Brief Communication

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Compassion and self-compassion in young male soccer players: a comparison between high-performance and amateur clubs

Supplementary Information

The online version of this article (https://doi.org/10.1007/s12662-026-01168-8) contains supplementary material, which is available to authorized users.

High-performance sport exposes athletes to performance pressure, emotional strain, and self-criticism, which may affect mental health (Reardon et al., 2019). Young competitive athletes also face high expectations, selection pressure, and repeated evaluation, making resilience and emotion regulation relevant early in development (Beenen, Vosters, & Patel, 2025).

Internal sustainability includes psychological resources such as compassion and self-compassion (Jansen, 2024). Compassion refers to the motivation to recognize, tolerate, and act upon others' suffering (Goetz, Keltner, & Simon-Thomas, 2010), whereas self-compassion reflects this capacity inward, particularly during personal failure or inadequacy (Neff, 2003). In competitive sport, self-compassion has been linked to lower anxiety, less harsh self-criticism, improved responses to setbacks, and healthier motivation patterns (Ferguson, Kowalski, Mack, & Sabiston, 2014; Reis, Kowalski, Mosewich, & Ferguson, 2019; Röthlin, Horvath, & Birrer, 2019). More broadly, a recent scoping review of 69 publications identified well-being, mindfulness, striving for excellence, overcoming setbacks, negative thoughts and emotions, and self-criticism as common areas of self-compassion research in sport, while also highlighting remaining gaps in theory, measurement, and sampling (Cormier et al., 2025).

Recent findings suggest that the social norms embedded in elite sports environments may inhibit developing and expressing compassionate attitudes (Gilbert, McEwan, Matos, & Rivis, 2011; Ferguson et al., 2014). In high-performance soccer, such norms include selection pressure, repeated evaluation, competition for playing time, persistence after setbacks, and a strong focus on performance outcomes (Beavan, Spielmann, Johns, Doty, & Mayer, 2023; Reardon et al., 2019). These norms may conflict with responding to one's own failure with kindness and remaining open to others' distress. Accordingly, Beavan et al. (2023) reported low compassion and self-compassion levels across age groups within a first-division professional youth academy.

Despite this growing evidence, it remains unclear whether compassion and self-compassion differ between high-performance academy and less performance-oriented amateur contexts. The present study therefore investigated levels of compassion and self-compassion in young male soccer players from two different training environments: a high-performance academy (Leistungszentrum; LZ) in Germany's second division and less performance-oriented amateur clubs (AC). Unlike prior studies using normative data, this study directly compares high-performance and amateur players. Based on the potential tension between high-performance norms and compassionate responding, we expected lower compassion and self-compassion in academy players.

In addition to group differences, we explore whether age, years of club experience, LZ-experience, training load, and official matches played in the previous season are associated with compassion and self-compassion. This dual focus was based on the assumption that sport-context exposure may be more relevant than age alone, because organized sport provides repeated social experiences that can shape prosocial behavior and emotional resources (Li & Shao, 2022).

Therefore, we formulated the following hypotheses:

H1: Players from the high-performance academy (LZ) will report lower levels of self-compassion than players from amateur clubs.

H2: Players from the high-performance academy will report lower levels of compassion than players from amateur clubs.

H3: Age will not significantly predict levels of compassion or self-compassion, years of club experience, training hours per week, and the number of official matches played will.

Methods

Experimental design

This cross-sectional, observational study collected data at a single time point using standardized self-report questionnaires. Group assignment (LZ vs. AC) was based on existing club affiliation.

Table 1 Means and Standard Deviations for Compassion by Group

	Group	*M*	*SD*	*N*
Intention_C	LZ	16.62	3.07	120
	AC	16.56	2.73	68
	Complete	16.60	2.94	188
Distress_C	LZ	16.62	2.48	120
	AC	15.46	2.96	68
	Complete	16.20	2.71	188
Action_C	LZ	26.27	5.67	120
	AC	26.12	8.02	68
	Complete	26.21	6.61	188
Total Score_C	LZ	59.51	8.46	120
	AC	58.13	11.41	68
	Complete	59.01	9.62	188

Note. LZ high-performance academy, *AC* amateur clubs, *M* mean, *SD* standard deviation, *N* number of participants

Table 2 Means and Standard Deviations for Self-Compassion by Group

	Group	*M*	*SD*	*N*
Intention_SC	LZ	25.58	4.08	119
	AC	25.33	5.03	66
	Complete	25.49	4.43	185
Distress_SC	LZ	34.75	6.21	119
	AC	34.56	6.89	66
	Complete	34.68	6.44	185
Action_SC	LZ	24.34	6.41	119
	AC	24.76	7.10	66
	Complete	24.49	6.65	185
Total Score_SC	LZ	84.67	13.29	119
	AC	84.65	15.98	66
	Complete	84.66	14.27	185

Note. LZ high-performance academy, *AC* amateur clubs, *M* mean, *SD* standard deviation, *N* number of participants

Participants

The sample comprised $N = 188$ male soccer players (M age = 14.19 years, $SD = 2.35$), including $N = 120$ LZ-players (M age = 14.49 years, $SD = 1.83$) and $N = 68$ AC-players (M age = 13.66 years, $SD = 2.99$). Data were collected online via SoSci Survey between 17 July 2024 and June 2025 in Bavaria, Germany. Analytic sample sizes were $N = 188$ for compassion analyses and $N = 185$ for self-compassion analyses. Regression analyses included $N = 174$ for compassion and $N = 171$ for self-compassion, mainly due to missing match data. A priori power analyses with G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) assumed medium effects (MANOVA: $f^2(V) = 0.0625$; ANOVA: $f = 0.25$), $\alpha = 0.05$, and power of $1 - \beta = 0.80$, requiring $N = 180$ and $N = 128$, respectively. The study complied with the Helsinki Declaration, was approved by the University of Regensburg Ethics Board (Ref. 22-3059-101) and preregistered at OSF: https://osf.io/d47ph.

Statistical analysis

Descriptive statistics were calculated for CMAS subscales and total scores. Group differences were tested using MANOVAs, Bonferroni-adjusted follow-up ANOVAs ($\alpha = 0.017$), and total-score ANOVAs with Welch's correction when required. Multiple regressions examined age, club experience, LZ-experience, training load, and previous-season matches. Developmental-stage and Beavan et al. (2023) comparisons were exploratory.

Material

Demographic questionnaire

Participants completed a short questionnaire via SoSci Survey (Leiner, 2024), including age, team age group, club affiliation for group assignment, years of general and current club experience, weekly training hours, and the number of official matches played in the previous season.

Compassion motivation and action scales

The German CMAS (Beavan et al., 2023; Steindl et al., 2021) assessed compassion (12 items) and self-compassion (18 items) across intention, distress tolerance, and action. Items are rated from 1 = strongly disagree to 7 = strongly agree; subscale and total scores are summed, with higher scores indicating greater compassion or self-compassion.

Results

Sample characteristics and developmental stages

Participants were assigned to one of three developmental stages based on their competitive age group: the foundation phase (U11–U13), the performance phase (U14–U17), and the transition phase toward adult soccer (U19–U21). The same age-group based classification was applied to LZ- and AC-players. In the LZ group, 38 players were in the foundation phase, 68 in the performance phase, and 14 in the transition phase. In the AC group, 34 players were assigned to the foundation phase, 27 to the performance phase, and 5 to the transition phase.

Group differences in subscales of compassion and self-compassion

A one-way MANOVA found statistically significant differences between LZ- and AC-players on the combined dependent variables, the subscales intention, distress

tolerance and action of compassion, $F(3, 184) = 3.022$, $p = 0.031$, partial $\eta^2 = 0.047$, Wilks' $\Lambda = 0.953$.

Post-hoc univariate ANOVAs, evaluated against a Bonferroni-adjusted alpha level of $\alpha = 0.017$, showed a statistically significant difference between LZ- and AC-players for distress tolerance, $F(1, 186) = 8.379$, $p = 0.004$, partial $\eta^2 = 0.043$, but not for intention, $F(1, 186) = 0.017$, $p = 0.897$, partial $\eta^2 < 0.001$, or action, $F(1, 186) = 0.022$, $p = 0.882$, partial $\eta^2 < 0.001$. **Table 1** shows the corresponding values.

Another one-way MANOVA found no statistically significant differences between the high-performance academy and amateur-club players on the combined dependent variables, the subscales intention, distress tolerance and action of self-compassion, $F(3, 181) = 0.201$, $p = 0.896$, partial $\eta^2 = 0.003$, Wilks' $\Lambda = 0.997$, see **Table 2**.

Group differences in total scores of compassion and self-compassion

The total compassion score did not differ significantly between high-performance academy and amateur-club players, Welch's $F(1, 109.25) = 0.75$, $p = 0.387$. Similarly, the total self-compassion score did not differ significantly between groups, $F(1, 183) = 0.00$, $p = 0.992$. Descriptive values are reported in **Tables 1 and 2**.

Group predictors of compassion and self-compassion

The regression model for compassion was not statistically significant, $F(5, 168) = 1.54$, $p = 0.180$, $R^2 = 0.044$, adjusted $R^2 = 0.015$. Within this non-significant model, years of club experience showed a significant negative association with compassion, $B = -0.78$, $SE = 0.31$, $\beta = -0.253$, $t = -2.53$, $p = 0.012$. The model for self-compassion was also not statistically significant, $F(5, 165) = 1.00$, $p = 0.420$, $R^2 = 0.029$, adjusted $R^2 < 0.001$, with no significant individual predictor. Full coefficients are reported in Online Resource 1 (Table 3).

Developmental stage comparisons

To explore whether group differences varied by developmental stage, independent samples t tests compared high-performance academy and amateur-club players separately within the foundation, performance, and transition phases.

Significant differences emerged only for distress tolerance (compassion) in the foundation phase ($t(70) = 1.99$, $p = 0.050$) and transition phase ($t(18) = 3.76$, $p = 0.001$), and for total compassion in the transition phase ($t(18) = 2.72$, $p = 0.014$), with higher scores for LZ-players.

As an exploratory descriptive benchmark, Online Resource 2 reports published means from Beavan et al. (2023), who assessed compassion and self-compassion in a first-division professional soccer academy using the same instrument. This comparison was used only to contextualize the present findings and was not part of the preregistered hypotheses.

Discussion

Contrary to our hypothesis, LZ-players did not report lower compassion and self-compassion than amateur players. One possible explanation is that high-performance academies may select or retain players with stronger psychosocial resources, including self-regulation and resilience, which are considered relevant for soccer talent development (Gledhill, Harwood, & Forsdyke, 2017). This may help explain why distress tolerance within compassion was higher in LZ-players. Interestingly, years of club experience was associated with the compassion total score, whereas training load, number of official matches, and years spent specifically in LZ were not. This may reflect cumulative social learning through long-term team-sport participation (Jones, 2024), regardless of performance level. Over time, players encounter team dynamics, shared successes and failures, and emotionally challenging situations, such as injuries, dropouts, or interpersonal conflicts (Poucher, Tamminen, Kerr, & Cairney, 2021) that promote key components of compassion like perspective-taking, empathy, and prosocial behavior (Li & Shao, 2022). The fact that LZ-players in the transition phase scored significantly higher in total compassion than their amateur counterparts is notable. One possible explanation is that players who remain in academy pathways until U19–U21 may represent a selected group with psychosocial resources such

Abstract

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Abstract

Objectives. This study examined compassion and self-compassion in male soccer players from two environments, a high-performance academy ("Leistungszentrum" [LZ]) and amateur clubs (AC). It aimed to compare group differences and explore associations with age, club experience, training load, and match exposure.

Methods. 188 players (LZ: 120; AC: 68) completed the Compassionate Motivation and Action Scales (CMAS) and a demographic questionnaire. Players were categorized into foundation (U11–U13), performance (U14–U17), and transition (U19–U21) phases. MANOVAs, ANOVAs, and regressions were used for analysis.

Results. LZ-players did not differ from amateur players in self-compassion but showed significantly higher compassion distress tolerance. Years of club experience is associated with compassion; age, training load, number of games, and years in a LZ were not. Transition-phase LZ-players showed higher total compassion scores than their amateur peers. Compared to first-division data, the present second-division LZ sample showed slightly higher compassion and self-compassion scores.

Conclusion. High-performance academy affiliation was not associated with lower compassion or self-compassion. Compassion could be fostered through structured and socially stable sport contexts and should be considered a valuable resource for long-term well-being and retention in soccer.

Keywords

Self-compassion · Compassion · Psychological Resources · Soccer

as self-regulation and resilience, which are relevant in soccer talent development (Gledhill et al., 2017).

Compared to the first-division academy data by Beavan et al. (2023), our second-division sample showed slightly higher compassion and self-compassion scores, possibly due to reduced external pressure, lower selection intensity, or greater psychological support in less performance-extreme environments.

Clinical and research implications

The findings challenge the assumption that high-performance sport inherently undermines compassion and suggest that such traits can persist and develop in structured elite environments. By directly comparing high-performance academy and amateur-club players, the study extends previous academy-based CMAS research and suggests a more differentiated view of compassion-related resources in performance contexts. This creates opportunities to integrate compassion-oriented elements, such as social reflection, emotional regulation strategies, or team-based perspective-taking, into player development programs. Coaches, sport psychologists, and administrators in elite and amateur settings could recognize compassion as a psychological resource supporting emotional resilience, relational functioning, and long-term retention in the sport. From a research perspective, compassion and self-compassion represent relevant psychological constructs for examining how emotional resources relate to athletes' well-being, social functioning, and long-term development across different developmental stages in future longitudinal studies, for example by examining coaching climate, selection experiences, psychological support, and team cohesion.

Limitations

Several limitations and potential sources of bias should be considered when interpreting the results. First, the sample included only male athletes, limiting generalizability to female players, and was based on a non-random convenience sample from one high-performance academy and regional amateur clubs. Second, the distribution across developmental stages was unbalanced, particularly in the amateur group, where only five players were in the transition phase and fewer participated in the performance phase compared to the LZ group. This imbalance may have reduced statistical power and makes phase-specific findings preliminary. Third, the study was observational; no causal conclusions can be drawn. Moreover, voluntary self-report data may be affected by self-selection, social desirability, and common-method bias.

Conclusion

This study showed that high-performance academy players did not report lower self-compassion and even showed higher levels of compassion, particularly in distress tolerance and during the transition phase. These findings suggest that structured elite environments may not necessarily suppress compassionate traits and that long-term involvement in organized team sport may foster emotional and social competencies (Jansen, 2024).

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Data Availability Statement. The dataset for this study can be found in the OSF Storage https://osf.io/d47ph.

Declarations

Conflict of interest. F. Daiss and P. Jansen declare that they have no competing interests.

This study involved human participants and was approved by the University of Regensburg Ethics Board (Ref. 22-3059-101). The study was conducted in accordance with the Declaration of Helsinki.

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