



Associations among coach–athlete relationships, psychological safety, and psychological well-being in college athletes

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The coach–athlete relationship influences an athlete's psychological well-being; however, little is known about the psychological mechanisms involved in the relationship between these variables. This study emphasized the mediating role of psychological safety in the relationship between the coach–athlete relationship and athletes' psychological well-being. Participants were 372 college athletes from five Chinese universities, who completed a paper-and-pencil questionnaire in which they assessed their coach–athlete relationship, psychological safety, and psychological well-being. Results of structural equation modeling indicated there was a positive relationship between a positive coach–athlete relationship and an athlete's psychological well-being, and that psychological safety partially mediated this relationship. This study extends the conclusions of prior research and provides new insights into how the coach–athlete relationship affects athletes' psychological well-being.

Keywords

coach–athlete relationship, psychological safety, psychological well-being, coaching effectiveness, college athlete

Article Highlights

- Positive coach–athlete relationships were found to be positively related to college athletes' psychological well-being.
- Positive coach–athlete relationships were positively related to college athletes' psychological safety, which was positively related to their psychological well-being.
- Positive coach–athlete relationships were indirectly and positively related to college athletes' psychological well-being through the mediator of psychological safety.

Psychological well-being is a broad concept that describes an individual's mental health (Ryff & Keyes, 1995). Mental health is a critical determinant of athletic performance (Schinke et al., 2018), and sports involvement can provide athletes with a range of psychological benefits, such as enhanced self-esteem, motivation, and resilience, which promotes their performance as well as other aspects of their lives (Weinberg & Gould, 2015). In fact, the mental health and well-being of athletes is gaining increased attention in the sporting world, with academic studies highlighting the importance of investigating factors that may have an impact on athletes' mental health and well-being, particularly for college athletes (Kim et al., 2017; Moreland et al., 2018; Wayment & Walters, 2017).

In China, athletes and coaches typically live and work together in a highly focused and insular environment. The coaches are responsible for meeting their athletes' needs, including offering guidance and support to foster athletes'

autonomy (Li et al., 2016). Through communication and encouragement, coaches help athletes develop new skills, overcome challenges, and improve their performance (Davis & Jowett, 2014). According to Jowett (2017), as the primary figures in athletes' lives, coaches play a pivotal role in shaping their development. The success of this development depends largely on the quality of the coach–athlete relationship, particularly its ability to establish a positive and purposeful intent. The coach–athlete relationship is placed at the heart of coaching effectiveness, for it is argued that a quality coach–athlete relationship leads to an increase in athletes' performance and well-being.

The literature has shown that the coach–athlete relationship is a key contributor to athletes' psychological well-being. For example, Davis and Jowett (2014) reported that athletes' attachment style with the coach is associated with the quality of the coach–athlete relationship, which, in turn, plays a central role in promoting athletes' psychological well-being. Simons and Bird (2022) revealed that the coach–athlete relationship is positively connected with athletes' psychological well-being. Similarly, Isoard-Gauthier et al. (2016) found that the quality of the coach–athlete relationship is negatively related to athletes' burnout, which is a negative indicator of psychological well-being. Research has examined the link between the coach–athlete relationship and the psychological well-being of athletes, but more work is needed to understand the precise psychological mechanisms involved.

In line with Kahn's (1990) definition, *psychological safety* pertains to an environment where individuals feel free to express their true selves without fear of it having a negative impact on their career, status, or self-image. In the field of organizational behavior, psychological safety is regarded as a crucial mechanism between leader behavior and employee well-being. For example, Zhang and Song (2020) found that humble leadership is positively related to employee well-being, and psychological safety partially mediates this association. Wang et al. (2022) observed that psychological safety plays a mediating role between servant leadership and employee well-being. Likewise, Sharifirad (2013) supported the mediating effect of psychological safety underlying the relationship between transformational leadership and employee well-being. Thus, we studied the impact of the coach–athlete relationship on college athletes' psychological well-being, emphasizing the mediating mechanism of psychological safety.

The Current Study

Just as leaders play a crucial role in cultivating psychological safety among employees, coaches, in their role as team leaders, have a significant responsibility in fostering psychological safety for their players. Drawing from Vella et al.'s (2010) perspective, the coach–athlete relationship is a potent tool that coaches can leverage to increase the effectiveness of their leadership. Specifically, Jowett and Ntoumanis (2004) defined the *coach–athlete relationship* as an interconnected situation where the emotions, thoughts, and behaviors of coaches and athletes have mutual and causal effects. Drawing on Hobfoll et al.'s (2018) conservation of resources (COR) theory, coaches who establish positive relationships with athletes demonstrate care and concern toward them and provide resources to athletes to enhance their psychological safety.

Psychological safety is a key factor contributing to psychological well-being (Hasan & Kashif, 2020). According to COR theory, inadequate resources can lead to increased pressure and burnout. Specifically, when individuals have limited resources, they are more susceptible to stress and burnout, which has a negative impact on their psychological well-being (Hobfoll et al., 2018). Conversely, individuals with higher levels of resources experience reduced stress and burnout, resulting in enhanced psychological well-being (Hobfoll et al., 2018; Wang et al., 2022). Thus, athletes who have a quality relationship with their coaches may be likely to gain psychological resources such as psychological safety (Vella et al., 2022), which can, in turn, enhance their psychological well-being (Hasan & Kashif, 2020). Thus, it is reasonable to suggest that psychological safety, as a crucial psychological resource, can function as a mediating mechanism between the coach–athlete relationship and the psychological well-being of athletes.

In summation, a quality coach–athlete relationship provides athletes with psychological safety to cope with pressure, which promotes their psychological well-being. In addition, prior studies have established a direct positive link between the coach–athlete relationship and psychological well-being. Thus, we proposed the following hypotheses:

Hypothesis 1: A positive coach–athlete relationship will be positively related to athletes' psychological well-being.

Hypothesis 2: Psychological safety will mediate the association between the coach–athlete relationship and psychological well-being.

Figure 1 displays the research model.

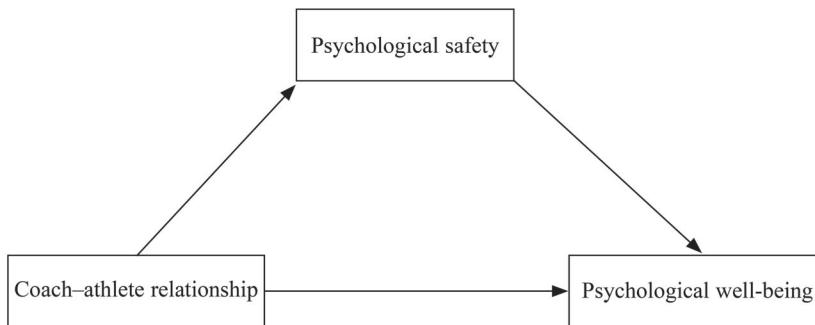


Figure 1. *Hypothesized Model*

Method

Participants and Procedure

This study received ethical approval from the ethics committee at China University of Petroleum (East China). We selected the participants through convenience sampling, targeting college athletes from five universities in East China. Before data collection began we communicated with the colleges' head and assistant coaches to explain the purpose of this study. A research assistant was responsible for administering the questionnaire pack, which included instructions for the athletes on how to respond to the scales. Participants were assured of the complete confidentiality and anonymity of their responses. The survey garnered responses from 379 athletes, of which seven were incomplete and thus removed, leaving 372 (98.15%) valid responses.

Among the athletes, 68.28% ($n = 254$) were men and 31.72% ($n = 118$) were women. Participants reported a mean age of 20.17 years ($SD = 1.86$, range = 18–24) and an average sports experience of 6.42 years ($SD = 2.37$, range = 4–10). The participants represented a range of individual sports (36.83%, $n = 137$) and team sports (63.17%, $n = 235$), including swimming and diving (29.93%, $n = 41$), track and field (70.07%, $n = 96$), basketball (39.15%, $n = 92$), soccer (37.02%, $n = 87$), and volleyball (23.83%, $n = 56$).

Measures

We adopted widely accepted measures from the existing literature. To ensure accuracy of meaning for each measure, one bilingual scholar translated the original scale into Chinese, and another bilingual scholar back-translated it into English. Then, together with us, they reviewed and reached a consensus on the wording of the Chinese version. The response format for all measures was a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Coach–Athlete Relationship

We assessed the coach–athlete relationship with Jowett and Ntoumanis's (2004) 11-item scale. The scale consists of three dimensions: commitment (three items), closeness (four items), and complementarity (four items). Sample items are “I feel close to my coach” (commitment), “I respect my coach” (closeness), and “I feel at ease when I am coached by my coach” (complementarity).

Psychological Safety

We assessed psychological safety with Yang and Wang’s (2020) three-item scale, with item phrasing tailored to fit the study context: “I feel free to express my opinions about sport,” “I feel free to be myself at my place of sport,” and “I feel completely comfortable in the sporting environment.”

Psychological Well-Being

We assessed psychological well-being with Foster and Chow’s (2019) six-item scale. A sample item is “During the past month, my sport participation has me feel good at managing the daily responsibilities of my sport.”

Results

Preliminary Analysis

To evaluate the uniqueness of the study variables, we performed a confirmatory factor analysis (CFA) by comparing the fit of our hypothesized measurement model to various nested plausible alternative models. Given the coach–athlete relationship scale was longer than the other measures, the three dimensions were utilized as manifest indicators of the latent coach–athlete relationship factor. Table 1 displays the outcomes of CFA, scrutinizing the distinctiveness of the study variables. From the results in Table 1, it can be inferred that the hypothesized three-factor measurement model outperformed all alternative nested models, thereby supporting the distinctiveness of constructs in our study.

Table 1. Results of Confirmatory Factor Analysis

Model	χ^2	df	χ^2/df	RMSEA	TLI	CFI
A: Three-factor model ^a	95.10	51	1.87	.05	.97	.98
B: Two-factor model 1 ^b	333.82	53	6.30	.12	.81	.85
C: Two-factor model 2 ^c	370.58	53	6.99	.13	.79	.83
D: Two-factor model 3 ^d	325.08	53	6.13	.12	.82	.86
E: One-factor model ^e	578.26	54	10.71	.16	.66	.72

Note. $N = 372$. RMSEA = root mean square error of approximation; TLI = Tucker–Lewis index; CFI = comparative fit index.

^a Coach–athlete relationship, Psychological safety, Psychological well-being; ^b Coach–athlete relationship + Psychological safety, Psychological well-being; ^c Coach–athlete relationship + Psychological well-being, Psychological safety; ^d Coach–athlete relationship, Psychological safety + Psychological well-being; ^e Coach–athlete relationship + Psychological safety + Psychological well-being.

We examined convergent validity and internal consistency by calculating standardized factor loadings, composite reliability (CR), and average variance extracted (AVE). The results of CFA showed that the values were above the thresholds for acceptability of .60 for standardized factor loadings, .70 for CR, and .50 for AVE, meaning our measures were both valid and reliable. Moreover, the square roots of the AVE values were higher compared to interfactor correlations, supporting the discriminant validity of our measures. Table 2 presents the means, standard deviations, and correlations among the study variables.

Table 2. Means, Standard Deviations, Correlations, and Reliabilities of the Study Variables

Variable	<i>M</i>	<i>SD</i>	α	1	2	3
1. Coach–athlete relationship	3.55	1.32	.89	.75		
2. Psychological safety	3.68	1.46	.83	.45**	.75	
3. Psychological well-being	3.50	1.11	.85	.44**	.52**	.75

Note. *N* = 372. The square root values for average variance extracted are displayed on the diagonal.

** $p < .01$.

Hypothesis Tests

We adopted structural equation modeling to test the hypotheses. We found a positive and significant relationship between the coach–athlete relationship and psychological well-being, $\beta = .26, p < .01$, 95% confidence interval (CI) [0.13, 0.38]. Thus, Hypothesis 1 was supported. Moreover, the coach–athlete relationship was significantly and positively related to psychological safety, $\beta = .45, p < .01$, 95% CI [0.33, 0.55], which was significantly and positively related to psychological well-being, $\beta = .41, p < .01$, 95% CI [0.28, 0.52]. We used bootstrapping analysis (3,000 resamples) to test the mediating effect of psychological safety between the coach–athlete relationship and psychological well-being, and the indirect effect was .18 ($p < .01$), 95% CI [0.12, 0.26]. Thus, Hypothesis 2 was supported.

Discussion

The coach–athlete relationship is crucial to athletes’ psychological well-being (Jowett, 2017). Drawing from COR theory and relevant literature, we postulated specific effects of the coach–athlete relationship on psychological well-being, which included the direct effect and mediating effect of psychological safety. Using a sample composed of Chinese college athletes, we found that the coach–athlete relationship has a positive effect on athletes’ psychological well-being. Further, athletes’ psychological safety partially mediated the relationship between the coach–athlete relationship and athletes’ psychological well-being.

Theoretical and Practical Implications

This study makes two main theoretical contributions. First, our results suggest that the coach–athlete relationship has a significant and positive association with college athletes’ psychological well-being, which is in line with the findings of Davis and Jowett (2014) and Simons and Bird (2022). In the context of Chinese culture, the coach–athlete relationship is a crucial source of attachment for athletes and has an inevitable impact on athletes’ psychological well-being (Peng et al., 2020). There is a well-known idiom in Chinese, which translates to: “One day as a teacher, a lifetime as a father,” and we believe this applies to Chinese athletes who spend their entire day with their coaches. Consequently, the coach–athlete relationship can have a significant impact on athletes’ emotional experience and life satisfaction (Davis & Jowett, 2014). Athletes who report a strong relationship with their coaches that is characterized by closeness, commitment, and complementarity have a heightened sense of psychological well-being.

Second, the most significant finding derived from this study is the mediating effect of psychological safety in the relationship between the coach–athlete relationship and psychological well-being. By supporting the mediating role of psychological safety in this relationship, this study offers a more comprehensive understanding of how the coach–athlete relationship affects athletes’ psychological well-being. Although prior studies have explored the connection between the coach–athlete relationship and athletes’ psychological well-being, the psychological processes underlying the association had not been clearly established. Combined with reviewing recent research, this study adopted COR theory as an elucidating framework to reveal the mechanism underlying the effect of the coach–athlete

relationship on athletes' psychological well-being. By perceiving psychological safety as a psychological resource, this study utilized a mediation model to demonstrate how the coach–athlete relationship enhances athletes' psychological safety, which then influences their psychological well-being. This finding provides new insights into understanding the efficacy of the coach–athlete relationship through different mechanisms and clarifies how the coach–athlete relationship shapes athletes' psychological well-being.

In terms of practical applications, our findings could inform university policies on best practice for coaches to support athletes' psychological well-being. For instance, given the positive influence of the coach–athlete relationship, coaches should aim to develop high-quality relationships with their athletes, as exemplified by closeness, commitment, and complementarity (Jowett & Ntoumanis, 2004). Second, coaches should pay much attention to their athletes' psychological safety. A coach with the capacity to build a quality relationship with athletes can create an environment where athletes perceive high psychological safety, thus enhancing their psychological well-being.

Limitations and Directions for Future Research

This study has three limitations that open avenues for future research. First, this study was cross-sectional in nature, which prevents causation from being determined. Future research could employ a longitudinal or experimental design to determine the causal effects among these variables. Second, although the data were collected from college athletes in a range of sports, the sample remains small compared to the potential eligible participants. Future research could replicate these findings with a larger sample size to increase the generalizability. Third, this study did not consider the influence of coaching styles on the perceptions of athletes. Hagerty and Felizzi (2023) argued that an autonomy-supportive coaching style may reduce athletes' anxiety and enhance their well-being and athletic performance, while an authoritarian coaching style can induce and sustain athletes' anxiety symptoms. Future research could consider the effects of coaching styles to enrich our conclusions.

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