

The relationship between perfectionism and impostor phenomenon in athletes

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Impostor phenomenon is the feeling of incompetence despite evidence of competence. It is characterised by internal feelings of doubt and inadequacy which causes stress such as anxiety, depression and burnout. Characteristics of impostor phenomenon are similar to the perfectionism personality construct. Due to experiences of perfectionism, athletes may be vulnerable to impostor phenomenon. This study examined the relationship between perfectionism and impostor phenomenon in athletes. Results of hierarchical regression analysis indicate that perfectionistic concerns relate to higher levels of impostor feelings. In sum, in athletes the perfectionistic demands of impostors do not arise from self-imposed expectations but more from social concerns.

Keywords: athletes; competence; impostor phenomenon; perfectionism; personality

First introduced in the literature by Clance and Imes (1978), impostor phenomenon (IP) is defined as “an internal experience of intellectual phoniness that those who feel fraudulence and worthlessness in spite of outstanding academic or professional accomplishments” (Clance, as cited in Fujie, 2010, p.1). These are people who are objectively perceived as competent individuals based on ability and/or achievement but struggle to internalise success due to feelings of inadequacy and fear of being exposed as a fraud. With high levels of IP, task performance leads to the development of anxiety experiences which impostors react to by either over-preparation or stalling and a last-minute rush to prepare (Clance et al., 1995) Over preparedness leads to the thinking that one must work harder to be better than others to do well and because they need to work harder, they must be an impostor. If one delays and rushes preparation last minute then they have fooled others into thinking that they are competent and so they must be an impostor (Clance et al., 1995). In either case this leads to attributes associated with IP such as the tendency to attribute success externally, difficulty accepting compliments/positive feedback, fear important people will discover lack of value, dread of evaluation and a tendency to overestimate others (Clance & Imes, 1978; Clance & O’Toole, 1988). Any sense of accomplishment or relief from the task is short lived as the next task starts the cycle again. Impostor individuals often feel overwhelmed and classify themselves failures when unable to fulfil exaggerated goals (Clance, 1985). IP also includes six specific components; the need to be the best, the erroneous perception of the normality of superhuman qualities, fear and guilt about success, fear of failure, and the tendency to discount personal competencies (Clance, as cited in Sakulku & Alenander, 2011). Accordingly, the need to be the very best and not to be exposed as a fraud leads these individuals to set themselves unrealistically high standards and strive to complete tasks flawlessly (Imes & Clance, 1984). The IP description and characteristics suggests a conceptual link with dispositional perfectionism.

Perfectionism is a trait broadly defined as the pursuit of exceedingly high standards accompanied by overly critical evaluations (Frost et al., 1990). This is similar to IP in that both constructs consist of performance and evaluation processes (Brauer & Wolf, 2016). At the general level, perfectionism is conceptualised as a multidimensional personality trait comprised of two higher order dimensions: Perfectionistic strivings and perfectionistic concerns (Hill & Curran, 2016). Perfectionistic strivings are “those aspects of perfectionism associated with striving for perfection and setting exceedingly high standards of performance” and perfectionistic concerns are “those aspects associated with concerns over mistakes, fear of negative evaluation by others, feelings of discrepancy between one’s expectations and performance and negative reactions to imperfection” (Stoeber, 2011, p. 129). Within perfectionism research, perfectionistic strivings and perfectionistic concerns have been shown to be predictors of cognitive, affective, and behavioural outcomes in work, sport, and education (see Gotwals et al., 2012; Stoeber, 2011; Stoeber & Otto, 2006, for reviews). Perfectionistic strivings have been associated with fewer maladaptive outcomes and in some cases positively associated with adaptive outcomes such as greater performance, coping strategies and positive affect (e.g., Dunkley et al., 2006; Hill et al., 2014; Stoeber & Childs, 2010). Perfectionistic concerns have been associated with maladaptive outcomes such as anxiety, higher threat appraisals and avoidance behaviour (e.g., Dunkley, et al., 2003; Hill, Hall, & Appleton, 2010; Stoeber & Childs, 2010).

Research has indicated that individuals that experience IP were more likely to engage in maladaptive perfectionism behaviours (e.g., deliberating over mistakes and over preparing; Bravata et al., 2019; Cowie et al., 2018; Cusack et al., 2013). Pannhausen et al., (2020) examined associations and predictive values of perfectionism regarding IP in students and working academics. The results indicated that perfectionistic strivings did not emerge as a predictor of IP but perfectionistic concerns did. Therefore, it may not be the high standard setting that is harmful, but the self-evaluation process that accompanies it (DiBartolo et al., 2004). Thompson et al. (2000) examined perfectionisms role in predicting and maintaining IP in students and found impostors have higher perfectionistic concerns over negative evaluation. As a result, achievement behaviours are motivated by trying to meet their perceptions of other people’s standards. Thus, indicating that perceived social expectations contribute to perfectionism in impostors.

Although research has demonstrated a relationship between IP and perfectionism in several populations, it has yet to be examined in athletes. Therefore, this study aims to replicate the research examining the relationship between IP and perfectionism using an athletic population. Information about the relationship among athletes may allow for identification of groups which may be at risk of developing performance problems due to these variables. For example, perfectionism may leave athletes vulnerable to performance

slumps, injury and difficulty with emotional regulation (Hill, et al., 2020). However, IP has yet to be examined. The identification of at-risk groups may allow for development of interventions that would help overcome perfectionism and impostorism.

High levels of IP results in fear of appearing incompetent and a fraud and of negative evaluations. Therefore, this striving for perfectionism also seems to be linked with not disappointing other expectations and gaining their approval. Taking into account the distinction between perfectionism components according to Stoeber (2011), the perfectionistic demands of impostors do not arise from self-imposed expectation but more from social concerns in athletes. This leads to the following: The perfectionistic strivings will not be a predictor of IP. Perfectionistic concerns will be a predictor of IP in athletes.

METHOD

Power analysis conducted (IBM SPSS 27) based on a 95% confidence level and an 80% chance of detecting medium effect indicates a sample of 59 participants was required. An opportunistic sample of 93 (41 males, 52 females) athletes ($M_{age} = 20.36$, $SD = 2.33$) from both team ($n = 53$) and individual ($n = 40$) volunteered to take part in the study. Informed consent was obtained from all participants before participating.

Measures

Perfectionism: Perfectionism was assessed using the Sport Multidimensional perfectionism scale (Sport-MPS; Gotwals & Dunn, 2009). This is a 42-item measure consisting of two subscales that represent facets of perfectionistic strivings – Personal standards (PS: “I have extremely high goals for myself) and Organisation (OG: “I follow pre-planned steps to prepare myself for competition” and four subscales that represent facets of perfectionistic concerns – Concerns over mistakes (COM: “If I fail in competition I feel like a failure as a person”), Perceived Parental Pressure (PPP: “Only outstanding performance during competition is good enough in my family”), Perceived Coach Pressure (PCP: “I feel like my coach criticizes me for doing things less than perfectly in competition”), and Doubts About Actions (DAA: “I usually feel unsure about the adequacy of my pre-competition practices”). Respondents rate the extent to which they agree with each item using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Higher subscale means item scores reflect higher levels of each respective perfectionism facet. In the current study the scale showed good reliability with Cronbach alphas for all subscales greater than 0.85.

Impostor Phenomenon (IP): IP was measured using the Leary Imposter Scale (Leary et al., 2000). This seven-item scale focuses on the inauthenticity aspect of IP. Using a Likert scale ranging from 1 (not at all characteristic) to 5 (extremely characteristic) participants answered questions such as “In some situations I feel like an impostor” and “I am afraid people important to me may find out that I am not as capable as they think I am.” “The measure has shown good reliability (Ibrahim et al., 2020). For this study, Cronbach’s alpha ($\alpha = 0.90$) indicates a high level of reliability.

Procedure

After gaining institutional ethics approval, participants were recruited from sports clubs and via social media (e.g., Facebook) and completed the survey using Jisc online survey. Participants were first presented with detailed information about the study, those who consented were directed to the survey, where the measures were presented in random order to avoid bias. Participants were fully debriefed in writing at the end of the survey.

RESULTS

Bivariate Pearson correlation was used to analyse the relationship between gender, age, impostor phenomenon, perfectionistic strivings, and perfectionistic concerns in an athletic sample. The bivariate correlations of the predictors with impostor phenomenon and overall R for the regression model were used to calculate structure coefficients and squared structured coefficients. There were analysed to determine

what variables "contribute to the overall R² effect" (Yeatts et al., 2017, p.88) and how much each predictor can explain the effects.

In Block 1, the overall main effects of gender, age, impostor phenomenon, perfectionistic strivings and perfectionistic concerns were assessed (see Table 2). The overall model was statistically significant $R^2 = .11$, $F(4, 90) = 2.64$, $p = .039$, and accounts for 11% of the variance in the impostor phenomenon. Specifically, gender ($\beta = 2.23$, $p = .13$), age ($\beta = .09$, $p = .03$), and perfectionistic strivings ($\beta = -.23$, $p = .37$) were not statistically significant predictors of the impostor phenomenon. Perfectionistic concerns ($\beta = .69$, $p = .01$) were statistically significant predictors of impostor phenomenon. Squared structured coefficients represent the overall amount of variance that predictors explain of the overall R² effect size that cannot be attributed to other variables (Yeatts et al., 2017). The squared structured coefficient of perfectionistic concerns ($r_s^2 = .08$) indicating that this predictor can explain 8% of the overall effect size obtained (11% of variance).

Table 1
 Bivariate correlations of gender, age, perfectionism, and impostor phenomenon in athletes

Variables	N	M	SD	1	2	3	4
1 Imposter phenomenon	93	15.03	6.42	–			
2 Gender ^a	93	1.56	–	.15	–		
3 Age	91	20.36	2.33	-.11	-.35**	–	
4 Pefectionistic strivings	93	16.03	3.13	.11	.05	.09	–
5 Perfectionistic concerns	93	17.45	3.35	.29**	-.05	-.20	.54**

^a 1 = males; 2 females

** $p < .01$

Table 2
 Hierarchical regression analysis for gender, age, and perfectionism to impostor phenomenon

Variables	95% CI for B				β	r ²	rs ²	R ²	ΔR^2
	B	LL	UL	SE B					
Step 1							.11	.11	
Constant	1.50	-16.28	19.27	8.94					
Gender ^a	2.23	-.63	5.09	1.44	.17	.16	.03		
Age	.09	-.55	.73	.32	.03	.03	.001		
Perfectionistic strivings	-.23	-.75	.29	.26	-.11	-.09	.01		
Perfectionistic concerns	.69**	.19	1.18	.25	.36	.28	.08		

LL= lower limit; UL: upper limit

^a 1 = males; 2 females

** $p < .01$

DISCUSSION

The aim of this study was to investigate the relationship between IP and perfectionism in athletes. Results indicated that perfectionistic strivings were not a significant indicator of IP, but perfectionistic concerns were. The results suggest that it is not the need to live up to personally set standards that are driving the athletes with high IP, but the need to fulfil perceived high expectations of them set by others. This is consistent with other research findings in relation to the relationship between IP and perfectionism.

Perfectionistic strivings are considered the more adaptive form of perfectionism with outcomes that are positive, adaptive, healthy and functional (Stoeber et al., 2020). This leads to more active coping and positive effects for example. If athletes can actively and productively pursue their goals in relation to sport and performance, this can provide feedback opportunities in relation to competency and goal achievement. This in turn can increase an athlete's feelings of competency which may reduce or protect them feeling like a

fraud. Given the characteristics of IP such as self-doubt about confidence, quality of work, fear of exposure and missing expectations (Pannhausen et al., 2020), then the lack of a relationship with perfectionistic strivings is not surprising.

Examination of the squared structured coefficients indicated that perfectionistic concerns contributed most to the overall effect of IP, meaning athletes with higher perfectionistic concern scores have higher scores of IP. Perfectionistic concerns are the more maladaptive form of perfectionism and the factor includes reliance on others' standards, doubts about oneself to fulfil these and concerns about the consequences of mistakes (Stoeber, et al., 2020). Research suggests that maladaptive perfectionism can lead to increased anxiety, depression and hopelessness (Hill et al., 2010).

Therefore, athletes with high levels of IP are driven by a belief that they need to fulfil others' expectations of them because their IP demands do not arise from self-imposed expectations but from social concerns. High achieving athletes will attribute success externally, feel undeserving of success and think other people have overestimated their abilities. In addition, perfectionistic concerns may result in higher levels of anxiety and athletes seeking feedback from their social environment, specifically they seek positive social feedback and avoid negative feedback (Bautista et al., 2018). These characteristics (e.g., external attribution, anxiety, seeking social feedback/reassurance) may be particularly evident if they experience a setback where they believe others will be critical of them. As a result, athletes attempt to perfect their task performance or engage in avoidance behaviours so as not to be exposed as a fraud.

As well as this, research suggests that if individuals think that others expect certain characteristics of them that they do not possess then they are motivated to correct discrepancies of themselves (Badawy et al., 2018). The same can be said of athletes - if they believe that others expect certain skills/abilities or performances of them. So if athletes believe that others (e.g. coaches or team mates) see them as competent (but they believe otherwise), then they will feel that to continue to meet these expectations they need to perform perfectly so as not to be exposed as a fraud. This finding reiterates findings that indicate social factors such as the influence of peers and parents in the development of perfectionism and feelings of impostorism (E.g., Badawy et al., 2018; Cowie et al., 2018). In this case the social influence may stem from coaches, parents, teammates, and fans.

The current research is not without its limitations that should be addressed in future research. The study does not address the influence of other variables that may influence the relationships in this study. There may be some underlying construct that interacts with perfectionistic beliefs that influence the relationship with IP. For example, does self-efficacy increase perfectionistic strivings that may protect from the development of IP. On the other hand, might social comparison or anxiety interact with perfectionistic concerns and increase levels of impostor beliefs. Future research may wish to consider how these relationships manifest in individuals within teams and/or across different sports. The participants in the current study were drawn from a range of teams and sports, and so it was not possible to examine these relationships within a single team, for example.

CONCLUSION

In this examination of the relationship between IP and perfectionism, findings indicate that high levels of maladaptive facets of perfectionism contribute to impostorism in athletes and could be a factor that contributes to the risk of athletes developing IP. Social Support and accurate estimations of the appraisals of others may be important in mitigating the negative impact of perfectionistic concerns in the development of impostor phenomenon.

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