23.97	3.149	23.64	4.102	25.70	1.893	24.67	2.309
Positive energy control	24.67	3.243	23.52	4.360	24.35	2.656	25.50	2.431
Attitude control	22.97	3.264	23.12	4.014	22.35	3.393	24.58	3.919
Emotional exhaustion	14.17	3.566	15.08	3.883	20.30	4.922	17.92	5.616
Reduced personal accomplishment	15.89	4.927	17.48	4.244	23.57	5.238	21.42	6.960
Depersonalization	15.83	4.095	15.60	5.204	24.48	7.341	23.25	8.444

Table 3. PPI mean scores by low and high levels on the IBD scales.

Empirical variable		EE low (n=23) high (n=17)	RPA low (n=23) high (n=11)	DEP low (n=20) high (n=14)
Self-confidence	low	23.42	21.52	23.15
	high	22.46	23.29	22.23
Negative energy control	low	21.27	18.86	20.95
	high	18.81	20.11	17.44
Attentional control	low	21.13	20.85	20.75
	high	21.31	21.69	20.73
Visual and imagery control	low	24.63	22.96	23.00
	high	23.38	24.57	23.32
Motivational level	low	24.98	22.90	24.82
	high	23.67	25.13	23.75
Positive energy control	low	25.13	24.17	24.55
	high	24.50	24.52	24.45
Attitude control	low	23.42	23.29	23.20
	high	22.92	23.52	22.50

EE – emotional exhaustion; RPA – reduced personal accomplishment; DEP – depersonalization

women see constrained their sporting roles by society and by the action of sexual stereotypes associated with sport [24].

It is also observed lower participation of women than men in competitive sports. Moreno Martinez and Alonso [25] indicate that these differences are both quantitative and especially qualitative, since there are many differences depending on the type of interest in sport, expectations and motivations towards sport, ease or difficulty of access, provision and distribution of time, among others.

Regarding the differences found in relation to the competitive level, elite level wrestlers of both sexes stand out for their *self-confidence*, against lowest-performing or amateur wrestlers. *Self-confidence* scale PPI is described by Hernandez [20] as the level of certainty about the own skills in the achievement of success in a given task; this conviction is determined by experience and physiological and emotional states. Feltz [26] points out that one of the most robust findings in sport psychology research is a significant correlation between *self-confidence* and high level sports performance. Indeed, *self-confidence* is commonly assumed as one of the key determinants in sporting success, and it has been identified as basic and

elemental skill for athletes of a higher level of performance [27, 28]. Furthermore, in the case of Olympic wrestling, different studies have confirmed its crucial importance to differentiate athletes with a major or minor competitive level [5, 6, 8, 9, 29, 30], in both men and women [1, 2].

Regarding burnout, the sample limited size renders the percentages not fully meaningful, but it is symptomatic that two athletes suffer burnout (just over 2%), which is reasonable when compared with other studies [31-33], that place incidence around 4%. Similarly, wrestlers who have any of the three dimensions composing burnout are, in all three cases, from just over 4% to 10%. Considering the data provided by Garcés Los Fayos [22], our study data suggest that wrestlers burnout levels are not particularly high, perhaps because it is a minority sport that does not have the same sources of external pressure that, in principle, could be hypothesized that are at the origin of the syndrome.

It is interesting they are all women who have the problem in all cases, both burnout and the three dimensions that make it up, confirming the results obtained long ago for other sports [19].

Regarding the psychological characteristics that may be better associated with athletes who suffer some of the dimensions of burnout, *negative energy control* seems to be the skill most clearly shown in athletes who have neither *emotional exhaustion* nor *depersonalization* (the two dimensions most closely related to the athlete's personality pattern [19]). Wrestlers with greater *personal accomplishment* (clear external aspect of the burnout syndrome) maintain a more obvious relationship with a higher *motivational level*, which is consistent with the study of Carlin and Garcés Los Fayos [34].

CONCLUSIONS

One common area of study within sport psychology involves the study of how psychological factors affect athletic performance. Our aim was to check how the appearance of burnout affects athletic performance in wrestling sports, as well as any of its three constituent dimensions. Thus, two facts seem relevant: on the one hand, women show higher *levels of motivation* that should certainly be a good predictor in the absence of the syndrome, although particularly in this study the affected subjects were women. On the other hand, note that *self-confidence* is confirmed as a variable more closely related to higher competitive level, being a feedback process that allows the athlete to improve performance.

We find interesting the greatest motivation of female athletes, especially because it is uncommon to find similar data in other studies comparing the athlete's gender. Moreover, it was easy to see the higher sports

demand is, the greater presence of burnout we face. It is reasonable that women are who suffer higher levels of burnout because their personal and family situation and the recognition gained by women in sport are perhaps not consistent to the effort made on equal terms with men athletes. As demonstrated, the higher levels of women motivation manage to avoid a greater problem with the burnout syndrome.

PRACTICAL APPLICATIONS

The research performed about the incidence in wrestling athletes of burnout syndrome, depending on variables such as gender and level of sports performance, enables us to develop three ways practical applications. First of all, by advising coaches of this sport discipline in the management of variables such as *motivation* or *self-confidence*, among others, as part of their work routine that involves regular interaction with the athlete. Secondly, by coaching athletes in psychological aspects linked to the prevention of burnout syndrome, so that they are able to detect symptoms leading to the problem before it is too late. And finally, by establishing prevention programs that would reduce the potential incidence of the syndrome, particularly with special attention to the risks associated with two very important factors in the sports world, such as gender and athletic performance level of the athlete.

COMPETING INTERESTS

Author has declared that no competing interest exists.

REFERENCES

- López-Gullón JM, García-Pallarés J, Berengüí R et al. Factores físicos y psicológicos predictores del éxito en lucha olímpica. *Rev Psicol Deporte* 2011; 20(2): 573-588 [in Spanish]
- López-Gullón JM, Torres MD, Berengüí R et al. Rendimiento físico y psicológico en lucha olímpica: Predictores del éxito en lucha femenina. *An Psicol* 2012; 28(1): 215-222 [in Spanish]
- Rushall BS. Psychological factors and mental skills in wrestling. In: Dosis J, editor. *The sport psychologist's handbook: A guide for sport-specific performance enhancement*. Chichester: John Wiley & Sons; 2006: 375-399
- Gould D, Eklund RC, Jackson SA. 1988 U.S. Olympic wrestling excellence: I. Mental preparation, precompetitive cognition, and affect. *Sport Psychol* 1992; 6(4): 358-382
- Gould D, Eklund RC, Jackson SA. 1988 U.S. Olympic wrestling excellence: II. Thoughts and affect occurring during competition. *Sport Psychol* 1992; 6(4): 383-402
- Gould D, Eklund RC, Jackson SA. Coping strategies used by U.S. Olympic wrestlers. *Res Q Exercise Sport* 1993; 64(1): 83-93
- Rushall BS, Garvie G. Psychological characteristics of Canadian Olympic and Non-Olympic wrestlers. *Proceedings of the Ninth Canadian Psychomotor Learning and Sport Psychology Symposium*; Banff, Canada; 1977
- Highlen PS, Bennett BB. Psychological characteristics of successful and non-successful elite wrestlers: An exploratory study. *J Sport Psychol* 1979; 1: 123-37
- Highlen PS, Bennett BB. Elite divers and wrestler: A comparison between open- and closed-skill athletes. *J Sport Psychol* 1983; 5(4): 390-409
- Russell WD, Cox RH. Construct validity of the Anxiety Rating Scale-2 with youth wrestlers. *Athletic Insight* 2002; 4(1): 34-44
- Brewer BW. Clinical issues. In: Brewer BW, editor. *Sport Psychology. Handbook of Sports Medicine and Science*. Oxford: John Wiley & Sons; 2009: 87-96
- Mellalieu SD, Hanton S, Fletcher D. A competitive anxiety review: Recent directions in sport psychology research. New York: Nova Science Publishers; 2009
- Sterkowicz S, Blecharz J, Sterkowicz-Przybycień K. Stress in sport situations experienced by people who practice karate. *Arch Budo* 2012; 8(2): 65-77
- Maslach C, Jackson SE. *Maslach Burnout Inventory*. Palo Alto: Consulting Psychological Press; 1981
- Garcés de Los Fayos EJ, Cantón E. Un modelo teórico-descriptivo del burnout en deportistas: Una propuesta tentativa. *Informació Psicològica*, 2007; 91-92: 12-22 [in Spanish]
- Garcés de Los Fayos EJ. Burnout en niños y adolescentes: Un nuevo síndrome en psicopatología infantil. *Psicothema* 1995; 7(1): 33-40 [in Spanish]
- Smith RE. Toward a cognitive-affective model of athletic burnout. *J Sport Psychol* 1986; 8: 36-50
- Gould D, Tuffey S, Udry E et al. Burnout in competitive junior tennis players: II. Qualitative analysis. *Sport Psychol* 1996; 10: 341-66
- Garcés de Los Fayos EJ. Burnout en deportistas: Un estudio de la influencia de variables de personalidad, sociodemográficas y deportivas en el síndrome.

- Tesis Doctoral. Murcia: Universidad de Murcia; 1999 [in Spanish]
20. Hernández A. Un cuestionario para la evaluación psicológica de la ejecución deportiva: Estudio complementario entre TCT y TRI. *Rev Psicol Deporte* 2006; 15(1): 71-93 [in Spanish]
 21. Loehr JE. *The new toughness training for sports: Mental, emotional, and physical conditioning*. New York: A Plume Book; 1995
 22. Garcés de Los Fayos EJ. *Burnout en deportistas: Propuesta de un sistema de evaluación e intervención integral*. Madrid: EOS; 2004 [in Spanish]
 23. Brustad RJ. Parental and peer influence on children's psychological development through sport. In: Smoll FL, Smith RE, editors. *Children and youth in sport: A biopsychosocial perspective*. Madison: Brown & Benchmark; 1996: 187-210
 24. Esteve JV, Musitu G, Lila M. Autoconcepto físico y motivación deportiva en chicos y chicas adolescentes. La influencia de la familia y de los iguales. *Escritos Psicol* 2005; 7: 82-90 [in Spanish]
 25. Moreno JA, Martínez C, Alonso N. Actitudes hacia la práctica físico-deportiva según el sexo del practicante. *RICYDE* 2006; 3(2): 20-43 [in Spanish]
 26. Feltz DL. Self-confidence and sports performance. In: Smith D, Bar-Eli, editors. *Essential readings in sport and exercise psychology*. Champaign: Human Kinetics; 2007: 278-294
 27. Vealey RS. Confidence in sport. In: Brewer BW, editor. *Sport Psychology*. Oxford: John Wiley & Sons; 2007: 43-52
 28. Hays K, Thomas O, Maynard I et al. The role of confidence in world-class sport performance. *J Sports Sci* 2009; 27(11): 1185-1199
 29. Gould D, Weiss M, Weinberg R. Psychological characteristics of successful and nonsuccessful Big Ten wrestlers. *J Sport Exercise Psy* 1981; 3(1): 69-81
 30. Eklund RC. A season-long investigation of competitive cognition in collegiate wrestlers. *Res Q Exercise Sport* 1994; 65(2): 169-183
 31. Medina G, García Ucha F. Burnout locus de control y deportistas de alto rendimiento. *CPD*, 2002; 2(2): 29-42 [in Spanish]
 32. Wolf R. Burnout takes out many young athletes: Sports can be a drag for weary athletes who see a chance to be with friends instead. *Sport Illustrated* 2003; 99: 128
 33. Kania ML, Meyer BB, Ebersole KT. Personal and environmental characteristics predicting burnout among certified athletic trainers at National Collegiate Athletic Association Institutions. *J Athl Training* 2009; 44(1): 58-66
 34. Carlin M, Garcés de Los Fayos EJ. El síndrome de burnout: Evolución histórica desde el contexto laboral al ámbito deportivo. *An Psicol* 2010; 26(1): 169-180 [in Spanish]
 35. *Dictionary of Sport and Exercise Science. Over 5,000 Terms Clearly Defined*. London: A & B Black; 2006

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