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Narcissism and antisocial behaviour in sport: The moderating role of self-compassion

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ABSTRACT

Narcissism, which features the chronic disposition to seek the opportunity to construct and maintain an inflated self, is a known risk for antisocial behaviour. However, knowledge of factors that mitigate the effects of narcissism on antisocial behaviour is lacking. In two studies we explored the hypothesis that self-compassion would protect against the link between narcissism and antisocial behaviour, such that narcissism would be less related to antisocial behaviour when self-compassion was high. Study 1 was a cross-sectional study with a sample of professional footballers ($N = 208$). Study 2 utilised a sample of competitive athletes from a variety of sports ($N = 324$) over an eight-month period. The data from both studies supported the hypothesis: Greater self-compassion was associated with a null (Study 1) or significantly attenuated (Study 2) relationship between narcissism and antisocial behaviour. We discuss the implications of the findings, including the benefits of incorporating self-compassion in sport settings.

Narcissism,[1] as a subclinical trait, is characterised by self-importance, self-centeredness, and a tendency to seek self-enhancement via self-promotion or self-defence (Krizan & Herlache, 2018). These conscious feelings of superiority belie a less conscious feeling of inadequacy (Lambe et al., 2018). To maintain such an inflated self-view, individuals high in narcissism engage in a number of intra- and inter-personal strategies and behaviours (see Morf & Rhodewalt, 2001). One such behaviour is antisocial behaviour.

In sport, antisocial behaviour typically refers to a range of voluntary behaviours intended to harm or disadvantage another, which can appear either verbal or physical in nature (Sage et al., 2006). The competitive sporting environment offers opportunities for diverse displays of anti-social behaviour, such as verbally abusing others, deliberately fouling or injuring opponents, or intentional rule-breaking to gain unfair advantages, the acts of which can be directed towards either one's teammate, opponent, or indeed both (Kavussanu & Boardley, 2009). Antisocial behaviour in sport can be detrimental to athletes' performance, mental wellbeing, and task and social cohesion among athletes and their teammates; however, research exploring predictors of such behaviour has predominately focused on moral (e.g., moral identity) and motivational (e.g., motivational climate) factors rather than on dispositional characteristics (see Kavussanu & Al-Yaaribi, 2021, for a review). Further, longitudinal evidence of factors that promote or inhibit anti-social behaviour in sport is sparse (Boardley, Matosic, & Bruner, 2020). As such, in the present research, we conducted two studies (one cross-sectional and one longitudinal) linking an important and relevant individual difference factor, namely narcissism, to antisocial behaviour in sport. We also explored a related protective factor (self-compassion) to examine whether this variable might mitigate the narcissism-antisocial behaviour relationship.

1. Narcissism and antisocial behaviour

Antisocial behaviour is one possible consequence of narcissistic

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[1] Our theorising on narcissism and its relation to antisocial behaviour in this research focused on grandiose (i.e., self-aggrandising, hubristic, manipulative orientation), not vulnerable (i.e., fragile, hypersensitive, hypervigilant disposition) aspects of narcissism (see Krizan & Herlache, 2018 for review). We embrace the trait approach of the narcissistic personality (see also Campbell & Miller, 2011) whereby narcissism can be measured on a continuous scale. Throughout this paper, we used the terms "*individuals high in narcissism*" and "*narcissistic individuals*" interchangeably to refer to those who scored high on grandiose narcissism measures unless otherwise specified.

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individuals' attempts to maintain an inflated sense of self. For example, in an undergraduate sample, Malkin et al. (2013) found a positive relationship between participants' narcissism and their overt and relational aggression. Recent research conducted in more diverse settings, including interpersonal and laboratory environments (Fatfouta et al., 2022), online communities (March et al., 2020), and sport and competitive settings (Jones et al., 2017) has also consistently demonstrated that individuals high in narcissism are more likely to engage in antisocial behaviour.

While a relatively large body of research has established evidence for a relationship between narcissism and antisocial behaviour (see Lambe et al., 2018), less is known about factors that might modulate such a link. Individuals high in narcissism constantly strive to construct and maintain their (overly) positive self-view, despite the opportunity for them to (re-)establish dominance and maintain such a grandiose self-view not always being available (Zhang et al., 2021). As such, these individuals may be particularly susceptible to emotional dysregulation because of discrepancies between the inflated self-concept and reality (Twenge et al., 2009). Such disparities and associated emotional dysregulation can lead to increased antisocial behaviour (Fatfouta et al., 2022; March et al., 2020), which reflects a maladaptive means of ego protection and an 'unhealthy' attempt to maintain high self-esteem (Neff, 2003a). Thus, one would expect factors that facilitate emotional regulation and offer self-comfort to mitigate narcissism-related antisocial behaviour. One such factor that is known for its emotional regulation benefits, but that has not been researched in relation to narcissism and antisocial behaviour, is self-compassion (see Neff, 2003a; 2009 for a review).

2. Self-compassion as a protection

Self-compassion is being sensitive to one's suffering, opening one's awareness to be gentle and kind to distressing feelings and suffering rather than avoiding or disconnecting from them (Neff, 2003a). Different from narcissism, self-compassion has been proposed as an alternative mechanism to experience positive emotions without having to bolster or protect one's inflated self (Neff, 2009). Self-compassion also enables an individual to accept distressing feelings or experiences with a gentler mindset (Gilbert et al., 2017). In support of these theoretical positions, research has demonstrated that self-compassionate individuals hold a more positive attitude toward themselves (Neff et al., 2007), establish approach-, not avoidance-goals (Neff et al., 2005), and report lower psychological distress and greater perceived social safeness (Matos et al., 2022).

Self-compassion encapsulates positive characteristics of self-kindness (e.g., being kind to oneself when experiencing suffering), a sense of common humanity (e.g., seeing difficulties as part of a common life experience), and mindfulness (e.g., taking a balanced view and keeping things in perspective under difficult times) (Neff, 2003a). These positive characteristics counter the tendencies toward narcissistic self-centeredness (Neff & Vonk, 2009) and its related interpersonal exploitativeness under threat-provoking situations (e.g., when there is a challenge to a narcissistic individual's grandiose self-view; Morf & Rhodewalt, 2001). With these benefits of self-compassion in mind, one would expect self-compassion to protect against narcissism-related problems under ego-threatening conditions, such as antisocial behaviour in sport (see Jones et al., 2017). More specifically, sport and performance environments have a wide range of sources for ego threat, including, but not limited to, performing in difficult and stressful situations, losing, having conflicts with others, suffering from injuries, etc. (Zhang, Roberts, Woodman, & Cooke, 2020). These challenges in sport can cultivate distressed feelings, negative emotions, hostility, and aggression, which lead to increased antisocial behaviour for those high in narcissism (Jones et al., 2017). However, self-compassionate athletes are more capable of navigating emotionally difficult situations (Ferguson et al., 2015) and are less fearful of failure and negative feedback (Mosewich et al., 2011). Therefore, with higher levels of self-compassion, narcissistic individuals' antisocial behaviour may reduce thanks to enhanced emotional regulation and having a more accepting mindset toward unpleasant feelings and experiences.

3. The present research

This research aimed to better understand the potential protective influence of self-compassion on the relationship between narcissism and antisocial behaviour in sport. Since antisocial behaviour in sport is a concept that originated in team sport (Kavussanu & Boardley, 2009) and has been studied extensively in football contexts (see Kavussanu & Al-Yaaribi, 2021), we recruited a sample of professional footballers in Study 1 ($n = 208$) for an initial examination of our hypotheses within a cross-sectional design. Such an approach also helped to address one of the sample limitations of existing self-compassion research in sport (i.e., most participants perform at the collegiate level; Cormier et al., 2023). Further, recruiting participants from only one sport allowed us to maintain control over potential context-specific confounders or noises related to sport types (e.g., individual vs team) and settings (e.g., contact vs non-contact) in this initial examination and thus greater statistical power or reduced error in detecting an effect. Equally, to further the replicability and generalisability of the Study 1 findings, we recruited a sample of competitive athletes from a range of sports in Study 2 ($n = 324$). Different to Study 1, we adopted a longitudinal design in Study 2, collecting athletes' data at baseline and at 4- and 8-month follow-ups. Such an approach allowed us to tackle the dynamic nature of antisocial behaviour in sport (Kavussanu, 2006) and to examine whether the hypothesised effects held when accounting for changes over time. In both studies, we predicted that the relationship between athletes' grandiose narcissism and antisocial behaviour in sport would be stronger (more positive) when athletes' self-compassion was low compared to high.

4. Study 1: Method

4.1. Participants

Participants were 208 professional or semi-professional players ($M_{age} = 22.12$, $SD = 3.17$; 55.8% female; $M_{years\ of\ training} = 8.00$, SD = 3.14) from ten football clubs competing in second ($n = 2$) or third ($n = 8$) divisions in the UK. Power analysis using G*Power (Faul et al., 2009) suggested this sample allowed us to detect a relatively small interaction effect (i.e., Cohen's $f^2 = 0.04$, alpha = .05) with good power (1-β = 0.82).

4.2. Measures

4.2.1. Antisocial behaviour in sport

We used the two subscales from the *Prosocial and Antisocial Behaviour in Sport Scale* (Kavussanu & Boardley, 2009) to assess reported antisocial behaviour toward teammates (five items; e.g., "*swore at a teammate*") and opponents (eight items; e.g., "*tried to injure an opponent*"). Participants reported the frequency of engaging in antisocial behaviour in sport in recent games on a 5-point Likert scale ranging from "*1 - never*" to "*5 – very often*". We generated an average score for overall antisocial behaviour in sport (e.g., Sagar et al., 2011).

4.2.2. Narcissism

We used the *Narcissistic Personality Inventory-16* (NPI-16; Ames et al., 2006) to assess the grandiose component of narcissism. The scale comprises 16 items asking participants to choose between a narcissistic and a non-narcissistic response (e.g., "*I will be a success*" vs "*I am not too concerned about success*"). We generated an average score (number of narcissistic responses divided by the number of scale items) for grandiose narcissism.

We also administered the *Hypersensitive Narcissism Scale* (HSNS;

Hendin & Cheek, 1997) to assess vulnerable aspects of narcissism. Narcissism theorists (e.g., Campbell & Miller, 2011) recommend the inclusion of measures of vulnerable narcissism to capture the narcissism construct more comprehensively, even if, as was the case here, the focus is on grandiose narcissism. The scale comprises ten statements describing oneself (e.g., "*My feelings are easily hurt by ridicule or the slighting marks of others*"), to which participants responded from "*1 – strongly disagree*" to "*5 – strongly agree*". We used HSNS scores as a covariate in all analyses.[2]

4.2.3. Self-compassion

We used the *Self-Compassion Scale – Short* (SCS–S; Raes et al., 2011) to assess dispositional self-compassion. The scale contains 12 items about one's feelings and reactions toward personal failures and distress (e.g., "*when I fail at something important to me, I become consumed by feelings of inadequacy*"), on a five-point scale from *1* (*almost never*) to *5* (*almost always*). We generated average scores, with higher scores reflecting greater self-compassion.

4.3. Procedure

Following institutional ethics approval, a research assistant contacted football clubs and visited the clubs to collect data upon approval of the club manager or head coach. The research assistant gave a study briefing, which was followed by the completion of written informed consent and the study measures. Participants had the opportunity to ask questions before participating. On completion of the paper-pencil survey, participants were debriefed and thanked.

4.4. Data analysis

We first checked for missing data and generated descriptive statistics and correlations for all study variables. For the main analysis, we used Mplus Version 8 (Muthén & Muthén, 2017) and performed a clustered moderation analysis to examine the interaction between grandiose narcissism and self-compassion. Specifically, we employed a clustered analysis using the TYPE = COMPLEX command function[3] in Mplus to allow regression intercepts to vary across participants from different teams, thus controlling for potential confound of the nested data (i.e., players nested in teams). We used the Robust maximum likelihood estimator for more accurate parameter estimation and to mitigate the potential influence of data non-normality. We included participants' age, sex, level of competition, and training experience (in years) in the tested model to account for potential demographic differences in narcissism (cf. Zhang et al., 2021) and self-compassion (see Cormier et al., 2023). Following Campbell and Miller's (2011) suggestions, we controlled for vulnerable narcissism in all analyses to capture narcissism more comprehensively and to enable the test of grandiose narcissism's unique effect. Standardised beta coefficient of the regressive path (β), precise p value, and 95% confidence interval (CI) of regression coefficients are reported, with significant interactions ($p < .05$) probed via simple slopes analysis at high (+1SD) and low (-1SD) levels of the moderator.

5. Study 1: Results

Overall, narcissism, self-compassion, and antisocial behaviour measures achieved 0.70-0.92 Cronbach's alpha, indicating good (0.70 and above) to excellent (0.90 and above) internal consistency (see Kline, 1993). Grandiose narcissism revealed a modest significant bivariate correlation with self-compassion and no bivariate correlation with antisocial behaviour in sport.[4] The correlations also suggested that greater antisocial behaviour was associated with being male, being younger, competing at national/international levels, and having a greater number of years of training. Table 1 presents all descriptive statistics and correlations for study variables.

Clustered moderation analysis revealed a significant interaction between grandiose narcissism and self-compassion on antisocial behaviour in sport ($\beta = -0.15$, $p < .001$; 95% CI [-0.24, −0.06]). Grandiose narcissism was associated with increased antisocial behaviour when self-compassion was low ($\beta = 0.18$, $p < .05$; 95% CI [0.02, 0.34]) but not high ($\beta = -0.03$, $p = .28$; 95% CI [-0.08, 0.02]). Age was negatively ($\beta = -0.26$, $p = .00$; 95% CI [-0.41, −0.11]), and training experience, positively ($\beta = 0.31$, $p = .00$; 95% CI [0.20, 0.41]) related to antisocial behaviour in sport, whilst sex ($\beta = 0.12$, $p = .16$; 95% CI [-0.05, 0.28]) and competitive level ($\beta = 0.00$, $p = .94$; 95% CI [-0.11, 0.11]) were not. Figure 1 (top) illustrates the nature of the interaction between narcissism and self-compassion.

6. Study 1: Discussion

This study was the first to examine the interaction between grandiose narcissism and self-compassion in antisocial behaviour in sport. Results supported the hypothesis that athletes' self-compassion protected against the antisocial risks of the personality trait of narcissism as grandiose narcissism was linked to greater antisocial behaviour when self-compassion was low compared to high. However, since the display of antisocial behaviour in sport contexts is diverse and dynamic (Kavussanu, 2006), the cross-sectional design of the study presents somewhat of a limitation. Further, although football has often been used as an exemplar activity when exploring antisocial behaviour in sport (see Kavussanu & Al-Yaaribi, 2021), the exclusive sample from professional footballers may limit the generalisability of study findings to other sports. We, therefore, conducted a follow-up study using a longitudinal, prospective design to examine the interaction of grandiose narcissism and self-compassion on the trajectory of antisocial behaviour across an eight-month period[5] among players from different sports using conditional latent growth curve modelling (see Preacher et al., 2008). We hypothesised that self-compassion would mitigate the relationship between grandiose narcissism and aggregated antisocial behaviour or any increasing trend in antisocial behaviour in sport across the season.

[2] For interested readers, we also examined the relationship between vulnerable narcissism and antisocial behaviour in sport and tested the extent to which self-compassion moderates that relationship; those results are included in the Supplementary Material. To summarise those analyses, vulnerable narcissism did not predict antisocial behaviour in sport (regression coefficient close to zero), after controlling for the consistent significant influence of grandiose narcissism. Moreover, the relationship between vulnerable narcissism and antisocial behaviour in sport did not vary as a function of athletes' self-compassion. We provide more insights to the relevant findings in the General Discussion.

[3] We did not conduct multilevel analysis because our level 2 (club level) sample size was underpowered (only 10 sport clubs) compared to guidance (i.e., at least 30; Maas et al., 2005). Since our hypothesised effects were at level 1 (athlete level), the random intercept approach enabled through the TYPE = COMPLEX command, allowed us to address the nested nature of the dataset giving more accurate estimation of regression parameters (see also Smith et al., 2013 for an example).

[4] Although one might interpret the lack of a correlation between grandiose narcissism and antisocial behaviour in sport as surprising, it is a moot point in the presence of a significant interaction (moderation) effect. In the present example, one should interpret the lack of correlation between narcissism and antisocial behaviour in sport in the context of the significant moderation effect of self-compassion, rather than as a non-relationship.

[5] We recruited Study 2 participants mainly from university 1st teams. These participants could have multiple team memberships, as they also competed for other teams/clubs beyond the university. We started data collection in November and finished in June. Thus, this study period covers approximately a competitive season for most British University and College Sport athletes.

Table 1
Study 1 descriptive statistics and Pearson correlation of all variables.

Study variable	1	2	3	4	5	6	7	8
1. Age	–	.09	.04	.28**	−.02	−.10	−.03	−.16*
2. Sex		–	.28**	.30**	−.02	.07	.07	.19**
3. Level			–	.47**	−.21**	−.05	.02	.17*
4. Year				–	−.33**	−.20**	−.05	.27**
5. Vulnerable narcissism					*(.71)*	.10	−.27**	−.14*
6. Grandiose narcissism						*(.70)*	.15*	.01
7. Self-compassion							*(.84)*	−.14*
8. Antisocial behaviour								*(.92)*
Mean	22.12	–	–	8.32	2.66	.24	2.98	3.83
SD	3.17	–	–	5.14	.58	.15	.68	.72

Note. Variables 1–5 were treated as covariates whilst variables 6–8 were the main variables in the moderation analysis. Sex was coded as 0-female and 1-male. Level was coded as 0-competing at regional level and 1-competing at national or international level. Year refers to number of years receiving training in the sport one was competing at the time of data collection. Cronbach's alphas (if appropriate) were presented in the parentheses. *$p < .05$, **$p < .01$.

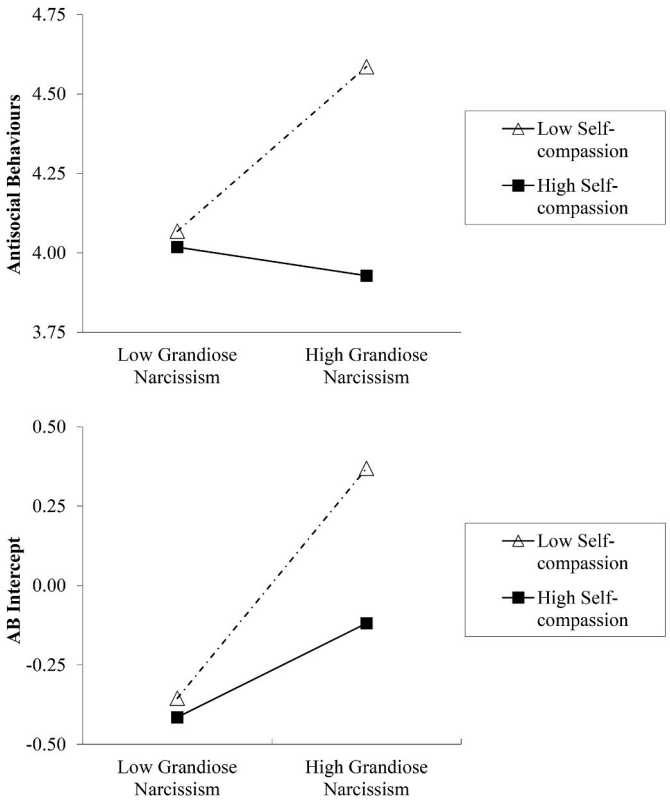

Figure 1. The interaction between grandiose narcissism and self-compassion on antisocial behaviour measured at a single time point in Study 1 (top) and aggregated antisocial behaviour over three time points across a sport season in Study 2 (bottom).
Note. Levels of antisocial behaviour measured in Study 1 (top) were based on raw, observed data, with a range of 1–5 with higher scores reflecting greater levels of antisocial behaviour. The aggregated antisocial behaviour over three time points in Study 2 (bottom) was a latent variable (mean and variance equal to 0.15 and 0.56 respectively), with greater scores indicating increased antisocial behaviour. Regression slopes are derived from hypothetical individuals who are one standard deviation below the mean (low) and one standard deviation above the mean (high).

7. Study 2: Method

7.1. Participants

Participants were 324 UK athletes ($M_{age} = 29.55$, SD = 15.68; 53.7% female) competing at university level (57.1%), regional level (29.6%), or national/international level (13.3%) at the time of participation. They were from 13 team sports (e.g., 37.3% football, 8.3% netball, 3.7% hockey, 3.1% basketball, 2.5% volleyball) and 22 individual sports (e.g., 7.8% running, 5.6% swimming, 3.7% badminton, 2.8% weightlifting, 2.8% tennis). These participants had trained for a mean of 11 years at the time of participation. All participants completed a baseline survey at the early stage of a sporting season, 57% completed a 4-month follow-up survey, and 48% completed an 8-month follow-up survey. Monte Carlo power analysis for conditional latent growth curve modelling (see Muthén & Muthén, 2002) revealed that this sample provided good power ($1\text{-}\beta > 0.85$) to detect a small-to-moderate effect of study predictors on aggregated antisocial behaviour (i.e., mean and variance of latent aggregation/intercept = 0 and 0.5; regression coefficient = 0.2, alpha = .05) and trend in antisocial behaviour (i.e., mean and variance of latent change/slope = 0.2 and 0.1; regression coefficient = 0.2, alpha = .05).

7.2. Measures

We used the same measures as in Study 1 for the baseline. We measured antisocial behaviour in sport at the two follow-up times.

7.3. Procedure

With institutional ethics approval, we delivered an online, longitudinal data collection via Qualtrics for baseline and 4- and 8-month follow-up surveys. We advertised the study invitation through social media and email to sport science students in UK universities and sport clubs. Only those aged 18 and above, competing in sports, and who provided consent were eligible to participate. We offered ten £10 Amazon e-vouchers in a prize draw for those who completed all three surveys. Each data collection window lasted for a full calendar month, with an invitation email at the beginning, and a reminder sent one week before closing each survey.

7.4. Data analysis

We took the same approach as in Study 1 for preliminary analyses. We then performed conditional latent growth curve modelling (LGCM; see Preacher et al., 2008) to examine if the interaction between grandiose narcissism and self-compassion predicted the aggregation and changes in antisocial behaviour across the study period. Specifically, we performed an LGCM to assess the aggregated (i.e., a latent variable referring to the time "*intercept*") and the linear trend or rate of change (i.e., a latent variable referring to the time "*slope*") of antisocial behaviour in sport to understand the trajectory of antisocial behaviour among our participants across the three study time points. LGCM was chosen because it can separate between-person (i.e., variance of the latent intercept and slope) and within-person (i.e., mean of the latent intercept and slope) effects over the study time (Preacher et al., 2008). Figure 2

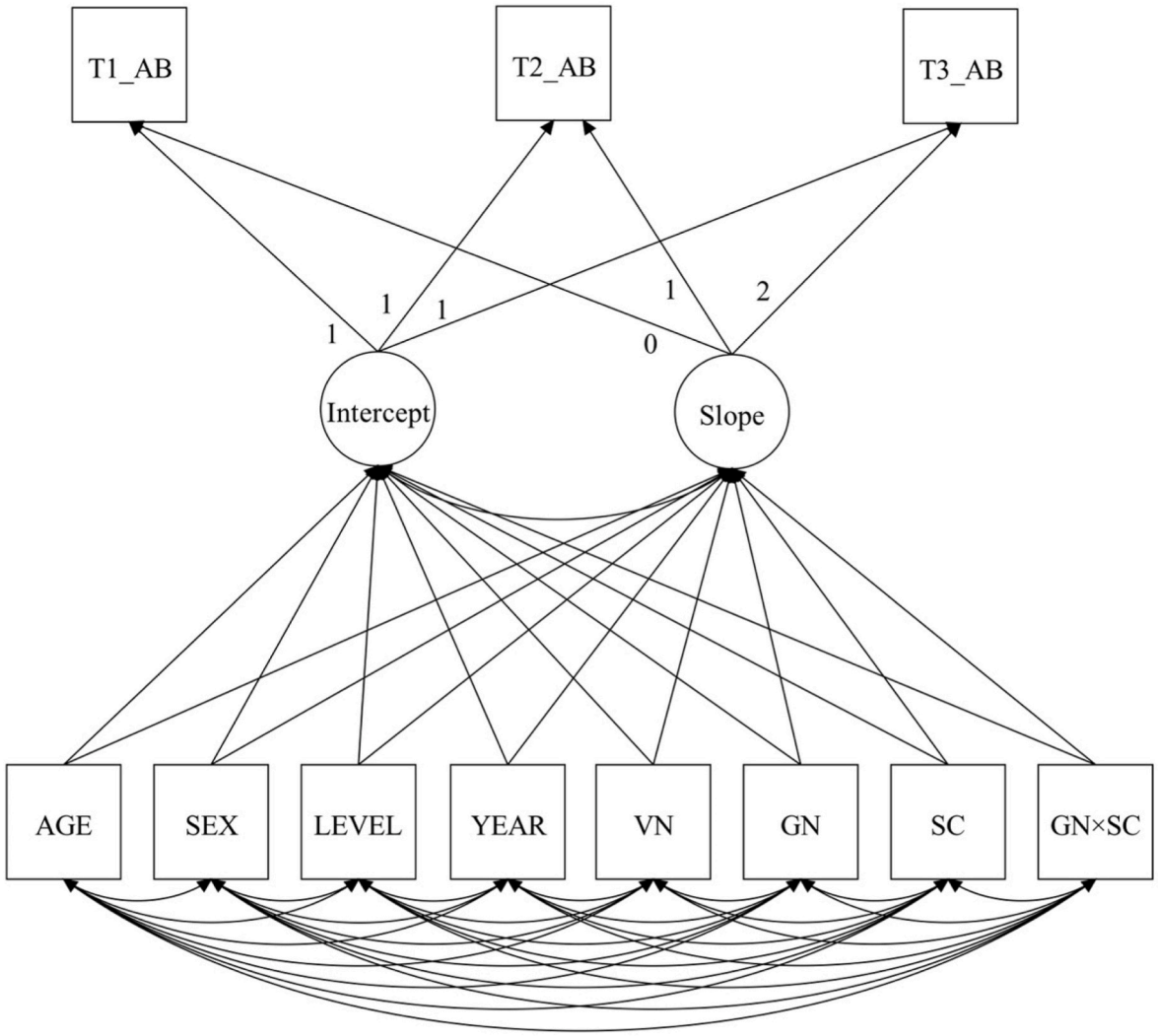

Figure 2. An illustration of the conditional latent growth curve model (Model 2a) testing the effect of grandiose narcissism (GN), self-compassion (SC), and their interaction (GN × SC) on the aggregation (i.e., the latent intercept) and rate of change (i.e., the latent slope) of antisocial behaviour (AB) across three study time points (i.e., T1, T2, T3). The displayed numbers represent the constrained factor loadings of antisocial behaviours at T1-T3 loaded to the latent intercept and slope factors to define aggregation (i.e., constant loading of AB at each time point on intercept) and rate of change (i.e., T-1 reflecting impact of time on change loaded to slope). Age, sex (0-female, 1-male), level (1-university, 2-regional, 3-national/international), training years, and vulnerable narcissism (VN) were covariates.

illustrates the conceptual model for the LGCM analysed in this study.

To understand the pattern of change in antisocial behaviour of the study participants, we tested a *random intercept random slope* model (i.e., participants had different levels of aggregated antisocial behaviour and different patterns of change over time). This model allowed study participants to start with different levels of antisocial behaviour at the beginning of the study and could then change over time in different patterns. Thus, one would expect the random intercept random slope model to best reflect reality.[6] Sport type ($n = 35$) was controlled as the cluster to account for the nested nature of the data (i.e., athletes nested in sports). We used the robust *Full Information Maximum Likelihood* (FIML; Hirose et al., 2015) estimator to address missing data (i.e., 43% and 52% missing at times 2 and 3, respectively) and employed Chi-square (χ^2), comparative fit index (CFI), standardised root mean square residual (SRMR), and root mean square error of approximation (RMSEA) to assess good model fit (i.e., CFI $\geq$0.95, SRMR $\leq$0.08, RMSEA $\leq$0.06; see Hu & Bentler, 1999).

We then regressed the latent intercept (i.e., the aggregation) and slope (i.e., rate of change) on grandiose narcissism, self-compassion, and their interaction, after confirming the identified LGCM in estimating the trajectory of antisocial behaviour in study participants. We adjusted for the same covariates as in Study 1 and took an identical approach to report regression statistics and to probe the interaction.

8. Study 2: Results

Correlations of grandiose narcissism and antisocial behaviour over time were weak to moderate. As in Study 1, grandiose narcissism was correlated weakly with self-compassion, and sex (coded 0-female and 1-male) was correlated moderately to strongly with antisocial behaviour over time. Table 2 presents all descriptive statistics, Cronbach's alphas, and correlations.

Initial LGCM analysis suggested an excellent fit for the random intercept random slope model representing the trajectory of antisocial behaviour of study participants over time ($\chi^2 = 2.75$, df = 1, CFI = 0.99,

[6] The choice of random intercept random slope LCGM was also supported by its comparison of model fit to that of a fixed intercept fixed slope LCGM (i.e., all participants had similar levels of aggregated and change in antisocial behaviour over time) and a random intercept fixed slope LGCM, (i.e., participants had different levels of aggregated antisocial behaviour but a similar trend over time).

Table 2
Study 2 descriptive statistics and Pearson correlation of all variables.

Study variable	1	2	3	4	5	6	7	8	9	10
1. Age	–	−.20*	−.14*	.49*	−.04	−.09	.09	−.40**	−.28**	−.11
2. Sex		–	.04	.08	−.12*	.15*	.14*	.50**	.47**	.28**
3. Level			–	.01	−.10	.20*	.01	.10	.25**	.12
4. Year				–	−.20*	−.04	.14*	.01	.14	.05
5. Vulnerable narcissism					*(.67)*	.11*	−.42**	−.02	−.11	−.10
6. Grandiose narcissism						*(.76)*	.16**	.28**	.33**	.21**
7. Self-compassion							*(.81)*	.01	.05	−.04
8. Time 1 Antisocial behaviour								*(.95)*	.78**	.61**
9. Time 2 Antisocial behaviour									*(.93)*	.70**
10. Time 3 Antisocial behaviour										*(.91)*
Mean	29.55	–	–	11.55	2.93	.21	2.90	1.66	1.73	1.99
SD	15.68	–	–	9.01	.54	.18	.62	.62	.71	.90

Note. Variables 8–10 were used for latent growth curve modelling assessing trajectory of antisocial behaviour over Time 1 to 3. Variables 1–5 were treated as covariates whilst variables 6–7 were predators of the trajectory of antisocial behaviour. Sex was coded as 0-female and 1-male. Level was coded as 0-competing at university level, 1-competing at regional level, and 2-competing at national or international level. Year refers to number of years receiving training in the sport one was competing at the time of data collection. Cronbach's alphas (if appropriate) were presented in the parentheses. *$p < .05$, **$p < .01$.

RMSEA = 0.07, SRMR = 0.04). To expand, results demonstrated individual differences in aggregated antisocial behaviour over time ($intercept_{mean} = .15$, $p = .43$; $intercept_{variance} = .56$, $p = .00$). Further, there was an increasing trend in antisocial behaviour over time ($Slope_{mean} = .13$, $p = .01$), and this trend was homogeneous across participants ($Slope_{variance} = .02$, $p = .61$).

Conditional LGCM regressing aggregated antisocial behaviour (i.e., the latent intercept) and trend (i.e., the latent slope) on grandiose narcissism, self-compassion, and their interaction revealed a significant interaction on aggregated antisocial behaviour ($\beta = -0.08$, $p = .03$; 95% CI [-0.14, −0.01]) but not on the trend in antisocial behaviour ($\beta = 0.02$, $p = .08$; 95% CI [-0.01, 0.05]). Simple slopes indicated that grandiose narcissism at baseline predicted a greater increase in aggregated antisocial behaviour over time when self-compassion at baseline was low ($\beta = 0.25$, $p = .00$; 95% CI [0.13, 0.38]) compared to high ($\beta = 0.10$, $p = .00$; 95% CI [0.05, 0.16]). Males consistently demonstrated greater aggregated antisocial behaviour but a lower increasing rate over time, compared to female athletes. No other predictors or covariates were significant (see Table 3 for all regression statistics). Figure 1 (bottom) illustrates the nature of interaction on aggregated antisocial behaviour.

Table 3
Study 2 regression statistics for clustered conditional latent growth curve analysis on antisocial behaviour.

	AB Intercept				AB Slope			
	β	SE	*p*	95% CI	*β*	SE	*p*	95% CI
Grandiose narcissism	.18	.04	.00	[.11, .25]	−.03	.01	.01	[-.06, −.01]
Self-compassion	−.11	.04	.00	[-.18, −.03]	.01	.02	.71	[-.04, .05]
GN × SC	−.08	.04	.03	[-.14, −.01]	.02	.01	.08	[-.01, .05]
Age	−.01	.01	.08	[-.03, .01]	.00	.01	.18	[-.01, .01]
Sex	.66	.07	.00	[.52, .83]	−.12	.04	.01	[-.20, −.04]
Level	.04	.05	.38	[-.05, .13]	.01	.02	.76	[-.04, .05]
Year	.01	.01	.30	[-.01, .02]	.00	.01	.63	[-.01, .02]
Vulnerable narcissism	−.01	.03	.78	[-.07, .06]	−.02	.03	.60	[-.07, .04]

Note. AB intercept = aggregated antisocial behaviour across three study time points, AB slope = the rate of increase in antisocial behaviour across three study time points. *β* = standardised regression coefficient, SE = standard error, CI = confidence interval. GN × SC = grandiose narcissism × self-compassion interaction. Sex was coded as 0-female and 1-male. Level was coded as 0-competing at university level, 1-competing at regional level, and 2-competing at national or international level. Year refers to number of years receiving training in the sport one was competing at the time of data collection. Sport type (n = 35) was controlled as cluster given the nested nature of the data (i.e., athletes nested in sport).

9. General Discussion

9.1. Summary of findings and research highlights

Although there is an established link between narcissism and antisocial behaviour in social/interpersonal (Fatfouta et al., 2022) and sport (Jones et al., 2017) settings, knowledge regarding its protective factors is scarce. Across two studies, we investigated the extent to which self-compassion moderated the relationship between narcissism and antisocial behaviour. The data consistently revealed that greater self-compassion reduced the strength of the relationship between grandiose narcissism and antisocial behaviour in sport. This effect held both at a single time point (Study 1) and over an 8-month period (Study 2). The findings suggest that developing self-compassion might be an effective strategy to inhibit antisocial behaviour in sport, particularly for those high in narcissism.

The results across the two studies imply that self-compassion could play a key role in attenuating athletes' displays of antisocial behaviour. Indeed, research has demonstrated a strong relationship between self-compassion and varied emotion regulation benefits (e.g., Gilbert et al., 2017; Matos et al., 2022; Neff et al., 2007). Evidence also exists supporting the position that emotional dysregulation can be a result of discrepancies between the narcissistic self-view and reality (Twenge et al., 2009), which likely play a role in narcissism-related antisocial behaviour (Lambe et al., 2018). Given the emotional regulation benefits of self-compassion and the role of emotional dysregulation in the narcissism-antisocial behaviour relationship, our findings add more direct support and evidence to the protective effects of self-compassion on narcissism-related antisocial behaviour in sport. Cultivating self-compassion as a strategy for mitigating antisocial behaviour in sport, or as an approach for generalised emotional regulation in sport, therefore, is a worthwhile direction for future consideration in research and practice.[7]

The precise nature of the interaction between narcissism and self-compassion differed across the two studies. In Study 1, greater

[7] We appreciate that various approaches exist in building self-compassion and acknowledge that one should not position self-compassion solely as a way to aid emotional regulation. We direct interested readers to Neff's (2023) review on self-compassion conceptualisation and practices for more information in this regard.

grandiose narcissism was related to greater antisocial behaviour in sport only when self-compassion was low. In Study 2, the relationship between grandiose narcissism and aggregated antisocial behaviour over eight months remained significant and positive when self-compassion was high, albeit at a significantly lower magnitude compared to when self-compassion was low. Based on these findings, we argue that the extent to which self-compassion inhibits athletes' antisocial behaviour is likely to be dependent on situational importance and interpersonal interaction within a sport team. For example, motivational climate (e.g., performance climate) within a sport team can increase athletes' antisocial behaviour (Kavussanu & Al-Yaaribi, 2021). It is possible that in Study 2, situational importance and a sense of performance climate increased towards the end of the sporting season, which may explain why the relationship between grandiose narcissism and athletes' aggregated antisocial behaviour was not fully buffered as Study 1 data indicated.

Alternatively, the slight difference in findings of Studies 1 and 2 (i.e., self-compassion fully buffered the relationship between narcissism and antisocial behaviour in sport in Study 1 but only partially did so in Study 2) may be due to the varied opportunities for developing and integrating self-compassion in the two study samples.[8] Indeed, in their interviews with high-performing athletes, Frentz et al. (2020) found that the coach, teammate, and important others all play a role in fostering and inhibiting one's development and integration of self-compassion in sport. Similar findings emerged from Ferguson et al.'s (2022) mixed-method survey study, whereby salient environmental factors might help nurture (e.g., perceived safety and support, emphasis on doing one's best) or inhibit (e.g., excessive negative feedback, perceived pressure) athletes' self-compassion. The protection of self-compassion for athletes, therefore, is optimal probably only under specific team environments that facilitate the incorporation of self-compassion (see also Mosewich, Ferguson, McHugh, & Kowalski, 2019).

Another important noteworthy point is the relationship between self-compassion and narcissism. Neff (2003a) conceptualised self-compassion as a healither way to construct the self and to experience greater positive or reduced negative emotions, compared to narcissism. Neff and Vonk (2009) further posited that, in contrast to those high in narcissism or motivated by self-esteem maintanence, individuals high in self-compassion would be less desperate or indeed hold less desire to enhance or defend their egos given that feeling of insufficiency, distress, or other negative emotions can be soothed with acceptance and seeing adversities being part of common humanity. These conceptualisations could lead one to misassume a negative relationship between self-compassion and narcissism. However, evidence to date suggested that the association of self-compassion and narcisssim is rather orthogonal. Specifically, Neff and Vonk (2009) found a small, positive, significant correlation between self-compassion and narcissism, of which the relationship was no longer evident after controlling for one's global self-esteem and demographic differences probably due to the largely shared variance of self-esteem in both narcisissm and self-compassion. Similar findings exist in Neff (2003b), Barry et al. (2015), and Zhang and Boardley's (2022) studies. In addition, whilst narcissism is a trait, self-compassion can be considered either a trait, disposition, or a psychological skill or state that people might have or use to varying degrees (see Neff, 2023). As such, it is perfectly fine for the two competing self-concepts to co-exist in an individual, and one should not assume a (negative) relationship between self-compassion and narcissism (especially the grandiose, non-pathological aspects of the narcissistic personality).[9]

Given that the narcissistic personality trait is relatively stable across the life span and is thus difficult to change (Chopik & Grimm, 2019), cultivating self-compassion via compassionate mind training (see Luberto et al., 2018) offers a feasible way of promoting prosocial and inhibiting antisocial behaviours in sport. Equally, given that existing compassionate mind training for clinical (e.g., Gilbert & Procter, 2006) and sport (e.g., Mosewich et al., 2013) populations have focused on therapy and generalised mental health issues, they may not readily be transferrable to tackle antisocial behaviour in sport. More research is clearly needed to address this. Furthermore, the dominant norms and the valued competitiveness in sport might put a question mark on self-compassion for some competitive athletes. For example, Zhang and McEwan (2023) found that athletes displayed more self-criticism than self-compassion and reported greater fear of self-compassion in sport settings (compared to life in general) probably due to fear of being mediocre (see also Ferguson et al., 2014; Sutherland et al., 2014, for athletes' narratives of such fears). As such, the prevalent ego orientation (e.g., one's value of personal competence and interpersonal comparison) and performance climate (e.g., a team's culture of performance emphasis and competitiveness) in competitive sports may contribute to the development of antisocial behaviour in sport (Kavussanu & Al-Yaaribi, 2021), which may explain why individuals low in, or resistant to, self-compassion demonstrated greater antisocial behaviour in sport. Researchers and practitioners would do well to address the barriers and fears of self-compassion for better delivery of compassion-focused practices in sport.

Despite our focus on narcissism in its grandiose form (i.e., self-aggrandising, hubristic, manipulative), we included vulnerable narcissism for statistical control (see Campbell & Miller, 2011). We further analysed and reported vulnerable narcissism in relation to antisocial behaviour to compare with our main analyses on grandiose narcissism (see Supplementary Material). Results indicated that the association between narcissism and antisocial behaviour in sport are driven by grandiose, not vulnerable, narcissism. However, research in social and interpersonal contexts has suggested a link between vulnerable narcissism and one's aggression (Malkin et al., 2013), and recent sport narcissism research has also unveiled several psycho-behavioural problems associated with vulnerable narcissism, such as muscle dysmorphia (Boulter & Sandgren, 2022) and doping risks (Zhang & Boardley, 2022), after controlling for grandiose narcissism. It is possible that the influence of vulnerable narcissism on antisocial behaviour in sport is more indirect (i.e., through other underpinning factors) or covert. Clearly, the interplay between vulnerable and grandiose narcissism, as they relate to antisocial behaviour or other psycho-behavioural problems in sport, requires further research attention.

9.2. Strengths, limitations, and other future directions

The current set of studies features noticeable strengths, including its originality, diverse samples of competitive athletes, replication of findings (i.e., self-compassion's mitigating effect on the relationship between narcissism and antisocial behaviour in sport) using cross-sectional and longitudinal designs, and rigorous statistical tests that address the multilevel nature of study participants (i.e., athletes nested in teams/sports) and change over time (i.e., LGCM). However, there are limitations that have implications for future directions. Specifically, both studies adopted self-report measures of antisocial behaviour, which may invite concern over susceptibility to the common method variance that could lead to biased responses (Chang et al., 2010). While fully acknowledging this limitation, we argue that we have used the most widely used psychometric assessment for antisocial behaviour in sport, which has demonstrated excellent reliability in a variety of studies (Kavussanu & Al-Yaaribi, 2021). Also, problems of potential bias in self-report antisocial behaviour can be largely addressed by the LGCM technique we adopted. This is because an individual's bias is relatively

[8] We would like to thank an anonymised reviewer for this point.

[9] We call for attention that vulnerable and pathological aspects of narcissism tend to manifest a negative relationship with self-compassion (e.g., Barry et al., 2015; Zhang & Boardley, 2022), which is different to the (grandiose) narcissistic personality (i.e., focus of the present studies).

stable over time, and the LGCM can separate the within- and between-person effects over time, taking advantage of latent variables (i.e., generating latent aggregation and change factors) to minimise the impact of potentially biased responses (Preacher et al., 2008). Future research should consider the development and validation of informant rating or objective behavioural measures of antisocial behaviour in sport, which would provide multiple sources for assessing the construct (see Chang et al., 2010).

Although the present data supported the protective effects of self-compassion on narcissism-related antisocial behaviour, one better not make a causal interpretation of the findings. Both studies were observational in nature and did not contain any manipulation or intervention. Also, self-compassion has a state-like component and can change over time (Neff et al., 2021), and we measured only its trait-like components at baseline. One might argue, for example, that competitive athletes will be more self-compassionate in the early season but become less self-compassionate toward the end of a season due to the increase in situational importance of competition over a sport season. As such, the lack of influence of baseline self-compassion on change in antisocial behaviour, as found in Study 2, may be explained by increasing antisocial behaviour (observed) and decreasing self-compassion over time (unobserved, as not measured). Future research would do well to track trajectories of both self-compassion and antisocial behaviour or to implement an intervention design for a more comprehensive understanding of self-compassion and antisocial behaviour in sport.

9.3. Conclusion

The current research was the first to examine the interaction between two competing dispositional characteristics, namely narcissism (i.e., desperately seeking out the opportunity to construct and maintain an inflated self) and self-compassion (i.e., approaching suffering and unpleasant life experience with an accepting mindset), on antisocial behaviour in sport. We demonstrated evidence that self-compassion moderated the positive relationship between narcissism and antisocial behaviour in sport (Study 1) and predicted a lower increase of narcissism-related antisocial behaviour (Study 2) over an 8-month period (approximately from pre/early to post/end of a sporting season). Incorporating self-compassion is likely a useful way of promoting moral play in sport, especially for those high in narcissism.

Declaration of competing interest

This research received financial support from the School of Human Sciences, University of Derby, UK on paying compensation to participants. The authors do not have any conflict of interests. The data that support the findings of the research are not publicly available due to ethics restriction. The data and codes for analysis are available for qualified researchers on request from the corresponding authors.

Data availability

Data will be made available on request.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.psychsport.2023.102528.

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