

Coping and Psychological Distress in Elite Adolescent Soccer Players Following Professional Academy Deselection

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The current study explored the association between three categories of coping (problem focused coping, emotion focused coping and avoidance coping) and psychological distress in elite adolescent soccer players following professional academy deselection. Data regarding trait and specific coping was collected from 21 deselected players who completed the Brief COPE and General Health Questionnaire-12 at three time-points: 7-14 days before selection procedures (MT1), 7 days after (MT2), and 21 days after (MT3). A significant positive correlation between trait and specific avoidance and psychological distress at MT2 and MT3 was found. In addition, a significant negative correlation between trait problem focused coping and psychological distress was found at MT2. Other hypothesized associations were not found, however. The research, therefore, provides evidence that some coping strategies are associated with psychological distress in the first month following deselection from a professional soccer club. Clinical implications and recommendations for future research are discussed.

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Comparable to elite athletes from other sport disciplines, elite soccer players have been found to experience heterogeneous reactions and outcomes following being released/deselected from professional clubs. For example, while some players have reported increased psychological well-being (e.g., increased relaxation and enjoyment of life; Brown & Potrac, 2009), other players have been found to experience reduced transition quality. Examples of reduced transition quality found in media reports and empirical research include players needing a longer period of time to adjust to a post-soccer life, reduced well-being (e.g., having no purpose) and experiencing various forms of psychological distress such as anxiety, depression, humiliation, reduced self-worth, identity confusion, social dysfunction, and suicide (Blakelock, 2018; Blakelock, Chen & Prescott, 2016; Brown & Potrac, 2009; Conn, 2017).

Considering the heterogeneous outcomes following deselection and the notion that adverse outcomes are associated with decrements to health and well-being and social dysfunction (Moussavi, Chatterji, Verdes, Tandon, Patel & Ustun, 2007; Wells et al., 1989), there is a need to understand what (and how) factors may influence transition quality and outcomes following release/deselection in elite soccer players. Moreover, as it is considered rare for soccer players to restore their elite careers following release/deselection (Brown & Potrac, 2009), it is proposed that released/deselected players are faced with a realistic possibility that their elite playing careers and associated goals will be lost, harmed or threatened. This may consequently represent a critical life event or transition for some players and it is important to understand factors that may influence players' outcomes across time.

While some useful ideas may be drawn from existing theoretical frameworks (e.g., Taylor & Ogilvie, 1994) and research with other athletic populations when considering what influences outcomes following career termination (e.g., Park, Lavalley & Tod, 2012), a recent developing grounded theory constructed by Blakelock (2018) identified that a range of multi-dimensional factors influenced outcomes and transition quality following elite soccer career termination. Examples included (i) the nature and characteristics of career termination (e.g., voluntariness, choice and control, expectancy), (ii) individual characteristics, resources, activity, and processing, (iii) social resources, support, and activity, (iv) lifespan and developmental factors, (v) environmental, contextual, cultural, and locational factors, and (vi) institutional, organizational, professional support, and resources.

Although the developing grounded theory provided a useful insight into the range of multi-dimensional factors associated with outcomes, there remains a need to determine the nature and magnitude of influence that various factors can have on outcomes following deselection across individuals and time. The current study examined the role of coping and whether certain forms of coping were associated with adolescent players' experience of psy-

chological distress following deselection. The role of coping is considered to be pertinent for two reasons. Firstly, an understanding of coping responses and strategies that are associated with reducing or increasing the risk of psychological distress could be beneficial for players, practitioners, and clubs/organizations. Indeed, such understanding may lead to players engaging in self-directed actions and practitioners or clubs developing initiatives/interventions, which have the capacity to correct maladaptive coping strategies, facilitate adaptive coping responses, and enhance outcomes.

Secondly, research has identified that coping is associated with adjustment and transition quality both outside of and within sport/soccer. For example, meta-analyses examining associations between coping and adjustment to stressors within the general population have been found to have small to moderate effect sizes (Clarke, 2006; Penley, Tomaka & Wiebe, 2002). In addition, within soccer, various coping strategies were found to be associated with several post-soccer career outcomes such as psychological distress and mental health, physical health, fitness and condition and quality of life (e.g., Blakelock, 2018). These findings consequently suggest that coping is a salient factor that is worthy of investigation when examining what influences outcomes in elite adolescent soccer players following release/deselection.

An abundance of definitions and explanations of coping exist within the scientific literature. Within sport, the most dominant conceptualizations of coping involve trait and process/transactional perspectives (Nicholls & Polman, 2007). The trait or dispositional approach proposes that individuals do not approach each coping context anew, rather, they bring a preferred pattern of coping strategies that remain stable and consistent across time and circumstances (Carver, Scheier & Weintraub, 1989). This conceptualization of coping is considered to represent “personality in action under stress” (Bolger, 1990, p. 525). Conversely, the process or transactional approach proposes that coping with stress is a dynamic and recursive process, which involves interactions between an individual’s internal activity (e.g., beliefs about self, goals, and values) and the external environment when a stressor is encountered (Lazarus, 1999). From this stance, coping has been defined as constantly changing cognitive and behavioral efforts to manage the internal and external demands of situations that are appraised as stressful (Lazarus & Folkman, 1984). The coping process is therefore initiated in response to individual’s (i) primary appraisals regarding what is at stake (e.g., harm, loss, threat associated with goals, values and beliefs, or challenge) and (ii) secondary appraisals regarding what, if anything, can be done to prevent harm or improve the situation.

While several empirical studies have provided support for the transactional model of coping in relation to various stressors (e.g., Anshel, 1996; Anshel, Raviv & Jamieson,

2001; Poczwadowski & Conroy, 2002), considering that individuals and athletes can use consistent patterns of coping to deal with stressful situations (Crocker & Isaac, 1997; Panayiotou, Kokkinos & Kapsou, 2014), it is perceived that there may also be merit in measuring trait coping when considering what influences outcomes following elite soccer deselection. Indeed, trait models of coping have received support. For example, in studies with table tennis players and Korean athletes (Krohne & Hindel, 1988; Yoo, 2001), it was found that avoidance coping strategies were consistently used by athletes to cope with stressful situations. Consequently, an increased understanding regarding the influence of trait and transactional coping approaches on outcomes following players' release/deselection from elite soccer may enhance understanding of how individuals successfully adapt to a post-elite soccer career across time.

Elite soccer players can potentially adopt a wide range of coping strategies to manage release/deselection. Within sport, the most widely used coping dimensions encompass problem focused coping, emotion focused coping, and avoidance coping (Nicholls & Polman, 2007). It is perceived that these broad dimensions are useful in that they serve to provide an overall characterization of players' responses to stress. Moreover, research using adolescent participants and soccer players has used and found support for these three macro-level dimensions of coping (e.g., Amiot, Gaudreau & Blanchard, 2004; Kaiseler, Polman & Nicholls, 2012; Reeves, Nicholls & McKenna, 2009; Reeves, Nicholls & McKenna, 2011).

Problem focused coping encompasses strategies that serve to minimize distress by removing the stressor or eliminating the stressor if it cannot be avoided, as well as strategies to diminish the impact of the stressor if it cannot be avoided (Carver & Connor-Smith, 2010; Kaiseler et al., 2012). Such coping is proposed to contribute towards solving problems and transforming the situation by reducing the harm, threat, and loss associated with release/deselection, which in turn reduces psychological distress (Anshel et al., 2001; Carver & Connor-Smith, 2010). Therefore, if a player's contract ended by means of deselection, a player's problem focused coping may involve seeking out trials with other clubs and improving playing performance to increase the likelihood of being offered another professional playing contract with another club. Alternatively, a player may plan or increase involvement in vocational or educational programs to enhance alternative life/career prospects following release. As these strategies may serve to reduce the harm, threat and loss associated with release/deselection, players' stress intensity/distress may also be reduced (Anshel et al., 2001).

A second dimension, emotion focused coping refers to strategies that regulate emotions and minimize distress triggered by stressors such as release/deselection (Carver & Connor-Smith, 2010; Kaiseler et al., 2012). As there are numerous ways to regulate

emotions and reduce distress caused by stressors, such coping might encompass the expression of negative emotions (e.g., venting), self-soothing, seeking out emotional support or reassurance (Carver et al., 1989; Carver & Connor-Smith, 2010). Effective emotion focused coping is perceived to be associated with reducing distress/emotional reactivity (Smith & Kirby, 2009) and increasing tranquility, which in turn can make it more possible to consider the problem calmly and facilitate better problem-focused coping (Carver & Connor-Smith, 2010). Therefore, while emotion focused coping might assist players in reducing distress and emotional reactivity, it may not contribute to solving problems such as the requirement to develop and create an alternative purposeful life following career termination from the elite soccer arena.

A third dimension, avoidance or disengagement coping, represents attempts to escape from the threat, harm, or loss of a situation that is stressful, as well as associated thoughts and emotions (Carver & Connor-Smith, 2010; Krohne, 1993; Nicholls & Polman, 2007). Such coping may also involve an attempt to act as though the deselection does not exist so that it does not have to be reacted to. Examples include cognitive avoidance, behavioral avoidance (e.g., physically removing self from the situation), denial, wishful thinking, and substance abuse (Carver et al., 1989; Carver & Connor-Smith, 2010). While avoidance coping may temporarily be beneficial in distancing an individual from deselection/release, the longer individuals use avoidance strategies, the more intractable problems can become (Carver & Connor-Smith, 2010). Indeed, such strategies do nothing about the existence of harm, threat or loss associated with deselection. Moreover, prolonged use of these strategies may lead to (i) paradoxical increases in intrusive thoughts about deselection and an increase in negative affect and anxiety (Dugas & Robichaud, 2007; Najmi & Wegner, 2008), and (ii) the creation of further problems (e.g., high substance use leading to social and health problems).

Certain dimensions of coping have been found to be associated with influencing adjustment and transition quality outside of sport and in relation to wider athletic career termination and soccer career termination specifically. For example, outside of sport, problem focused and emotion focused coping have typically been found to be associated with enhanced adjustment and mental health in populations coping with a range of stressors such as traumatic events, interpersonal stress and HIV (Clarke, 2006; Littleton, Horsley, John & Nelson, 2007; Moscovitz, Hult, Bussolari & Acree, 2009). In addition, avoidance coping has been found to be associated with adverse outcomes such as increased psychological distress and reduced positive affect in relation to a range of stressors (e.g., Moscovitz et al., 2009; Panayiotou et al., 2014; Roesch et al., 2005).

Within sport, and soccer specifically, several studies have also suggested that these dimensional coping strategies can influence outcomes following career termination and release/deselection. For example, several studies have suggested that (i) various problem and emotion focused coping strategies may enhance outcomes following athletic career termination or release/deselection (Blakelock, 2018; Blæsild & Stelter, 2003; Lally, 2007; Park et al., 2012), and (ii) (prolonged) avoidance coping strategies were associated with increased psychological distress and reduced well-being (Blakelock, 2018). In combination, these findings suggest that coping strategies may influence players' outcomes following deselection and that the hypothesized mechanisms may play a role. Despite these findings, it is salient that no study to date has quantified the association between coping styles and psychological distress in elite adolescent soccer players following deselection.

Therefore, the current study aimed to (a) explore the coping strategies used by elite adolescent soccer players (e.g., trait and specific coping in relation to release/deselection, and (b) determine which coping strategies were associated with psychological distress in the first month following deselection/release. Considering the aforementioned research and proposed mechanisms, the study had three hypotheses. The first hypothesis was that trait/specific avoidance coping will be positively associated with psychological distress at post-selection time-points. The second hypothesis was that trait/specific problem focused will be negatively associated with psychological distress post-deselection. The third hypothesis was that trait/specific emotion focused coping will be negatively associated with psychological distress post-selection.

Method

Design

A single group cohort design was used in this study. A group of participants were identified and followed across time. This group was selected to examine the association between trait and specific coping strategies and psychological distress. Measures were taken at three time points to establish a clear timeline regarding the association between coping and psychological distress.

There was one within subjects independent variable that represented the time period in which questions were completed, namely MT1, MT2, and MT3. There were two dependent variables. The first represented psychological distress and the second represented levels of trait/specific problem focused coping, emotion focused coping, and avoidance/disengagement coping.

Participants

A convenience sample of elite adolescent players ($N = 21$) who were released/de-selected was gained from English and Scottish Premier League and Football League soccer academies during the 2011 to 2012 and 2012 to 2013 seasons. In order to participate in the study, participants were aged 15 to 18, English speaking (i.e., English as a first language or fluent in English), and contracted to a Premier or Football League academy.

Measures

General Health Questionnaire-12 (GHQ-12). The GHQ-12 (Goldberg & Williams, 1988) represented one dependent variable and was used to detect an individual's psychological distress. This measure provides a unidimensional measure of psychological distress in community and non-psychiatric settings that encompasses symptoms indicative of anxiety, depression, loss of confidence, and social dysfunction (Hardy, Shapiro, Haynes & Rick, 1999; Russ et al., 2012).

Higher scores on the GHQ-12 represent greater psychological distress (Russ et al., 2012). Although there are several ways of scoring the GHQ-12 (e.g., modified Likert, simple Likert, GHQ scoring; Goldberg & Williams, 1988), the current study used the GHQ scoring method (i.e., 0-0-1-1), as this method has been found to have the lowest measurement error (Hankins, 2008). The maximum score on this measure was therefore 12 and the minimum score was 0. In accordance with the GHQ scoring method, each participant was asked whether they had experienced a particular symptom or behavior using a four point scale that varied for negative and positive items. For example, for negative items (e.g., lost much sleep over worry), participants selected from *not at all*, *no more than usual*, *rather more than usual*, and *much more than usual*. Conversely, for positive items, (e.g., felt capable of making decisions), participants selected from *much more than usual*, *same as usual*, *less than usual*, and *much less than usual*. In line with the GHQ scoring, for positive and negative items, scores for the first two answers were '0' and '1' for the latter two answers.

A score of 3 or greater was used to indicate clinical levels of psychological distress (i.e., cases). Scores of 2 or less were used to indicate absence of psychological distress (i.e., non-cases). These values were selected on the basis of previous research that evaluated the most accurate threshold to achieve optimum specificity and sensitivity in non-psychiatric settings (Goldberg et al., 1988; Jacob, Bhugra & Mann, 1997; Makowska et al., 2002; Plummer et al., 2000).

The GHQ-12 was selected on the basis of its internal consistency, test-retest reliability, criterion, convergent, and criterion validity (Aalto, Elovaino, Kivimaki, Uutela & Pirkola, 2012; Cano et al., 2001; Hardy et al., 1999). Table 1 shows that the GHQ-12 scoring

method demonstrated good levels of internal consistency at MT1, MT2, and MT3 (Altman, 1991; Nunally, 1978; Streiner & Norman, 2008).

Brief COPE Inventory (Brief COPE). Both trait and specific coping responses were assessed using the Brief COPE Inventory (Carver, 1997). Trait coping strategies (i.e., how individuals usually cope with stressful events) were measured prior to selection procedures and specific deselection strategies were measured at two time points following deselection in order to establish the influence of trait and specific coping strategies on psychological distress. In view of the measurement of both trait and specific coping strategies, changes in the phrasing of response options and orienting instructions were implemented in accordance with Carver (1997).

The Brief COPE has 28 items in both versions of the questionnaire and encompassed 14 different coping scales (i.e., two items per scale). In relation to both trait and specific coping strategies, the Brief COPE uses a four point Likert scale to establish the extent to which particular coping strategies were used: (1) I don't do this at all (trait) or I haven't been doing this at all (specific); (2) I do this a little bit (trait) or I've been doing this a little bit (specific); (3) I do this a medium amount (trait) or I've been doing this a medium amount (specific); (4) I do this a lot (trait) or I've been doing this a lot (specific).

In accordance with (i) the research hypotheses, (ii) conceptual definitions and categorizations of coping in sport (Nicholls & Polman, 2007), and (iii) empirical research that has utilized the Brief COPE and the Modified COPE (Crocker & Graham, 1995) and divided coping into corresponding composite scales with good levels of internal consistency (e.g., Cooper, Katona & Livingston, 2008; Kaiseler et al., 2012; Schnider, Elhai & Gray, 2007), the 14 subscales were grouped into three composite scales. Three of the scales were consequently categorized as problem focused coping (active coping, instrumental support, and planning), seven were categorized as emotion focused coping (venting, positive reframing, humor, acceptance, emotional support, self-blame, and religion), and four were categorized as avoidance coping (self-distraction, denial, behavioral disengagement, and substance use).

The minimum and maximum scores for emotion focused coping were 14 and 56 respectively. The minimum and maximum scores for problem focused coping were 6 and 24 respectively. The minimum and maximum scores for avoidance coping were 8 and 32 respectively. In addition, the minimum scores of 14, 6, and 8, respectively, indicated that the particular domain of coping was not used at all.

This measure was also selected on the basis that it (i) has been used with a variety of populations to evaluate the association between coping and psychological outcomes associated with a range of stressors (Monzani et al., 2015), (ii) fits with the conceptualizations of coping used in the current study (e.g., Lazarus, 1999), and (iii) demonstrated good internal

consistency, test-retest reliability (Cooper et al., 2008; Monhanraj et al., 2015) and construct and concurrent validity (Su et al., 2015; Yusoff, 1994).

Procedure

Ethical approval for the study was granted by the Research and Governance Committee at Teesside University. In order to recruit participants, email and/or telephone contact was made with a number of representatives (e.g., Academy directors, Heads of Youth Development, Education and Welfare staff) from English and Scottish Premier League and Football League soccer academies. Such representatives were selected as it was perceived they may be able to facilitate player access. Each representative received an information sheet about the study. Several national soccer organizations (e.g., The Professional Footballers' Association, League Football Education, The Scottish Football Association, and PFA Scotland) also issued a statement advocating their support for the research.

Once informed consent was received from club representatives regarding player participation, such representatives assisted the researcher in introducing the research to participants. There were three recruitment options. The first option involved club representatives distributing information packs on behalf of the researcher. For players aged 15-17, club representatives distributed or sent these packs to their respective parents or guardians. For players aged 18, club staff distributed or sent the packs to players directly. The second option involved club staff providing access to player or parent contact details. For players aged 15-17, if the players' parent or guardian provided their explicit consent or if players aged 18 provided their explicit consent for the researcher to have access to their contact details, the researcher then sent the player and/or parent information about the research. The third option involved the lead researcher visiting the club and delivering a short presentation about the research and leaving information sheets for the parents/guardians (for players aged 15-17) and players (if aged 18) to keep and consider. If players wished to take part, they then contacted the researcher directly.

Regardless of how the research was introduced, player participation was voluntary. Information sheets stated that, by submitting a complete questionnaire, players were providing their informed consent to take part. Players aged 18 were considered legally competent and able to decide for themselves whether they wished to take part. Due to some concerns about the competencies and capacity of players aged 15-17 years to provide informed consent (Miller, Drotar & Kodish, 2004; Vitiello, 2008), additional procedures were implemented (e.g., gaining parental or guardian permission and giving these players further information about their research rights in an accessible format).

In accordance with the single group cohort design, there were three phases of the research and each phase required participants to complete the GHQ-12 and/or Brief COPE (trait or specific coping version). In phase one, the Brief COPE (trait version) was administered to all participants in the mid to late season (January to May) before selection procedures were implemented. Even though measures were scheduled to be completed 7-14 days before selection procedures, due to logistical challenges (e.g., dates of selection procedures being moved forward or back outside the control of researcher and academy staff), this was not always possible. The mean number days that measures were completed before selection procedures was 23.05 days ($SD = 17.79$; Range 1-52 days).

In phase two of the research, the GHQ-12 and Brief COPE (specific version) were scheduled to be administered seven days after selection procedures. With regards to phase three, the GHQ-12 and Brief COPE (specific version) were scheduled to be administered 21 days after selection procedures. These time points enabled the association between coping styles and experience of psychological distress to be calculated.

Although the GHQ-12 and Brief COPE (specific coping) were scheduled to be completed seven days after selection procedures in phase two of the research, a number of players ($N = 4$; 28.6%) did not complete the questionnaire on this day despite being sent a reminder. In accordance with the reminder, such players completed the questionnaire retrospectively between 7 and 9 days ($M = 7.35$ days, $SD = 0.63$).

While the GHQ-12 and Brief COPE (specific coping) were scheduled to be completed 21 days after selection procedures in phase three of the research, a number of players ($N = 6$; 54.5%) did not complete questionnaires on this day. In conjunction with the initial reminder, such players retrospectively completed questionnaires between 22 and 27 days ($M = 22.45$ days; $SD = 2.02$).

At each of the three time points, participants were given the choice of completing assessments on paper copies or via an online portal (Bristol Online Survey System). All participants completed the GHQ-12 and Brief COPE via the online portal. To reduce the risk of attrition, the researcher also reminded participants via email of the times to complete assessments. No researchers were present at times when measures were completed, consequently reducing the likelihood of demand characteristics and response bias (Kazdin, 2014).

Although several post-selection time points could have been selected to determine the influence of coping on levels of psychological distress, this research strategically selected two time points on the basis of several factors. Firstly, in view of positive associations between the onset of a stressor and the development of psychological distress in the first month after the stressor (e.g., depression; Kessler, 1997) and stress theory (e.g., alarm reaction; Horowitz, 1987; Selye, 1976), the research focused on the association between

coping and psychological distress in the first month after deselection. Secondly, in order to meet the aims of the research and minimize the risk of recall bias, which is more common in procedures that assess coping and distress over more extended intervals (e.g., Folkman & Moscovitz, 2004; Ptacek, Smith, Espe & Raffety, 1994), two selection time points in the first month were created to increase the likelihood that players could accurately describe their coping strategies in (i) the first seven days, and (ii) between seven and 21 days following deselection. The use of psychometric measures at these time points also served to overcome some of the limitations encompassed within other approaches that may have been used to measure participants' coping in these time periods. For example, although daily diary methods may have been used to further reduce the risk of recall bias, such approaches have been reported to involve high demands on players, high attrition rates and limited time for reflection on individual coping strategies utilized (Folkman & Moscovitz, 2004; Nicholls, Holt, Polman & Bloomfield., 2006; Nicholls, Holt, Polman & James, 2005; Nicholls & Ntoumanis, 2010). As a result, although the coping assessments in the current study did not facilitate the measurement of daily coping strategies, assessing coping at 7 and 21 days was considered to represent a good compromise (e.g., minimizing the time between deselection and recall of coping strategies within the first month of event onset, minimizing the risk of recall bias and attrition, and allowing time for reflection and reducing time demands on players; Folkman & Moscovitz, 2004; Kazdin, 2014; Ptacek et al., 1994).

Response rates and attrition

In the 2011 to 2012 season, only the first recruitment option was used. Of 390 information packs distributed, only 6 deselected players completed questionnaires at the first time point, a response rate, of 1.54%. Other recruitment methods were used in the 2012 to 2013 season. With these options, it was difficult to establish a precise response rate as the exact number of players to whom the research was presented/introduced to was unknown. Nevertheless, of the 176 who forwarded their contact details via recruitment option two or three, 15 deselected players completed questionnaires at the first time point, a response rate, of 8.52%. This figure of response rate is most likely to be an overestimate, however, as the frequency of players who received presentations or information about the research in the second season was higher than 176. Combining both seasons together, an approximate mean response rate of 5.03% was calculated.

In addition, despite implementing recommending procedures to minimize attrition (e.g., sending reminders to players; Boys et al., 2003), the attrition rate from MT1 to MT3 was 47.62% (10/21) for released/deselected players.

Results

In order to determine whether coping strategies were associated with psychological distress in the first month following deselection/release, a number of correlational analyses were undertaken. As the direction of hypotheses were stated, all analyses were one-tailed. Following calculations using Kolmogorov-Smirnov tests, Spearman's Rho (r_s) calculations were implemented for data that was non-normally distributed and Pearson's r correlations (r) were used for data that was normally distributed. The magnitude of the correlation coefficients were also used to determine the strength of the relationship between variables (e.g., .10 = small or weak relationship; .30 = moderate relationship; .50 = strong relationship; Cohen, 1988). Correlations were considered significant when $p < 0.05$. However, due to recommendations on statistical reporting (Batterham & Hopkins, 2006), both the magnitude of the relationship between variables and the p value were taken into consideration when evaluating the strength of evidence for the hypotheses.

As seen in Table 2, a strong, statistically significant correlation was found between trait avoidance coping and psychological distress at MT2 ($r_s = .79, p = 0.001, N = 14$). In addition, there was a strong significant correlation between trait avoidance coping and psychological distress at MT3 ($r = .62, p = 0.021, N = 11$).

A strong, statistically significant correlation was also found between specific avoidance coping at MT2 and psychological distress at MT2 ($r = .66, p = 0.005, N = 14$). In addition, a strong, significant correlation was found between specific avoidance coping at MT3 and psychological distress at MT3 ($r = .67, p = 0.011, N = 11$).

A strong, significant negative correlation was also found between trait problem focused coping and psychological distress at MT2 ($r_s = -.62, p = 0.009, N = 14$). No statistically significant correlation between trait problem focused coping and psychological distress at MT3 was found however ($r = -.09, p > 0.05$, one tailed, $N = 14$).

There was also no statistically significant correlation between problem focused coping at MT2 and psychological distress at MT2 ($r = -.27, p > 0.05, N = 14$). In addition, there was no statistically significant correlation between specific problem focused coping at MT3 and psychological distress at MT3 ($r = -.44, p = 0.087, N = 11$). While the correlations between these variables did not reach significance, the correlations were respectively small and moderate in magnitude (Cohen, 1988) and in the predicted direction.

No significant correlation was found between trait emotion focused coping and psychological distress at MT2 ($r_s = -.40, p = 0.077, N = 14$) or MT3 ($r = -.22, p = > 0.05, N = 11$). In addition, no specific correlation was found between emotion focused coping at MT2 and psychological distress at MT2 ($r = -.11, p = > 0.05, N = 14$) or MT3 ($r = .16, p = > 0.05, N = 11$).

Table 1
Cronbach's alpha statistics to measure the internal consistency of the GHQ-12 (using GHQ scoring) and Brief COPE Trait and Specific at MT1, MT2 and MT3

Measurement	Measure	N	Cronbach's Alpha
MT1	GHQ-12	21	.69
	Trait Avoidance Coping		.31
	Trait Problem Focused Coping		.82
	Trait Emotion Focused Coping		.76
	GHQ-12	14	.90
MT2	Specific Avoidance Coping		.52
	Specific Problem Focused Coping		.94
	Specific Emotion Focused Coping		.72
	GHQ-12	11	.83
	Specific Avoidance Coping		.38
MT3	Specific Problem Focused Coping		.86
	Specific Emotion Focused Coping		.57
	GHQ-12		

Table 2

Summary of Correlations between Trait/Specific Coping Strategies (as measured by the Brief COPE) of released/deselected Players and Psychological Distress

Measurement Time Point	Coping Measure	N	Correlation Statistic	Correlation with Psychological Distress as measured by GHQ-12
MT2	Trait Avoidance Coping	14	r_S	.79**
	Trait Problem Focused Coping		r_S	-.62*
	Trait Emotion Focused Coping		r_S	-.40
	Specific Avoidance Coping		r	.66**
	Specific Problem Focused Coping		r	
	Specific Emotion Focused Coping			-.27
			r	
MT3	Trait Avoidance Coping	11	r	-.11
	Trait Problem Focused Coping		r	.62*
	Trait Emotion Focused Coping		r	-.09
	Specific Avoidance Coping		r	-.22
	Specific Problem Focused Coping		r	.67*
	Specific Emotion Focused Coping		r	-.44
			r	

Note: Correlations were one-tailed; * = $p < 0.05$; ** = $p < 0.01$

Discussion

The current study examined trait coping and specific coping used by elite adolescent players in relation to deselection and explored the association between three categories of coping (avoidance coping, problem focused coping, and emotion focused coping) and psychological distress following release/deselection from an elite professional soccer club.

The first hypothesis that released players who have higher levels of trait/specific avoidance coping would have higher levels of psychological distress following deselection received good support. Indeed, both trait and specific avoidance coping were positively and significantly associated with psychological distress at MT2 and MT3. The significant correlations involving trait coping and distress suggested that players who typically use avoidance coping as a way of managing stressful situations may have higher levels of psychological distress following deselection.

The significant correlations between specific avoidance coping at MT2 and MT3 and psychological distress at these time points also suggests that players who engaged in more avoidance coping strategies at post-selection time points were more likely to experience higher levels of psychological distress. The significant correlations found between trait and specific avoidance coping and psychological distress support previous research outside of sport and in relation to wider athletic career termination and soccer career termination specifically. Indeed, in addition to avoidance coping being associated with increased psychological distress and reduced positive affect following exposure to a range of stressors outside of sport (e.g., Moscovitz et al., 2009; Panayiotou et al. 2014), research within sport and soccer specifically has also found that avoidance coping strategies were associated with increased psychological distress and reduced well-being following athletic and soccer termination (Blakelock, 2018; Lally, 2007). In combination, the results suggest that individuals who typically engage in avoidance coping and specific avoidance coping in the first month following deselection may be at risk of adverse outcomes such as psychological distress following deselection.

While the associations between trait avoidance coping and specific avoidance coping support proposed mechanisms regarding interactions between appraisals, coping and stress/distress intensity, as the current study did not measure appraisals, it is not possible to establish the specific mechanisms in which avoidance coping increased psychological distress. Indeed, it was not possible to establish whether avoidance coping influenced intrusive thoughts, negative affect and anxiety by means of doing nothing about the existence of harm, loss and threat associated with deselection (Dugas & Robichaud, 2007; Najmi & Wegner, 2008).

The second hypothesis that trait/specific problem focused coping would be negatively associated with psychological distress following deselection received some support. For example, although a strong significant and negative correlation was found between trait problem focused coping and psychological distress at MT2, the other correlations did not reach significance. Considering the magnitude of the significant correlation, this suggests that players who typically adopt more problem focused coping in relation to stressors were more likely to experience lower levels of psychological distress at MT2. While this finding supports (i) previous research within and outside sport/football regarding the positive association between problem focused coping and adjustment/transition quality (Blakelock, 2018; Clarke, 2006; Moscovitz et al., 2009), and (ii) proposed mechanisms (e.g., PFC reducing harm, threat and loss associated with deselection; Anshel et al., 2001; Carver & Connor-Smith, 2010), the other correlations were not statistically significant and, therefore, do not support previous research and proposed theoretical mechanisms.

It is unclear why trait problem focused coping had a significant negative correlation with psychological distress at MT2 despite no other significant correlations being found. One plausible hypothesis could be that individuals who typically engage in such strategies may have engaged in problem focused coping in advance of deselection. Such strategies may have served to reduce the threat of deselection (and possible elite career termination) prior to selection procedures and subsequent harm/loss at MT2, which in turn may have reduced psychological distress and stress reactivity. However, as the current study did not measure specific coping in advance of deselection or cognitive appraisals, it was not possible to check and verify this proposed hypothesis in the current design.

The third hypothesis received no support. This indicates that trait/specific emotion focused coping was not strongly associated with psychological distress in the first month following deselection. These results do not support previous research and proposed theoretical mechanisms (e.g., reducing emotional reactivity; Carver & Connor-Smith, 2010).

Limitations

The research included a small, voluntary, convenience sample as well as a low mean response rate (5.02%) and a moderate attrition rate (47.62%). Considering previous research regarding acceptable response rates in survey research (e.g., 65%; Arber, 2001; Sitzia & Wood, 1998) and recommendations regarding follow-up rates of 50 to 80% (Altman, 2000), the research may encompass a biased sample that is not representative of the target population. In addition, considering the positive association between N and statistical power, the small sample size reduced such power. The current study may therefore not have been sensitive enough to detect correlations between variables. Conclusions of no relationship

between variables may therefore be due to low statistical power rather than to an absence of relationship. Further research using a larger sample should consequently be undertaken to determine the magnitude of correlations between coping and psychological distress.

In addition, although the study implemented several procedures to minimize the effect of recall bias, a number of players did not complete questionnaires on specific days. This means that a proportion of players answered questions retrospectively beyond the recommended number of days. As a result, the responses of these players may have been affected by recall bias. Moreover, no analysis was completed to test for differences between those who completed the GHQ-12 and Brief COPE on-time or off-time. As a result, this may have been a confounding variable. It is noteworthy, however, that players who did not complete measures on time typically completed measures one day after recommended times at both post-selection time points (e.g., $M = 7.35$ days at MT2 and $M = 22.45$ days at MT3).

To minimize the risk of delays in the completion of questions in future longitudinal research, researchers may consider using some of the procedures within the current research (e.g., sending reminders to players by email, collecting personal contact details) as well as other strategies (e.g., completing questions collaboratively with players via telephone or Skype, offering a definite reward for timely completion of all measures, sending text reminders via phone or WhatsApp). Such suggestions are in accordance with recommendations for encouraging continued timely participation in longitudinal research with adolescents (Boys et al., 2003; Henderson, Wright, Nixon & Hart, 2010).

Furthermore, although players were scheduled to complete questions between 7-14 days prior to selection procedures, the mean number of days that measures were completed before selection procedures was 23.05 ($SD = 17.79$, Range = 1-52 days). This means that there was some variation in the timing in which players answered questions at MT1 and the duration between MT1 and MT2. As this study focused on associations between (i) trait coping (measured in advance of selection procedures) and psychological distress at post-selection time points, and (ii) specific coping and psychological distress at post-selection time points, the timing in which measures were completed at MT1 is not perceived to influence results. Indeed, as trait coping represents a preferred pattern of coping strategies that remain stable across time and circumstances, it is expected that trait coping responses would be the same regardless of when they were completed prior to selection procedures. If the study investigated specific coping strategies in advance of selection procedures and their association with psychological distress following release, variation in the timing and duration may have impacted on results. For example, players may have engaged in a variety of coping responses in advance of release (e.g., problem focused, avoidance), which in turn may have influenced distress outcomes by means of the aforesaid mechanisms.

In addition, the research only involved examining associations between coping and psychological distress in the first month following deselection procedures. No causal inferences can therefore be made from the current research, which means that the precise cause(s) of psychological distress following deselection is ambiguous. It is also unclear whether findings will generalize beyond the first month and whether coping strategies implemented prior to selection procedures influenced transition quality (e.g., pro-active coping, pre-retirement planning; Blakelock, 2018; Lally, 2007). Further longitudinal research should examine the role of coping both prior to and following deselection and establish the nature and magnitude of influence that coping can have on psychological distress and other outcome measures reported by elite soccer players (e.g., psychological well-being, physical health, fitness and condition, smoothness of transition, financial indicators, transition time; Blakelock, 2018).

Moreover, although the GHQ-12 and composite coping variables measured at three time points typically possessed acceptable and good levels of internal consistency (Altman, 1991; Nunally, 1978; Streiner & Norman, 2008), trait avoidance coping (8 items, $\alpha = 0.31$) and specific avoidance coping at MT3 (8 items, $\alpha = 0.38$) had alpha values below recommended conventions. It may therefore be helpful to determine the internal consistency of this measure in relation to elite soccer deselection, and the factor structure (using a confirmatory factor analysis) when considering Brief COPE categories of elite soccer players' coping responses in relation to elite soccer deselection. Indeed, although the Brief COPE has demonstrated internal consistency in other research (Cooper et al., 2008; Monhanraj et al., 2015), it would be beneficial to establish whether such consistency can generalize to coping with elite soccer deselection and establish factor validation.

In addition, due to the current study adopting a three dimensional model of coping to review the association between coping and psychological distress, individual coping strategies within these dimensions were not considered. This may have masked the complexity of the different coping responses influencing psychological distress (Nicholls & Polman, 2007). Considering coping at specific strategy levels rather than dimensional levels would provide the clearest indication of specific coping strategies associated with enhanced or reduced outcomes across time and individuals.

Finally, the current research assumed that the absolute amount of a particular coping strategy is important in establishing whether certain coping strategies were associated with players' experience of psychological distress. As a result, this ignores (i) players' appraisals and cognitive activity associated with deselection, (ii) how coping strategies may interact with each other, and (iii) multi-dimensional factors associated with coping strategy selection, coping effectiveness and outcomes (e.g., personal characteristics/traits, individual developmental shifts, biopsychosocial cues regarding deselection/career termination). In

view of these factors being associated with coping, adjustment, and outcomes within and outside of soccer (Blakelock, 2018; Carver & Connor-Smith, 2010), it may be beneficial for future research to use the grounded theory constructed by Blakelock (2018) to examine the associations and interactions between these factors and various outcome measures.

Clinical Implications

Despite these limitations, it is salient that trait avoidance coping and specific avoidance coping in the first month following release/deselection were found to be positively associated with players' experiences of psychological distress. Given the small sample size and low statistical power, such correlations may be particularly true. This suggests that players who have higher levels of trait avoidance coping or specific avoidance coping strategies (in the first three weeks following selection procedures) may be more likely to experience higher levels of psychological distress following deselection. Individuals who adopt such strategies may therefore be vulnerable to developing psychological distress.

In addition, although trait problem focused coping was negatively associated with psychological distress at MT2, trait and specific problem focused coping was not significantly associated with psychological distress at other time points. This suggests that players who typically adopt problem focused strategies may be less likely to experience elevated levels of psychological distress following career termination. Moreover, considering the notion of low statistical power and the moderately sized correlation between these variables at MT3, such coping may buffer against adverse outcomes and enhance transition quality in the first month following release.

Associations found between coping categories and psychological distress in the current study may have practical applications for current players experiencing deselection or those who may experience deselection in the future. Indeed, if it is identified that players engage in common coping patterns and specific coping strategies are associated with increased psychological distress following deselection, strategies to correct maladaptive coping mechanisms and facilitate the development of adaptive forms of coping should be adopted. This may involve players and parents reflecting on their/their child's coping styles and specific strategies and club/organizational staff profiling coping responses adopted by players. This in turn could facilitate independent development and actions by players or club/organizational initiatives to facilitate the development of adaptive coping responses. For example, following identification of trait avoidance coping, individuals may consider engagement in planning, preparation and engaging in action to reduce the threat, harm or loss associated with deselection both prior to and in the first month following deselection. Practitioners within clubs and organizations may also consider facilitating workshops and

psychological sessions to promote these strategies with players (both prior to and in the first month following deselection).

In conclusion, the results of this research suggests that trait and specific avoidance coping was positively associated with elite adolescent soccer players experience of psychological distress in the first month following deselection. In addition, the research suggested that trait problem focused coping is negatively associated with players' experience of psychological distress in the first seven days following deselection. In combination, this suggests that coping strategies represent one multi-dimensional factor associated with psychological distress in the first month following deselection.

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