



Research Paper

Self-compassion, depressive symptoms, and well-being: A cross-sectional exploration across athlete status and gender

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ABSTRACT

Self-compassion is associated with positive mental health outcomes and may buffer against negative self-evaluations and emotional difficulties. Nevertheless, studies among athletes often explore self-compassion in specific groups in isolation (e.g., women athletes) (Röthlin et al., 2019). The aims of this study were to 1) explore whether the relationship between gender and composite scores and specific dimensions of self-compassion (e.g., self-judgement) was moderated by athlete status; and 2) to explore the relationship between different dimensions of self-compassion and self-reported depressive symptoms and well-being among team sport athletes ($n = 84$, $M_{\text{age}} = 22.9 \pm 5.0$; 57.1 %men) and non-athletes ($n = 189$, $M_{\text{age}} = 35.5 \pm 5.9$; 32.8 %men). For our first aim, the relationship between gender and self-compassion (including specific dimensions) was not moderated by athlete status. However, regardless of gender, athletes reported significantly higher total self-compassion scores and significantly lower scores on specific dimensions of self-compassion, isolation, and over-identification, than non-athletes. For our second aim, self-judgement was positively associated with depressive symptoms in both athletes and non-athletes. Self-judgment was, however, negatively associated with well-being only among athletes, and isolation was negatively correlated with well-being only among non-athletes. Our results suggest that reducing self-judgement may be particularly important for promoting athletes' mental health

Despite the well-documented benefits of sports participation (Eime et al., 2015; Malm et al., 2019), it is essential to acknowledge the potential mental health challenges that competitive athletes might face (Rice et al., 2016; Vella et al., 2021). Some evidence indicates that athletes exhibit at least similar rates of common mental health issues as non-athletes (Gorczynski et al., 2017; Gouttebarger et al., 2019). However, notable distinctions may exist between athletes and non-athletes concerning the environmental and psychosocial stressors associated with the onset and manifestation of these issues (Bär & Markser, 2013). Accordingly, some scholars have called for increased (sport) cultural sensitivity (Gavrilova & Donohue, 2018) and validation of traditional psychological interventions (Ekelund et al., 2023) among athletes (Henriksen et al., 2024).

In the past decade, there has been a growing focus on depressive symptoms (Tahtinen et al., 2021) and mental health or well-being among athletes (Küttel & Larsen, 2019). Comparative research between athletes and non-athletes has been a common approach to enhance understanding of depressive symptoms in athletes (Gorczynski et al., 2017; Tahtinen et al., 2021; Wolanin et al., 2015). Comparing athletes to non-athletes allows researchers to investigate potential similarities and differences between groups, and ultimately, to identify trends and research questions that may be specific to athletes. Although findings have generally been inconsistent, a meta-analysis of five studies including high-performance athletes and non-athletes, Gorczynski et al. (2017) reported comparable rates of depressive symptoms between athletes and non-athletes. Moreover, a scoping review including 31

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studies comparing student-athletes and non-athlete-students reported inconsistent findings across different mental health outcomes such as depression and subjective well-being. Fourteen studies reported no differences between groups, nine studies found student-athletes reporting better mental health outcomes, and four studies reported worse outcomes for student-athletes (Kegelaers et al., 2022). The existing knowledge is primarily based on findings from North American studies limited to college students (e.g., Gorczynski et al., 2017; Storch et al., 2004; Tahtinen et al., 2021; Wolanin et al., 2015). Thus, current evidence may not be representative of athletes in other cultural contexts (Castaldelli-Maia et al., 2019) or in reference to the general population (Gouttebarger et al., 2019). Another limitation of the current comparative research literature concerns the focus on risk factors, with comparably less attention dedicated to exploring potential protective factors (Kegelaers et al., 2022).

1. Self-compassion

Findings from studies among the general population have shown that self-compassion may be an important protective factor for various psychopathologies (Neff, 2023; Odou & Brinker, 2014). Furthermore, interventions have shown to be effective in improving self-compassion (Muris & Otgaar, 2020), which in turn is associated with reductions in ill-health (e.g., depressive) symptoms (Ferrari et al., 2019).

According to Neff (2016), self-compassion entails three main components, each representing two dimensions - compassionate versus uncompassionate behaviour towards oneself. The first component, *self-kindness* versus *self-judgement*, involves being gentle, supportive, and understanding toward oneself instead of harshly judging oneself for personal shortcomings. The second component, *common humanity* versus *isolation*, concerns acknowledging that everyone makes mistakes, rather than feeling isolated by one's imperfection. Finally, *mindfulness* versus *over-identification*, involves being aware of one's present experience of suffering with clarity and balance without being caught up in an exaggerated storyline about negative aspects of oneself or one's life experience.

According to Neff (2020) the six self-compassion dimensions can be utilized to examine their relative influence on an outcome, and the total score can be utilized to understand the broader implications of adopting a self-compassionate mindset. To date, most studies have primarily relied on full-scale analyses of self-compassion, and, some scholars have suggested that future research should focus more on examining the relative impact of the different dimensions of self-compassion on the variables of interest (Ewert et al., 2021).

1.1. Self-compassion in athletes

Compared to non-athletes, research on self-compassion among athletes is still limited. However, perhaps due to its association with positive mental health outcomes (Casali et al., 2021) and the growing interest in mental health among athletes, self-compassion seems to have gained increasing attention in recent sport psychology literature (Cormier et al., 2023). While there is limited research on differences in self-compassion between athletes and non-athletes (Röthlin et al., 2019), one study showed that male athletes reported higher levels of self-compassion than male non-athletes (Wasylikiw & Clairo, 2018). The authors noted that male athletes' higher self-compassion may stem from the team environment, which may foster a sense of community, support, and mutual trust through the shared experiences of wins and losses.

The relationship between self-compassion and adversity has also grown in interest, with this line of research indicating that self-compassion can buffer against maladaptive psychological experiences in sport (Cormier et al., 2023; Röthlin et al., 2019). Akin to research in the general population, self-compassion seems to be associated with lower levels of distress in athletes (Walton et al., 2020). In a study on self-compassion among male football players, results showed an

association between the negative scales of self-compassion and depressive mood (Jansen et al., 2021), underscoring the potential benefit of exploring the negative scales in relation to sport-specific adversities, such as athletic injuries (Jansen et al., 2019).

Sport psychology scholars have also called for an increased focus on athlete well-being, rather than merely ill-health or distress (Küttel et al., 2021; Küttel & Larsen, 2019). As shown in a review of the self-compassion literature (Cormier et al., 2023), the emerging research findings are well-aligned with this call. Overall, current evidence suggests that self-compassion in athletes is associated with positive well-being and functioning (Cormier et al., 2023; Röthlin et al., 2019), improved ability to cope with stress, failures, and setbacks (Röthlin et al., 2019), positive sport-related emotions and cognitions (Huysmans & Clement, 2017), and personality traits and behaviours that may be especially adaptive for well-being (Ferguson et al., 2014).

1.2. Sex/Gender differences in self-compassion

Research has also investigated gender differences in self-compassion and their relationship with other psychological variables. Generally, women tend to exhibit lower overall self-compassion than men; however, these differences are relatively small (e.g., Belz & Kleinert, in press; Yarnell et al., 2015). Additionally, it is noteworthy that some researchers have identified gender differences across distinct dimensions of self-compassion. For instance, in their study among college students, Murn and Steele (2020) showed that men reported lower levels of common humanity than women, while women expressed higher levels of over-identification with their problems than men. In line with these findings, some researchers have suggested that self-compassion can be an especially important coping resource for women athletes as self-compassion may buffer against negative evaluations and emotional difficulties they may experience in sport (Ferguson et al., 2014; Mosewich et al., 2013; Reis et al., 2015). Notably, within sport science, the majority of self-compassion research to date has focused on women athletes (e.g., Ferguson et al., 2014; Killham et al., 2018; Mosewich et al., 2013; Reis et al., 2015), thus failing to address that men may face distinct mental-health-related challenges in sport, sometimes stemming from rigid adherence to gender norms (Anderson & McGuire, 2010; Yarnell et al., 2015). Interestingly, Wasylikiw and Clairo (2018) found that athletes were more likely to endorse traditional masculine norms and have less favourable help-seeking attitudes than non-athletes, but athletes still reported higher levels of self-compassion. Furthermore, higher self-compassion was associated with more positive help-seeking attitudes among male athletes, while this effect was not observed among the non-athlete comparison group. Similar results were reported by Harker and Petrie (2025) in a recent study with 426 male collegiate athletes. In addition, some promising research with male athletes have examined self-compassion through the lens of masculinity. More specifically, male athletes that represent a version of masculinity that is accepting of nontraditional masculinity (e.g. homosexuality), were open to embrace self-compassion, especially when enhancing performance in sport (Reis et al., 2022).

Although research with athletes suggests favourable effects of fostering self-compassion, research in this area is still in its infancy. Notably, to date, much of the research has been conducted separately for different demographic groups (e.g., athletes and non-athletes, male/men and female/women) (Röthlin et al., 2019). Therefore, comparative research exploring gender differences among athletes and non-athletes could improve current understanding of potential athlete-specific associations between self-compassion and mental-health related outcomes.

1.3. Aims

Considering the lack of previous comparative research among athletes and non-athletes on the relationship between gender and self-compassion, we did not set forth specific hypotheses. The aims of our

study were to; 1) explore whether athlete status (athlete vs. non-athlete) moderated the relationship between gender and self-compassion total and subscale scores; and 2) to examine which subscale(s) of self-compassion best associated with depressive symptoms and well-being among athletes and non-athletes.

2. Method

2.1. Participants

The athlete sample consisted of 84 team sport athletes from the Northeast region of Iceland, of whom 42.9 % identified as women and 57.1 % as men (age range 18–45 years). Athletes had to be fluent in Icelandic and be residents of the Northeast region of Iceland to be able to participate. Furthermore, athletes needed to be on the roster of a competitive team in the region during the competition season 2021–2022. Based on official team rosters for the 2021–2022 season, the sample represented 21.4 % of the estimated adult team sport athlete population ($N \approx 392$) within the region. Athletes were competitive and elite-level athletes (level ranging from third highest league to top-level league, Tier 3–4 according to McKay classification (McKey et al., 2022)) in football (soccer) ($n = 34$, 40.5 %), handball ($n = 18$, 21.4 %), basketball ($n = 15$, 17.9 %), volleyball ($n = 10$, 11.9 %), and ice hockey ($n = 7$, 8.3 %).

The non-athlete comparison group consisted of 189 participants (response rate, 21 %). This sample was also drawn from the Northeast region of Iceland, where 67.2 % identified as women and 32.8 % as men. One non-athlete responded only to one item in the survey and was thus not included in the final sample. The participants in the non-athlete comparison group were recruited from the University of Akureyri Research Centre panel sample. The panel sample is a random sample of the general population in the Northeastern region of Iceland. For this study, only participants in the panel registry aged 18–45 years were invited to participate. In addition to the general inclusion criteria, participants in the panel sample were excluded from this study if they were currently competing in formal competitions as a member of an official, competitive sports club ($n = 16$). Those participants ($n = 13$) who reported playing sports at a competitive level within the past five years or less were also excluded. Based on official population data in 2021, the sample represented 1.6 % of the estimated total adult population 18–45 years old within the region.

2.2. Measures

Background variables. We assessed demographic variables such as gender (man/woman/other-self-disclosed), age, and athlete status. Sport-specific variables included training quantity, relationship satisfaction with coaches, and perceived performance. Training quantity was measured on a continuous scale of average hours spent in structured team training. To understand recent sport-related experiences, we evaluated athletes' satisfaction with their relationships with the head and assistant coach(s), as well as athletes' satisfaction with their performance in training and competition in the past two weeks. For these items, a five-point Likert scale was utilized, ranging from 1–5 (very dissatisfied – very satisfied).

Patient Health Questionnaire 9 (PHQ-9) consists of nine items representing symptoms of depression as defined by the DSM-V diagnostic criteria (i.e., depressed mood, anhedonia, fatigue, sleep and appetite disturbances, poor concentration, psychomotor-related issues, feelings of guilt and worthlessness, and thoughts about death and self-harm) (American Psychiatric Association [APA], 2013). The items are scored on a four-point Likert scale ranging from 0 (not at all) to 3 (nearly every day) (Kroenke et al., 2001). The total score ranges from 0–27, where higher scores represent more severe symptoms. The PHQ-9 has been shown to have good internal ($\alpha = 0.78$ – 0.89) and test-retest reliability ($r = 0.84$). Clinical relevance for depression symptoms was

defined according to the standard cut-off point, or scores ≥ 10 (Kroenke & Spitzer, 2002). In the current sample, internal consistency was $\alpha = 0.81$ ($\alpha = 0.79$ in athletes and $\alpha = 0.82$ in the panel sample).

The 5-item World Health Organization Well-Being Index (WHO-5) is a short self-reported measure of current well-being and is among the most widely used questionnaires assessing subjective psychological well-being (Topp et al., 2015). The WHO-5 measures subjective psychological well-being with five positively phrased items, where respondents are asked how they felt in the last two weeks. Each item is scored from 1 to 5, ranging from “at no time” to “all of the time”. To generate a total score, the summed raw score, ranging from 0–25, is multiplied by 4. The final score of 0 represents the worst imaginable well-being, and 100 represents the best imaginable well-being (Topp et al., 2015). In the current sample, internal consistency was $\alpha = 0.87$ ($\alpha = 0.83$ in athletes $\alpha = 0.83$ and $\alpha = 0.88$ in the panel sample).

Self-Compassion Scale (SCS) is a 26-item self-report measure of individuals' extent of self-compassion and is currently the most widely utilized measure of self-compassion (Neff, 2003b). The SCS is based on Neff's (2003b) theoretical model of self-compassion, consisting of six factors: self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. Items are scored on a five-point rating scale ranging from 1 “almost never” to 5 “almost always” (Neff, 2003b) and reverse-scored for items pertaining to self-judgement, isolation, and over-identification items. An example of an item that was reverse-coded is, “I'm disapproving and judgmental about my own flaws and inadequacies”. Here, higher self-judgement, isolation, and over-identification scores are interpreted as positive (e.g., less self-judgement). The mean of each subscale was utilized, and the average of the six subscales was summed to generate the total score. The internal consistency of SCS has been reported to range from $\alpha = 0.73$ to 0.94 in university student samples (Leary et al., 2007; Neff, 2003b). Furthermore, the SCS has also shown good internal reliability within a group of female athletes ($\alpha = 0.87$; Mosewich et al., 2013). In the current sample, internal consistency was shown to be $\alpha = 0.82$ ($\alpha = 0.79$ in athletes and $\alpha = 0.84$ in the panel sample). In addition, internal consistency was adequate for each subscale overall and across groups (Self-Judgement: $\alpha_{\text{overall}} = 0.88$, $\alpha_{\text{athletes}} = 0.83$, $\alpha_{\text{panel}} = 0.90$; Over-Identification: $\alpha_{\text{overall}} = 0.77$, $\alpha_{\text{athletes}} = 0.77$, $\alpha_{\text{panel}} = 0.76$; Common Humanity: $\alpha_{\text{overall}} = 0.73$, $\alpha_{\text{athletes}} = 0.76$, $\alpha_{\text{panel}} = 0.70$; Isolation: $\alpha_{\text{overall}} = 0.85$, $\alpha_{\text{athletes}} = 0.85$, $\alpha_{\text{panel}} = 0.84$; Self-Kindness: $\alpha_{\text{overall}} = 0.83$, $\alpha_{\text{athletes}} = 0.80$, $\alpha_{\text{panel}} = 0.84$; Mindfulness: $\alpha_{\text{overall}} = 0.73$, $\alpha_{\text{athletes}} = 0.75$, $\alpha_{\text{panel}} = 0.71$;

2.3. Procedures

We used a non-probability (convenience) sampling method to recruit athlete participants competing in team sports in April and May 2022. Firstly, we contacted coaches from the teams that met the inclusion criteria via email, asking about their interest in participating in the research. All potential participants received an introduction letter where the study was thoroughly explained with a link to the questionnaire.

The university of Akureyri Research Centre oversaw the recruitment of the non-athlete sample (i.e., panel sample) who were approached via existing contact information. The University of Akureyri Research Centre (RHA) has an existing participant pool consisting of a random sample of the general population in the Northeastern region of Iceland. This panel sample receives a variety of surveys (2–3 per year) concerning different societal matters. For this study, a total of 895 individuals between the ages of 18–45 years old received an invitation to participate. All participants who consented to participate in the study were encouraged to answer within two weeks of receiving the questionnaire.

2.4. Ethical considerations

Participants received all pertinent study information, including the

study's purpose, that participation was voluntary, and that survey responses would be kept anonymous. All data were stored securely by RHA, and researchers were blinded to any potentially identifiable information, such as email addresses. All participants were informed that by participating in the study, they had a chance of winning a lottery for a gift card to the local shopping centre. The study was approved by the Icelandic Bioethics Committee (application number VSN-22-022).

2.5. Statistical analysis

Descriptive statistics are presented as means (M) with standard deviations (SD) for normally distributed continuous variables or medians (Mdn) with interquartile ranges (IQR) for skewed variables, while binary and ordinal variables are presented as percentages. One-way analyses of variance (ANOVA), Kruskal-Wallis tests, Mann-Whitney U tests, and t -tests were conducted to assess differences in continuous variables across groups. We conducted two-way (2×2) analyses of covariance (ANCOVA) to examine the moderation effect of athlete status between gender (man/woman) and total self-compassion scores and each of its six sub-dimensions, while controlling for age. We conducted a multiple linear regression analysis to evaluate which of the self-compassion subscales were associated with depressive symptoms and well-being among athletes and non-athletes when controlling for age and gender. The three negative subscales of the SCS were reverse coded to mirror the valence of the three positive subscales to improve interpretability (i.e., higher scores on the subscales, including negatively worded scales, such as isolation, always referred to more positive self-compassion). Assumptions of linearity, normality of residuals, and homoscedasticity were evaluated using Q-Q and standardized residual plots, while multicollinearity was assessed using variance inflation factor. All statistical analyses were performed using IBM SPSS v28.0. An *a priori* power analysis was not carried out. Missing cases for each respective analysis were handled using listwise deletion. Effect sizes are presented as mean differences (M_{diff}) with Cohen's d s (d) or probability indices (PI ; Acion et al., 2006) along with their respective 95 % confidence intervals where appropriate.

3. Results

3.1. Descriptive analyses

Descriptive statistics stratified by gender and athlete status are presented in Table 1.

There were no significant differences across groups in well-being,

total self-compassion, self-kindness, and coach satisfaction (athletes only) scores, p s = 0.052–318. ANOVA and Kruskal-Wallis analyses across all groups revealed there were significant differences in age, $F(3, 269) = 101.443$, $p < .001$, self-judgement, $F(3, 251) = 4.193$, $p = .006$, common humanity, $F(3, 249) = 3.069$, $p = .029$, mindfulness, $F(3, 248) = 2.964$, $p = .033$, over identification, $H(3) = 31.529$, $p < .001$, isolation, $H(3) = 19.080$, $p < .001$, and depressive symptoms, $H(3) = 17.995$, $p < .001$. Pairwise comparisons with Bonferroni adjustments showed that men athletes ($M_{age} = 22.2 \pm 4.1$) and women athletes ($M_{age} = 23.8 \pm 6.0$) were significantly younger than men non-athletes ($M_{age} = 37.0 \pm 6.2$) and women non-athletes ($M_{age} = 34.8 \pm 5.7$), d s = 1.97–2.64, $p_{sadj} < 0.001$, indicative of large differences in mean age by athlete status. Men athletes endorsed higher reversed self-judgement scores ($M_{SJ} = 3.7 \pm 8.6$) than women athletes ($M_{SJ} = 3.1 \pm 1.0$) and non-athletes ($M_{SJ} = 3.1 \pm 1.0$), d s = 0.55–0.60, $p_{sadj} = 0.009$ –.045, corresponding to moderate differences in mean self-judgement scores between groups. Women non-athletes ($M_{CH} = 2.7 \pm 0.9$) endorsed higher common humanity scores than men athletes ($M_{CH} = 2.2 \pm 1.0$), $d = 0.08$, $p_{adj} = 0.023$, though this effect is considered small. Similarly, men non-athletes ($M_{MF} = 3.4 \pm 1.0$) endorsed higher mindfulness scores than men athletes ($M_{MF} = 2.8 \pm 0.8$), $d = 0.09$, $p_{adj} = 0.033$. Men athletes ($Mdn_{OI} = 4.3$, Q1-Q3 = 3.6–4.8) and men non-athletes ($Mdn_{OI} = 4.0$, Q1-Q3 = 3.0–4.5) endorsed higher reversed scores of over-identification than women non-athletes ($Mdn_{OI} = 3.5$, Q1-Q3 = 2.5–4.0), PI s = 0.65–.76, $p_{sadj} < 0.001$ –.006, indicative of moderately large differences in over-identification between groups. Likewise, men athletes endorsed higher reversed scores of isolation ($Mdn_{ISO} = 4.5$, Q1-Q3 = 3.8–5.0) than women non-athletes ($Mdn_{ISO} = 3.8$, Q1-Q3 = 2.8–4.3), $PI = 0.71$, $p < .001$. Self-reported depressive symptoms did not differ by group after corrections.

3.2. Interaction between gender and athlete status on self-compassion

To assess our first aim, we performed ANCOVAs adjusted for age. There was no significant interaction effect between gender and athlete status on total self-compassion scores. Without the interaction, there was a significant main effect of athlete status, $F(1, 250) = 4.705$, $p = .031$, with athletes having a higher adjusted marginal mean self-compassion score ($M_{adj} = 3.368$) versus non-athletes ($M_{adj} = 3.064$), $M_{diff} = 0.304$, 95 % CI [.028,.579], $d = 0.44$, corresponding to a small-to-moderate difference. There was no main effect of gender on self-compassion scores, $F(1250) = 1.939$, $p = .17$, with men having similar adjusted mean scores of self-compassion ($M_{adj} = 3.282$) as women ($M_{adj} = 3.150$), $M_{diff} = 0.132$, 95 % CI [–0.055,.319]. Likewise, the

Table 1
Descriptive statistics by gender and athlete status.

	Athletes				Non-Athletes					
	Men		Women		Men		Women			
Variable	M	SD	M	SD	M	SD	M	SD	p	Pairwise Comparison
Age	22.23	4.13	23.78	5.95	36.95	6.17	34.80	5.65	< 0.001	A < C&D, B < C&D
Training Hours Total [†]	18.40	8.58	14.00	4.20	—	—	—	—	.003	A > B
Well-Being (WHO-5)	15.54	4.16	13.58	4.36	13.66	5.91	13.20	4.88	.052	
Self-Compassion Total	3.25	0.60	3.14	0.67	3.25	0.72	3.07	0.74	.318	
Self-Kindness	2.29	0.77	2.51	0.87	2.53	1.01	2.66	1.02	.163	
Self-Judgement (rev)	3.68	0.84	3.08	0.97	3.40	1.09	3.12	1.03	.006	A > B&D
Common Humanity	2.23	0.95	2.58	0.85	2.67	0.97	2.69	0.91	.029	A < D
Mindfulness	2.82	0.82	3.08	0.88	3.35	1.00	3.17	0.91	.033	A < C
Variable	Mdn (Q1-Q3)		Mdn (Q1-Q3)		Mdn (Q1-Q3)		Mdn (Q1-Q3)		p	Pairwise Comparison
Over Identification (rev)	4.25 (3.56–4.75)		3.75 (2.81–4.50)		4.00 (3.00–4.50)		3.50 (2.50–4.00)		< 0.001	A > D, C > D
Isolation (rev)	4.50 (3.75–5.00)		4.00 (3.50–4.69)		3.75 (3.25–4.75)		3.75 (2.75–4.25)		< 0.001	A > D
Coach Satisfaction	4.00 (4.00–5.00)		4.00 (2.88–4.50)		—		—		.058	
Depressive symptoms (PHQ-9)	3.50 (2.00–6.94)		6.00 (3.00–9.75)		6.00 (3.00–10.50)		7.00 (4.00–11.00)		< 0.001	A < C&D

Note. Group differences calculated using one-way ANOVA with pairwise comparison, independent samples student and Welch t -tests, and nonparametric Kruskal-Wallis tests with Mann-Whitney U pairwise comparisons. Pairwise comparisons were Bonferroni corrected ($p < .05$) to minimize Type I errors. A = Men Athletes, B = Women Athletes, C = Men Non-Athletes, D = Women Non-Athletes. Coach satisfaction calculated by averaging head and assistant coach relationship satisfaction scores. [†]Total organized and individual training hours from past two weeks.

interaction between gender and athlete status was not significant for any of the six self-compassion subscales, suggesting that athlete status may not modify the relationship between gender and self-compassion. However, there was a main effect of athlete status on scores of isolation, $F(1, 248) = 11.993, p < .001$, with adjusted marginal means being higher (less isolation) among athletes ($M_{adj}=4.265$) than non-athletes ($M_{adj}=3.563$), $M_{diff} = 0.702$, 95 % CI [0.303, 1.102], $d = 0.70$, a moderate-to-large-difference. In addition, a main effect of athlete status on over-identification was observed, $F(1, 249)=11.589, p < .001$, with adjusted marginal means being higher (less over-identification) among athletes ($M_{adj}=4.034$) than non-athletes ($M_{adj}=3.418$), $M_{diff}=0.616$, 95 % CI [0.260, .972], $d = 0.69$, a moderate-to-large difference. A main effect of gender on over-identification was also observed, $F(1, 249) = 15.594, p < .001$, with adjusted marginal means being higher (less over-identification) among men ($M_{adj}=3.968$) than women ($M_{adj}=3.485$), $M_{diff}=0.483$, 95 % CI [0.242, .724], $d = 0.53$, a moderate sized difference in mean over-identification scores by gender.

3.3. Associations between self-compassion with depressive symptoms and well-being

Multiple linear regressions were conducted to assess the association of self-compassion composite and subcomponent(s) with depressive symptoms and well-being scores while controlling for age and gender. Because PHQ-9 scores were positively skewed, a logarithmic transformation was applied.

Among athletes, composite self-compassion scores were negatively associated with depressive symptoms when controlling for covariates, $B = -0.36$, 95 % CI [-0.58, -0.14], $p = .001$. Assessing the six subscales' relationship with depressive symptoms, the model accounted for 26.5 % of the variance, $F(8, 74) = 4.689, p < .001, R^2_{adj} = 0.26$. Of the six factors, only self-judgement was significantly associated with higher depressive symptom scores ($p = .02$). Among non-athletes, the same model accounted for 32.6 % of the variance in depressive symptom scores, $F(8, 160)=12.307, p < .001, R^2_{adj} = 0.33$. Of the six factors, only self-judgement ($p = .03$) and isolation ($p = .005$) significantly associated with higher depressive symptom scores. Regression coefficients and standard errors are presented in Table 2.

Among athletes, composite self-compassion scores were positively

Table 2
Multiple regression model results for depressive symptom scores (PHQ-9).

Variable	<i>B</i>	95 % CI (<i>B</i>)	<i>SE</i> (<i>B</i>)	β	R^2_{adj}
Athlete Model[§]					.26**
Self-Kindness	−0.03	[−0.27, 0.20]	−0.28	−0.04	
Common Humanity	0.08	[−0.10, 0.27]	0.09	0.11	
Self-Judgement (rev)	−0.28	[−0.50, −0.05]	0.12	−0.70*	
Isolation (rev)	−0.13	[−0.33, 0.07]	0.10	−0.18	
Mindfulness	0.06	[−0.19, 0.31]	0.13	0.07	
Over-Identification (rev)	0.00	[−0.30, 0.29]	0.15	0.00	
Non-Athlete Model[†]					.33**
Self-Kindness	−0.07	[−0.22, 0.09]	0.08	−0.09	
Common Humanity	0.07	[−0.06, 0.21]	0.07	0.09	
Self-Judgement (rev)	−0.17	[−0.31, −0.02]	0.08	−0.24*	
Isolation (rev)	−0.20	[−0.33, −0.06]	0.07	−0.27**	
Mindfulness	−0.08	[−0.22, 0.05]	0.07	−0.10	
Over-Identification (rev)	−0.06	[−0.22, 0.11]	0.09	−0.07	

Note. A logarithmic + 1 transformation was applied to the outcome variable (PHQ-9 scores).

[§] 83/84 cases (1.2 % missing).

[†] 169/189 cases (10.5 % missing).

* $p < .05$.

** $p < .01$.

associated with well-being, $B = 1.27$, 95 % CI [1.27, 4.01], $p < .001$. Our model, including the six subscales of self-compassion, gender, and age on well-being scores among athletes, accounted for 31.9 % of the variance, $F(8, 74)=5.79, p < .001, R^2_{adj}=0.32$. Of the six factors, only self-judgement was significantly associated with lower well-being scores ($p = .003$). Among non-athletes, the same model accounted for 36.1 % of the variance in well-being scores, $F(8, 159)=12.833, p < .001, R^2_{adj} = 0.36$. Of the six factors, only isolation ($p = .004$) was significantly associated with lower well-being scores. Regression coefficients and standard errors are presented in Table 3.

4. Discussion

The aim of the present study was to explore gender differences in self-compassion and whether athletes may differ from non-athletes in this respect. The aim was also to conduct a more in-depth analysis of the relationship between self-compassion, depressive symptoms, and well-being by analysing these associations specifically for the subscales of self-compassion, separately for athletes and non-athletes.

4.1. Interaction between gender and athlete status on self-compassion

Our first aim was to explore whether gender differences in global and specific dimensions of self-compassion were moderated by athlete status. Our results showed no significant gender differences in global self-compassion scores, independent of whether participants were athletes or not. Previous research has indicated that women generally report less self-compassion than men (Yarnell et al., 2015). However, Yarnell et al. (2015) also noted that gender differences in self-compassion were larger in samples where the ethnic composition of participants was more heterogeneous. Although the ethnicity of the participants was not assessed in this study, it is worth noting that the ethnic composition in Iceland is highly homogeneous. Hence, in line with Yarnell et al. (2015), ethnic homogeneity could have potentially explained why no significant gender differences were observed. However, when controlling for age, our results showed that athletes reported, on average, higher levels of self-compassion than non-athletes. Our results support previous findings among men (Wasyliw & Clair, 2018), but also extend those to women, as our results suggest that athletes reported higher self-compassion scores than non-athletes regardless of gender.

When exploring the interactions between gender and athlete status across the specific dimensions of self-compassion, we found that gender differences across dimensions of self-compassion were not moderated by athlete status. However, athletes reported significantly less isolation and over-identification than non-athletes. Considering that athletes

Table 3
Multiple regression model results for well-being scores (WHO-5).

Variable	<i>B</i>	95 % CI (<i>B</i>)	<i>SE</i> (<i>B</i>)	β	R^2
Athlete Model					.32**
Self-Kindness	1.04	[−0.46, 2.54]	0.75	0.19	
Common Humanity	−0.52	[−1.68, 0.64]	0.58	−0.11	
Self-Judgement (rev)	2.23	[0.79, 3.67]	0.73	0.48**	
Isolation (rev)	0.99	[−0.28, 2.27]	0.64	0.22	
Mindfulness	−0.30	[−1.88, 1.28]	0.79	−0.06	
Over-Identification (rev)	−1.04	[−2.92, 0.83]	0.94	−0.20	
Non-Athlete Model					.36**
Self-Kindness	0.56	[−0.53, 1.64]	0.55	0.11	
Common Humanity	−0.51	[−1.42, 0.41]	0.46	−0.09	
Self-Judgement (rev)	0.79	[−0.23, 1.81]	0.52	0.16	
Isolation (rev)	1.37	[0.44, 2.23]	0.47	0.27**	
Mindfulness	0.38	[−0.54, 1.30]	0.47	0.07	
Over-Identification (rev)	1.10	[−0.05, 2.25]	0.58	0.20	

Note. [§]83/84 cases (1.2 % missing).

[†]168/189 cases (11.1 % missing). * $p < .05$. ** $p < .01$.

competed in team sports and were generally highly satisfied with their relationship with their coaches, it is possible that positive features within the sporting environment may help explain the lower levels of isolation and over-identification observed in athletes compared to non-athletes. Although empirical work on specific self-compassion dimensions is limited, research suggests that coaches and teammates can model self-compassionate norms and behaviours, which in turn influence athletes' adoption of a more balanced and self-compassionate perspective (Backman et al., 2024; Crozier et al., 2019; Frentz et al., 2020). Moreover, continuous exposure to setbacks in training and competition may allow such experiences to become more normalized. In team sports, these setbacks are not only experienced personally but also collectively and observed in others, potentially making adversity a more shared phenomenon that may further contribute to lower isolation and over-identification in athletes (Wasyliw & Clairo, 2018).

Women, independent of athlete status, reported significantly higher over-identification with their problems than men. While previous comparative research is largely lacking, one study among college students showed that men reported lower levels of common humanity than women, and women expressed higher levels of over-identification with their problems than men (Murn & Steele, 2020). Our findings support the latter notion, that women may be more likely than men to attend to and get caught in the negative aspects of themselves or their life experiences. Accordingly, existing literature also suggests that women are more prone to engaging in negative cognitive processes, such as rumination, in response to challenges and negative mood (Johnson & Whisman, 2013). Moreover, rumination has been identified as a key contributing factor to observed gender differences in the prevalence of mental health issues, such as anxiety and depression (Espinosa et al., 2022; Nolen-Hoeksema, 2001).

4.2. Self-compassion subscales – depressive symptoms and well-being

The second aim of this study was to explore in more detail, separately for athletes and non-athletes, the relationship between specific self-compassion dimensions and depressive symptoms and well-being.

Among athletes, self-judgement was positively associated with depressive symptoms and negatively associated with well-being. Among non-athletes, both self-judgement and isolation were positively associated with depressive symptoms, and isolation was negatively associated with well-being. The patterns observed here suggest that isolation played a more central role for non-athletes than for athletes. In Neff's (2003a) model, isolation reflects feeling cut off from others during struggles, and the absence of such associations with depressive symptoms and well-being in athletes may indicate that the social and shared nature of the team sport context can potentially buffer against this sense of isolation. However, Ferguson et al. (2022) reported no overall differences between team and individual sport athletes, but lower levels of self-compassion in aesthetic compared to non-aesthetic sports. This suggests that factors within specific sport, rather than the team structure alone, may differentially shape self-compassion. Future research is needed to identify which contextual features influence self-compassion or its different dimensions and how these, in turn, may buffer against negative outcomes.

In contrast with isolation, self-judgement was associated with both higher depressive symptoms and poorer well-being among athletes in our sample. Self-judgement entails harshly judging oneself for personal shortcomings and has been shown to associate with depressive symptoms, well-being, anxiety (Neff, 2003a), anger (Phaedonos & Anastassiou-Hadjicharalambous, 2011), motivation, and both academic (Ling et al., 2021) and sport performance (Plessner & Haar, 2006). It may, therefore, be important to foster sport environments that reduce athletes' tendency to resort to self-judgement as a response to setbacks and failures. Building upon notions by Neff (2020), for athletes, it may be especially important to focus on fostering self-kindness as a proactive strategy - focusing on constructive actions and *what to do*, rather than

merely avoiding self-judgement or *what not to do*.

4.3. Limitations and future directions

Our study is not without limitations. First, the cross-sectional design limits our ability to establish cause-and-effect relationships. Second, the number of participants, particularly the smaller and younger athlete sample, may have influenced the results and increased the potential for type II errors. Third, a significant portion of participants came from a rural area where the level of sport might not be comparable to that in larger urban regions. Future research should aim to replicate these findings with larger and more representative samples.

Despite its limitations, our study offers notable strengths. Comparing athletes to non-athletes drawn from the general population within the same geographical area we were able to provide a broader perspective than many prior comparative studies focused on collegiate samples. The analysis of self-compassion scores, particularly its subscales and their association with depressive symptoms and well-being, represents a novel contribution. While the sample size was modest, the shared geographical context helped control for potential contextual confounds.

More research across athlete populations is needed to better understand how different dimensions of self-compassion may relate to athlete mental health, and how self-compassion interventions may alter the relationship between specific self-compassion facets and mental health outcomes. Nevertheless, based on our findings, athletes could benefit specifically from targeted interventions on self-judgement. Individual- and team-based strategies such as mindfulness-based interventions with specific focus on self-judgement could potentially help athletes not only to "gear-up" on the protective facets of self-compassion but also help to reduce self-judgemental responses to adversity. By integrating these practices into both training and specific interventions such as injury rehabilitation, athletes could potentially better manage significant challenges and threats to their well-being and performance over time. Our findings also highlight the importance of embedding self-compassion training into coach development programs. Given that athletes' perceptions of coaches' critical attitudes may influence the extent to which athletes adopt self-critical forms of self-judgment (Oliveira et al., 2023), coaches may play an important role in cultivating self-compassionate environments that may not only reduce unhelpful self-criticism, but also model and encourage self-compassionate responses to setbacks and failures.

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During the preparation of this work, the author(s) used [ChatGPT / version 4.0] in order to improve the wording of a limited number of sentences in the discussion. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

CRedit authorship contribution statement

Fríða Rún Einarsdóttir: Writing – original draft, Conceptualization. **Nanna Ýr Arnardóttir:** Writing – review & editing, Validation, Project administration, Funding acquisition, Conceptualization. **Hafrún Kristjánsdóttir:** Writing – review & editing, Validation. **Johanna Belz:** Writing – review & editing, Validation, Conceptualization. **Göran Kenttä:** Writing – review & editing, Validation, Conceptualization. **Mitchell Andersson:** Writing – review & editing, Visualization, Validation, Investigation, Formal analysis, Conceptualization. **Richard E.**

Tahtinen: Writing – review & editing, Validation, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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