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## Perfectionism and competitive anxiety in athletes

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### Abstract

The aim of this study was to examine the relationship between perfectionism and competitive anxiety in a sample of athletes. One hundred and seventy three volunteer athletes (115 males, 58 females) were included in this study. All participants were asked to complete the Competitive Perfectionism Scale (CPS) and the Multidimensional Competitive Anxiety Questionnaire (MCAQ). The results revealed that striving for perfection (positive perfectionism) was negatively associated with cognitive and somatic anxiety, and positively associated with self-confidence. The results also revealed that negative reaction to imperfection (negative perfectionism) was positively associated with cognitive and somatic anxiety, and negatively associated with self-confidence.

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*Keywords:* Perfectionism, competitive anxiety, athlete, sport psychology.

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### 1. Introduction

The stressful nature of sport and the competitive environment place many demands on athletes (Jones, 1995). Accordingly, an area of research in sport psychology has been directed towards the emotional responses to such stressors and in particular the study of competitive anxiety (Martens, Vealey, & Burton, 1990; Woodman & Hardy, 2001). Competitive state anxiety is conceptualized as a situation-specific multidimensional construct comprising cognitive and somatic components (Martens et al., 1990; Smith, Smoll, Cumming, & Grossbard, 2006). In the experience of competitive anxiety, three main dimensions have been differentiated: cognitive anxiety, somatic anxiety, and self-confidence (Martens et al., 1990). Cognitive anxiety involves cognitions about possible failure, while somatic anxiety involves the perception of bodily symptoms and heightened negative arousal. Self-confidence, on the other hand, involves cognitions that one is up to the task and able to give one's best possible performance. Consequently, self-confidence prior to and during competitions usually indicates low competitive anxiety and is often associated with higher performance (Craft, Magyar, Becker, & Feltz, 2003).

While some researchers have identified adaptive perfectionism as a key characteristic to achieve elite performance in sports (Gould, Dieffenbach, & Moffett, 2002), others see perfectionism as a maladaptive characteristic that undermines, rather than helps athletic performance and thus represents an impediment to athletic development (Flett & Hewitt, 2005; Hall, 2006). Perfectionism is commonly conceived of as a personality style characterized by striving for flawlessness and setting of excessively high standards for performance accompanied by

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tendencies for overly critical evaluations of one's behavior (Flett & Hewitt, 2002; Frost, Marten, Lahart, & Rosenblate, 1990). Perfectionism, however, is a multidimensional and multifaceted characteristic (Benson, 2003).

In particular, two major dimensions of perfectionism need to be differentiated (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Stoeber & Otto, 2006). The first dimension has been described as positive striving perfectionism (Frost et al., 1993) and captures those facets of perfectionism that relate to perfectionistic striving, having perfectionistic personal standards, and setting exacting standards for one's performance. This dimension has shown positive correlations with indicators of good psychological adjustment such as positive affect, endurance, academic achievement, and test performance (e.g., Bieling, Israeli, Smith, & Antony, 2003; Frost et al., 1993; Stoeber & Kersting, 2007; Stumpf & Parker, 2000). The second dimension has been described as self-critical perfectionism (Dunkley, Zuroff, & Blankstein, 2003) and captures those facets of perfectionism that relate to critical self-evaluations of one's performance, feelings of discrepancy between expectations and results, perfectionistic concern over mistakes and others' high expectations, and fears that others' acceptance is conditional on one's being perfect. This dimension has shown positive correlations with indicators of maladjustment such as negative affect, low self-esteem, and low self-efficacy (e.g., Dunkley et al., 2003; Frost et al., 1993; Stumpf & Parker, 2000; see Stoeber & Otto, 2006, for a comprehensive review). However, perfectionism is multidimensional and multifaceted, and only some dimensions and facets are clearly negative, harmful, and maladaptive whereas others are positive, benign, and possibly adaptive (Chang, 2003; Enns & Cox, 2002; Stoeber & Otto, 2006).

With reference to the existing evidence, competitive anxiety can be attributed to the negative aspects of perfectionism and specifically to the "negative reactions to imperfection". These evidences show the need to make distinctions between the negative and positive aspects of perfectionism among athletes. Accordingly, based on the aforementioned points and on the existing findings, the following hypotheses can be posed for the study:

- 1) "striving for perfection" (positive perfectionism) is related negatively to competitive anxiety and positively to self-confidence;
- 2) "Negative reaction to imperfection" is related positively to competitive anxiety and negatively to self-confidence.

## 2. Method

### 2.1. participant

The population of this study included professional athletes engaged in different sports majors across the country. 173 athletes (115 males and 58 females) from federations of wrestling, basketball, football, volleyball, karate, Taekwondo, swimming and gymnastics participated voluntarily in this study from Aban 87 till Shahrivar 88. Participants were asked to fill Competitive Perfectionism Scale (CPS; Besharat, 2009) and Multidimensional Competitive Anxiety Questionnaire (MCAQ; Besharat, 2007). Total mean score for the athletes' ages was 23, ranging from 18 to 29 (SD=2.85); mean age score was 23.5, ranging from 19 to 29 (SD= 2.90) for male athletes, and 22.5, ranging from 18 to 28 (SD= 2.80) for female athletes.

### 2.2. Instruments

**Competitive perfectionism Scale (CPS)-** The CPS is a 10-item test designed and standardized by Besharat (2009) to assess the positive and negative dimensions of competitive perfectionism among Iranian samples. Items tap the two dimensions of perfectionism, i.e. striving for perfection and negative reaction to imperfection on a 5-point Likert Scale ranging from 1 (very low) to 5 (very high). The psychometric properties of CPS have been confirmed across several studies (Besharat.M.A, 2009). According to preliminary findings, Cronbach alpha levels of each of the subscales, for a sample consisting of 133 athletes of different athletic levels and different sport majors, were estimated at .93 and .90 for items of the subscales respectively, which indicate a high internal consistency for the test. Correlation coefficients between the scores of 54 subjects of the aforementioned sample, measured at two times over a two-to- four-weeks span, were calculated as  $r=.83$  (for "striving for perfection") and  $r=.78$  (for "negative reaction to imperfection"), both of which were significant at  $p<.001$ . These coefficients are indicative of the desirable test-retest reliability of CPS. Content validity of the scale was examined based on judgments obtained from ten psychology and physical education experts; Kendall's coefficient of concordance were calculated .81 and .85 for each of the subscales of the questionnaire.

**Multidimensional Competitive Anxiety Questionnaire (MCAQ)**- The MCAQ is a 15-item questionnaire devised and standardized by Besharat (2007) to assess various dimensions of competitive anxiety in Iranian samples. Items measure the three dimensions of competitive anxiety- i.e. cognitive anxiety, somatic anxiety and self confidence- rated on a five-point Likert scale ranging from 1(very low) to 5(very high). Psychometric properties of the Multidimensional Competitive Anxiety Questionnaire have been confirmed across several studies (Besharat.M.A, 2007). Based on preliminary findings, Cronbach alpha levels of each of the subscales, for a sample consisting of 133 athletes of different athletic levels and different sport majors, were estimated at .90 , .83 and .89, respectively which represent a high internal consistency for the test. Correlation coefficients between the scores of 54 subjects of the aforementioned sample, measured at two times over a two-to- four-weeks span, were calculated as  $r=.81$ (for cognitive anxiety),  $r=.72$  (for somatic anxiety) and  $r=.77$  (for self-confidence) all of which were significant at  $p<.001$ . These coefficients represent the favorable test-retest reliability of MCAQ. Content validity of MCAQ was assessed with reference to the judgments of ten psychology and physical education experts, with Kendall's coefficient of concordance being calculated at .079, .081 and .082 for each of the subscales of the questionnaire, respectively.

### 3. Results

Mean and standard deviation scores for perfectionism and competitive anxiety were as follows, respectively: 20.31 & 3.41 for striving for perfection; 15.82 & 3.14 for negative reaction to imperfection; 12.54 & 3.05 for cognitive anxiety; 15.58 & 3.02 for somatic anxiety; 18.43 & 3.71 for self-confidence. Results of Pearson's correlation test are shown in table 1. These results are in line with the hypotheses of the study.

Table.1. Pearson's correlation coefficients between scores in dimensions of perfectionism and competitive anxiety

variable	striving for perfection	Negative reactions to imperfection
cognitive anxiety	-0.48	0.45
somatic anxiety	-0.47	0.53
self-confidence	0.43	-0.52

All coefficients are significant at  $P<0.00$  and  $p<0.000$ .

In the next stage, to determine the contribution of positive and negative perfectionism, each, in explaining the variance of athletes' competitive anxiety, the scales of "striving for perfection" and "negative reaction to imperfection" were analyzed as predictive variables and "somatic anxiety" and "self-confidence" as criterion variables in the regression analysis. Results of Analysis of Variance, as well as the statistical indices of the regression analyses of the mean scores of perfectionism and competitive anxiety indicates the observed F [for cognitive anxiety was significant ( $p<.001$ ) and dimensions of perfectionism accounted for 34 percent of variance in cognitive anxiety. Regression coefficients indicated striving for perfection ( $\beta= -.0388$ ,  $t= -5/991$ ) and negative reaction to imperfection ( $\beta= .0347$ ,  $t= 5.356$ ) would account for a significant variance in cognitive anxiety. As for somatic anxiety, it was found the observed F was significant ( $P<.001$ ), and 39 percent of variance in somatic anxiety was explained by dimensions of perfectionism. More specifically, regression analyses showed striving for perfection ( $\beta= -.343$ ,  $t= -5.498$ ) and negative reaction to imperfection ( $\beta= .436$ ,  $t= 6.992$ ) could significantly explain the variance in somatic anxiety. Results obtained from self-confidence indicated that the observed F was significant ( $p<.001$ ) and dimensions of perfectionism accounted for 36 percent of the variance in self-confidence. In addition, regression coefficients revealed striving for perfection ( $\beta= .0303$ ,  $t= 4.730$ ) and negative reaction to imperfection ( $\beta= -.0440$ ,  $t= -6.867$ ) could significantly explain the variance in self-confidence.

### 4. Discussion

The results of the study showed athletes' striving for perfection (positive perfectionism) was negatively correlated to their cognitive and somatic anxieties and positively to their self-confidence. On the contrary, negative reaction to imperfection (negative perfectionism) had a positive correlation with the athletes' cognitive and somatic anxieties, and a negative one with their self-confidence. Additional analyses of these findings showed dimensions of perfectionism could predict variances in the competitive anxiety of athletes. These findings which are in accord with results from previous researches (Stoeber et al, 2007; Craft et al, 2003), may be explained according to the following

likelihoods: Though based on setting perfect personal criteria and accurate standards regarding one's personal performance (Stumpf, & Parker, 2000; Suddarth & Slaney, 2001; Hamachek, 1978), striving for perfection, as one aspect or dimension of perfectionism, strengthens positive intrapsychic sets like self-esteem and self-confidence within a person (Slaney & Ashby, 2001; Koivula, Hassmen & Fallby, 2002) and enhances their feelings of self-worth, for its adaptive and normal characteristics. An athlete possessed of this positive aspect of perfectionism, is more likely to rely on his/her feelings of competency and recruit his/her capacities and capabilities to make an appropriate use of his/her athletic techniques and skills. Clearly this ideal condition is more likely to bring about lower levels of competitive anxiety (both somatic and cognitive) and higher levels of self-confidence.

In addition, through characteristics such as being realistic, accepting one's limitations, being flexible, having feelings of satisfaction and taking pleasure in one's performance (Frost et al., 1993; Hamachek, 1978), striving for perfection helps the athletes control and manages the competitive sport situations and consequently reduce their competitive anxiety. Since reduction of competitive anxiety is a precursor to an athlete's achievements in sports, it can be drawn this will strengthen the athlete's power in controlling and managing the competitive sport situation, increasingly lower his/her anxiety and increase his/her level of self-confidence in a positive cycle of interaction.

Striving for perfection, as a positive aspect of perfectionism, allows a perfectionist to enjoy and take pleasure in their onerous and tiresome efforts (Hamachek, 1978). The athletes' experience of satisfaction at and pleasure in their personal performance, help them perform sport skills and techniques with a higher concentration and accuracy and hence increase the likelihood of their success. This condition will both enhance the self-confidence of the athlete, and lower the usual anxieties and worries inherent in a competitive situation down to a controllable point. This explanation is corroborated once the approved correlations of positive perfectionism with indices of adjustment and positive affect (Stumpf, & Parker, 2000; Stoeber & Otto, 2006; Stoeber et al, 2007; Bieling et al, 2003; Frost et al, 1993; Flett et al, 2007) are also taken into account. Unlike positive aspects of perfectionism, negative reaction to imperfection- which is one negative dimension or aspect of perfectionism- increasingly increases one's worries over failure to meet their perfectionistically-set standards, for its highly maladaptive and abnormal characteristics (Stumpf, & Parker, 2000; Suddarth & Slaney, 2001; Hamachek, 1978). The main product and result of such condition is the athletes' helplessness and inability to appropriately utilize their athletic skills and techniques. Such feelings of helplessness and inability not only increases competitive anxiety (cognitive and somatic), but also has a debilitating effect on the athletes' self-confidence.

Moreover, negative reaction to imperfection weakens athletes' feelings of self-competence and self-worth by its devastating effects on self-esteem and self-confidence and consequently impedes them from an appropriate utilization of their capacities and capabilities for the execution of their sport techniques and skills. Such an undesirable and threatening condition will increase competitive anxiety (cognitive and somatic) and reduce self-confidence. In addition, negative reaction to imperfection lowers the athlete's power to control and manage the competitive situation, through characteristics such as unrealistic expectations, lack of accepting personal limitations, inflexibility, and enduring feelings of discontent and dissatisfaction at one's personal performance (Frost et al, 1990, 1993; Hamachek, 1978), which give rise to competitive anxiety. The increase of competitive anxiety in the athletes and the athletes' failure in managing the competition situation, not only affect each other negatively but also debilitate severely the athletes' self-confidence in a negative cycle of interaction.

Negative reaction to imperfection, as a negative element of perfectionism, impedes the athletes from enjoying their onerous and tiresome efforts and feeling satisfied at them (Hamachek, 1978). The dissatisfaction distracts the athletes' concentration and lowers their accuracy which, in turn, increases the likelihoods of failure and frustration for them. Under such circumstances, anxieties and worries within the competitive situation increase, which will damage both the athletes' self-confidence and their feelings of self-competence. This explanation is corroborated once the approved correlations of negative perfectionism with indices of maladjustment and negative affect (Stoeber & Otto, 2006; Stoeber et al, 2007; Bieling et al, 2003; Dunkley et al, 2003; Suddarth & Slaney, 2001; Flett et al, 2007) are also taken into account. To sum it up, results of this study indicated both negative and positive aspects of perfectionism predicted changes in competitive anxiety.

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