STUDIA UBB PSYCHOL.-PAED., LXVI, 1, 2021, p. 37 - 48
(Recommended Citation)
DOI:10.24193/subbpsyped.2021.1.02

THE ROLE OF GENDER IN THE RELATIONSHIP BETWEEN NARCISSISM AND PERFECTIONISM IN HUNGARIAN PHYSICAL EDUCATION STUDENTS

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ABSTRACT. Literature indicates a strong relationship between narcissism and perfectionism, however, there is little information about this relationship in sports, and even less regarding the way gender affects this relationship. Our paper aims to answer the following questions, in a sample of 202 Hungarian physical education students: (i) are there gender differences in narcissism and perfectionism and how large are these differences?, (ii) how strong is the relationship between narcissism and perfectionism?, (iii) does this relationship vary as a function of perfectionism's components?, and (iv) are there any gender differences in the relationship between narcissism and perfectionism?

Our results indicate that the male participants attained significantly higher levels of narcissism than the female participants. Furthermore, we found no significant gender differences in any of the three components of perfectionism a low to moderate association between narcissism and Self-oriented perfectionism and Other-oriented perfectionism, while on the entire sample, narcissism did not correlate with Socially-prescribed perfectionism. Analyzing this relationship separately in the two genders, our investigation indicates a moderate association between narcissism and all the three components of perfectionism only in the case of male participants, these relationships being non-significant for the female participants. These findings indicate that narcissism, in this specific population, is just one of the predictors of perfectionism (and maybe not even the most relevant one). We propose that future studies should focus on exploring other predictive factors of perfectionisms.

Keywords*: narcissism, perfectionism, gender, sports*

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As a personality trait, narcissism was studied in several performance areas, where individuals with high levels of such traits have the opportunity to receive admiration and glory (Roberts, Woodman, & Sedikides, 2018). Sports and physical exercise are also contexts where such traits are relevant, but researchers only recently started to focus their attention upon it. Perfectionism is another trait which is highly relevant in sports. Research indicates that perfectionism considerably impacts cognitions, emotions and behavior of athletes and regular exercisers (Miller & Mesagno, 2014). Even if researchers investigated the relationship between narcissism and perfectionism in more general contexts (Flett, Sherry, Hewitt, & Nepon, 2014; Hewitt, Flett, Sherry, Habke, Parkin, Lam, et al., 2003), and with heterogeneous results, there is still little information about the relationship between narcissism and perfectionism in sports, and even less about the way gender could affect this relationship. Also, gender differences regarding narcissism and perfectionism in sports are still far from being well-established. Consequently, our paper aims to establish, in a sample of physical education students, gender differences related to narcissism and perfectionism, the relationship between narcissism and perfectionism, and the role of gender upon this relationship.

Narcissism in sports and exercise

Narcissism implies high levels of grandiosity, authority, superiority, exhibitionism, entitlement, exploitativeness, etc. (Sherry, Gralnick, Hewitt, & Flett, 2014). Driven by a need for external validation (Pincus, Ansell, Pimentel, Cain, Wright, & Levy, 2009), individuals scoring high on narcissistic traits frequently engage in strategic self-regulatory processes and behaviors to develop/maintain a positive, but fragile/vulnerable self-image (Smith, Sherry, Chen, Saklofske, & Flett, 2019).

Narcissism has received an increasing attention also in sports. Davis (1992) talks about exercise as a potential vehicle for narcissistic aims, focusing on appearance. In a correlational study involving 210 participants, Spano (2001) found that higher levels of narcissism were associated with higher levels of physical activity. Also, Miller and Mesagno (2014) investigating 90 regular exercisers, found a moderate correlation between narcissism and exercise-dependence. Even if such a trait is considered maladaptive, narcissism is perceived as a key factor in getting ahead and achieving goals disregarding others' emotions and priorities, mostly in competitions where gains can be obtained by deceit or self-interest (Vaughan, Madigan, Carter, & Nicholls, 2019). The same study revealed higher levels of narcissism for male athletes compared

to female athletes, higher levels for elite athletes compared with amateurs and non-athletes, and also higher levels for individual, than for team sports. Similar results were also found for cyclists (Gat & McWhirter, 1998) and soccer players (Elman & McKelvie, 2003).

In line with the above-mentioned studies, there are several studies that investigated the relationship between narcissism and performance in sports and physical activities. Studies conducted on handball players revealed that narcissistic players performed better in arenas full of spectators or when being video-taped than in training sessions (Guekes, Mesagno, Hanrahan, & Kellmann, 2012). Other authors found a significant relationship between improvements in performance from training to public competitions and narcissism for figure skaters (Roberts et al., 2013) or female rugby players (Roberts, Woodman, Lofthouse, & Williams, 2014). Roberts, Woodman, Hardy, Davis, and Wallace (2018) concluded that narcissistic athletes' performance is context-specific, being higher when opportunity for personal glory is provided.

As far as gender differences are concerned, Furnham, Richards, and Paulhus' (2013) review revealed that men had higher levels of narcissism than women. In a recent study conducted on a mixt sample (elite athletes, amateurs and non-athletes), Vaughan et al. (2019) confirmed a higher level of narcissism in men. Explanations for such differences are generally explained by higher levels of testosterone in men or by stereotypical gender roles (Jonason & Davis, 2018). However, there is still a deficit of information regarding gender differences of narcissism in sports.

The role of perfectionism

Perfectionism was defined as a combination between unrealistically high personal standards, and strive towards flawlessness, and exaggerated critical self-evaluation (Smith, et al., 2019). Hewitt and Flett (1991) proposed a multidimensional approach of trait perfectionism, comprising: (1) *self-oriented perfectionism* (SOP) – unrealistic demands from oneself; (2) *other oriented perfectionism* (OOP) - unrealistic demands and expectations from others and extremely critical evaluations, and (3) *socially prescribed perfectionism* (SPP) – the perception that the social context is demanding perfection, thus one has to display a perfect image of oneself (Curran & Hill, 2017).

SOP has a strong motivational component, which stimulates the individual to strive towards perfection (Hewitt & Flett, 1991), and is strongly associated with achievement-related behaviors (Hewitt & Flett, 1991). The flip side of SOP is that by connecting self-worth to achievements and satisfaction

with accomplishments, individuals become highly vulnerable. SOP is positively associated with depressive symptomatology, anorexia nervosa, greater physiological reactivity, suicidal ideation and negative affect (Smith, Sherry, Gautreau, Olsson, Saklofske, & Snow, 2017).

Persons high on OOP tend to blame others for not rising to their expectations, and treat them with hostility and vindictiveness (Hewitt, Flett, & Mikail, 2017). OOP is negatively correlated with altruism, compliance and trust (Hill, Zrull, & Turlington, 1997), negatively impacts intimate relationships, and is strongly associated with the narcissistic desire to obtain admiration (Nealis, Sherry, Sherry, Stewart, & Macneil, 2015).

The most debilitating of the three dimensions of perfectionism is SPP, determining the person to believe that others have excessive, unfair, and uncontrollable, expectations of them, which leads to intense negative feelings, and occasionally major psychopathology (Smith, Sherry, Rnic, Saklofske, Enns, & Gralnick, 2016).

Studies concerned with the development of perfectionism in athletes revealed the role of parents through different pathways instill perfectionism in their children (Curran, Hill, & Williams, 2017).

Regarding the role of perfectionism in sports, several studies point out the negative consequences of perfectionism. Madigan et al. (2018) found a moderate correlation between perfectionistic concerns and training-distress in junior athletes, while Hall, Kerr, and Matthews (1998) revealed perfectionism as a predictor of anxiety for competitive runners. In a study including 274 university athletes Croker, Gaudreau, Mosewich, and Kljajic (2014) tested the role of sport perfectionism (personal standards and concern over mistakes) in perceived goal progress, cognitive appraisals, coping, and affect (positive and negative). They found that personal standards (perfectionistic striving) positively correlated with control appraisal, challenge appraisal, goal progress, and positive affect. Moreover, concern over mistakes (perfectionistic concerns) correlated positively with avoidance coping, threat appraisal and negative affect and negatively with control and challenge appraisal.

Reviews on this topic suggest that perfectionistic concerns of athletes are associated with negative outcomes such as burnout, distress, lack of motivation while perfectionistic striving is associated with both negative (negative affect, fear of failure), and positive outcomes (positive emotions, engagement) (Gotwals, Stoeber, Dunn, & Stoll, 2012; Hill, Mallinson-Howard, & Jowett, 2018).

Another line of research in this field is the relationship between perfectionism and exercise dependence. For instance, Gulker, Laskis, & Kuba, (2001) found that excessive exercise was positively associated with perfectionism.

Moderate relationships between exercise-dependence and perfectionism were also found in middle-distance runners (Hall et al., 2007) and regular exercisers (Miller & Mesagno, 2014).

As far as gender differences regarding perfectionism are concerned, a large set of studies conducted on the general population revealed no gender differences (Hewitt & Flett, 1991). Other studies (Caglar, Bilgili, Karaca, Ayaz, & Aşçi, 2010) found gender differences, in an adolescent sample, with higher self-oriented for females and lower socially-prescribed perfectionism for males. However, in sports, there is still a deficit of information related to gender-related differences in perfectionism.

The relationship between narcissism and perfectionism

Regardless the fact that the role of perfectionism in narcissism seems extremely complicated and the relationship between them is still unclear (Sherry et al., 2014; Smith et al., 2016), several theoretical models indicate that perfectionism might be one of the central features of narcissism (Beck, Freeman, & Davis, 2004). Some studies indicate that usually perfectionism and narcissism are moderately correlated (Hewitt, Flett, Sherry, Habke, Parkin, Lam, et al., 2003). Other investigations indicate that some individuals diagnosed with Narcissistic Personality Disorder are inclined to demand perfectionism from others, and manifest perpetual dissatisfaction with others' perceived shortcomings and flaws (Beck et al., 2004).

Several studies indicated that there is a moderate positive association between OOP and narcissism (Trumpeter, Watson, and O'Leary, 2006), while other studies show that SOP and SPP were related to narcissism (Flett, Sherry, Hewitt, & Nepon, 2014). The relationship between OOP and narcissism was found to be inconsistently related (Flett et al., 2014), and there is only a small number of studies testing gender differences in these relationships (Sherry et al., 2014). Sherry et al.'s (2014) investigation conducted on 983 undergraduates yielded that OOP was positively related to narcissism, and the perfectionism-narcissism relationship generalized across gender. In sports and exercise, Miller and Mesagno (2014) found positive moderate to large correlations between narcissism and perfectionism for men and non-significant correlations for women. Besides this, we think that there is still little information about the relationship between narcissism and perfectionism in sports, and about the way gender could affect this relationship.

Objectives

Based upon the literature presented above, our paper aims to answer the following questions in physical education students:

1. Are there gender differences in narcissism and perfectionism and how large are these differences?

2. How strong is the relationship between narcissism and perfectionism?

3. Does this relationship vary as a function of perfectionism's components?

4. Are there any gender differences in the relationship between narcissism and perfectionism?

Study

Participants

Our study includes 202 first, second and third year students from the University of Physical Education, Budapest, Hungary. Of the 202 participants 118 were male, and 84 female, with a mean age of 23.24 (SD=7.13). After providing informed consent, participants completed the questionnaire packets that took 45 minutes to fill, in a face-to-face assessment session with the researchers.

Instruments

Narcissism was measured with 16-item Narcissistic Personality Inventory (NPI-16, Ames, Rose, & Anderson, 2006) derived by the authors from the long, 40-item NPI scale (Raskin & Hall, 1979). NPI-16 has sixteen pairs of statements, and for each pair subjects should select the one that best reflect their personality (e.g., "*I really like to be the center of attention - It makes me uncomfortable to be the center of attention*"). The NPI-16 is a short measure of subclinical narcissism, presenting good psychometric properties (Ames et al., 2006). The internal consistency of the NPI-16 for the present sample was .80.

Perfectionism was measured with the 45-item self-report Multidimensional Perfectionism Scale (MPS, Hewitt & Flett, 1991). The MPS contains three subscales: self-oriented perfectionism (SOP), other-oriented perfectionism (OOP), and socially-prescribed perfectionism (SPP) (e.g., "*When I am working on something, I cannot relax until it is perfect*", "*Everything that others do must be of top-notch*

quality", "*The people around me expect me to succeed at everything I do*"). The psychometric properties of the MPS were found to be very good (Hewitt et al., 2003). Cronbach's alpha for the present sample ranged from .71 to .89.

Results

In the first step of our analysis, we performed a comparison between genders for both narcissism and perfectionism. Results are presented in Table 1.

Table 1. Narcissism and perfectionism as a function of gender

Variables	Females		Males		t	d
	M	SD	M	SD		
Narcissism	27.47	15.77	34.18	19.94	-2.62**	.37
Self-oriented perfectionism	49.89	7.07	49.34	7.70	.49	.07
Other-oriented perfectionism	44.24	5.82	45.73	5.65	-1.76	.25
Socially-prescribed perfectionism	47.59	7.90	45.88	6.79	1.59	.01

Notes: ** significant at p<.01, t= independent samples t test, d= effect size (Cohen's d)

As Table 1 shows, the level of narcissism in the male group (M=34.18, SD=19.94) is higher than the level identified in the females group (M=27.47, SD=15.77) with a significant difference (t=-2.62, p<.01) and a low to moderate effect size (d=.37). There were no gender differences regarding the components of perfectionism.

In the next step, the bivariate correlation was performed upon the entire sample between narcissism and each component of perfectionism (Table 2). The analysis revealed a significant low to moderate and positive relationship of narcissism with SOP (r= .20, p= .006), a significant moderate and positive relationship with OOP (r= .29, p< .001) and a non-significant relationship with SPP (r= .14, p= .058).

Table 2. Correlation matrix between narcissism and dimensions of perfectionism (all participants)

Variables		1	2	3
1.	Narcissism	-		
2.	Self-oriented perfectionism	.20**	-	
3.	Other-oriented perfectionism	.29**	.27**	-
4.	Socially-prescribed perfectionism	.14	.27**	.42**

***significant at p<0.01*

In order to identify potential gender differences regarding the relationship between narcissism and perfectionism, we performed a bivariate correlation between narcissism and the three dimensions of perfectionism, separately on each gender sub-group. Results are presented in Table 3.

Table 3. Correlation matrix between narcissism and dimensions of perfectionism as a function of gender

Gender			1	2	3
Females	5.	Narcissism	-		
	6.	Self-oriented perfectionism	.13	-	
	7.	Other-oriented perfectionism	.17	.30**	-
	8.	Socially-prescribed perfectionism	-.09	.16	.35**
Males	1.	Narcissism	-		
	2.	Self-oriented perfectionism	.26**	-	
	3.	Other-oriented perfectionism	.35**	.26**	-
	4.	Socially-prescribed perfectionism	.33**	.36**	.51**

**significant at p< 0.05, **significant at p<0.01*

As it can be seen in Table 3, for women, narcissism has low and non-significant relationships with SOP (r= .13, p= .250), OOP (r= .17, p= .120) and SPP (r= .09, p= .421). For men, narcissism has a significant moderate relationship with all dimensions of perfectionism (r= .26, p= .008 for SOP, r= .35, p<.001 for OOP and r= .33, p< .001 for SPP).

Conclusions

Literature has evinced that both narcissism and perfectionism have a considerable significance in sport-performance, seriously impacting the cognitive, emotional, and behavioral functioning of sportsmen both during practice and competition (Smith et al., 2016). Also, studies indicated inconsistent patterns of association between narcissism and some of the three different components of perfectionism, and the role played by gender in this relationship is even less understood. The major aims of our investigation were to answer the following questions in physical education students: (1) are there gender differences in narcissism and perfectionism and how large are these differences? (2) how strong is the relationship between narcissism and perfectionism? (3) does this relationship vary as a function of perfectionism's components? (4) are there any gender differences in the relationship between narcissism and perfectionism?

Our results indicate that the male participants attained significantly higher levels of narcissism than the female participants (low to moderate size effect), results similar to those found in the literature regarding both the general population and sportsmen. These differences are usually attributed to higher levels of testosterone in men or by stereotypical gender roles (Jonason & Davis, 2018).

Also, our study found no significant gender differences in any of the three components of perfectionism (SOP, OOP, and SPP). Despite the fact that Caglar et al.'s (2010) study indicated sample gender differences in an adolescent, with higher SOP for females and lower SPP for males, our results are in line with those investigations that have not found significant gender differences in the general population (Hewitt & Flett, 1991).

Furthermore, ignoring the gender variable, our investigation has identified a low to moderate association between narcissism and SOP and OOP, while on the entire sample, narcissism did not correlate with SPP. On the general population, research has not found any consistent patterns of association between narcissism and SOP, OOP, SPP. Some studies reported results in which narcissism correlated with SOP, while in others with OOP and SPP (Flett et al., 2014; Trumpeter et al., 2006). Even if studies found strong correlations between narcissism and perfectionism in men, there are no studies investigating these relationships of narcissism and the three components of perfectionism in sportsmen. Analyzing this relationship separately in the two genders, our investigation indicates a moderate association between narcissism and all the three components of perfectionism only in the case of male participants, these relationships being non-significant for the female participants. Our results confirm the findings of Miller and Mesagno (2014) who revealed positive moderate to large correlations between narcissism and perfectionism for men and non-significant correlations for women.

Overall, the most important implications of our study for the domain of sport psychology reside in indicating the intensity of the relationship between narcissism and the different components of perfectionism for male participants included in our study (narcissism explaining 6-12% of the variance of the different dimensions of perfectionism). These findings indicate that narcissism, in this specific population, is just one of the predictors of perfectionism (and maybe not even the most relevant one). We propose that future studies should focus on exploring other predictive factors of perfectionisms (biological factors, mastery, parenting style, trainers' style, attachment style, etc.) (Schruder, Sharpe, & Curwen, 2020).

Our study has also several limitations. One of them refers to the characteristics of our participants, since the sample is relatively homogeneous regarding age, education (students) and professional profile (students at a university of physical education). Based on our results, we propose that future studies investigate the same relationships on a larger, more heterogeneous sample regarding the socio-demographic variables (age, level of education, professional profile, etc.). Moreover, we also propose the use of instruments that assess narcissism in a more nuanced manner, highlighting the difference between its vulnerable and grandiose forms.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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