

Journal of Sports Sciences

ISSN: 0264-0414 (Print) 1466-447X (Online) Journal homepage: http://www.tandfonline.com/loi/rjsp20

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To cite this article: Louise Davis & Sophia Jowett (2014) Coach–athlete attachment and the quality of the coach–athlete relationship: implications for athlete's well-being, Journal of Sports Sciences, 32:15, 1454-1464, DOI: 10.1080/02640414.2014.898183

To link to this article: http://dx.doi.org/10.1080/02640414.2014.898183

Published online: 09 Apr 2014.

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Journal of Sports Sciences, 2014
Vol. 32, No. 15, 1454–1464, http://dx.doi.org/10.1080/02640414.2014.898183

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Coach–athlete attachment and the quality of the coach–athlete relationship: implications for athlete's well-being

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(*Accepted 22 February 2014*)

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Abstract
This study examined whether athletes' attachment styles with the coach were linked to aspects of the coach–athlete relationship quality and, in turn, whether relationship quality was linked to athletes' well-being. One hundred and ninety-two athletes completed a questionnaire measuring their attachment styles and relationship quality with the coach as well as their feelings of positive affect (PA) and negative affect (NA). Structural equation modelling (SEM) analysis found athletes' avoidant and secure attachment styles to be associated with aspects of coach–athlete relationship quality such as social support, relationship depth, and interpersonal conflict. Interpersonal conflict appeared to play a key role in athletes' PA and NA. From a practical perspective, an understanding of conflict management could provide a resource that allows athletes (and coaches) to enhance the quality of their sporting relationships. Specifically, an awareness of proactive strategies (e.g., steps to clarify expectations) and reactive strategies (e.g., cooperation during the discussion of disagreements) could potentially lead both coaches and athletes to "broaden" their viewpoints and in turn "build" connections that are capable of generating positive emotions including interest, excitement, happiness, and zeal.

Keywords: *attachment, positive affect, negative affect, relationships*

A high-quality interdependent coach–athlete relationship is central to effective coaching and is a fundamental precursor of athletes' optimal functioning (Gould, Collins, Lauer, & Chung, 2007; Jowett, 2005; Lyle, 2002). The surge of interest surrounding the coach–athlete relationship over the past decade has been accompanied by a network of theoretical frameworks and measurement tools, which in part have been diversified from psychosocial scientific disciplines into the context of sport (Poczwardowski, Barott, & Jowett, 2006). In particular, Wylleman (2000) guided by interpersonal theory (Kiesler, 1983) proposed a three-faceted conceptual model of acceptance-rejection, dominance-submission, and socioemotional factors to examine athletes' perceived interpersonal behaviour in the coach–athlete dyad. Poczwardowski, Barott, and Henschen (2002) proposed social exchange theories to examine the context and process of the coach–athlete dyad while Shepherd, Lee, and Kerr (2006) proposed the application of reversal theory to the understanding of the coach–athlete interpersonal dynamics. Mageau and Vallerand (2003) proposed a motivational model to describe how personal orientations and perceived interpersonal behaviours impact athletes' intrinsic and self-determined types of motivation.

Guided by interdependence theory (Kelley & Thibaut, 1978), Jowett and colleagues (Jowett, 2007; Jowett & Cockerill, 2002; Jowett & Meek, 2000) proposed the 3 + 1Cs model (closeness, commitment, complementarity, and co-orientation) and its accompanied Coach–Athlete Relationship Questionnaires (e.g., short version: Jowett & Ntoumanis, 2004; long version: Rhind & Jowett, 2010) to explain and measure positive aspects of the quality of the coach–athlete relationship. In addition, Jowett and her colleagues (Jowett, 2009; Shanmugam, Jowett, & Meyer, 2011) validated a modified version of the Quality of Relationships Inventory (QRI; Pierce, Sarason, Sarason, Solky-Butzel, & Nagle, 1997) in addition to the CART-Q to assess broader positive and negative aspects of coach–athlete relationship quality. The QRI contains two positive aspects – social support (i.e., perceived provisions of support) and relational depth (i.e., perceived significance of relationships) – as well as one negative aspect – interpersonal conflict

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(i.e., expressions of anger and uncertainty that accompany conflict). The three subscales of the QRI are central to the present study.

The development of conceptual models that delineate the phenomenon of the coach–athlete relationship and the validation of psychometric instruments has supplied researchers with the tools to conduct research in an area that has practical significance for coaches, athletes, and psychology consultants, to name a few. Over the past decade, concerted focus has been placed on exploring the correlates of the quality of the coach–athlete relationship, and whilst this research has been forthcoming, research focusing on the effects of personality (antecedents) has been extremely scarce. With that in mind, we (Davis & Jowett, 2010, 2013a, 2013b) recently discussed and examined the applications of Bowlby's (1969/1982) attachment theory to the study of the complex social bonds that underline coaches' and athletes' interactions. Attachment theory is a theoretical framework that promotes a better understanding of the role of individual differences in developing social bonds in various relational contexts including romantic/marital relationships, friendship relationships, and leader–employee relationships (see Mikulincer & Shaver, 2007 for a review). In a similar vein, guided by the postulates of attachment theory, we proposed and validated a psychometric tool known as the Coach–Athlete Attachment Scale (CAAS; Davis & Jowett, 2013b) with the aim to promote a better understanding of the role of individual differences in the form of attachment styles within the coach–athlete relationship context. The purpose of this article was to investigate the linear associations purported in sport psychology (e.g., Jowett & Poczwardowski, 2007) and the broader social psychology literature (e.g., Mikulincer & Shaver, 2007) between attachment styles, relationship quality, and well-being whilst employing our recently validated CAAS. The section that follows provides a brief overview of attachment theory.

Basic tenets of attachment theory

According to Bowlby (1969/1982), all human beings are born with a biologically programmed system that motivates them to form close emotional bonds, or attachments, with a person who is able to act as a *secure base* (i.e., from which one explores and engages in autonomous activities), a *safe haven* (i.e., for comfort or protection during times of need), and a target for *proximity maintenance* (e.g., is close when needed). Beginning in infancy, caregivers are considered to be primary attachment figures and often include parents or any extra-familial persons. According to Ainsworth, Blehar, Waters, and Wall (1978), during infancy the type of attachment developed is thought to be dependent upon the nature of their attachment figures' interactions with them. Ainsworth et al. (1978) were able to establish that when attachment figures were consistently available, attentive, and responsive to their infants' attachment needs, the infant would develop a *secure* attachment pattern. Furthermore, it was evident that this allowed the infant to develop a perception that they were able to rely on their primary caregiver for comfort, reassurance, and protection, allowing them to feel close, safe, and explorative.

Furthermore, Ainsworth et al. (1978) put forward that in cases where the attachment figure is inconsistent or provides limited responsiveness to attachment needs, the infant develops an *anxious-ambivalent* attachment style. It was evident that this resulted in the perception that they were unable to rely on their primary attachment figure for comfort, reassurance, and protection, resulting in negative feelings of closeness and safety and a less explorative child. Finally, infants were classified as having an *avoidant* attachment style when it was evidenced that interactions with their attachment figures were continuously neglectful and rejecting (Ainsworth et al. 1978). Thus, infants with an *avoidant* attachment style did not seem to expect comfort, reassurance, and protection during times of need by their attachment figures, resulting in negative feelings of closeness and relationship dependency.

Fundamental to these attachment styles is the concept of internal working models (IWMs) of self and others (Bowlby, 1988). These IWMs develop in response to experiences with early attachment figures. Those who are *securely* attached tend to have positive IWMs of the self, as they feel worthy of the love and attention they receive and of their attachment figure as they perceive them to be available and responsive. Those who are *insecurely* attached tend to hold negative IWMs of the self as they feel unworthy of the love and affection they (may) receive and of the attachment figure as they perceive them to be unavailable and unresponsive. It has been explained that as individuals grow and develop, these models of the self and of the attachment figure ostensibly guide patterns of cognition, affect, and behaviour in subsequent adolescence and adult attachment relationships (Bowlby, 1973, 1979, 1988).

Attachment styles are a fundamental part of our personality and whilst some researchers believe personality is encoded in our genes and impossible to change (i.e., fixed), there is a wealth of research that supports certain personality factors as being malleable to change over the lifespan by shaped experiences (John, Robins, & Pervin, 2010; Roberts, Walton, & Viechtbauer, 2006). A basic premise of

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attachment theory is that IWMs of attachment remain relatively stable across the lifespan. However, while a person's IWM can influence how one engages in relationships, a number of studies have supported the idea that a person's IWMs are open to revision in light of important relationship experiences and changing life circumstances, across the lifespan (Hamilton, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). Bowlby (1969/1982) hypothesised that during adolescence and adulthood, "other adults may come to assume an importance equal to or greater than that of parents" (p. 207). Parents are not relinquished as attachment figures, or become unimportant, it is simply that normative developmental processes entail changes in the meaning and functioning of these relationships (Collins, 1996), allowing for the formation of affectional ties to significant others. In particular, these significant others have since been extended to other forms of adolescent and adulthood relationships, including romantic and marital (Collins & Read, 1990; Hazan & Shaver, 1987), educational (Riley, 2011), therapeutic (Parish & Eagle, 2003), friendship (Granot & Mayseless, 2001), and organisational relationships (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007).

Hazan and Shaver (1987) were the first to apply attachment theory to adult relationships. They believed that romantic love followed the same basic tenets and parallel measures of infant–parental attachment. Hazan and Shaver found that the same three attachment styles that characterised childhood bonds with parents also characterised adult romantic relationships. This study opened up a major paradigm of research, which has since grown immensely both in conceptualisation and in measurement (see Mikulincer & Shaver, 2007). In adult attachment theory, attachment styles are considered individual differences in styles of relating (see Mikulincer & Shaver, 2007). The *avoidant* attachment dimension emphasises a discomfort with closeness and distrust in their partner's good intentions by remaining behaviourally independent and emotionally distant. The *anxiety* attachment dimension emphasises anger about separations and fear of abandonment and reflects the extent to which people worry about the availability and supportiveness of their partner during times of need. *Security* in adulthood emphasises a comfort with closeness and dependency and perceptions that their relationship partner will be emotionally available and supportive during times of need (see also Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987). However, at this stage, it is important to emphasise that as Weiss (1991) noted, "not all pair bonds, relationships of adults and their parents, relationships of patients to therapists, and parental relationships are attachments, nor is it impossible for friendships, work relationships, or kin ties to be attachments. Moreover, some of these relationships are likely to be attachments, others unlikely. The question is whether the relationship displays attachment properties" (p. 67). That is whether or not the attachment figure within the relationship displays (a) a *safe haven*, (b) a target for *proximity maintenance*, and (c) a *secure base*.

According to attachment theory, security is a basic human need and is associated with a healthy and fully functional individual. Over the years, researchers have supplied evidence to support these links. Overall, research would seem to suggest that interactions with available and supportive attachment figures that impart a sense of security lead their relationship partners to experience positive thoughts and feelings towards their relationship, such as feeing supported, committed, satisfied, and relatively free of hostility and conflict (e.g., Collins & Read, 1990; Mikulincer & Shaver, 2007; Simpson, 1990). In contrast, individuals high in attachment anxiety and avoidance typically experience dysfunctional thoughts and feelings towards their relationships, which lead them to become unsatisfied, less committed within their relationship, and more hostile (Collins & Read, 1990; Feeney, 2002; Mikulincer & Shaver, 2007). Collectively, this evidence highlights how attachment styles can contribute significantly to understanding why close personal relationships vary in quality.

Seligman and Csikszentmihalyi (2000) have explained that well-being is a term that people experience as happiness. Furthermore, well-being has been considered to include the presence of PA and the absence of NA (Seligman & Csikszentmihalyi, 2000). PA represents the degree to which a person experiences pleasurable engagement with the environment and incorporates emotions such as enthusiasm, excitement, happiness, and alertness, amongst others, whereas NA represents a person's disposition to experience aversive emotional states such as feeling upset, irritable, and disinterested, amongst others (Watson & Clark, 1984). The link between adult attachment styles and well-being, as a proxy to healthy and functional individuals, has been supported by a number of studies (e.g., Ling, Jiang, & Xia, 2008; Torquati & Raffaelli, 2004; Van Buren & Cooley, 2002; Wearden, Lamberton, Crook, & Walsh, 2005; Wei, Liao, Ku, & Shaffer, 2011). However, to our knowledge, there has been no research that has examined the associations between an individual's attachment style and relationship quality and subjective well-being in sport psychology literature.

The present study

Our research and the research of our colleagues that has been guided by attachment theory have aimed to

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address (a) parent–athlete attachment bonds (Carr, 2009a; Felton & Jowett, 2013; Forrest, 2008; Shanmugam et al., 2011), (b) coach–athlete attachment bonds (Davis & Jowett, 2010, 2013a; Shanmugam et al., 2011), and (c) sport friendships as attachment bonds (Carr, 2009b; Carr & Fitzpatrick, 2011; Shanmugam et al., 2011). Overall, this research demonstrates the promise of attachment theory as a framework for investigating individual differences as these relate to important intrapersonal (e.g., attention, concentration, motivation, and performance) and interpersonal (e.g., relationship quality, leadership, team cohesion, and collective efficacy) variables as well as well-being within the context of sport and exercise.

Research has presented evidence to show that similarly to parents, teachers, and organisational leaders, effective coaches can represent a "stronger and wiser" attachment figure. For example, effective coaches are those who are responsive to their athletes' needs, provide advice and guidance, and support their athletes' autonomy (Lyle, 2002). Sports coaches encourage new skills and challenges, even in the face of adversity, and provide a platform for growth and development (Lyle, 2002). As a result of these findings, we argued that a sports coach is capable of fulfilling the three basic attachment functions (i.e., a target for proximity, a safe haven, and a secure base) during times of need, and through a series of studies (Davis & Jowett, 2010, 2013a), we found that coaches were viewed by their athletes as a person who is likely to provide a source of comfort and security during times of need and a person who is likely to provide a sound platform from which athletes can explore autonomously. In addition, coaches were also viewed as a person who is likely to create a sense of proximity between themselves and their athletes and thus enable athletes to seek support and comfort with their coaches should they encounter difficulties with sport or indeed with any other domain in their life (e.g., school, work, and family).

Based on this initial evidence that a sports coach is capable of fulfilling the role of an attachment figure, we investigated the way in which athletes' and coaches' individual differences in terms of their attachment styles were associated with perceptions of relationship quality as well as indices of well-being (Davis & Jowett, 2010, 2013a). In these studies, we found that insecure attachment styles were negatively associated with positive aspects of relationship quality (e.g., closeness, commitment, and complementarity) as well as indices of well-being (e.g., relationship and sport satisfaction). Overall, our findings from these two studies suggest that insecure attachment styles potentially present athletes and coaches with greater levels of relationship dysfunctionality, which may be reflected in the ways they interact with each other and engage in sport. Furthermore, our research and the research of others have demonstrated that attachment styles associate with relationship quality and well-being (e.g., Davis & Jowett, 2010; Torquati & Raffaelli, 2004; Wearden et al., 2005). However, our evidence remains limited as this relates to the manner in which these variables are linearly associated. Jowett and Poczwardowski (2007) hypothesised in their integrated research model that personality such as attachment styles may impact on the quality of the relationship and in turn relationship quality may impact on outcomes such as athletes' well-being. Thus, the aim of the present study was to extend our previous findings and investigate the linear associations of athletes' attachment styles (i.e., secure, avoidant, and anxious) to influence the quality of the coach–athlete relationship (i.e., in terms of support, depth, and conflict) and in turn explore the potential influence of these positive and negative relationship quality aspects on athletes' subjective well-being (e.g., PA and NA). SEM was employed to examine the following two hypotheses:

Hypothesis 1 (H1): Athletes insecure attachment styles of anxiety and avoidance would be associated with lower perceptions of social support and depth and higher levels of conflict, whilst attachment security would be associated with higher levels of social support and depth and lower levels of conflict.

Hypothesis 2 (H2): Positive aspects of the quality of the relationship, namely support and depth, would be associated with higher levels of positive affect and lower levels of negative affect, whilst negative aspects of the quality of the relationship, namely conflict, would be associated with lower levels of positive affect and higher levels of negative affect.

Methods

Participants

Data were obtained from 192 athletes, of which 122 (65.5%) were males and 70 (35.5%) were females. Athletes' ages ranged from 16 to 32 years (M_{age} = 20.14, s = 2.66). Athletes were recruited for participation from a variety of both individual 390 and team sports (e.g., netball, football, volleyball, basketball, tennis, ice skating, gymnastics, and swimming), had been involved with their sport for an average of 8.95 years (s = 4.59), reported an average coach–athlete relationship length of 2.83 years (s = 3.40), and spent a mean number of 8.62 hours (s = 6.96) in training each week. Furthermore, the sample of athletes represented their sports at various levels of performance including university (14.6%), club (31.8%), regional (22.9%), national (17.2%), and international (12.9%).

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Measures

Coach–Athlete Attachment Scale (Davis & Jowett, 2013b). The CASS contains 19 items and is designed to measure athlete's secure and insecure attachment styles. Specifically, 7 items measure athletes avoidant attachment style (e.g., I do not turn to my coach for reassurance), 7 items measure athletes anxious attachment style (e.g., I worry that I won't fulfil my coaches' expectations), and 5 items measure a secure attachment style (e.g., I know I can rely on my coach). Athletes were asked to indicate the extent to which they agreed with each statement on a 7-point scale ranging from 1 (*strongly disagree*) through to 7 (*strongly agree*) and relevant to how they feel towards their principal sports coach. Davis and Jowett (2013b) have provided sound psychometric properties of validity and reliability.[1]

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS consists of two 10-item scales, one to assess PA and the other to assess NA. The PA scale includes terms such as "interested", "excited", and "determined", while the NA scale contains items such as "afraid", "distressed", and "nervous". Participants were asked to indicate the degree to which they had felt either positive or negative on a scale ranging from 1 ("not at all") to 5 ("extremely"). Scores on each dimension ranged from 10 to 50. Watson et al. (1988) have reported satisfactory psychometric properties of validity and reliability. The PANAS has been utilised in numerous sport-related research (McCarthy, 2011; Robazza, Bortoli, Nocini, Moser, & Arslan, 2000) and findings have provided psychometric support for the instrument within this context.

The Quality of Relationships Inventory (sport version; Jowett, 2009). The 25-item QRI was originally developed to assess the quality of different personal and social relationships (Pierce et al., 1997). The sport version of the original QRI contains 18 items and represents the quality of the coach–athlete relationship along three dimensions, namely social support defined as the support supplied within the social environment (e.g., "To what extent could you turn to your coach for advice about problems?"), depth defined as the importance placed on the relationship (e.g., "How positive a role does your coach play in your sporting life?"), and conflict defined as the feelings of anger and ambivalence that follows interpersonal conflict (e.g., "How often do you need to work hard to avoid conflict with your coach?"). Each dimension contains 6 items and athletes were asked to respond to each question, on a response scale that ranged from 1 ("Not at all") to 7 ("very much"). The 18 items contained in the sport version of the QRI have demonstrated satisfactory reliability and validity (Jowett, 2009; Jowett & Cramer, 2010).

Procedures

Once the authors' institution granted ethical approval for the proposed study, athletes were recruited in the following ways. Firstly, sports clubs were contacted via a letter or an email and follow-up phone calls when necessary, explaining the purpose and nature of the study while asking for athletes' participation in the study. The first author visited the sports clubs that agreed to participate and explained to the athletes the purpose and voluntary nature as well as confidentiality of the study. On gaining their consent, athletes were administered a multi-section questionnaire that contained demographic information (e.g., age, gender, and sport level), the CAAS (Davis & Jowett, 2013b), PANAS (Watson et al., 1988), and the QRI (Jowett, 2009). Secondly, sports science students were approached at the beginning of a sports science lecture and were informed of the purpose and nature of the study. Students were then asked to participate but only if they were currently representing their sport at university level and above and were coached by a qualified coach. After obtaining informed consent, the multi-section questionnaire was administered at the end of a lecture. Completion of the questionnaire lasted no longer than 15 min.

Data analysis

Descriptive statistics and bivariate correlations were performed. SEM using EQS 6.1 (Bentler & Wu, 2005) was employed to examine the conceptually driven linear associations between attachment styles, relationship quality, and well-being. Goodness of fit

[1]Due to being recent, the Coach–Athlete Attachment Scale (CAAS) was subjected to confirmatory factor analysis (CFA) to ensure its sound psychometric properties with the sample of the present study. Due to Mardia's multivariate kurtosis coefficient being relatively high, indicating non-normality in the data, robust maximum likelihood (ML) method was utilised to test the theoretically meaningful first-order three-factor model whereby the three attachment styles were contained. Results revealed an adequate model fit for the 19 item three-dimensional CAAS (SRMR = 0.07, RMSEA = 0.06, RCFI = 0.92, RNNFI = 0.91(χ^2 (171) = 1827, $P < 0.01$). The correlation between the avoidant and anxious was 0.16 supporting the orthogonal nature of the insecure attachment styles (see Mikulincer & Shaver, 2007) and the avoidant and secure −0.42 and anxious and secure −0.39. Standardised factor loadings, error variances, and R^2 for the 7 avoidant items, 7 anxious items, and 5 secure items are available from the first author. This additional evidence supports the psychometric properties of the CAAS and highlights its potential utility in research.

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indices including the Standardized Root Mean square Residual (SRMR), the Comparative Fit Index (CFI), the Bentler–Bonnet Non-Normed Fit Index (NNFI), and the Root Mean Square Error of Approximation (RMSEA) were chosen to assess the adequacy of both the structural models. Cut-off criteria were based on recommendations made by Hu and Bentler (1999) and Marsh (2007). According to Hu and Bentler (1995), CFI and NNFI scores that are equal to or above 0.90 as well as RMSEA and SRMR with values less than 0.08 (Hu & Bentler, 1999) reflect models that fit the data well.

Results

Descriptive statistics

Table I presents means, standard deviations, alpha coefficients, and bivariate correlations of all variables under investigation. Athletes, on average, reported relatively low to moderate levels of attachment anxiety and avoidance and relatively high levels of attachment security. Furthermore, athletes reported to experience relatively moderate to high levels of perceived social support and relationship depth and reported lower levels of relationship conflict. Finally, athletes reported relatively high levels of PA and low levels of NA. Bivariate correlations indicated significant associations between the three attachment styles and social support, depth, and conflict and between support, depth, and conflict and PA and NA. Cronbach scores were satisfactory and above the recommended criterion value of 0.70 (see Nunnally, 1978).

Attachment styles → relationship quality → well-being

SEM analysis was utilised and robust maximum likelihood method employed due to Mardia's multivariate kurtosis coefficient being relatively high, indicating non-normality in the data. Furthermore, as the recommended sample size to ratio of estimated parameters was not met for this analysis (10:1; see Bryne, 2006), item parcelling was conducted to meet the recommended ratio of participants to observed variables (Bandalos & Finney, 2001; Little, Cunningham, Shahar, & Widaman, 2002). Construct parcels were created for each scale. For the ECR scale, a total of 3 parcels for each of the 7-item avoidance and anxiety dimensions were formed and 2 parcels for the 5-item security dimension. For the QRI scale, a total of 3 parcels for each of the 6-item social support, depth, and conflict subscales were formed as well as a total of 3 parcels for each of the 10-item PA and NA subscales of the PANAS. Within this procedure, every 3 items within each dimension were averaged together to form a composite parcel. With this procedure of item parcelling, a latent factor model using indicator variables was possible. The structural model demonstrated a satisfactory model fit: SRMR = 0.07; RMSEA = 0.04; RCFI = 0.96; RNNFI = 0.95 (χ^2 (253) = 2268, $P < 0.01$). Perceptions of social support, depth, and conflict were significantly predicted by athletes' avoidant and secure attachment style with 81% of the variance associated with athletes perception of support, 78% associated with perceptions of depth, and 32% associated with perceptions of conflict, respectively. Perceptions of support, depth, and conflict were not significantly accounted for by athletes' anxious attachment style. Furthermore, perceptions of interpersonal conflict were the only predictor of athletes' PA and NA. Athlete's perceptions of conflict within the relationship accounted for 17% of the variance in PA and 10% in NA. Figure 1 presents the significance and magnitude of the paths.

Discussion

The main purpose of the present study was to examine the purported linear associations between attachment styles, relationship quality, and subjective well-being in the coach–athlete relational context. The first hypothesis (H1) of this study was partially supported. The analysis from the SEM indicated that while anxious attachment style did not predict any

Table I. Descriptive statistics, alpha coefficients, and bivariate correlations for all main variables under investigation.

Variables	*M*	SD	*A*	1	2	3	4	5	6	7	8
Athlete variables											
1. Avoidant attachment	3.97	1.44	0.90	–							
2. Anxious attachment	2.10	1.11	0.87	0.17	–						
3. Secure attachment	5.12	1.35	0.89	−0.39**	−36**	–					
4. Support	4.65	1.24	0.86	−0.65**	−0.21**	0.62**	–				
5. Depth	4.38	1.26	0.88	−0.67**	0.18*	0.58**	0.79**	–			
6. Conflict	2.50	1.00	0.77	−0.20**	−0.27**	0.34**	0.25**	−0.23**	–		
7. Positive affect	4.05	0.64	0.89	−0.20**	−0.25**	0.37**	0.28**	0.26**	−0.25**	–	
8. Negative affect	1.92	0.64	0.83	−0.06	0.17*	−0.13	−0.92	−0.11	0.23**	−0.01	–

Note: **P significant at 0.01; *P significant at 0.05.

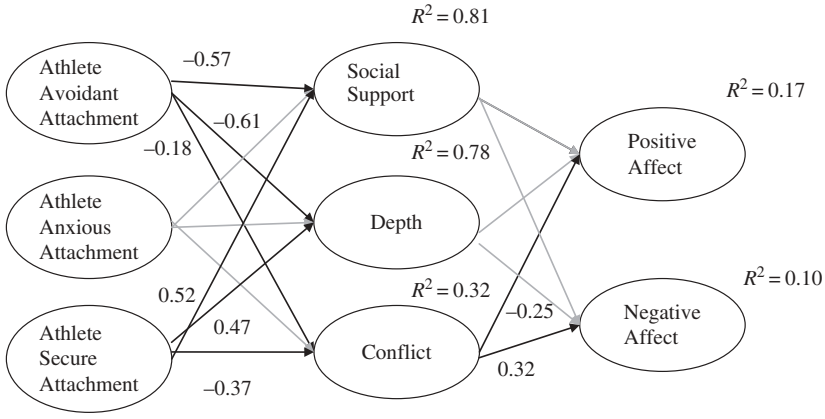


Figure 1. SEM model. The effects of athlete's attachment styles on the relationship quality dimensions of social support, depth, and conflict and in turn its effects on positive and negative affect. Faded lines represent insignificant paths.

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relationship quality variable, security with secure attachment styles predicted social support, relationship depth, and interpersonal conflict. In contrast to the links found between anxious attachment styles and relationship quality as well as indicators of well-being in the broader psychological literature (see Collins & Read, 1990; Mikulincer & Shaver, 2007), the lack of association between anxious attachment style and relationship quality is consistent with our previous findings (see Davis & Jowett, 2013a; Felton & Jowett, 2013); yet this finding remains puzzling. Felton and Jowett (2013) found that athletes with anxious attachment styles did not satisfy basic psychological needs within the coach–athlete relationship but they did within the parent–child/athlete relationship. It was argued that coaches may not have the time and continuous effort and energy demanded by anxious attached athletes to show their positive intentions, supportiveness, closeness, and commitment (Felton & Jowett, 2013). These findings may highlight that athletes with an anxious attachment style may be self-aware of the demands imposed on their coaches and thus may not allow their attachment style (neediness and clinginess) to get in the way and thus impede (or indeed facilitate for that matter) the quality of the coach–athlete relationship.

However, the findings did reveal that athletes with an avoidant attachment style are more likely to perceive lower levels of support from the coach and to perceive the coach–athlete relationship as less important. Individuals with avoidant attachment styles have been found to be generally dissatisfied with the quality of their relationship as this is reflected in the low levels of interdependence and commitment experienced with their partners (Rholes, Simpson, Campbell, & Grich, 2001; Simpson, 1990; see also Mikulincer & Shaver, 2007). Our findings also highlight that avoidant athletes whose attachment style is characterised by a preference for emotional distance as well as independence and self-reliance are also less likely to experience conflict with the coach. It is unclear whether this finding indicates that avoidant athletes because of being more disconnected, distant, and independent from their coaches have fewer chances to experience conflict (after all relationships that are more interdependent are more likely to experience conflict due to the continuous give and take; Braiker & Kelley, 1979) or whether it indicates a tendency to downplay the significance of conflict when it arises (Pistole & Arricale, 2003). With the latter explanation in mind, although conflict may signal instability in the relationship, avoidant athletes may not be especially concerned as for them there is very little at stake (resolving conflict and rescuing the relationship is not a priority to them as they do not value the relationship anyway). Taken together, the findings related to insecure attachment styles within the context of sport suggest that attachment anxiety may not be as a potent factor as attachment avoidant in shaping the quality of the coach–athlete relationship. Although coach–athlete relationships characterised by respect, trust, appreciation, and a general sense of interdependence have been viewed as a key feature of effective and successful coaching (Cote, 2002; Jowett, 2005; Lyle, 2002), the findings of this study speak to the practical significance of such a key relationship for insecurely attached athletes. Specifically, athletes with an avoidant attachment style value independence and self-reliance and thus they may find it especially difficult to interact in a manner that requires them to depend and rely on their coaches for support, guidance, instruction, and advice. Thus, coaches may have to deliberately create situations that provide opportunities to connect with the athlete and create an environment that is genuinely and constantly nurturing, supportive, and caring. Over time, avoidant attached athletes may realise the positive aspects of relating and the pleasures of communicating and working with others without the fear of being isolated or neglected as perhaps other significant

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others (e.g., carers and parents) may had done in their formative years. More investigation to substantiate this conjecture and its implications for skill development and performance success is warranted.

The findings from SEM analysis for the first hypothesis (H1) further highlighted that secure athletes, athletes who are comfortable with emotional closeness and interdependence, perceive that coaches are available to provide support, value the importance of the coach–athlete relationship, and experience less interpersonal conflict. This is consistent with attachment theory-based predictions that postulate that people with a secure attachment style are more likely to perceive positively the availability of support because they have had a history of reassuring and supportive interactions that assist in the development of positive working models of self (value themselves) and others (value others) (Mallinckrodt & Wei, 2005; Meyers & Landsberger, 2002). This finding is consistent with our earlier studies that has shown that secure attachment (or low levels of insecure attachment) associates with positive indexes of relationship quality such as affective closeness (trust and respect) and commitment (Davis & Jowett, 2013a) as well as relationship satisfaction (Davis & Jowett, 2010). Moreover, the findings of this study highlighted that athletes with a secure attachment style are less likely to experience conflict. One reason for this may be that these athletes within their supportive and valued interpersonal environments have developed the capacity to use constructive resolution skills or relationship enhancement strategies that help them resolve conflictual issues while developing and maintaining effective and successful relationships (cf. Feeney, Noller, & Callan, 1994; Pistole & Arricale, 2003). From a practical perspective, when a coach–athlete relationship is in "crisis", sport psychology consultants may wish to identify the relationship members' attachment styles and their patterns of relating to work with coaches and their athletes towards increasing responsiveness and supportiveness especially as this relates to athletes' attachment needs. Furthermore, it is important to highlight that although an avoidant athlete may appear distant or apparently disinterested when interacting with their coach, this is not necessarily a sign of indifference for their sport, withdrawal of effort, or a lack of ability. Over time, increasing and consistent availability and responsiveness may help athletes update their IWMs so that they begin to value themselves and others more positively (positive IWM); this in turn may help develop more interdependent coach–athlete relationships. Experiences in relationships with available and supportive attachment figures may potentially help revise early IWMs that lead to positive change and "felt security" for those whose IWMs have previously lead to scepticism and doubt towards their relationship partner's support, availability, and responsiveness (Feeney et al., 1994; Senchak & Leonard, 1992; Waters et al., 2000). Future longitudinal and experimental research would best inform interventions that aim to alter IWMs.

In regard to our second hypothesis (H2), the findings suggest that only interpersonal conflict was associated with athletes' perceptions of well-being. It would appear that low levels of interpersonal conflict are more likely to be related to feelings of PA (i.e., vitality, energy, excitement, and enthusiasm), while high levels of interpersonal conflict are more likely to be related to feelings of NA (i.e., tiredness, upset, irritability, and hostility). Fredrickson's (2001) "broaden and build" cycle of positive emotion can be a useful framework to explain the positive links found between athletes' security attachment and PA. A coach who is a sensitive and responsive provider of support and reassurance allows the athletes to "broaden" their viewpoints by making them part of their own sporting attitudes and endeavours and in turn allows athletes to "build" quality relationships or connections with the coaches who are capable of generating positive emotions including interest, excitement, happiness, and zeal.

To date, there has been very little research that has examined the impact of athletes' and coaches' individual difference characteristics on the effectiveness of coaching, the quality of the coach–athlete relationship, and in gauging athletes' well-being. From a practical perspective, it would appear from the findings that it is of great value to identify, resolve, and monitor interpersonal conflict within the coach–athlete dyad. Interpersonal conflict can potentially lead to uninterested, unhappy, and sluggish athletes (i.e., experiencing and perceiving NA). In contrast, athletes who are happy and thus experience and perceive PA may have much better chances to operate effectively within a highly pressurised, performance-oriented environment (McCarthy, 2011). Research has highlighted the devastating effects of interpersonal conflict (e.g., lack of communication, distrust, discrepant goals, unclear roles, and power struggles) on athletes' performance (Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999; Greenleaf, Gould, & Dieffenbach, 2001; Jowett, 2003). The athlete version and the coach version of the CAAS both provide an assessment tool that sport psychology consultants, coaches, and athletes could potentially use to assess athletes' and coaches' attachment styles; this may be of particular interest when a coach–athlete dyad are experiencing interpersonal conflict or when an athlete is showing a lack of interest or dissatisfaction towards their coach or sport.

The findings of the present study highlight the significance of attachment avoidance in relationship functioning as well as on indices of athletes' subjective well-being. Sport psychology consultants could utilise the CAAS to assess insecure attachment styles and assist athletes and coaches develop more secure attachment strategies by a "broaden and build" cycle of attachment security and reconstructing negative IWM's of self and other. Nonetheless, interpersonal conflict remains an uncharted territory and thus research that aims to uncover the nature as well as antecedents and consequences of interpersonal conflict within the coach–athlete relationship is much needed.

While this research supplies knowledge and understanding, several limitations are worthy our attention. First, the CASS was cross-validated with a sample of adult athletes, limiting its utility with younger age groups. The CASS should also be validated with adolescent athletes in mind because attachment functions tend to transfer from parents to other significant figures at the end of childhood and into adolescence (Weiss, 1991). Second, the present study did not measure athletes' perceptions of whether or not their coach fulfilled the three main functions of attachment (i.e., a target for proximity, secure base, and safe haven). As a result, we are not absolutely certain that all coach–athlete relationships were in fact attachment relationships. This is a limitation that is inherent across the majority of studies investigating context-specific attachment figures within the social psychology literature. That said, within the current context, future researchers might want to consider the measurement of attachment functions when designing their studies. Third, the current study is based on a cross-sectional design limiting inferences related to the directionality and causality of the effects between athletes' attachment styles and relationship quality (i.e., support, depth, and conflict), as well as relationship quality and well-being (i.e., PA and NA). Subsequently, future research should consider experimental and longitudinal designs to examine the directionality and bidirectionality of such effects. Furthermore, longitudinal research may be useful in helping to determine the role of coaches'/athletes' attachment styles in predicting changes in athletes'/coaches' perception of relationship quality and well-being over time and through transitional periods (e.g., burnout, injury, and competition versus preparation).

To sum up, the present findings highlight that the relationship quality may be affected by athletes' attachment styles. Furthermore, interpersonal conflict emerged as a process is likely to influence athletes' feelings of positivity or negativity. The occurrence and impact of interpersonal conflict has been highlighted in the literature and although conflict may be inevitable in coach–athlete dyads like in any type of two-person relationship, this study emphasises that a better understanding of its content and nature as well as causes and consequences is more important than ever to explore in future research. Moreover, a better understanding of conflict management could provide a resource that allows athletes (and coaches) to enhance the quality of their sporting relationships and thus increase its functions as these relate to performance and satisfaction.

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