

Self-Compassionate Motivation and Athlete Well-Being: The Critical Role of Distress Tolerance

Courtney C. Walton,^{1,2} Kelsey J. Lewis,³ James Kirby,^{4,5}
Rosemary Purcell,^{1,2} Simon M. Rice,^{1,2}
and Margaret S. Osborne^{3,6}

¹Elite Sports and Mental Health, Orygen, Melbourne, VIC, Australia; ²Centre for Youth Mental Health, The University of Melbourne, Melbourne, VIC, Australia; ³Melbourne School of Psychological Sciences, The University of Melbourne, Melbourne, VIC, Australia; ⁴Compassionate Mind Research Group, The University of Queensland, Brisbane, QLD, Australia; ⁵School of Psychology, The University of Queensland, Brisbane, QLD, Australia; ⁶Melbourne Conservatorium of Music, The University of Melbourne, Melbourne, VIC, Australia

This cross-sectional study explored athlete responses to the Compassion Motivation and Action Scales Self-Compassion Scale, examining its relationship with well-being. Athlete ($N = 207$; mean age 27.9 years) scores were consistent with previous population means. Scores on the Compassion Motivation and Action Scales Self-Compassion Scale did not differ between elite and nonelite athletes, nor did they correlate significantly with trait competitiveness. Significant differences emerged based on athlete well-being state, with athletes categorized as “flourishing” scoring higher on the total score and all subscales of the Compassion Motivation and Action Scales Self-Compassion Scale, as compared with those with “moderate mental health” (Cohen’s d s from 0.58 to 0.92). Furthermore, the distress tolerance subscale significantly mediated the relationship between self-compassion intentions and well-being (indirect path: $B = 0.034$, $p < .001$). The results suggest that self-compassionate intentions are not enough, and athletes may need support to tolerate the distress that comes with moving toward one’s own suffering.

Keywords: self-compassion, mental health, flourishing

Competitive athletes are exposed to a range of stressors within their sporting environments, and may demonstrate particular cognitive, emotional, and behavioral

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Walton (courtney.walton@orygen.org.au) is corresponding author,  <https://orcid.org/0000-0003-0835-2310>

traits, which can negatively affect their mental health (Reardon et al., 2019). Examples of stressful sport-specific factors include injury, poor performances, forced or unplanned retirement, interpersonal conflict or abuse, excessive physical/training demands, and media pressure (Poucher et al., 2019; Reardon et al., 2019; Rice et al., 2016; Simpson et al., 2021; Walton, Rice, Hutter, et al., 2021). Furthermore, in order to achieve success within an inherently hypercompetitive environment, many athletes may demonstrate a range of potentially harmful traits and behaviors, in search of continued self-improvement. For example, athletes often strive toward hypercompetitive and perfectionistic behaviors and standards (Sagar & Stoeber, 2009), may hold narrow views of self and identity (Brewer & Petitpas, 2017), and engage with overly self-critical cognitions (Sutherland et al., 2014). These approaches to self and others can contribute to a decline in mental health (Edison et al., 2021; Limburg et al., 2017; Werner et al., 2019). Accentuating these concerns, many athletes appear to experience help-seeking stigma and apprehensions about vocalizing their difficulties (Bennie et al., 2021; Gulliver et al., 2012).

Perhaps owing to many of the factors described above, elite athletes have been shown across a range of countries, sports, and populations to experience high rates of mental ill-health (Akesdotter et al., 2020; Poucher et al., 2021; Purcell et al., 2020). In particular, symptoms of eating disorders, substance use, anxiety, and depression appear to be common. For example, a recent study from Purcell et al. (2020) demonstrated that when compared with published community norms, elite Australian athletes were significantly more likely to report “high to very high” psychological distress (9.5% vs. 17.7%, respectively). They were also more likely to meet the threshold for needing treatment for a potential mental health disorder (19% vs. 35%). In a sample of elite Canadian athletes, Poucher et al. (2021) also demonstrated rates of mental health disorders higher than generally reported in the Canadian population, with 26.9% of athletes meeting criteria for clinically significant symptoms of depression, generalized anxiety, or an eating disorder. Of concern, 14.5% of athletes met criteria for two or more of these disorders. The findings were also suggestive of women athletes being at heightened risk for mental ill-health, in line with previous research (e.g., Walton, Rice, Gao, et al., 2021). Using simple correlational analysis, a range of factors were associated with mental ill-health including heightened stress, poor coping skills, and low self-esteem (Poucher et al., 2021). In response to findings like these, researchers and practitioners now endeavor to find approaches to maintaining good mental health among athletes.

It is critical to consider the well-being of athletes beyond deficits and diagnoses of mental disorders. However, in the literature, the term “mental health” is regularly used interchangeably to describe both “health” or heightened well-being, as well as mental ill-health or disorder (Lundqvist & Andersson, 2021). A prominent model that addresses this overlap proposes a dual-continuum framework, identifying states of well-being, which exist in parallel to diagnosable clinical psychological disorders (Keyes, 2005). Using this approach, individuals can be classified as languishing (e.g., experiencing emptiness and stagnation), flourishing (e.g., experiencing positive emotion and social/psychological functioning), or exhibiting moderate mental health. Individuals can be placed along this well-being continuum with or without a concurrent diagnosable mental health disorder, emphasizing that mental health is more than simply the presence or absence of mental ill-health. This model therefore places positive states of

well-being as equally important as deficit-based diagnoses and is aligned with the World Health Organization's definition of mental health as "a state of well-being in which the individual realizes [their] own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to [their] community" (World Health Organization, 2004). In the current study, we focus on this axis of well-being, without consideration for the presence of clinical mental health disorders or their symptomology.

Given the varied organizational stressors and systemic pressures that exist in elite sport environments, broader structural intervention, and prevention initiatives to sports teams and organizations are clearly needed (Purcell et al., 2022). However, understanding how athletes can learn skills which may enhance well-being and reduce the risk of negative cognitive and behavioral patterns is also of clear importance. While a range of approaches in sport exist, including resilience training (Fletcher & Sarkar, 2016) and established therapies like cognitive behavioral therapy (Beck, 2020) or acceptance and commitment therapy (Hayes et al., 2011), another valuable approach centers on self-compassion. While varied definitions exist, here we conceptualize self-compassion as a prosocial motivation, which can be defined by "the sensitivity to suffering in self and others, with a commitment to try to alleviate and prevent it" (Gilbert, 2014, p. 19). Self-compassion is not simply a personality trait or tendency, but an internal motivational system that can be nurtured (Gilbert et al., 2017). The capacity to be self-compassionate, either intrinsically or through learned skills and training, has been associated with a range of positive outcomes in both general and clinical populations (Ferrari et al., 2019; Kirby et al., 2017; Wilson, Mackintosh, et al., 2019).

While some athletes may mistakenly identify self-compassion as going "too easy on themselves" (Ferguson et al., 2014, p. 212), the harsh self-critical and self-attacking approaches many athletes rely on are often ineffective at achieving performance-based goals and may instead lead to poorer well-being (Powers et al., 2009). Frentz et al. (2020) have outlined how competitive athletes learn to engage in more self-compassionate—rather than self-critical—approaches over time, and that this leads to a range of positive outcomes relating to performance. Emphasizing that athletes can indeed engage with self-compassionate approaches, one study found that more elite athletes who likely have more significant outcome goals and pressures are equally able to engage in self-compassion (Walton et al., 2020). Given the clearly relevant role of self-compassion in sport, research and practice in this area has rapidly expanded in recent years (for reviews, see Mosewich, 2020; Röthlin et al., 2019).

Across a range of studies, self-compassion has been associated with many benefits to athletes, relating to both performance and health. Examples include an enhanced ability to engage in beneficial cognitive and emotional responses following disappointing performances (Killham et al., 2018) or injury (Huysmans & Clement, 2017). More self-compassionate athletes also tend to demonstrate enhanced well-being (Eke et al., 2020) and reduced psychological distress (Walton et al., 2020). However, one critical drawback of work conducted to this point is that measures of self-compassion have not explicitly assessed for self-compassionate behavior.

There is a need for measurement of compassion to move beyond assessing self-reported intentions, and rather begin to move toward assessing compassionate behaviors. In a comprehensive review of the different measurement methods used

to assess compassion (e.g., self-report, experience sampling, behavioral, physiological, neuroimaging), Mascaro et al. (2020) emphasized the need to begin to capture observed behavior and self-reported compassionate behavior. This is necessary as definitions of compassion often stipulate actions are required to alleviate or prevent suffering (Gilbert, 2019). However, at the time of this study's conception, no measures of self-compassion among sport samples had assessed action.

The Compassion Motivation and Action Scales (CMAS) from Steindl et al. (2021) are a newly developed measure. The CMAS includes two scales which examine compassion and self-compassion, with the latter CMAS Self-Compassion Scale (CMAS-SC) relevant here. The CMAS-SC includes three subscales, termed "Intention," "Distress Tolerance," and "Action." The intention subscale aims to assess one's motivation to engage with self-compassion. The distress tolerance subscale assesses the ability of an individual to cope with their distressing feelings when approaching their own suffering. Finally, the action subscale aims to assess for behavioral change relating to self-compassion over the previous week.

Of particular importance is the role of distress tolerance in compassionate motivation and action. As described by Steindl et al. (2021), engagement with one's own suffering can lead to personal distress, which in turn might instigate an individual to move *away* from that suffering. In order to engage with compassionate motivation and action, an individual must be able to tolerate the distress that comes with facing their own pain. Therefore, displaying self-compassionate traits or having the intention to be self-compassionate may not be enough to attain benefit. In addition to the intention or motivation to be self-compassionate, individuals need to be able to manage the inevitable distress that can occur. As such, building an individual's capacity to handle suffering and move *toward* pain in order to engage self-compassion features as a key part of the compassion-focused therapies (Gilbert, 2014). However, further research is critically required to understand the role of self-compassion distress tolerance on well-being among athletes, as this has yet to be explored.

In the original scale development, total and subscale scores for the CMAS-SC were associated with better mental health, with the distress tolerance subscale most strongly correlated with depression, anxiety, and stress (Steindl et al., 2021). There were no gender differences with the single exception of women scoring higher on the intention subscale. It remains somewhat unclear conceptually why this single difference might exist, particularly given there is meta-analytic evidence of men scoring higher in self-compassion than women in the literature, though this effect is small (Yarnell et al., 2015). Indeed, Yarnell et al. warn against overemphasizing gender differences, given the predominantly shared variance and apparent conceptual reasons to argue for a difference in either direction. In a recent psychometric study among Portuguese samples (Matos et al., 2021), the same pattern of results regarding mental health correlations and gender differences was replicated. Evidence as to the scales item validity and reliability was obtained via investigation of the measure's factor structure, internal reliability, construct validity, temporal reliability, and sensitivity to change. It is likely that this scale would be valuable for compassion-based interventions among athlete samples, and may assess for key factors illustrative of therapeutic change (Matos et al., 2021; Steindl et al., 2021).

It is useful to examine how separate aspects of self-compassion may contribute to athlete well-being. Numerous studies have demonstrated that self-compassion

can act as a predictor or mediator of well-being across a range of models and populations (Zessin et al., 2015). However, studies using mediation with the CMAS-SC have not yet been conducted, and this measure may help to unpack the relationship between self-compassion and well-being among athletes further, by separating out components of intention and distress tolerance. While intention describes a *motivation* to be self-compassionate, distress tolerance describes an *ability* which may be critical to obtaining the positive effects of self-compassion in regard to mental health and well-being. Indeed, distress tolerance was most highly related to mental health outcomes in previous work (Matos et al., 2021; Steindl et al., 2021). Therefore, we propose that while the intention to be self-compassionate is important, its effect on well-being may occur through the ability to tolerate distress.

This study aims to examine CMAS-SC scores among competitive athletes. Scores were compared with the original Steindl et al. (2021) study, as well as between gender, well-being (flourishing and moderate mental health), and elite status (elite and nonelite athletes) categories. Second, we examined how CMAS-SC scores related to well-being, in order to examine their practical value. A number of hypotheses were made. First, we anticipated similar levels of self-compassion in our sample with previously published data, given some evidence that athletes relate to self-compassion in similar ways, irrespective of elite status (Walton et al., 2020). This pattern was expected to be further evident by no group differences based on elite status in our sample. Acknowledging that gender differences vary in the literature (Yarnell et al., 2015), we therefore aligned our hypotheses with prior work using the CMAS-SC (Matos et al., 2021; Steindl et al., 2021), and expected women athletes to score higher for the intention subscale, with no other differences present. Finally, given relationships between self-compassion and well-being more broadly (Zessin et al., 2015), we anticipated that the CMAS-SC and its subscales would be positively correlated with well-being. Further, we anticipated that the distress tolerance subscale would mediate the effect of self-compassionate intentions on well-being.

Methods

This cross-sectional study utilizes data from a broader program of research (Lewis et al., 2022).¹ The online survey was hosted on Qualtrics. Convenience sampling was used to recruit participants, primarily through word of mouth and social media advertisements (i.e., the first author's twitter account). Athletes over the age of 18 who were practicing a competitive sport were invited to take part. In addition, a number of high-performance coaches from Australia and New Zealand were also contacted directly to distribute the survey to athletes they worked with. Human research ethics approval was obtained from the University of Melbourne (ID 2021-21406-17406-3) and informed consent obtained.

Participants

Three hundred and one participants originally consented to take part in the study of Lewis et al. (2022). Of these, 209 agreed for their data to be used in future investigations outside of the originally described project. However, two

participants who completed the survey were 16 years of age, with the study inclusion criteria specifically requiring participants to be 18 years or older. Therefore, these two participants were removed to retain an adult sample of 207 participants. All data were complete for this sample, with no missing responses at an item or instrument level.

Measures

A range of demographics were collected to help characterize the sample. This included questions to identify age, gender, race, country of residence, and primary sport. The questionnaires listed below were examined.

Self-Compassionate Motivation and Action

The CMAS-SC (Steindl et al., 2021) was used to assess compassionate behavior and motivation. The scale consists of eighteen items across three factors assessing “Intention” (five items), “Distress Tolerance” (seven items), and “Action” (six items). Participants indicated how much they agreed with the statements, using a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The total and subscale scores were used, with higher scores indicating higher levels of self-compassion. The intention subscale describes one’s *intention* to engage in self-compassionate behaviors, with an example item reading “I wish to be kind and caring toward myself when faced with difficulties.” *Distress Tolerance* assesses the ability of an individual to cope with their distressing feelings when approaching their own suffering, with an example item reading “I am able to be kind to myself, even when it feels uncomfortable to do so.” Finally, the *Action* subscale describes how an individual has actually engaged with self-compassionate behavior over the last week, with one item reading “I have been taking steps over the past week to show myself more self-compassion.” The original study from Steindl et al. (2021) demonstrated internal consistency for total and subscale scores (intention $\alpha = .92$, distress tolerance $\alpha = .95$, action $\alpha = .96$, and total $\alpha = .94$).

Well-Being

The 14-item Mental Health Continuum-Short Form (Lamers et al., 2011) was used to measure general well-being. Participants indicated how often they experienced the statements across the past month on a 6-point Likert scale, from 0 (*never*) to 5 (*every day*). The scale consists of three factors assessing “Emotional Well-being,” “Psychological Well-being,” and “Social Well-being.” An example item for Emotional Well-being is “during the past month, how often did you feel satisfied with life.” An example item for Social Well-being is “during the past month, how often did you feel that you had something important to contribute to society.” An example item for Psychological Well-being is “during the past month, how often did you feel that that your life has a sense of direction or meaning to it.” A total score is calculated by obtaining the average across all 14 items, with higher scores indicating higher levels of well-being. In addition, individuals can be classified into categories, labeled languishing (e.g., experiencing emptiness and stagnation), flourishing (e.g., experiencing positive emotional and social/psychological functioning), or of moderate mental health. To be categorized as flourishing,

individuals need to respond “every day” or “almost every day” to at least one of the three items within Emotional Well-being and six of the 11 items within Psychological or Social Well-being. To be categorized as languishing, individuals need to respond “never” or “once or twice” on at least one of the items within Emotional Well-being and six items within Psychological or Social Well-being. Individuals scoring as neither flourishing or languishing (i.e., in between) are categorized as having moderate mental health. This categorical scoring of the Mental Health Continuum-Short Form has been applied in various populations. In the current study, the total score along with categories of flourishing, moderate mental health, and languishing were used. The total score for the Mental Health Continuum-Short Form has previously demonstrated internal consistency in the study from Lamers et al. (2011; $\alpha = .89$).

Competitiveness

The 13-item “Competitiveness” subscale of the Sport Orientation Questionnaire (Gill & Deeter, 1988) was used to assess for athlete competitiveness. Participants indicated how much they agreed with the statements, using on a 5-point Likert scale from 1 (*strongly agree*) to 5 (*strongly disagree*), and then reverse coded meaning higher scores indicated higher levels of competitiveness. An example item reads “I look forward to the opportunity to test my skills in competition.” The competitiveness subscale has previously demonstrated internal consistency in the original study from Gill and Deeter (1988; $\alpha = .94$).

Statistical Analysis

All analyses were conducted on jamovi (version 2.0.0.0; [The jamovi project, 2021](#)). Welch’s *t* tests were used to examine group differences on key continuous variables of interest, with one sample *t* tests used to assess for differences between sample data and published means from Steindl et al. (2021). Cohen’s *d* was used to determine effect size for group comparisons. Simple mediation analysis was performed using the jAMM Mediation Model module for jamovi. Statistical assumptions were met for regression following investigation of the Durbin–Watson test, tests of normality, heteroskedasticity and collinearity, cooks distance, and inspection of Q–Q plots. We also utilized bootstrapped 95% confidence intervals (1,000 samples). Given the number of analyses performed, outcomes were evaluated as statistically significant at a more stringent alpha level of $p \leq .01$.

Results

All 207 participants identified as one of two binary genders (110 men and 97 women). Participants came from 24 separate sports, with the most common being field hockey ($n = 96$; 46.4%), cricket ($n = 24$; 11.6%), and soccer ($n = 18$; 8.7%). Further detail about the sample is found in Table 1. Mean scores, correlations, and reliability statistics for the scales included in this study are provided in Table 2. Cronbach’s alphas for the CMAS-SC total and subscale scores ranged from .84 to .95, suggesting that the scale demonstrated evidence of internal consistency and appears reliable in the athlete sample.

Table 1 Participant Demographics Across All 207 Participants

		<i>n</i> (%)
Age	Mean (<i>SD</i>)	27.86 (8.42)
Gender ^a	Men	110 (53%)
	Women	97 (47%)
Country	Australia	100 (48%)
	New Zealand	99 (48%)
	Other	8 (4%)
Race/ethnicity	White	169 (82%)
	Asian	9 (4%)
	Black/African/African American/Caribbean	3 (1%)
	Hispanic	3 (1%)
	Mixed	14 (7%)
	Prefer not to say/other	9 (4%)
Competition level	Elite	135 (65%)
	Senior international/top tier professional	55 (27%)
	Senior national/second tier professional	39 (19%)
	Junior international	11 (5%)
	Junior national	30 (15%)
	Nonelite	72 (35%)
	School and club	49 (24%)
	State or regional	20 (10%)
University	3 (2%)	
Mental health	Flourishing	102 (49%)
	Moderate	102 (49%)
	Languishing	3 (1%)

^aNo participants identified as nonbinary or another gender.

The first stage of our analyses was to make a number of group comparisons (Table 3). Similar to previous studies, the only difference by gender was for the intention subscale. Further in line with our hypotheses, no differences were found between our sample and that of Steindl et al. (2021), or between athletes classified as elite or nonelite. Further emphasizing the null differences between more elite athletes on self-compassion, there were no significant correlations between competitiveness and CMAS-SC scores (Table 2). There was, however, a consistent pattern of medium to large significant differences with athletes classified as flourishing scoring higher in all CMAS-SC scores than those with moderate health (Figure 1). Only three athletes were categorized as languishing and were thus not included in this analysis. Descriptives and statistical tests from these group comparisons are presented in Table 3.

Finally, we aimed to determine the effects of CMAS-SC subscale scores on well-being through mediation analysis. We hypothesized that the relationship

Table 2 Constructs Investigated Within the Current Study

	α	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.
1. Well-being (MHC)	.91	3.34	0.8	—	0.541**	0.298**	0.544**	0.359**	0.151
2. CMAS-SC total	.92	89.17	15.3		—	0.609**	0.841**	0.807**	0.032
3. CMAS-SC intention	.84	29.47	4.3			—	0.347**	0.301**	-0.013
4. CMAS-SC distress tolerance	.93	33.57	8.0				—	0.459**	-0.016
5. CMAS-SC action	.95	26.14	7.4					—	0.090
6. Competitiveness (SOQ)	.91	57.03	8.0						—

Note. MHC = the Mental Health Continuum-Short Form; CMAS-SC = the Compassion Motivation and Action Scales Self-Compassion Scale; SOQ = the Sport Orientation Questionnaire.

**Significant at $p < .001$.

between self-compassionate intentions and well-being is mediated by the degree in which an individual can tolerate distress. Within the full regression model, 30.9% of the variance in well-being was explained by the combination of CMAS-SC intention and distress tolerance subscale scores, $F(2, 204) = 45.688$; $p < .001$. Using 1,000 bootstrapped (percentile) samples, the indirect effect was significant providing statistical support for mediation (Table 4). Furthermore, the direct effect of self-compassion intention on well-being was no longer significant when controlling for the mediating role of distress tolerance. Table 4 and Figure 2 provide data and a visual representation of the mediation model.

Discussion

Engaging with one's own distress and suffering through self-compassion has been demonstrated to be a beneficial approach to maintaining well-being (Zessin et al., 2015). It may be a particularly valuable approach for athletes who are prone to a range of harmful self-critical tendencies (Walton et al., 2022). Previous research has demonstrated that athletes who demonstrate self-compassionate traits may experience a range of health and performance-related benefits (Mosewich, 2020; Röthlin et al., 2019). However, at the point of study completion, no study in this population has explored the recently developed CMAS-SC which are able to assess beyond traits, for self-compassionate motivations and actions. Our findings broadly suggest that athletes in our sample held similar motivations and engage self-compassion at similar rates to the general population. Self-compassion was also not related to an athlete's level of eliteness, nor trait-based competitiveness. Furthermore, we replicated prior findings in nonathlete samples that self-compassionate motivations and actions are associated with enhanced well-being. Specifically, CMAS-SC were consistently higher in athletes categorized as flourishing compared with those with moderate mental health. Providing evidence for the

Table 3 Group Differences on CMAS-SC

CMAS-SC	Group comparison		Test statistics			
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	Current sample	Steindl et al. (2021 sample)				
CMAS-SC total (men)	88.70 (15.44)	90.87 (16.82)	-1.47	109	.143	0.14
CMAS-SC intention (men)	28.67 (4.79)	29.27 (5.03)	-1.31	109	.194	0.12
CMAS-SC distress tolerance (men)	34.19 (8.06)	35.56 (8.08)	-1.78	109	.078	0.17
CMAS-SC action (men)	25.82 (7.33)	25.72 (7.98)	.17	109	.868	0.02
CMAS-SC total (women)	89.70 (15.25)	90.77 (17.69)	-.69	96	.492	0.07
CMAS-SC intention (women)	30.37 (3.57)	31.27 (4.59)	-2.48	96	.015	0.25
CMAS-SC distress tolerance (women)	32.86 (7.87)	33.81 (9.35)	-1.19	96	.235	0.12
CMAS-SC action (women)	26.47 (7.49)	25.70 (8.48)	1.02	96	.311	0.01
	Flourishing (n = 102)	Moderate (n = 102)	<i>t</i> _{Welch}	<i>df</i>	<i>p</i>	<i>d</i>
CMAS-SC total	95.88 (13.16)	83.50 (13.98)	6.60	201	<.001	0.92
CMAS-SC intention	30.81 (3.58)	28.19 (4.68)	4.51	189	<.001	0.63
CMAS-SC distress tolerance	36.74 (6.54)	30.90 (7.54)	5.90	198	<.001	0.83
CMAS-SC action	28.33 (7.27)	24.25 (6.82)	4.13	201	<.001	0.58
	Elite (n = 135)	Nonelite (n = 72)				
CMAS-SC total	88.72 (14.68)	90.01 (16.53)	.56	131	.578	0.08
CMAS-SC intention	29.37 (4.28)	29.65 (4.46)	.44	140	.661	0.06
CMAS-SC distress tolerance	33.10 (7.51)	34.44 (8.79)	1.10	127	.272	0.16
CMAS-SC action	26.25 (7.02)	25.92 (8.09)	-.30	129	.767	0.04
	Men (n = 110)	Women (n = 97)				
CMAS-SC total	88.70 (15.44)	89.70 (15.25)	.47	202	.640	0.07
CMAS-SC intention	28.67 (4.79)	30.37 (3.57)	2.91	200	.004	0.40
CMAS-SC distress tolerance	34.19 (8.06)	32.86 (7.87)	-1.20	203	.230	0.17
CMAS-SC action	25.82 (7.33)	26.47 (7.49)	.54	201	.537	0.09

Note. CMAS-SC = Compassion Motivation and Action Scales Self-Compassion Scale.

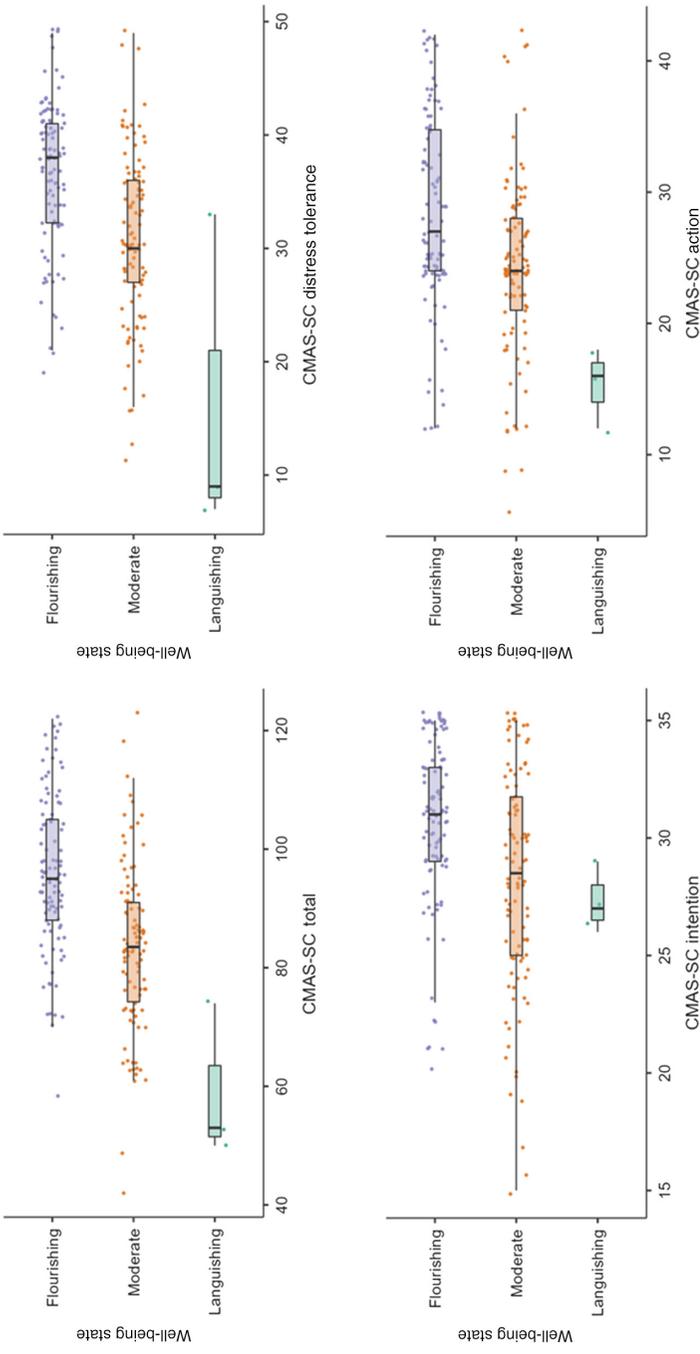


Figure 1 — Boxplots of CMAS-SC scores split by Mental Health Continuum-Short Form categories. Note that only three participants were categorized as languishing, and these are provided purely for data visualization and transparency. Statistical analyses conducted on well-being categories assessed only those categorized as flourishing and moderate. CMAS-SC = Compassion Motivation and Action Scales Self-Compassion Scale.

Table 4 Total and Indirect Effects of the Simple Mediation Model

Type	Effect	<i>B</i>	<i>SE</i>	95% CIs	β	<i>Z</i>	<i>p</i>
Indirect	I → DT → WB	0.034	0.009	[0.019, 0.053]	0.174	3.912	<.001
Component	I → DT	0.639	0.134	[0.388, 0.907]	0.347	4.764	<.001
	DT → WB	0.053	0.007	[0.039, 0.067]	0.501	7.712	<.001
Direct	I → WB	0.024	0.014	[-0.004, 0.052]	0.124	1.778	.075
Total	I → WB	0.059	0.013	[0.033, 0.084]	0.298	4.479	<.001

Note. CIs computed with 1,000 bootstrap percentiles. I = CMAS-SC intention; DT = CMAS-SC distress tolerance; WB = well-being; CI = confidence intervals; CMAS-SC = The Compassion Motivation and Action Scales Self-Compassion Scale.

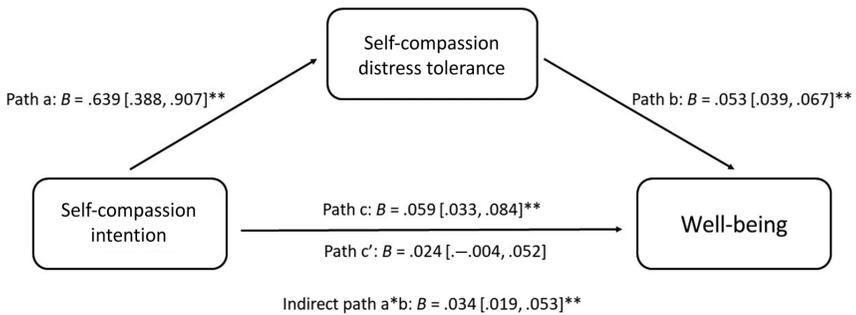


Figure 2 — Path diagram of the mediation model, with beta estimates and 95% confidence intervals with 1,000 bootstrap percentiles.

importance of self-compassion distress tolerance, this subscale mediated the effects of self-compassion intentions on well-being. These findings broadly support the importance of being able to manage the feelings of distress that come with acknowledging and moving toward difficult thoughts and feelings. It may be valuable for future research studies to actively nurture and build this active motivation and learned skill within intervention approaches targeting compassion and well-being among athletes.

Our finding of no differences for both men and women athletes with norms from Steindl et al. (2021) are aligned with our initial hypotheses based on Walton et al. (2020). However, following completion of the current study, work from Beavan et al. (2022) was published, which provided CMAS-SC scores in athletes for the very first time. In a sample of 150 first division academy players in Germany (U12–U23), they found no differences in self-compassion across age groups; however, CMAS-SC scores were notably lower than those from Steindl et al. (2021) and ours. For example, while the total CMAS-SC score for men athletes in our sample was 88.70 and 90.87 for Steindl et al. (2021), it was 75.78 for Beavan et al. (2022). It is unclear why this noteworthy difference (effect size between our findings and Beavan et al.: Hedge's $g = 0.91$) is observed, though one reasonable consideration was that the CMAS-SC was translated into German, potentially

leading to subtle differences in interpretation or even reflecting differing cultural norms. Indeed, some evidence from Tóth-Király and Neff (2020) exists for higher self-compassion among Australian participants than among German participants; however, this is speculative for now. It is also worth noting that our adult men's sample was considerably older and larger (mean age = 27.6; $n = 110$) than that of Beavan et al. (2022) (U19 and U23 groups; $n = 46$). The conflicting results suggest the need for further work with large and diverse samples, given that these are currently the only two studies, which have used the CMAS-SC in athletes. A psychometric study like that of Matos et al. (2021) examining various reliability and validity outcomes in detail will be important if the CMAS are to be used further in athlete populations.

The need for compassion-based interventions is necessitated by many recent studies, which have consistently found a significant proportion of elite athletes to be experiencing poor mental health (Akesdotter et al., 2020; Poucher et al., 2021; Purcell et al., 2020). The ability to behave in self-compassionate ways has been shown across multiple meta-analytic investigations to be beneficial to mental health and well-being (Kirby et al., 2017; Turk & Waller, 2020; Zessin et al., 2015). However, given that sport is an arena that emphasizes competition, comparison, and toughness, compassion-focused approaches have generally lagged behind; perhaps owing to misunderstandings about what compassion actually is. This study however highlights that athletes at an elite level appear no more, nor no less, likely to engage with self-compassionate motivations and actions, replicating prior work (Walton et al., 2020). Indeed, a number of studies have found that many athletes see the ability to be self-compassionate as critical to motivation and responding to adversity (e.g., Ingstrup et al., 2017). Wilson, Bennett, et al. (2019) have described how athletes view self-compassion as central to the development of mental toughness, as self-compassionate approaches allow them to move past moments of adversity. Clearly, athletes are capable of engaging with both competition and compassion, once they understand how to do so effectively.

The fact that distress tolerance was so central to well-being when accounting for the role of athlete intentions to be self-compassionate, has significant implications for applied interventions. This finding is strengthened by prior work also showing that this subscale demonstrates the largest correlations with psychological distress (via depression, anxiety, and stress subscales) in nonathletic samples (Matos et al., 2021; Steindl et al., 2021). Many interventions that have been described thus far in athletes to enhance self-compassion focus on developing the intention to be self-compassionate. For example, foundational work by Mosewich et al. (2013) provided athletes with psychoeducation on the value of self-compassion in sport, with writing exercises completed over a 7-day period. Reis et al. (2015) had athletes respond to prompts regarding a difficult sporting situation. These revolved around considering how others experience similar events, self-compassionate writing as one might respond to a friend, and describing their feelings about the event in an "objective and unemotional fashion." While some benefit was observed in the first study (Mosewich et al., 2013), the second study (Reis et al., 2015) was largely ineffective (though baseline self-compassion in this study did predict a number of positive outcomes regardless of intervention). One interpretation based on the current results is that more work needs to be done to support athletes in not only trying to direct them toward self-compassionate

responses, but specifically providing tools and strategies for distress tolerance and focusing on managing these difficult emotional experiences.

The present study lends itself to a number of practical considerations for sport or mental health practitioners working with athletes. Primarily, the results suggest that athletes will benefit from compassion-based intervention (Kirby, 2017), and that finding ways to enhance an athlete's ability to engage with self-compassionate actions—particularly via distress tolerance—may be critical to athlete well-being. Walton et al. (2022) have outlined approaches to enhancing compassionate behaviors in performers, including therapeutic approaches and stances for practitioners, as well as guided meditations and tools for use with athletes. In work such as this, the CMAS-SC looks to be a valuable tool to assess for any change in behaviors, along with other key assessment tools in the field.

Limitations and Future Research

This study has a number of limitations, which warrant consideration. We acknowledge that we report on cross-sectional self-report data. Predictive power for the mediation model and the observed associations between self-compassionate motivations and behavior can only be achieved by longitudinal studies for which the field urgently needs. Given the many cross-sectional analyses reported here, we have adjusted our analyses to be significant only at a more stringent alpha level of $p < .01$, reducing the likelihood of Type 1 errors. Finally, we highlight that this appeared to be a relatively high functioning sample, with only three athletes categorized as languishing. In the recent study by Kuettel et al. (2021), 6.5% of their sample were categorized as languishing; considerably more than the 1.4% here. We cannot meaningfully speculate as to the cause of this imbalance, but it appears to reflect a potential sampling bias for individuals experiencing better well-being. The results should be interpreted with this in mind, and further examination in clinical samples with athletes experiencing mental ill-health is required.

Future psychometric validation of the CMAS-SC may be valuable to obtain full understanding of the reliability and validity of this tool in athlete populations. Unfortunately, this was not the intended aim of the current preliminary study, and was not possible given that we did not collect data on other measures required for this analysis. It may be of interest to examine the wording of the CMAS-SC, which may benefit from adaptation to reflect the sporting environment. Many studies utilizing the Self-Compassion Scale (Neff, 2003) with athletes have adapted the wording to relate specifically to the athlete's sports environment and experiences (e.g., Killham et al., 2018). For example, a subtle change from the item "I have the ability to be supportive of myself when I feel like I have failed" to "I have the ability to be supportive of myself following a disappointing performance in my sport" may help contextualize how athlete respondents engage self-compassion within sport environments, which may be different to other domains of their life. However, recent evidence from one study suggests this specificity regarding measurement of self-compassion may not be as important as initially thought (Mosewich et al., 2021). Finally, we suggest the CMAS-SC may be beneficial for both research and applied compassion-based interventions with athletes.

Conclusions

Results highlight the value of the CMAS-SCs in understanding athlete self-compassion and well-being. This may be of particular relevance as an outcome in future intervention or longitudinal studies with athletes. The ability for athletes to tolerate distress associated with motivating self-compassionate behavior appears to be particularly critical for well-being, and stands as a key therapeutic target. The results add to a growing body of evidence regarding the benefit of self-compassion for athletes in competitive sport.

Note

1. In the study of Lewis et al. (2022), the authors tested a model investigating the influence of mindfulness and nonattachment to self on athlete well-being and self-actualization. That study did not examine self-compassion, while this study does not examine mindfulness, nonattachment, or self-actualization; meaning no overlap in research questions or theoretical focus exists between these two studies.

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