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**Published version**

RUMBOLD, James, FLETCHER, David and DANIELS, Kevin (2017). Using a mixed method audit to inform organizational stress management interventions in sport. *Psychology of Sport and Exercise*, 35, 27-38.

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Using a Mixed Method Audit to Inform Organizational Stress Management Interventions in  
Sport

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Date of Acceptance: October 28, 2017

## 1 Abstract

2 *Objectives:* The purposes of this study were twofold: to conduct a mixed method  
3 organizational-level stress audit within a sport organization and to explore recommendations  
4 for organizational stress management.

5 *Design and Method:* Semi-structured interviews, focus groups and surveys were conducted  
6 with 47 participants (professional sportsmen, coaches, sport science support and  
7 administrative staff) who represented a professional sport organization. Content analysis was  
8 employed to analyze the data.

9 *Results and Conclusions:* The findings indicated a wide range of organizational stressors  
10 (e.g., cultural and academy issues), appraisals and coping behaviors (e.g., emotion-focused  
11 behaviors), and stressor outcomes (e.g., emotional responses) for sport performers. Content  
12 analysis and survey data supported the categorization of stress management recommendations  
13 at both an individual- (e.g., coping education) and organizational-level (e.g., improving  
14 communication channels) for particular target groups (e.g., players, staff, team). The  
15 identification of stress audit factors and recommendations have important implications for the  
16 optimization of organizational functioning within professional sport. Consistent with  
17 organizational psychology research, applied considerations for mixed method and multi-level  
18 intervention approaches are discussed.

19 *Keywords:* appraisals, emotions, coping, individual-level, organizational-level, team  
20 building.

1 Using a Mixed Method Audit to Inform Organizational Stress Management Interventions in  
2 Sport

3 The growing body of literature concerning organizational stress suggests that it may  
4 be a critical factor in determining well-being and performance development in sport (Fletcher  
5 & Arnold, 2017). Based on a transactional conceptualization (Lazarus, 1991; McGrath,  
6 1976), organizational stress has been defined as “an ongoing transaction between an  
7 individual and the environmental demands associated primarily and directly with the  
8 organization within which he or she is operating” (Fletcher, Hanton, & Mellalieu, 2006, p.  
9 329). For young athletes aspiring to develop within professional sport, they are typically  
10 required to manage a range of environmental demands within their sport organization, such as  
11 training load, logistics, poor team cohesion, and the prospect of being released (Arnold &  
12 Fletcher, 2012; Fletcher, Hanton, Mellalieu, & Neil, 2012a). The management of these  
13 organizational stressors is important for reducing the negative spillover that may occur  
14 between ongoing exposure to organizational (e.g., leadership styles, selection), performance  
15 (e.g., opponents, social evaluation), and personal stressors (e.g., parental expectations,  
16 romantic relationships); which collectively may be detrimental to well-being (Duong,  
17 Tuckey, Hayward, & Boyd, 2015). For those performers operating in sport organizations, the  
18 successful management of organizational stress may not only facilitate the maximization of  
19 well-being and performance development at an individual-level, but it is also likely to support  
20 the effective functioning of teams and institutions at an organizational-level (Wagstaff,  
21 Fletcher, & Hanton, 2012). Despite this, organizational stress management interventions,  
22 which aim to improve the psychosocial environment and enhance the well-being of personnel  
23 (Nielsen, Randall, Holten, & Rial González, 2010) are currently limited in sport psychology  
24 research (Rumbold, Fletcher, & Daniels, 2012). This limited evidence-base is problematic for  
25 advancing sport psychologists’ knowledge of how best to develop effective organizational

1 stress management interventions.

2           According to the organizational psychology literature, one of the key ingredients for  
3 increasing the likelihood of effective stress management interventions in organizations is the  
4 systematic and careful assessment of stress processes prior to intervention development  
5 (Bowling, Beehr, & Grebner, 2012). To reliably understand the context of organizational  
6 stress as a means to inform appropriate stress management initiatives, it is necessary to  
7 conduct an organizational-level stress audit; one that is able to identify the individual and  
8 group needs of those operating in organizations (Nielsen et al., 2010), so that initiatives can  
9 be developed to modify environmental demands and / or a person's resources. A stress audit  
10 is traditionally a generic term which describes a number of approaches which aim to identify  
11 potential environmental demands (i.e., stressors), assess which have the greatest negative  
12 impact and identify any individuals, and groups who are most at risk (Rick, Briner, Daniels,  
13 Perryman, & Guppy, 2001). Although there have been a range of measures that have been  
14 adopted for auditing stressors in organizations (e.g., Biron, Ivers, Brun, & Cooper, 2006), it  
15 has long been acknowledged that a comprehensive audit, based on a transactional stress  
16 conceptualization (Lazarus, 1991), should reflect the sequence of events and stress processes  
17 that occur across individuals in transacting with their environment (McGrath, 1976). In this  
18 way, it is believed that an organizational-level stress audit should identify key organizational  
19 stressors, appraisal and coping strategies, stressor outcomes, at risk groups, and attitudes  
20 towards available options for stress management (Dewe, O'Driscoll, & Cooper, 2010).

21           Qualitative research has previously explored a plethora of organizational stressors that  
22 are encountered by sport performers. From a research synthesis of 34 studies, Arnold and  
23 Fletcher (2012) identified 640 distinct stressors that were labelled hierarchically in to the  
24 following categories: leadership and personnel, cultural and team, logistical and  
25 environmental, and performance and personal issues. A host of these stressors have been

1 linked to the identification of threat and harm appraisals (e.g., Didymus & Fletcher, 2012),  
2 negative emotional responses (e.g., Fletcher, Hanton, & Wagstaff, 2012b), and the enactment  
3 of different coping behaviors (e.g., Didymus & Fletcher, 2014). These findings have also  
4 been complemented by quantitative research that has shown relationships between athletes'  
5 perceptions of developmental, team, and cultural stressors within sport organizations and  
6 negative affect (Arnold, Fletcher, & Daniels, 2017). Although the findings from both  
7 methods have enabled the identification of organizational stress processes in sport and some  
8 of their relationships, it is posited that these methods in isolation may limit our ability to  
9 confidently develop tailored stress management programs for individuals and groups who  
10 operate in culturally rich organizations (Nielsen et al., 2010). In this regard, the adoption of  
11 mixed methods may facilitate a pragmatic stress auditing approach for developing stress  
12 management programs for specific organizations (Bowling et al., 2012).

13         One of the key benefits of conducting a mixed method stress audit is to triangulate  
14 understanding of attitudes from individuals and groups whose organizational roles may differ  
15 (Mazzola, Schonfeld, & Spector, 2011). This is vital for establishing common stressful  
16 incidents for specific individuals and target groups in an organization (Bowling et al., 2012).  
17 In addition, by incorporating methods such as focus groups, individuals may be empowered  
18 to collaboratively discuss their needs with other organizational members (Kohler & Munz,  
19 2006). This is advantageous in developing stress management interventions at an individual-  
20 and organizational-level, as members will have both individual and collective attitudes,  
21 preferences and motives. Furthermore, participatory methods, which treat members as active  
22 agents of change and encourage the commitment of management, are necessary (but not  
23 sufficient) conditions for successful organizational interventions (Daniels, Gedikli, Watson,  
24 Semkina, & Vaughn, 2017). This approach motivates groups to identify common issues and  
25 design solutions. Without the participation of various personnel, a tailored program for

1 tackling organizational stress cannot be appropriately designed (Elo, Ervasti, Kuosma, &  
2 Mattila, 2008).

3         To combat the challenges of gaining as many perspectives and recommendations from  
4 organizational members as possible, researchers have called for greater use of mixed methods  
5 (Elo et al., 2008; Mazzola et al., 2011; Nielsen et al., 2010) to facilitate triangulation and  
6 complementarity of findings (Greene, 2008, Moran, Matthews, & Kirby, 2011). This is  
7 important for exploring the existence of common organizational stress processes and  
8 intervention recommendations that may not be easily achieved from the sole adoption of  
9 quantitative or qualitative methods. Moreover, the incorporation of qualitative with  
10 quantitative methods allows for understanding of contextual issues and what matters to  
11 individuals in their own language (Daniels et al., 2017; Nielsen, Abildgaard, & Daniels,  
12 2014). According to Bowling et al. (2012, p. 79), “research should give more attention to  
13 developing techniques used to diagnose the need for stress interventions”. The current  
14 research seeks to address some of the conceptual challenges of stress audit models previously  
15 used to inform the development of organizational programs. By adopting a mixed method,  
16 the study attempts to understand sport performers' experiences of organizational stress in  
17 greater depth from the perspective of various members (e.g., sport performers, coaches, staff).  
18 This approach aims to explore the contextual and cultural complexities that are not explicitly  
19 evident in current organizational stress audit models.

20         Taking these points together, the primary purpose of this study was to conduct a  
21 mixed method organizational stress audit of competitive performers who operate within a  
22 sport organization. A secondary purpose was to identify stress management recommendations  
23 for performers and teams operating in this organization. The exploration of organizational  
24 stress processes and recommendations may facilitate the future tailoring of both individual-  
25 and organizational-level initiatives. This study makes a unique conceptual contribution to

1 auditing organizational stress, by offering a mixed method framework from which  
2 organizational interventions in sport can be advanced.

### 3 **Method**

#### 4 **Research Design**

5 A mixed method design was adopted for serving the following philosophical aims.

6 Firstly, the authors believe that it is important to integrate techniques that can more  
7 thoroughly investigate a phenomenon of interest (Teddlie & Tashakkori, 2011, p. 286).

8 Gaining multiple sources of information from various individuals (e.g., sport performers,  
9 staff) is fundamental for exploring the convergence *and* divergence (cf. Greene, 2008) of

10 organizational stress experiences for sport performers. Furthermore, the researchers sought to  
11 educate and modify an organization's current practices regarding stress management. In doing  
12 so, it was necessary to represent the democratic values and recommendations of

13 organizational members, to progress towards participatory action in the future. To achieve  
14 this purpose, the study was founded on a pragmatist perspective with a critical realist

15 ontology (Teddlie & Tashakkori, 2009) whilst employing methods that parallel understanding  
16 of stress in organizations (Lazarus, 1991).

#### 17 **Participants and Procedure**

18 The organizational sample ( $N = 47$ ) consisted of staff (head coach, assistant coach,  
19 sport science support, and administrative staff;  $n = 7$ ) and a male professional rugby union

20 academy playing squad ( $n = 40$ ). The ages of staff and rugby players ranged from 22 to 56  
21 years ( $M = 36.71$ ,  $SD = 11.35$ ) and 15 to 19 years ( $M = 17.13$ ,  $SD = 0.97$ ) respectively. The

22 largely male sample (i.e., 98% male) represented multiple job roles of individuals who

23 operated on a full-time basis in this professional rugby union academy. The participating

24 organization was selected due to the successful profile of the organization, the consistently

25 high level of competition that the players and team operated at, and due to its close proximity



1 to the senior professional team's training facilities. The purpose of this academy was to  
2 recruit, develop and support professional youth players' transition in to the senior team.  
3 Following institutional ethical approval, managers and head coaches of sport organizations in  
4 the United Kingdom were initially contacted by email and informed of the purposes and  
5 requirements of the research being conducted. Once consent was provided by the manager of  
6 the sport organization and its members, a concurrent triangulation mixed methods design was  
7 followed, such that qualitative and quantitative stress audit data were collected concurrently  
8 (Creswell & Piano Clark, 2011). Data collection began prior to the beginning of pre-season  
9 training. This represented a period whereby most of the playing squad had not returned from  
10 the previous end of season break. At this time, interviews and surveys were completed with  
11 staff ( $n = 7$ ) and key players ( $n = 6$ ) from the playing squad who had returned early for pre-  
12 season conditioning. Key players were identified by the head coach and assistant coach as  
13 individuals who demonstrate leadership and have considerable input in to the team's  
14 functioning and development. The benefit of this approach was that exclusive participation  
15 was gained from key subgroups and decision makers who operate in distinct roles, and, hold  
16 an influence in planning an organizational-level intervention (Bachiochi & Weiner, 2004).

17         Once the remaining players had returned for pre-season training, it was identified that  
18 the squad was characterized as three sub-groups (e.g., under-17, under-18, and under-19 age  
19 groups). Sub-groups are important for delimiting future intervention programs to those most  
20 at risk of organizational strain (Bradley & Sutherland, 1994). The existence of organizational  
21 stressors and outcomes may also be apparent for specific players who share similar needs  
22 (Briner & Reynolds, 1999). Thus, to promote discussion on the common issues that sub-  
23 groups experience (Krueger & Casey, 2009), three focus groups with survey data collection  
24 were steered with the remaining participants ( $n = 34$ ). The focus group approach contrasts  
25 that to previous research on organizational stress in sport, which has often utilized face-to-

1 face interviews or diary methods (e.g., Fletcher et al., 2012a; Didymus & Fletcher, 2012).

2 The benefit of conducting focus groups in organizational settings is that team members who  
3 are familiar with one another are able to openly share ideas and discuss sensitive issues like  
4 stress in a comfortable and relaxed setting (Liamputtong, 2011).

5 In comparison to one-to-one interviews or diary methods, focus groups enable cultural  
6 insights in to the sources of individual and group behaviors (Morgan, 1996). This is highly  
7 relevant when exploring the social and contextual complexities of organizational stress  
8 (Daniels, Harris, & Briner, 2004). In organizational contexts, focus groups have proven  
9 beneficial in understanding and identifying recommendations to tackle barriers to well-being  
10 and productivity. Moreover, focus groups can help to determine which recommendations are  
11 easiest to adopt and easiest for organizations to enforce (Krueger & Casey, 2009, p. 12).

12 Interviews, focus groups and survey data collection were conducted face-to-face by the first  
13 author. Before the completion of each interview and survey, participants were given written  
14 and verbal information as to the purposes and outcomes of the study. Following assurances of  
15 voluntary participation, anonymity, and the freedom to withdraw at any stage, participants  
16 had the opportunity to ask questions before completing an informed consent form.

17 **Interview guide.** A semi-structured interview guide was initially used to facilitate  
18 each session. Each interview and focus group took place in a private meeting room at the  
19 training ground of the organization. The interview guide was generated from a range of  
20 sources. In line with previous stress audits that have been conducted in organizational  
21 psychology (e.g., Biron et al., 2006; Rick et al., 2001), the main components of the stress  
22 audit included: an exploration of organizational stressors, appraisals and coping behaviors,  
23 stress outcomes, and stress management recommendations. In addition, question content was  
24 devised based on relevant research conducted in sport (Arnold & Fletcher, 2012; Fletcher et  
25 al., 2006) and organizational psychology (Dewe et al., 2010). Prior to beginning interviews,

1 participants were verbally informed that they will be asked about players' experiences of the  
2 academy environment and how they perceived various issues that occurred. This included  
3 providing examples of organizational stressors (e.g., the training environment, player and  
4 staff relationships) using Arnold and Fletcher's (2012) taxonomic classification. The  
5 interview guide began with introductory questions (e.g., Could you tell me about something  
6 that has happened within the academy recently which has gone well?). These questions  
7 intended to build rapport and provide time for the participants to consider the area in question  
8 (Silverman, 2014). The main questions explored players' exposure to organizational stressors  
9 in their environment and suggestions for improving organizational functioning and  
10 performance. Where relevant, probes were offered to consider how the players attempted to  
11 appraise or cope with any issues that arose (e.g., What did you tend to think about when these  
12 issues occurred? / How did you deal with that at the time?), and any potential outcomes that  
13 occurred (e.g., How did you feel about these demands at the time? / What effect did that  
14 have?). The same probes were reworded for coaches and staff, to allow for their perspective  
15 on player's experiences of organizational stress. Finally, all participants were encouraged to  
16 summarize their views and elaborate on any relevant issues. The first author then clarified the  
17 participants' intervention recommendations for specific target groups and requested feedback  
18 on the interview process.

19         Prior to the interviews being conducted, the guide was piloted with an amateur athlete  
20 who operated in a separate organization. Subsequently, several questions were reworded to  
21 enhance their clarity (Silverman, 2014). Additional questions were also integrated after  
22 several themes emerged from attending a meeting at the sport organization (cf. Liamputtong,  
23 2011). These themes related to communication, social support, decision making and time  
24 management. The interviews and focus groups ranged from 52 to 96 minutes ( $M = 69.30$ ,  $SD$   
25  $= 11.86$ ) and 63 to 79 minutes in duration ( $M = 71.90$  min,  $SD = 8.16$ ) respectively.

1           **Stress management survey.** At the end of each interview, players and staff were  
2 asked to complete a short stress management survey (Bradley & Sutherland, 1994) which had  
3 been adapted for the sport organization. This served the purpose of triangulating individuals'  
4 interview responses and evaluating their readiness for developing stress management  
5 programs (Nielsen, 2013). The survey presented a list of 14 possible intervention programs,  
6 which included the following: building confidence; improved social support; managing  
7 emotions positively; problem solving; relaxation training; team building; and team  
8 performance appraisal systems. To outline what was meant by each survey term, examples of  
9 psychological intervention techniques associated with each option were offered to the  
10 participants. Players and staff were then asked to select one of three responses (yes / no /  
11 don't know) to each of the following four statements: (1) I feel I would personally benefit  
12 from; (2) I would personally participate in; (3) I feel that the academy would benefit from;  
13 and (4) I would recommend the academy to participate in. The survey list was generated from  
14 a pre-interview staff meeting and the stress management literature in sport (for a review, see  
15 Rumbold et al., 2012). Participants were also encouraged to suggest additional programs that  
16 may have emerged from the interviews and focus groups.

### 17 **Data Analysis**

18           Content analysis was deemed the most appropriate for interpreting the data for several  
19 reasons. Firstly, it allows the exploration of interview transcripts and survey responses for  
20 recurrent instances in relation to the research questions (Silverman, 2014). Secondly, it is  
21 suitable for exploring common organizational processes from both interview and focus group  
22 data (e.g., Bachiochi & Weiner, 2004). Thirdly, due to the multi-method nature of data  
23 collection, a method of analysis was required to yield a 'typology' (Creswell & Piano Clark,  
24 2011) that could triangulate and supplement the interpretation of findings from the interview  
25 and survey data (Greene, 2008; Teddlie & Tashakkori, 2009). During the initial stages, the

1 first author immersed himself in the data by adopting a reflective approach. This involved re-  
2 reading post-interview notes that had been taken at the time of interviewing, listening to each  
3 of the interview recordings to gain clarification of participant tones and meanings, and  
4 reading and re-reading the written transcripts whilst noting initial ideas. Following this,  
5 segments of quotes that represented similar meanings were inductively coded as raw-data  
6 themes. Raw-data codes which represented common themes were grouped into lower-order  
7 themes. These lower-order themes were then clustered into higher-order themes. In light of  
8 established organizational stress frameworks (e.g., Arnold & Fletcher, 2012; Dewe et al.,  
9 2010; Fletcher et al., 2012a), the majority of higher-order themes were deductively clustered  
10 into general dimensions.

### 11 **Research Quality and Rigor**

12 Integrative mixed method research requires a strong audit trail and reflexive stance to  
13 be presented (Bergman, 2011). In line with Teddie and Tashakkori's (2009) criteria for  
14 evaluating inference quality, a variety of steps were taken to maximize the *design quality* and  
15 *interpretive rigor*. *Design quality* refers to the extent to which appropriate procedures have  
16 been conducted to answer the research question(s). In this way, the study design was deemed  
17 suitable for answering the purpose(s) of the research. Since the function of the research was  
18 to develop a tailored organizational intervention, it was critical to triangulate participants'  
19 stress management recommendations with players' experiences of organizational stress. The  
20 authors were cognizant of implementing design components with the fidelity to capture  
21 participants' perceptions of organizational stress processes and attitudes towards stress  
22 management. In this way, the first author was diligent in devoting significant time and  
23 thoroughness in conducting the interviews, focus groups and completion of surveys. A self-  
24 reflexive diary was completed throughout the data collection and the first author engaged  
25 critical friends in discussions during the data collection of interviews, focus groups and

1 surveys. These critical friends provided a sounding board to encourage reflexivity and  
2 challenge the construction of knowledge and interpretations made. By gathering multiple  
3 types of qualitative and quantitative data, we engaged dialogically with paradigm differences  
4 (Greene, 2008) to generate a more contextual understanding of organizational issues.

5 *Interpretive rigor* refers to how interpretations have been made in relation to the  
6 results obtained (Teddie & Tashakkori, 2009). We attempted to adhere to interpretive  
7 consistency by closely relating a large dataset of organizational stress processes in sport  
8 performers with participant recommendations for future stress management interventions.  
9 These stress processes and recommendations were interpreted on the basis of a large  
10 organizational sample ( $N = 47$ ), and, were consistent with relevant theories and frameworks  
11 in this area (Fletcher et al., 2006; Dewe et al., 2010; Lazarus, 1991). Regarding the latter, the  
12 conceptual contribution to organizational stress audit research should also be considered,  
13 along with the extent to which the research is heuristically and practically significant for  
14 empowering organizational members to engage in action or change. We present a multi-  
15 vocationality of quotations from different participants, to enable readers to consider whether they  
16 reach similar conclusions. Interpretive conclusions are also evident where staff perceptions  
17 complement players' experiences of organizational stress. Interpretive distinctiveness was  
18 achieved by debriefing participants through presentation and discussion of the findings to  
19 assess participants' agreements with the inferences made. Integrative efficacy was achieved  
20 by comparing the inferences made regarding players' experiences of organizational stress  
21 with the conclusions made in relation to player and staff intervention recommendations.  
22 Finally, in considering the interpretive correspondence of the research, we feel that the  
23 inferences made align to the purposes of conducting a stress audit of sport performers  
24 operating in a sport organization and exploring intervention recommendations.

25

## Results and Discussion

1           A total of 645 raw data themes emerged from the qualitative transcripts, which were  
2 inductively abstracted into 186 lower-order themes and 76 higher-order themes. These  
3 higher-order themes then formed 14 general dimensions which were deductively categorized  
4 in to the following components of the organizational-level stress audit: organizational  
5 stressors, cognitive appraisals and coping behaviors, organizational stressor outcomes, and  
6 stress management recommendations. Tables 1 to 3 illustrate the higher-order themes and  
7 general dimensions of each stress audit component. Example lower-order themes are also  
8 provided for each higher-order theme. In addition, Table 4 displays participants' survey  
9 responses in relation to offering recommendations for stress management programs. In view  
10 of the quantity and wide ranging themes to emerge from the stress audit, space precludes an  
11 exploration of all themes and their complexity. Therefore, a selection of quotes are provided  
12 and discussed in relation to relevant literature.

### 13 **Organizational Stressors**

14           Consistent with a synthesis of organizational stressors in sport performers (Arnold &  
15 Fletcher, 2012), the four general dimensions of organizational stressors were: leadership and  
16 personnel issues, cultural and academy issues, logistical and environmental issues, and  
17 performance and personal issues.

18           **Leadership and personnel issues.** Leadership and personnel issues, which were the  
19 most frequently cited organizational stressors for players, consisted of the stressors that were  
20 related to the direction and support of the organization. The higher-order themes within this  
21 dimension were: *external expectations, feedback, referees, retention, support staff, coach*  
22 *behaviors, and the coaches' personality and attitudes.* Within *external expectations*,  
23 “coaches’ expectations” for players to conform to the organization’s core values (e.g., work  
24 hard, learn quickly) was regularly cited as a key stressor for first year players: “I think the big  
25 thing I noticed [when starting at the academy] was you had to learn quickly, the culture of the

1 club as well. I think the coaches are big on setting that culture, just coming in, working hard,  
2 no excuses about a thing" (Player 6). "I think the expectation to develop quickly makes them  
3 [players] stressed sometimes and they need to be able to just enjoy it a bit more ... instead of  
4 it just being drudgery, hard work, hard work you know (Staff 6)".

5 Within *feedback*, a common issue that contributed to a range of stressor outcomes was  
6 "receiving negative feedback" from others. The following quote (Player 3) illustrates how  
7 negative feedback can be harmful for decision making and team morale, and, how game  
8 reviews may help to manage feedback:

9 At half time, the coaches scream and shout but it doesn't help if they pick out [blame]  
10 individuals because the individuals are just going to think about that [making  
11 mistakes] the next time they go out. Every decision the players make ... Like, [a  
12 coach] was just saying "All forwards played really well. Backs were \*\*\*\*" ... Like,  
13 yeah, have a scream and shout, kick a few bottles around but then talk about the game  
14 properly ... I think people after that game were pretty dejected for a couple of weeks.

15 **Cultural and academy issues.** Cultural and academy issues comprised the stressors  
16 that were associated with the atmosphere and behavioral norms in the organization. The  
17 higher-order themes within this dimension were: *academy atmosphere, communication,*  
18 *cultural norms, players' personality and attitudes,* and *roles*. Within *academy atmosphere*,  
19 one commonly cited raw data theme related to player year group "cliques in the squad". The  
20 emergence of this theme supports previous research which has identified cliques as a  
21 common organizational stressor encountered by sport performers (Fletcher et al., 2012a).  
22 However, the specific structure of the current organization also gave rise to "academy  
23 hierarchies", which are less reported in the extant literature. Hierarchies were visible  
24 throughout the institution, as there were structured divisions between an academy and senior  
25 team organization. Within the academy, the playing squad was divided in to three sub-groups



1 based on birth year. As the following quote illustrates from a group of second year players,  
2 hierarchies and cliques in the squad were closely associated with a “culture of intimidation”;  
3 seen by many as a reason for poor communication between players:

4       They [first year players] need to be brought down a peg (Player 25) ... Yea, they think  
5       they’re all big timers (Player 24) ... They don’t ever speak to anyone else (Player 26).  
6       I think that’s the same with the third year [players] (Player 25) ... I think they’ll [first  
7       year players] calm down when we [second year players] start the ‘contact game’  
8       [physical intimidation] with them (Player 23) [group laughter].

9       **Logistical and environmental issues.** Logistical and environmental issues  
10      encapsulated the stressors that were associated with the organization’s management of  
11      training and competition. The higher order themes within this dimension were: *training*  
12      *environment*, *competition environment*, *facilities and equipment*, *selection*, and *travel*. The  
13      most cited themes were identified within *training environment*, which included a “lack of  
14      individual development sessions” and “high training intensity”. Whilst training environment  
15      is a regularly encountered stressor for professional sport performers (Kristiansen, Murphy, &  
16      Roberts, 2012; Nicholls, Backhouse, Polman, & McKenna, 2009), one explanation in this  
17      specific organizational context is that there is a daily coach expectation for players to  
18      demonstrate their skill improvement in training, to improve their chances of being selected to  
19      the senior professional team. Within *facilities and equipment*, a number of players cited  
20      “inadequate changing rooms” as a potential reason for poor communication between players  
21      during training and competition. The following quote (Player 2) demonstrates how  
22      “inadequate changing rooms” may negatively impact on communication between players:

23         I think something that is quite bad is our changing rooms. You’ve got a first year  
24         changing room, a second year changing room, a third year changing room and there’s  
25         no one [squad] together ... it’s very much three separate changing rooms ... It comes

1 to a game situation where a first year needs to tell a third year something or vice versa  
2 and they're hesitant to say it.

3 **Performance and personal issues.** Performance and personal issues consisted of the  
4 stressors relating to a player's professional career and personal development. The higher-  
5 order themes within this dimension were: *academy transitions*, *work-life interface*, *diet and*  
6 *recovery*, *player injury*, and *finances*. Within *academy transitions*, "moving to the academy  
7 to train", "transition to a higher standard of rugby", and "transition to a higher training  
8 intensity" were seen to be key issues that were believed to advance or compromise a player's  
9 career development. These themes are consistent with research highlighting the non-elite to  
10 elite transition as a key stressor for sport performers (Arnold & Fletcher, 2012). In the current  
11 study, *academy transitions* provided a richer account for why "cliques in the squad", "high  
12 training intensity" and "fierce competition for selection" may be common issues. Player 1  
13 describes the difficulties a player can face when moving to the academy to train:

14 It was a shock to the system to be honest ... I mean there were times, like I was  
15 waking up in the morning thinking, "do I really want to be here?" Quite a lot. I mean  
16 I'm not playing rugby [not being selected], you've just moved away from home,  
17 moved to a new place so sometimes my motivation levels were really, really low.  
18 Some games [game days], like Saturday mornings in November when its absolutely  
19 pissing it down [heavy rain] and you've got to get two buses in to town, two more  
20 buses to the academy at six o'clock in the morning, and you're not playing [not being  
21 selected]. It does get you down when you've moved away from home to be here.

## 22 **Cognitive Appraisals and Coping Behaviors**

23 The general dimensions for cognitive appraisals and coping behaviors were: cognitive  
24 appraisals, problem-focused coping, emotion-focused coping, reappraisal-focused coping,  
25 and avoidance coping.

1           **Cognitive appraisals.** Cognitive appraisals consisted of the primary appraisals of  
2 organizational stressors that players encountered. These primary appraisals reflected players'  
3 evaluations of the personal significance of stressors in relation to the attainment of personal  
4 goals or well-being (Lazarus, 1991). The higher-order themes in this dimension were: *threat*  
5 *appraisals, benefit appraisals, challenge appraisals, and harm appraisals.* It was apparent  
6 that players typically developed threat appraisals of various organizational stressors.  
7 Although sport performers may appraise events as challenging (Didymus & Fletcher, 2012),  
8 our results support the finding that organizational stressors are typically appraised by sport  
9 performers as preventing the attainment of goals or positive well-being (Didymus & Fletcher,  
10 2014). Specifically, it was perceived that players felt threatened by “making the transition to  
11 professional rugby”, “negative feedback”, “asking for advice”, “job uncertainty”, “academy  
12 hierarchies”, “unfriendly teammates”, and “competition for playing positions”. The following  
13 quotes from players and staff illustrate players' typical threat appraisals of players due to  
14 competition for positions: “Who are these other lads?” ... you're thinking, “Oh he's going to  
15 take my position”, you're talking about it for weeks (Player 37) ... If anyone comes in at your  
16 position you're going to think \*\*\*\* [feel threatened] (Player 32). There is definitely a  
17 positional threat for the players. “If he's going to be my threat [for selection] then I'm going  
18 to make sure I knock him down and keep him down as long as possible” (Staff 6).

19           **Problem-focused coping.** Problem-focused coping consisted of the behaviors that  
20 were elicited to resolve stressors. It was evident that some players used a range of behaviors  
21 and drew on resources, such as social support, to achieve coping functions, such as problem  
22 solving. This supports research which has conceptualized coping behaviors and functions as  
23 interrelated (Daniels, Beesley, Wimalasiri, & Cheyne, 2013; for a review, see Skinner, Edge,  
24 Altman, & Sherwood, 2003). The higher-order themes within problem-focused coping were:  
25 *increased effort, informational support, planning, talking to teammates, changing behavior,*

1 and *increased concentration*. One player (Player 3) explained how *planning* through  
2 “practicing what if scenarios” in training was effective in dealing with opponents in games:

3 We [the playing team] knew we had a good line out [during the game] because we had  
4 some good [training] sessions drilling the line out in a [practice] game environment ...

5 I think those sessions were good because when we played [club], they needed a drop  
6 goal to win and they had about 8 scrums. It was just the mentality [of working hard].

7 I think me and [teammate] hit 55 scrums one after the other, in one [training] session  
8 ... stuff like that is good and players will know what they can do [under pressure].

9 **Emotion-focused coping.** Emotion-focused coping captured the most frequently cited  
10 behaviors that were used by players to manage or express their emotions. The higher-order  
11 themes were: *receiving encouragement, seeking social support, visualization, creating tasks,*  
12 *relaxation, self-talk, and acceptance.* The most common themes related to *receiving*  
13 *encouragement*, which consisted of “encouragement from teammates”, “encouragement from  
14 staff”, and “encouragement from house parents”. Receiving emotional support from  
15 teammates and coaches is a common resource used to cope in organizations (Kristiansen et  
16 al., 2012). This is because social support offsets the negative effect of stressors on well-being  
17 (Cohen, Sherrod, & Clark, 1986). From the focus groups, it emerged that more experienced  
18 players offered encouragement to help players manage their emotions:

19 I think I got [received] that [encouragement] actually, when I was a first year (Player  
20 37). Yeah, in our first year [at the organization] there were a lot of third years  
21 [players] for us to [receive] get help from. Like, if you looked nervous they would sit  
22 down and say “don’t worry, you’ll be fine, you’re here for a reason, they [the coaches]  
23 wouldn’t have chosen you otherwise” (Player 34).

24 **Reappraisal-focused coping.** Reappraisal-focused coping consisted of the behaviors  
25 that were used by players to reappraise the relevance and importance of organizational

1 stressors. The higher-order themes were *self-rationalization* and *rationalizing with others*.  
2 *Rationalizing with others* appeared to reflect a coping resource that was rarely adopted by  
3 players. Moreover, the professional academy players in this study appeared to lack the  
4 confidence to seek support from staff and teammates to help rationalize particular stressors.  
5 In light of these findings, sport performers in this organization may benefit from the  
6 development of greater support seeking behaviors to promote collaboratively reappraising  
7 organizational demands. The following quote illustrates the influence of rationalizing with  
8 physiotherapists to help a player (Player 1) re-appraise the significance of an injury:

9 I had a small stress fracture in my left foot ... for the first week I didn't really manage  
10 it very well ... Then you kind of get your head around it and think that this could  
11 work in a positive way and that's due to [the support of] the coaches and  
12 physiotherapy team. They kind of put it into your mind all the positives you're going  
13 to get out of being injured at this time.

14 **Avoidance coping.** Avoidance coping consisted of the behaviors that were used to  
15 actively avoid solving problems or managing emotions. The higher-order themes were:  
16 *behavioral avoidance, blocking, denial, and substance abuse*. Although the function of  
17 avoidance coping is believed to be maladaptive for long-term well-being, it could be adaptive  
18 in the short-term (Kristiansen et al., 2012); however, this may depend on the behaviors  
19 enacted to fulfill this coping function (Skinner et al., 2003). Although a limited number of  
20 themes were cited, academy staff reported a range of avoidance behaviors commonly  
21 displayed by players, such as "lying to avoid conflict", "denial over incurring an injury" and  
22 "drinking alcohol to disengage from having their professional contract terminated".

### 23 **Organizational Stressor Outcomes**

24 Organizational stressor outcomes refer to the symptoms of exposure to demands. The  
25 four general dimensions were: emotional responses, intrapersonal outcomes, and performance

1 -related outcomes.

2       **Emotional responses.** Emotional responses consisted of a wide range of *negative*  
3 *emotions* and *positive emotions*. The most highly cited lower-order themes were “anxiety”,  
4 “anger”, and “fatigue”. This finding is consistent with previous research that has explored  
5 emotional responses to organizational-related demands in elite (Arnold & Fletcher, 2015;  
6 Arnold et al., 2017; Fletcher et al., 2012b) and professional sport performers (Nicholls et al.,  
7 2009). This can be explained in so far that anxiety and anger represent a basic set of states by  
8 which threat and harm appraisals are commonly associated (Lazarus, 1999). From the  
9 interviews, it was evident that the academy had bred a culture of fear amongst the players,  
10 with anxiety being a typical response to “receiving negative feedback from others” and the  
11 formation of “academy hierarchies”. In addition, players typically experienced intense  
12 anxiety from selection stressors such as “call ups [to the senior squad] at short notice”: “All  
13 of a sudden you need to be on the bench for the first [senior] team and then you’ve got 5 or 6  
14 days to learn all of the calls [tactics] and you think \*\*\*\*\* hell” (Player 6).

15       **Intrapersonal outcomes.** Intrapersonal outcomes consisted of the organizational  
16 stressor outcomes that were associated with a player's cognitive functioning. The higher-  
17 order themes were: *confidence*, *de-motivation*, *concentration*, *decision making*, and *sleep*.  
18 Both players and staff suggested that “reduced confidence” is experienced primarily by first  
19 year players, who are attempting to adapt to *academy transitions* (e.g., “moving to the  
20 academy to train”) and *cultural norms* (e.g., “negative motivational climate”). In some cases,  
21 it was acknowledged that intrapersonal outcomes were often a result of negative emotional  
22 responses to specific stressors. The following quote by a coach (Staff 6) illustrates the  
23 collective consequences of a negative motivational climate, which can lead to heightened  
24 levels of anxiety and reduced confidence for players:

25       We’ve got two small guys and the motivation [from a coach] is constantly, “You’re

1           too small for this game, I don't know why you're here, you might as well go home  
2           now" ... the lads [players] just cower like this [shy away] and don't say anything back  
3           ... So that's why when it comes to situations which need somebody to be confident  
4           and speak up they won't do it because they fear they'll just get ridiculed. When things  
5           have been shouted at them on the touchline you can see it [in their body language],  
6           just like, "oh \*\*\*\*", heads down, it really affects them, they won't turn around and  
7           say, "Okay, I made a \*\*\*\* up [a mistake] but I'll put it right", in response to "You're  
8           \*\*\*\*\* coming off if you do that again! [shouting]".

9           **Performance-related outcomes.** The higher-order themes within this general  
10          dimension were: *communication, individual performance, team performance, and retention*.  
11          Within *individual performance*, "reduced skill development" was considered a consequence  
12          from training-related stressors, such as a "lack of individualized sessions" and "longer  
13          training sessions". In addition, players spoke of making technical and tactical errors in  
14          training due to a fear of receiving further negative feedback from coaches. Players and staff  
15          also felt that the organization could consider reducing the longer duration of some training  
16          sessions, which are often counterproductive to concentration and skill development: "I saw it  
17          several times last year ... I've done 45 minutes [coaching], it's been quality intense stuff but  
18          [coach] does another 45 minutes on line outs and scrums. The lads are just exhausted and it's  
19          counterproductive [for skill development]" (Staff 3). "Rather than doing an hour and a half  
20          session, do two 45 minute sessions where it's just detail ... Really intense ... And then you're  
21          not [fatigued], because towards the end of sessions, you get really tired and then your  
22          concentration goes" (Player 2).

### 23          **Stress Management Recommendations**

24                 In line with organizational stress management frameworks (Dewe et al., 2010;  
25          Richardson & Rothstein, 2008), participants provided a series of organizational-level and

1 individual-level recommendations to maximize sport performers' well-being and performance  
2 development. Figure 1 illustrates the target groups by which stress management initiatives  
3 were recommended throughout the organization. Higher-order themes are presented for each  
4 target group, along with example lower-order themes. To corroborate these interview  
5 responses, stress management survey recommendations were also completed at the end of  
6 each interview (see Table 4). These survey responses reflected the average proportion of  
7 players and staff that believed them and the organization would benefit from and participate  
8 in particular stress management programs to facilitate players' ability to manage  
9 organizational stress in the future.

10       **Organizational-level recommendations.** Organizational-level interventions are  
11 typically developed to remove or modify specific organizational characteristics that  
12 individuals and groups encounter, such as stressors (Dewe et al., 2010). The fourteen higher-  
13 order themes within organizational-level recommendations were: *communication channels*;  
14 *facilities management*; *work appraisals*; *talent development*; *game reviews*; *game*  
15 *preparation*; *reflective practice*; *team cohesion*; *time management*; *training structure*; *team*  
16 *goal setting*; *team problem solving*; and, *professionalism*. Within these themes, the most  
17 frequently suggested recommendations were to: organize more team socials for all academy  
18 players and staff to attend, integrate more regular team analysis of games, involving all  
19 academy players and coaching staff; incorporate varied training sessions involving the  
20 commitment of all academy players and staff; and, encourage communication between the  
21 players and all academy and senior team staff. These initiatives were considered important  
22 due to the aforesaid stressors relating to poor communication between players and members  
23 of the organization, high training intensities, fatigue, the existence of academy hierarchies,  
24 and, cliques in the playing squad. The need to address these stressors was supported by a  
25 series of survey recommendations (see Table 4). In particular, team building was suggested



1 by many of the academy players ( $n = 39$ , 98%) and supported by some staff ( $n = 3$ , 42%).  
2 Moreover, building confidence was cited by players ( $n = 32$ , 81%) and staff ( $n = 4$ , 61%) as a  
3 program that they believed academy players would all benefit from and participate in as an  
4 academy. Problem solving at a group and individual-level was also suggested by players ( $n =$   
5 30, 76%), with 4 out of 7 staff believing that players would benefit from this program.

6 **Individual-level recommendations.** Individual-level interventions are typically  
7 developed to enable individuals to better appraise, respond and cope with organizational  
8 stressors (Dewe et al., 2010). The seven higher-order themes within this dimension were:  
9 *senior first team exposure; mentoring; coping; goal setting; trust; coach feedback; and,*  
10 *parental education.* Within these higher-order themes, the most commonly cited lower-order  
11 recommendations were to: modify negative appraisals for first and second year players,  
12 encourage problem solving and decision making to first year players, raise coach awareness  
13 of providing varying methods of feedback to players, and optimize confidence for first year  
14 players. The education of coping efficacy for less experienced players was deemed  
15 particularly important. This was explained in so far that first year players, who are making an  
16 amateur to professional sport transition, often perceive their environment to be intimidating.  
17 Moreover, it was suggested that players struggle to cope with high training intensities and  
18 receiving negative feedback. The survey data also indicated that players (78%) and staff  
19 (100%) believed that players would benefit from coping education.

20 One noticeable incongruence between the interview and survey recommendations  
21 obtained was players' need for improved social support. From the survey data, 24 out of 40  
22 players (60%) and 2 out of 7 staff (29%) felt that players would benefit from improved social  
23 support. However, the interview and focus group data suggested that some players already  
24 seek and receive different forms of support from teammates and staff. A recommendation  
25 from staff suggested improving social support could be achieved by raising coach awareness

1 of feedback methods and educating parents on methods of support. Conversely, one member  
2 of staff (Staff 5) argued the following: "This academy is like no other academy in the country  
3 in the different levels of support provided to players". From the interviews and survey  
4 responses it was also apparent that staff were keen to support the design and delivery of stress  
5 management programs for their players, but were less interested in participating in any of  
6 these programs alongside the players. This is an important applied consideration for the  
7 development of organizational programs, since the effectiveness of such initiatives may be  
8 largely dependent on the evidence of key decision makers' readiness for change, support for  
9 and engagement in the programs (Nielsen, 2013).

### 10 **General Discussion**

11 The primary purpose of this study was to undertake a mixed method organizational  
12 stress audit of competitive performers who operate in a sport organization. A secondary  
13 purpose was to identify future stress management recommendations to maximize performers'  
14 well-being and performance development. Informed by a transactional stress approach (Dewe  
15 et al., 2010; Lazarus, 1991, 1999), the findings reveal a number of common organizational  
16 stressors encountered by sport performers who operate in this sport institution. These findings  
17 support the identification of themes identified in sport performers across a range of  
18 competitive levels (Arnold & Fletcher, 2012; Kristiansen, Murphy, & Roberts, 2012;  
19 Nicholls, Backhouse, Polman, & McKenna, 2009). In this organizational context, many  
20 stressors (e.g., training demands) were often a by-product of encountering other demands  
21 (e.g., academy transitions). Moreover, a culture of intimidation and a negative motivational  
22 climate were linked to commonly developed appraisals and coping behaviors. In line with  
23 stress theory (Lazarus, 1999), these player appraisals and coping behaviors were related to  
24 emotional, intrapersonal and performance outcomes.

25 A wide range of stress management recommendations were also identified for specific

1 groups in this organization, with the aim of directly or indirectly helping sport performers to  
2 better manage their experiences of organizational stress in the future. An overarching  
3 message was that players, and to some degree staff, would take part in individual- *and*  
4 organizational-level stress management programs. At an individual-level, player coping  
5 efficacy is important, as the behaviors used to achieve coping functions may be adaptive for  
6 well-being in specific contexts, but maladaptive in others (Daniels et al., 2013; Skinner et al.,  
7 2003). This is sensible given the mission of the current organization, which is to retain  
8 academy players who demonstrate an ability to cope with professional sport and its demands.  
9 At an organizational-level, it was perceived that the institution should integrate initiatives to  
10 enhance team cohesion and communication channels, vary training stimulus, and to  
11 incorporate reviews of competitive games. Such organizational-level programs are believed  
12 to be the most proactive solution to managing stress (Dewe et al., 2010), as they aim to  
13 prevent player strain from occurring by modifying structures and environmental conditions  
14 (cf. Briner & Reynolds, 1999). Although support for their efficacy has been equivocal  
15 (Richardson & Rothstein, 2008), participatory stress audits are arguably a prerequisite for  
16 effective interventions, as the sport performers who may benefit from such programs are also  
17 those recommending their creation (cf. Nielsen et al., 2010).

18 A strength of the current stress audit was the sample size ( $N = 47$ ) and sampling of  
19 varying organizational members. This was important to illustrate how players' stress  
20 experience may also be perceived by staff and jointly developed by common player attitudes,  
21 cultural norms, contagion, and managed by a range of coping resources. Despite these  
22 strengths, the sample sizes for some of the focus groups (i.e.,  $n = 15$ ) was considered a  
23 limitation, which could have compromised an appropriate level of participant contribution.  
24 Further, the data yielded from large focus group samples may not have enabled individuals to  
25 represent their views as clearly as individual interviews might. Although we were mindful of

1 adhering to focus group guidelines for organizational research (Bachiochi & Weiner, 2004),  
2 the specific context determined that we had to complete interviews at times that were most  
3 convenient to the organization. It is possible that the development of steering groups  
4 comprising a mixture of sport performers and staff could have been applied to identify clearly  
5 agreed motives for tackling sport performers' experiences of organizational stress. However,  
6 given the identification of potentially threatening cultural norms, steering groups may have  
7 been counterproductive. In the current study, conducting focus groups with player sub-groups  
8 was necessary for delimiting future interventions to groups who may be most at risk of strain  
9 (Bradley & Sutherland, 1994). We acknowledge that the analysis of group experiences makes  
10 it problematic to assess the coping effectiveness of particular stressors for specific  
11 performers. We therefore recommend mixed-method assessments to further inform  
12 intervention development and refinement.

13         The findings from this study suggest that organizational stress management in sport is  
14 an area worthy of future research. While attempting to advance the conceptual framework  
15 and methods used to understand organizational stress, we concur that “research should give  
16 more attention to developing techniques used to diagnose the need for stress interventions”  
17 (Bowling et al., 2012, p. 79). As the current study indicates, not all stressors are maladaptive  
18 for sport performers' well-being and performance. Researchers considering a mixed method  
19 approach to stress auditing could consider a longitudinal examination, using a combination of  
20 regular steering group meetings, interviews, diaries, observations, and surveys. A blend of  
21 these approaches will likely result in greater exposure to the organizational environment and  
22 may capture an accurate reality of day-to-day functioning. Comprehensive audits such as the  
23 aforesaid may be more time consuming for organizations. Yet, the benefits of conducting a  
24 detailed, participative, and proactive approach to stress management are likely to outweigh  
25 the time taken and the relatively minimal cost that could be incurred to improve the well-

1 being and performance of sport performers (cf. Briner & Reynolds, 1999).

2         There are a number of practical challenges when conducting applied research in sport  
3 organizations. In conducting stress audits that are theoretically founded (e.g., Lazarus, 1991),  
4 psychologists should identify the stress processes and common issues that need solving for  
5 those individuals (e.g., players) and groups (e.g., sub-group teams) who need the most  
6 support (Bowling et al., 2012; Nielsen et al., 2010). This is vital for prioritizing whether  
7 organizational-, individual-level interventions, or an amalgamation of the two is necessary  
8 (Giga et al., 2003). Organizational-level programs may be the priority for modifying  
9 organizational stressors, such as cultural norms. Where stressors cannot be removed or  
10 reduced, individual-level programs such as modifying cognitive appraisals are also  
11 appropriate for facilitating well-being (Richardson & Rothstein, 2008). In reality, studying  
12 sport performers' organizational experiences and recommendations for intervention  
13 development in context is not straightforward, particularly when there may be incongruence  
14 between performers and key stakeholders as to the main issues that need prioritizing. In this  
15 regard, sport psychologists have a challenging but important role in encouraging stakeholders  
16 to provide support for the necessary interventions to be designed and implemented. Without  
17 such commitment, it is likely that sport performers will perceive a lack of interest on the part  
18 of stakeholders in their well-being. This may subsequently lead to negative performer  
19 perceptions of the organizational climate in which they operate (cf. Dewe et al., 2010).

20         In conclusion, this stress audit makes a conceptual contribution by unearthing  
21 contextual (e.g., non-normative transitions) and cultural complexities (e.g., political  
22 hierarchies) that are not explicitly evident in the organizational psychology models used to  
23 inform interventions. Organizational interventions which aim to modify the stressors  
24 encountered, or reduce their impact on performers' well-being, are more likely to be effective  
25 if a stress audit is rigorously adopted and integrated in an organization's overall management

- 1 strategy. Although some challenges exist for undertaking an audit, the prevention and
- 2 management of stress should be a joint responsibility between sport performers and
- 3 stakeholders (Dewe et al., 2010; Fletcher et al., 2006); one that may hold great promise for
- 4 optimizing well-being, performance, and organizational productivity.

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Table 1. Organizational stressors encountered by professional academy players

Lower-order themes (examples only)	Higher-order themes	General Dimension
Coaches' expectations	External expectations	Leadership and Personnel Issues
Receiving negative feedback	Feedback	
Poor referee decisions	Referees	
Job uncertainty	Retention	
Ambiguous injury diagnoses	Support staff	
Conflicting coaching styles	Coach behaviors	
Unapproachable coaches	The coaches' personality and attitudes	
Academy hierarchies	Academy atmosphere	Cultural and Academy Issues
Poor communication between players	Communication	
Culture of Intimidation	Cultural norms	
Hostile teammates	Players' personality and Attitudes	
Role ambiguity	Roles	
Lack of individual development sessions	Training environment	Logistical and Environmental issues
Fluctuating game preparation	Competition environment	
Inadequate changing rooms	Facilities and equipment	
Fierce competition for selection	Selection	
Long away game journeys	Travel	
Moving to the academy to train	Academy transitions	Performance and Personal Issues
Balancing academy and education	Work-life interface	
Lack of food preparation	Diet and recovery	
Isolation from being injured	Player injury	
Lack of finances	Finances	

Table 2. Cognitive appraisals and coping behaviors of professional academy players

Lower-order themes (examples only)	Higher-order themes	General Dimension
Player threat appraisals of making the transition to professional rugby	Threat appraisals	Cognitive appraisals
Benefit appraisals of the academy training program	Benefit appraisals	
Challenge appraisals of player injury	Challenge appraisals	
Harm appraisals of negative feedback	Harm appraisals	
Working harder due to feedback	Increased effort	Problem-focused coping
Instructional support from teammates	Informational support	
Practicing ‘what if scenarios’	Planning	
Talking to teammates to solve issues	Talking to teammates	
Working on changing technique	Changing behavior	
Focusing	Increased concentration	Emotion-focused coping
Encouragement from teammates	Receiving encouragement	
Talking to teammates for support	Seeking social support	
Imagery	Visualization	
Creating tasks to prevent boredom	Creating tasks	
Listening to music	Relaxation	
Self-talk	Self-talk	Reappraisal-focused coping
Accepting selection decisions	Acceptance	
Rationalizing negative feedback	Self-rationalization	Reappraisal-focused coping
Re-evaluating injury with physiotherapists	Rationalizing with others	
Avoiding conflict	Behavioral avoidance	Avoidance coping
Trying to forget mistakes	Blocking	
Player denial over injury	Denial	
Drinking alcohol prior to being released by the academy	Substance abuse	

Table 3. Organizational stressor outcomes experienced by professional academy players

Lower-order themes (examples only)	Higher-order themes	General Dimension
Anger	Negative emotions	Emotional outcomes
Excitement	Positive emotions	
Reduced confidence	Confidence	Intrapersonal outcomes
De-motivated	De-motivation	
Reduced concentration	Concentration	
Players being unable to make appropriate decisions	Decision making	
Lack of sleep	Sleep	Performance-related outcomes
Reduced team communication	Communication	
Making mistakes	Individual performance	
Reduced team performance	Team performance	
Players being released	Retention	

Table 4. Survey recommendations for organizational stress management

	I feel I would personally benefit from ...	I would personally participate in ...	I feel that the academy would benefit from ...	I would recommend the academy to use ...
Team building	38P, 2S	40P, 4S	40P, 3S	39P, 4S
Building confidence	28P, 3S	34P, 4S	34P, 5S	34P, 5S
Coping with pressures	26P, 1S	32P, 4S	35P, 5S	31P, 5S
Problem solving	28P, 4S	28P, 5S	33P, 4S	32P, 4S
Relaxation training	29P, 3S	32P, 4S	32P, 4S	26P, 4S
Team performance appraisals	29P, 1S	28P, 5S	33P, 4S	28P, 4S
Time management	26P, 1S	29P, 4S	32P, 4S	28P, 4S
Assertiveness training	25P, 3S	28P, 4S	33P, 3S	28P, 3S
Managing emotions positively	24P, 4S	29P, 5S	30P, 4S	24P, 3S
Psychology rehabilitation for injured players	25P, 2S	29P, 3S	30P, 4S	26P, 4S
Challenging stressful thinking	24P, 3S	28P, 5S	31P, 3S	25P, 3S
Self-regulating teams	25P, 1S	28P, 3S	28P, 2S	25P, 2S
Improved social support	21P, 1S	23P, 4S	30P, 2S	25P, 3S
Resolving conflict	18P, 3S	24P, 4S	26P, 3S	23P, 3S

Note.  $N = 47$ , P = the number of recommendations from academy players ( $n = 40$ ); S = the number of recommendations from academy staff ( $n = 7$ ).

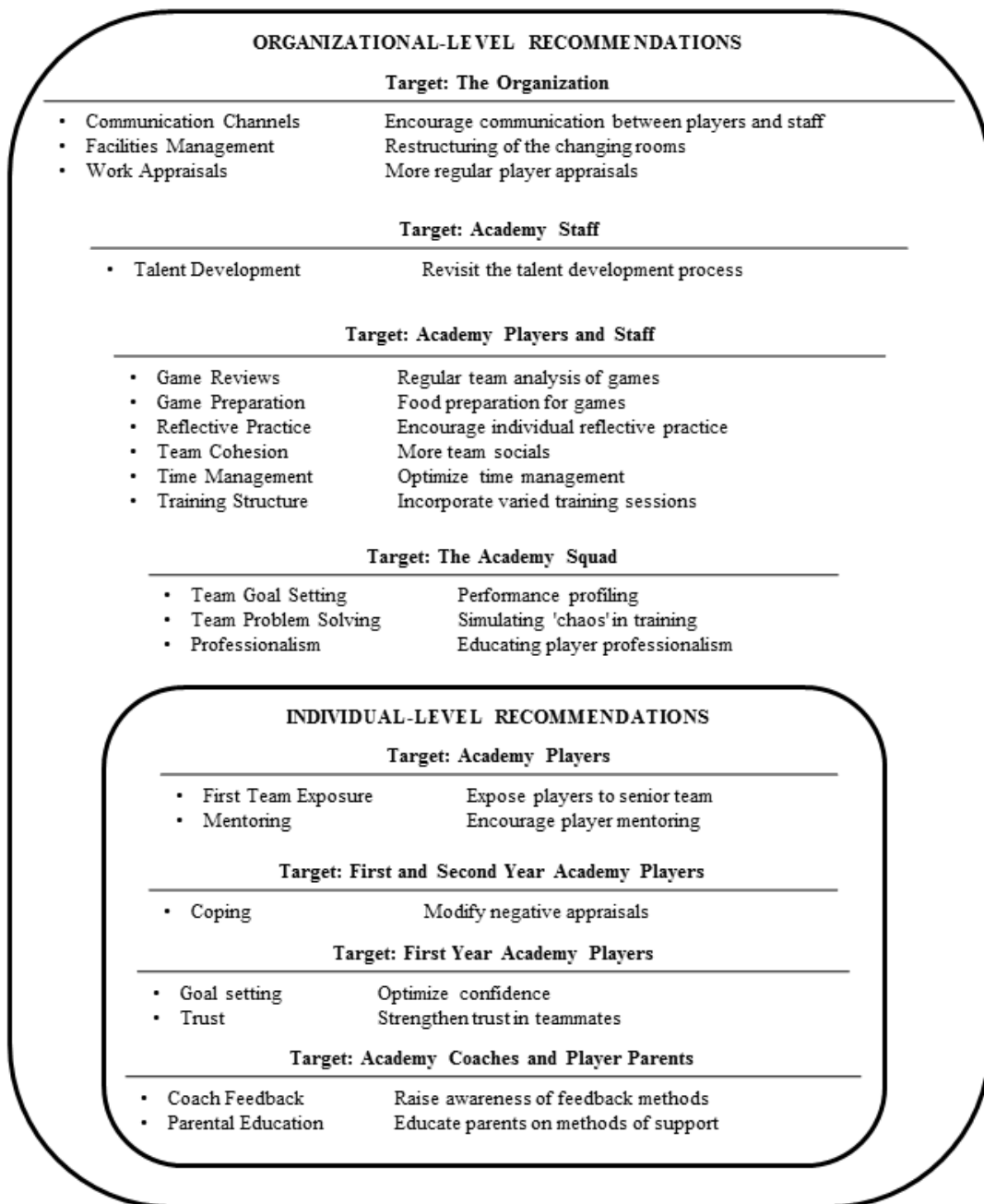


Figure 1. Organizational- and individual-level stress management recommendations