

Understanding mental toughness in elite football officiating : perceptions of English Premier League referees.

SLACK, Liam, BUTT, Joanne <<http://orcid.org/0000-0002-0477-894X>>, MAYNARD, Ian <<http://orcid.org/0000-0003-2010-5072>> and OLUSOGA, Peter <<http://orcid.org/0000-0001-8431-3853>>

Available from Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/8341/>

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

SLACK, Liam, BUTT, Joanne, MAYNARD, Ian and OLUSOGA, Peter (2014). Understanding mental toughness in elite football officiating : perceptions of English Premier League referees. *Sport and exercise psychology review*, 10 (1), 4-24.

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

1 Running Head: MENTAL TOUGHNESS IN ELITE FOOTBALL OFFICIATING

2

3 Understanding mental toughness in elite football officiating:

4 Perceptions of English Premier League referees.

5 Liam A. Slack, Joanne Butt, Ian W. Maynard, and Peter Olusoga.

6 Centre for Sport and Exercise Science, Sheffield Hallam University, Sheffield, UK.

7

8 All correspondence should be addressed to Mr Liam A. Slack, Centre for Sport and

9 Exercise Science, A211 Collegiate Hall, Collegiate Crescent Campus, Sheffield Hallam

10 University, Sheffield, South Yorkshire, S10 2BP, UK.

11 *Tel:* +44 (0) 114 255 5368

12 *Fax:* +44 (0) 114 255 4341

13 *Email:* liam.slack@shu.ac.uk; j.butt@shu.ac.uk; i.w.maynard@shu.ac.uk; p.olusoga@shu.ac.uk

14

15 *Acknowledgements*

16 The team of researchers sincerely thank Mike Riley (Professional Game Match Officials

17 Limited General Manager) for his continued assistance and support. The authors would again

18 like to acknowledge that the cooperation of the Select Group referees was of invaluable

19 importance.

Abstract

1
2 The purpose of the present study was to gain a detailed understanding of Mental Toughness
3 (MT) in the context of elite football officiating. Competition-specific and off-field situations
4 perceived to require MT as well as corresponding behaviours and cognitions utilised by
5 **mentally tough** referees were identified. Fifteen English Premier League (EPL) referees were
6 individually interviewed using a semi-structured interview guide. Through inductive and
7 deductive content analysis, 70 situations converged into five higher-order themes: (a) pre-
8 match situations, (b) during-match situations, (c) post-match situations, (d) general elite
9 refereeing situations, and (e) general-life situations. Throughout emerging themes, a
10 multifunctional set of adaptive patterns of behaviour (e.g., act as a barrier between players,
11 looking calm and composed) and cognitive strategies (e.g., draw upon life experiences,
12 awareness of players' emotions) were outlined. Theoretical and applied implications for sport
13 psychology practitioners and researchers operating in the area of MT are discussed.
14 *Keywords:* Mental Toughness, elite football officiating, English Premier League football,
15 situations, behaviours, cognitions, attributes.

1 Understanding mental toughness in elite football officiating:

2 Perceptions of English Premier League referees

3 The pursuit of athletic excellence has led to considerable attention directed towards the
4 construct of Mental Toughness (MT). Within current sport psychology literature, MT is now
5 regarded as an indispensable psychological component (Gucciardi, Gordon, & Dimmock,
6 2008). In part, Crust (2007) highlighted that the recent escalation of research activity on MT
7 was due to an increasing number of sporting communities linking this concept to performance
8 excellence (e.g., sports media and analysts). However, preceding Jones and colleagues'
9 seminal investigations (Jones, Hanton, & Connaughton, 2002; 2007), a knowledge-base
10 spanning over five decades had remained relatively descriptive, equivocal, and deficient in
11 empirical research procedure (See Connaughton, Hanton, Jones, & Wadey, 2008, for review).

12 Addressing this, Jones et al. (2002) provided greater theoretical rigour and conceptual
13 clarity of MT when drawing upon the scientific framework of personal construct theory
14 (Kelly, 1955). When gaining the accounts of 10 elite athletes, findings identified, and ranked
15 in order of importance, 12 psychological attributes perceived to underpin MT. In particular,
16 unshakeable self-belief, high intrinsic motivation, bouncing-back from setbacks, and thriving
17 on competitive pressures were some of the more important attributes to emerge. Building
18 upon their original study and following a similar purpose, Jones et al. (2007) gained further
19 understanding of MT at the super-elite standard (i.e., Olympic/World Championship gold
20 medallists). Specifically, eight champion athletes, three coaches, and four sport psychologists
21 operating at this level reported 30 attributes that converged into four dimensions of a MT
22 framework: (a) attitude/mind-set, (b) training, (c) competition, and (d) post-competition. As a
23 result, this framework extended the MT literature by providing a temporal foundation of the
24 specific utilisation of MT attributes.

1 Interestingly, investigations have at times reported differences in MT attributes of
 2 athletes across sport-general and sport-specific domains (Anderson, 2011). However, given
 3 these variations, Gucciardi, Mallett, Hanrahan, and Gordon (2011) suggest that a consistent
 4 group of core MT attributes is now emerging within the literature (e.g., success mindset,
 5 resilience, handle challenge, context intelligence). Supporting this notion, researchers have
 6 recently achieved similar findings when gaining the perspectives of ultra-endurance runners
 7 (Crust, Nesti, & Bond, 2010) and U.S. National Collegiate Athletic Association (NCAA)
 8 student-athletes (Butt, Weinberg, & Culp, 2010). Taken together, the research highlights that
 9 MT attributes are not only required in elite and super-elite individuals, but also in a wide-
 10 range of high-achieving athletic participants.

11 Expanding on the current influx of MT research, significant conceptual and definitional
 12 advancements have developed. Supplementing this, investigations have begun to explore
 13 under what sporting conditions MT attributes are warranted. In particular, Gucciardi and
 14 colleagues (Gucciardi et al., 2008) identified 11 MT attributes throughout a host of general
 15 and competition-specific situations that required MT within Australian football. Specifically,
 16 findings suggested that a wide-range of both negatively (e.g., dealing with injury) and
 17 positively (e.g., preparation for competition) perceived situations demanded MT. Results also
 18 identified key behaviours deployed by Australian footballers in on-field situations (e.g.,
 19 consistent high-levels of performance, game anticipation). In accordance, Gucciardi and
 20 colleagues (Gucciardi, Gordon, & Dimmock, 2009a) developed a process and outcome model
 21 of MT, theoretically driven by personal construct psychology (Kelly, 1955; 1991). In addition,
 22 Gucciardi et al. (2009a) provided a rigorous definition of MT which, subsequently, has been
 23 refined by Coulter, Mallett, and Gucciardi (2010, p.715):

24 Mental Toughness is the presence of some or the entire collection of
 25 experientially developed and inherent values, attitudes, emotions, cognitions, and

1 behaviours that influence the way in which an individual approaches, responds to,
2 and appraises both negatively and positively construed pressures, challenges, and
3 adversities to consistently achieve his or her goals.

4 Supplementing this revision, Coulter et al. (2010) examined mentally tough situations,
5 behaviours, and cognitions, when investigating the perceptions of athletes, coaches, and
6 parents in the context of Australian soccer. In particular, situations demanding MT included
7 performance (e.g., accepting poor refereeing decisions) and off-field related situations (e.g.,
8 balancing commitments). Moreover, findings acknowledged a superior set of behaviours (e.g.,
9 blocking attempts at goal from opposing players) and cognitions (e.g., positive self-talk)
10 associated with MT. With this in mind, research has leant towards characterising MT as
11 athletes being able to deal effectively with performance difficulties (e.g., being deselected), as
12 well as thrive within challenging situations (e.g., maintaining a winning run) throughout
13 competition (Connaughton & Hanton, 2009).

14 However, a limitation concerning this literature is that it is still relatively representative
15 of the athletic domain. Indeed, Crust (2008) called for further research to examine performers
16 in a range of sporting contexts in an effort to gain additional understanding of MT. As
17 previously discussed and central to this athletic representation, a notable emphasis has been
18 placed on understanding MT in elite-level soccer (e.g., Coulter et al., 2010; Thelwell, Weston,
19 & Greenlees, 2005). Nevertheless, given the narrow focus on players, previous research has
20 failed, in the most part, to acknowledge other performers (e.g., managers) operating within
21 this sport whereby MT might also be important. Accordingly, one study that has provided a
22 starting point for studying MT in other active on-field performers was conducted by Slack,
23 Maynard, Butt, and Olusoga (2012). When interviewing 15 elite English football referees,
24 Slack et al. (2012) identified numerous factors that underpinned officiating excellence (e.g.,
25 effective game management qualities, support networks and services, opportunities to thrive).

1 Interestingly, in this study the authors reported a group of MT attributes when characterising
 2 excellence: (a) coping with pressure (e.g., coping with match-day pressures), (b) achievement
 3 striving (e.g., high performance goals), (c) resilience (e.g., not dwelling on decisions), (d)
 4 high work-ethic (give 100% in every game), (e) robust self-belief (e.g., trust in decision-
 5 making), (f) tough attitude (e.g., make sacrifices), and (g) sport intelligence (e.g., a feeling for
 6 the game). It is important to note, while these MT attributes did overlap with MT attributes
 7 reported in research with other sports (e.g., Jones et al., 2002; Gucciardi et al., 2008), findings
 8 also acknowledged attributes specific to elite football officiating. The findings reported by
 9 Slack et al. (2012) demonstrate that MT attributes play an important role in officiating
 10 excellence.

11 With this in mind, research further conceptualising MT in elite football officiating
 12 would broaden the breadth and depth of existing literature in this area. Given the unique
 13 duties carried out by officials in comparison to athletes (e.g., control of match procedures;
 14 Mascarenhas, O'Hare, & Plessner, 2006), by identifying situations requiring MT, it is
 15 anticipated that **mentally tough** referees might possess distinctive behaviours and cognitions
 16 as previously identified in athlete research (e.g., Coulter et al., 2010; Gucciardi et al., 2008).
 17 Collectively, from a conceptual perspective, it appears that while there are shared attributes of
 18 MT across specific sports and contexts (e.g., elite athletes, student-athletes, footballers,
 19 cricketers, football officials), there are also attributes unique to each sport and the respective
 20 roles played. Further, athlete research has started to demonstrate that the link between
 21 situations, behaviours, and cognitions (e.g., Coulter et al., 2010) is critical to enhancing our
 22 understanding of MT and how attributes can be used and developed. Accordingly, the present
 23 study examined the link between situations requiring MT and behaviours and cognitions
 24 employed in elite football officiating.

1 This type of research is significant for MT specialists (i.e., MT researchers and
 2 consultants) to understand the role-specific nature of MT and also to understand its role-
 3 specific development. Furthermore, throughout situations requiring MT, the identification and
 4 utilisation of behavioural and cognitive components is believed to be a vital prerequisite of
 5 sport-specific MT interventions aimed at developing MT (Connaughton, Thelwell, & Hanton,
 6 2011). In fact, this understanding is believed to be the structural underpinning that
 7 distinguishes MT interventions over more traditional psychological skills training
 8 programmes (Connaughton et al., 2011). To this end, the purpose of the study was to: (a)
 9 identify situations perceived by elite football referees to require MT, and (b) document the
 10 associated behaviours and cognitions utilised by referees within these situations.

11 **Method**

12 **Participants**

13 Following completion of institutional ethics procedures, 15 English Premier League
 14 (EPL) football referees ($M_{\text{age}} = 42$ years) used within a previous study (Slack et al., 2012)
 15 were re-interviewed face-to-face ($N=11$) or via telephone ($N=4$). Participants were active
 16 ($N=12$) or recently retired Select Group referees ($N=3$; retired within the last 24 months of
 17 interviewing). Select Group referees are a full-time, professional panel appointed by
 18 Professional Game Match Officials Limited (PGMOL) to officiate football matches in the
 19 EPL. Referees reported an average of 6.87 years EPL football experience, and had refereed
 20 1892 ($M_{\text{matches}} = 126.13$) matches collectively at the elite-level.

21 **Procedure**

22 Permission was granted and logistical assistance gained for participant recruitment by
 23 the PGMOL. Referees were contacted via email and/or phone and invited to participate in the
 24 study. Each referee was informed of participant requirements and confidentiality, as well as
 25 the right to withdraw from the study at any point. To provide a suitable conceptual foundation

1 in which to explore MT, a definition of MT (i.e., Coulter et al., 2010, p.715) was provided to
 2 all participants prior to the interviews. In addition, to familiarise participants with the study
 3 purposes, a summary of the MT attributes generated from Slack et al.'s (2012) findings was
 4 also provided. Face-to-face interviews were conducted at Select Group training camps and
 5 telephone interviews were carried out at a date and time most convenient for each referee.

6 A semi-structured interview guide¹ was derived from current MT literature (i.e., Coulter
 7 et al., 2010) and consisted of a series of open-ended, non-leading questions (Patton, 2002).
 8 Questions were designed to explore MT in elite football officiating and comprised: (a)
 9 situations requiring MT (e.g., "can you identify competition-specific/off-field situations that
 10 you feel require MT?"), (b) what do you do during situations requiring MT (e.g., "how do you
 11 behave during [situation]?"), and (c) what cognitions do you deploy throughout situations
 12 requiring MT (e.g., "what are your thoughts during [situation]?"). In addition, elaboration
 13 probes (e.g., "what it is about this [situation, behaviour, cognition] that considers it to be
 14 related to MT?") were implemented throughout the duration of interviews to obtain an in-
 15 depth understanding of MT (Patton, 2002).

16 **Data Analysis**

17 Interviews lasted approximately 40 minutes, were digitally audio recorded and
 18 transcribed verbatim. Three members of the research team independently examined the
 19 interview transcripts to ensure the content was comprehensively understood. At that point,
 20 following Miles and Huberman's (1994) procedures carried out in previous applied sport
 21 psychology research (Greenleaf, Gould, & Dieffenbach, 2001), deductive content analysis
 22 was deployed. Raw-data themes representing situations requiring MT were listed as quotes or
 23 paraphrased quotes (Maykut & Morehouse, 1994), and deductively categorised into either
 24 competition-specific (e.g., manager confrontation at half-time) or off-field situations (e.g.,
 25 dealing with injury/illness). In accordance with these situations, each corresponding

1 behaviour (e.g., clear commands and signals) and cognition (e.g., trust in decisions) identified
 2 was associated with a MT attribute (e.g., robust self-belief) from a previous study (Slack et
 3 al., 2012). The analysis then moved from deductive procedures to solely inductive procedures.
 4 Consistent with recommendations outlined by Patton (2002), similar raw-data themes
 5 representing situations requiring MT (e.g., projecting a professional image, gaining respect
 6 from peers, onset of refereeing retirement) were then inductively organised into lower-order
 7 themes (e.g., Select Group pressures). The identification of lower-order themes similar in
 8 meaning (e.g., Select Group pressures, schedule and travel demands, refereeing setbacks)
 9 were organised to form higher-order themes (e.g., general elite refereeing situations). As
 10 recommended by Lincoln and Guba (1985), procedures to obtain trustworthiness were
 11 undertaken. First, researcher triangulation comprised of a sequence of team meetings until all
 12 discussions had reached a consensus on all raw-data, lower-order, and higher-order themes
 13 representing situations requiring MT. Second, a member of the research team exempt from the
 14 content analysis procedures continually queried decisions made on the content and structure
 15 of all the findings. Finally, member-checking procedures were undertaken to ensure accuracy
 16 of the findings. Each participant received a document outlining the results. As part of this
 17 process, participants were asked to authenticate (via email or in person) the findings in their
 18 entirety. With only minor amendments made, participant feedback deemed that the findings
 19 accurately represented MT in elite football officiating.

20 **Results**

21 The present study investigated MT in elite football officiating. The findings are
 22 discussed in specific sub-sections in accordance with the aims of the study and illustrated in
 23 Figures 1, 2, 3, and 4. In addition, the percentage of each raw-data, lower-order, and higher-
 24 order theme cited by referees as situations demanding MT were shown in parentheses.
 25 Finally, descriptive quotes were labelled with a referee ID number (e.g., Referee 2 = R2, etc.).

1 **Competition-Specific Situations Requiring Mental Toughness**

2 In total, 33 raw-data themes emerged from the 15 transcribed interviews. These
 3 responses were assembled into 9 lower-order and three higher-order themes outlining
 4 competition-specific situations perceived to require MT in elite football officiating (see Figure
 5 1). The higher-order themes included: (a) pre-match situations, (b) during-match situations,
 6 and (c) post-match situations.

7 **Pre-match situations.** Within this higher-order theme, 14 referees identified several
 8 pre-match incidents requiring MT. Specifically, these incidents revolved around meeting and
 9 talking to key individuals (e.g., manager and captain introductions) when setting the precedent
 10 of competition regularities, and adhering to live TV protocol prior to kick-off. Further, nine
 11 officials highlighted that refereeing a high-profile match (e.g., Cup final fixture) where the
 12 outcome of the result had a notable impact demanded MT. In contrast, several referees
 13 discussed officiating matches (e.g., lower league fixture) in which the standard of ability and
 14 interest inferior to an EPL fixture also required MT. As one referee explained:

15 If I do a [English Football] League Two game, it's still a big game. The fans
 16 expect me to referee like I do on the [English] Premier League. They expect to see
 17 an athlete, they expect to see a referee who's in control of proceedings, who can
 18 make decisions, and who can manage players. Also, it's their [managers and
 19 players] livelihood and everything that goes with that. (R6)

20 **During-match situations.** All 15 Select Group referees demonstrated that MT was
 21 needed during specific on-field encounters. Referees highlighted that dealing with player and
 22 manager mind-games consisted of a wide-range of verbal (e.g., players questioning decisions)
 23 and non-verbal actions (e.g., manager/s reaction to a decision). The following quote fully
 24 illustrates dealing with manager confrontation at half-time:

1 You get managers at half-time who wait in the tunnel for you saying they've
2 seen it on TV or seen it [incident] on DVD. Sometimes you have one manager
3 saying he's seen it on TV and another manager saying that he hasn't... So
4 managers try and throw doubt into your mind and try and put pressure on you for
5 the second-half. (R3)

6 In addition, tough decision-making was considered a significant element during competition
7 that required MT. EPL referees discussed a "confrontational decision," "not dwelling on a
8 contentious decision," and a "game-changing decision," for example:

9 If you take red card incidents and serious foul play incidents, it's about a referee
10 seeing, recognising, and acting on the incident. It's knowing that this may be an
11 unpopular decision, but it's the Laws of the Game... And it's that mental
12 toughness to act. (R5)

13 Critical incidents and flash-points were also perceived as situations demanding MT during play.
14 This included player vs. player altercation, mass-player confrontation, and crowd reaction to
15 decisions. One Select Group referee stated, "you might go to X [EPL football stadium] and
16 72,500 out of 75,000 people support one team... So you get 72,500 shouting at you and your
17 match-officials at the same time." (R1)

18 **Post-match situations.** Three post-match lower-order themes emerged from the
19 interviews where referees felt MT was required and comprised: (a) media outlets scrutinising
20 performance, (b) player/manager post-match criticisms, and (c) performance evaluation of
21 refereeing stakeholders. Media outlets were characterised as a host of written, TV, radio, and
22 Internet sources negatively evaluating referees' performance. As one Select Group official
23 conveyed:

24 At the [English] Premier League level there's all the media. Not just the back
25 pages of the papers [written press] but 24-hour TV programmes. You know that

1 any fundamental mistake doesn't just make the headlines in National [British]
2 papers, but the headlines across the world. By Saturday night at 7pm that mistake
3 will be shown all across the world. (R14)

4 Similarly, nine referees revealed that the extensive amount of performance feedback of
5 refereeing stakeholders warranted MT. Notably, specific personnel included: (a) match-day
6 assessor debrief, (b) PGMOL management scrutiny, (c) and constructive criticism from
7 coach/mentor.

8 **Off-Field Situations Requiring Mental Toughness**

9 In comparison to competition-specific encounters, 37 raw-data themes characterising off-
10 field situations emerged from the data analysis procedures. Responses were compiled into eight
11 lower-order and two higher-order themes perceived to require MT in elite football officiating
12 (see Figure 2). The higher-order themes included: (a) general elite refereeing situations, and (b)
13 general-life situations.

14 **General elite refereeing situations.** Within this higher-order theme, all 15 referees
15 recognised the importance of five lower-order themes perceived to demand MT within general
16 forms of elite football officiating: (a) Select Group pressures, (b) schedule and travel demands,
17 (c) transition to elite-level football refereeing, (d) performance growth, and (e) refereeing
18 setbacks. It was apparent that just like the professionals they officiate, the referees themselves
19 were highly competitive. In accordance, all 15 referees illustrated the need to deal with seven
20 within-group pressures characterised in part as "Select Group (peer) competition." For example,
21 one referee noted:

22 There are only 16 [EPL] referees this season [2010-2011]. As the Select Group,
23 we are all very competitive and determined guys... We are all want to referee The
24 FA Cup Final, the Football League Cup Final, [The FA] Community Shield, The

1 FA Trophy, and The FA Youth Cup. So there are all those things to aim for and
2 you want to be in pole position. (R4)

3 Moreover, given their professional status, referees frequently mentioned various environmental
4 pressures on performance (e.g., adapting to refereeing [Laws of the Game] changes). In line
5 with this, a strong emphasis was placed on "projecting a professional image" that required MT
6 in elite football officiating:

7 You're talking about a very small percentage of referees in the Country that are
8 elite referees. So to be in that 16 [Select Group] you're an ambassador for the
9 Select Group, The FA, and the PGMOL wherever you go in the World, so you've
10 got to be presented right... It's about what you say, where you say it, how you say
11 it, how you perform on-the-field, and how you behave off-the-field. (R5)

12 Indicative of the elite officiating domain, referees generically discussed several schedule and
13 travel demands including the "constant schedule of appointments," "travelling to domestic and
14 international matches," as stated by one official:

15 I've done nine trips into Europe this year, so you end up flying on one day; you
16 have a [International] match on the second day, you fly back the following day,
17 then you have a [EPL] match at the weekend. So the demands are not necessarily
18 just on your refereeing performance but also on the travelling as well. (R8)

19 With 12 referees also highlighting the physical training requirements that warranted MT,
20 for example:

21 The physical training can be tough at times because we train like athletes now...
22 We do different types of training activities through the week, so Mondays are
23 strength and conditioning days, Tuesdays are high-intensity sessions, with
24 Wednesdays and Thursdays usually speed and agility work... So I'm pushing my
25 body all the time and the older you get the harder it gets. (R3)

1 Just over half of the sample involved in the study revealed how performing consistently
 2 well over time at the elite-level required MT. Specifically, this lower-order theme was labelled
 3 as performance growth and encompassed: (a) making the international-level transition, (b)
 4 refereeing higher-profile matches, (c) personal recognition/awards, and (d) maintaining Select
 5 Group status. In contrast, referees also discussed a wide-range of mentally tough situations
 6 relating to refereeing setbacks. In particular, two officials talked about being "faced with
 7 demotion to the [English] Football League," five mentioned "dealing with injury/illness," and
 8 four illustrated "not getting a consistent run of [English] Premier League matches," for example:

9 I went through my first season [as a Select Group referee] where I was told I
 10 would referee five [English] Premier League matches and 25 [English] Football
 11 League matches... And might be fourth official 35 times during the season as well.
 12 So when you weren't refereeing... It's pretty disappointing not to be involved
 13 [refereeing an EPL fixture] each week. (R6)

14 **General-life situations.** All but two of the participants acknowledged a host of general-
 15 life issues to demand MT away from elite football officiating. Overall, three lower-order
 16 themes emerged and comprised: (a) personal and professional sacrifices, (b) stress on family
 17 welfare, and (c) maintaining a referee-life balance. Notably, Select Group referees
 18 highlighted "time spent away from family friends," "lack of social life," and "left a previous
 19 job/career" in characterising personal and professional sacrifices that required MT. One
 20 referee discussed delaying occupational progress:

21 When I was up for a contract with the PGMOL to become a Select Group referee I
 22 was a full-time serving Police Officer... And realising the difficulties involved in
 23 combining being both a Police Officer and a Select Group referee I managed to
 24 get my [police] hours down to twenty from forty hours a week. That continued for
 25 ^x years until April 20^{xx}, when I decided that the demands of [English] Premier

1 League football meant that I wasn't really doing justice to my Police work... So I
2 started a career break in 20^{XX} to concentrate solely on my refereeing. (R13)

3 Also, given the rigour and wider impact of EPL football on referees, eight officials felt that the
4 stress on family welfare was perceived to warrant MT. Referees revealed that "family members
5 being affected by media intrusion," as well as "spouse/children getting ridiculed in public" were
6 critical situations. The latter instance was fully portrayed by quotes such as:

7 If you've heard a lot about your refereeing performance in the media, it affects
8 the wife and she gets it at work and the kids get it at school. The kids come
9 home and say "Dad what's all this about your game at the weekend?" (R2)

10 Finally, it was also evident that there was a need to maintain a referee-life balance when
11 officiating elite-level competition. Specifically, seven referees recalled "switching-off from the
12 job," as well as three acknowledging "not letting on-field issues affect personal life," to demand
13 MT.

14 **Mental Toughness Behaviours**

15 Throughout competition-specific and off-field situations demanding MT, it was evident
16 that **mentally tough** referees deployed a constellation of adaptive patterns of behaviour (see
17 Figures 3 and 4). Central to these behaviours, referees highlighted that "looking calm and
18 composed," "explaining ground rules to teams," as well as "appropriate level of team analysis"
19 prior to a high-profile match were paramount. In line with this, irrespective of the football
20 fixture undertaken, officials adopted "consistent preparation" as well as "image management."
21 In addition, it was apparent that prior to any given match referees clearly outlined team of
22 match-day officials' expectations, as noted by one referee, "when you're managing your own
23 team [match-day officials] it's setting the standards before you've even gone out on a game...
24 It's being the captain of a team, the leader of a team." (R2)

1 In response to situations requiring MT on the field of play, numerous mentally tough
2 behaviours were highlighted and included: (a) clear commands and signals, (b) work hard [18
3 yard] box-to-box, (c) strong body language, (d) create on-field time for yourself, and (e) make
4 eye-contact with player/s. One referee recalled the use of several of these behaviours when
5 dealing with players questioning decisions:

6 Players will test you, so you have to stand-up to them, have strong body
7 language, and look them in the eye... Players will keep on criticising or
8 questioning every decision. Then you say right enough is enough, you've
9 questioned enough and I've had enough now. (R12)

10 In addition, looking calm and composed throughout on-field situations demanding MT and in
11 particular a confrontational decision was acknowledged as a mentally tough behaviour. As one
12 referee illustrated:

13 It's about looking calm, it's like the floating swan, floating along a river maybe
14 paddling like hell underneath the water... But it's having that calm outward
15 persona, and not flapping while others are losing their heads around you. So it's
16 taking a deep breath and having that calming influence on the players. (R5)

17 Moreover, post-match situations requiring MT were key features throughout match-day
18 appointments. Notably, **mentally tough** referees mentioned several behavioural actions (e.g.,
19 identify developmental areas, strong body language) when analysing their match-day assessor
20 debrief. In line with this, one referee illustrated taking on board constructive feedback:

21 You've got to accept the [refereeing stakeholders] scrutiny as part of the job... It's
22 knowing what is good advice, knowing what isn't, and taking the good bits on
23 board. Throughout your [match-day assessor] debrief you will look at it, break it
24 down, and pick the things that will enable you to improve your performance. (R9)

1 The nature of EPL competition was acknowledged throughout the higher-order theme of
2 general elite refereeing situations. In particular, officials talked in detail regarding how they
3 dealt with the extensive refereeing agenda, along with the travel commitments undertaken.
4 Encapsulating this lower-order theme, **mentally tough** referees discussed how they use
5 "effective time-management" throughout the season, for example:

6 Well the schedule is just non-stop at the minute and as well as everything that we
7 are doing at the moment including training and games, it's also the trips in Europe.
8 To make sure you perform in those [matches] you've got to make sure you factor
9 rest time into your schedule. (R10)

10 In addition, referees acknowledged that maintaining high performance levels, working
11 hard in training and achieving refereeing-career goals characterised MT behaviours in
12 favourable circumstances (e.g., maintaining Select Group status). In not so favourable
13 situations requiring MT (e.g., loss of form), however, MT behaviours consisted of: (a) working
14 hard in training, (b) perform well in next game, and (c) not rushing back from injury. In
15 particular, the subsequent quote by one official depicts the implementation of re-addressing
16 performance goals when faced with not getting the desired appointments:

17 You get the odd time when you're a bit down about appointments. You set
18 yourself high standards and go for those high-profile matches, when they do not
19 come off you just try to re-address your goals and try getting them [high-profile
20 matches] the year after. (R2)

21 Finally, emerging from the data analysis procedures officials talked extensively about
22 how they responded to the demands away from EPL refereeing (e.g., time spent away from
23 family and friends). For example, "distance self from refereeing," and "discuss issues with
24 family members," were all perceived as behavioural responses surrounding everyday life
25 situations requiring MT. As one individual stated:

1 In a month you may actually only be at home sleeping in your own bed 50-60% of
2 the time, the other 40-50% you may be in an hotel and flying somewhere else.
3 That has a demand on your personal relationships... What I did was sit down with
4 my kids and explain my job [EPL football refereeing]. (R5)

5 **Mental Toughness Cognitions**

6 In accordance with the higher-order themes requiring MT outlined, **mentally tough**
7 officials recalled a host of effective cognitions (see *Figures 3 and 4*). In particular, it was clear
8 from the interviews that the participants flourished prior to officiating in big stadiums, in which
9 **mentally tough** individuals perceived to "thrive on the atmosphere of a big crowd" One referee
10 fully illustrated this in the following quote:

11 I like the atmosphere and I like doing [refereeing] high-profile games, in front of
12 big crowds... It's just the type of person I am, I'd rather do something that mean's
13 something. I think when something's important and something's riding on the
14 game you've got to be on your game. (R1)

15 Further pre-match cognitions deployed by **mentally tough** referees throughout high-profile
16 matches included "awareness of own emotions," "confidence in own ability," and "focused on
17 [refereeing] performance goals." For example:

18 You know that once you cross that white line and you blow that whistle, it doesn't
19 matter if there are 500 TV cameras in the [football] stadium, you switch-off from
20 it. Its blues vs. reds, 11 vs. 11 and that's it... Even the crowd singing or chanting
21 before the game, you're oblivious to it because you are so focused on your
22 performance objectives. (R9)

23 When handling during-match incidents warranting MT, officials also executed numerous
24 cognitive strategies. Central to these strategies, referees displaying MT were able to draw upon
25 their "tactical awareness" and a vast array of "refereeing experiences." In particular, one referee

1 discussed how their "life experiences" related to similar confrontational situations demanding
2 MT in refereeing:

3 I'm from a Police background and you just think it's only a game of football and
4 it's just a sport... It's not as if you're going to a car wrapped round a tree or
5 knocking on someone's door and telling them their daughter's been killed in a road
6 traffic accident. It's not the end of the world is it? So the grounding you get in the
7 Police Force means you're used to dealing with people in all sorts of situations...
8 So some of the situations you experience in refereeing, you might have
9 experienced in life and in your profession. So you're able to deal with the Mr nice
10 guy, the Mr angry guy in the same way or the other, as you would when you
11 referee. (R2)

12 **Mentally tough** referees also employed several focus and re-focus strategies during
13 competition (e.g., focus in blocks of five minutes, block-out crowd noise). In particular, one
14 referee discussed parking-up a decision when effectively not dwelling on a contentious
15 decision:

16 For the last 20 minutes of the game on Saturday I've got people left, right, and
17 centre telling me I've made a wrong decision. So I've now got to park that up
18 [decision] and put it right at the back of my mind because I've still got another 30
19 to 40 decisions to make in this game. (R9)

20 Within the higher-order theme of post-match situations perceived to demand MT,
21 referees demonstrating MT described their thoughts when receiving performance criticism from
22 various sources (e.g., player confrontation at full-time, manager comments at the end of a
23 match). In line with this, notable cognitions were centred on: (a) put the match into perspective,
24 (b) not taking criticism personally, and (c) turn negatives into positives. The latter cognition
25 was fully portrayed by statements such as:

1 Whilst [football] managers criticise you at the end of a match, it's having that
2 ability to let go of that, particularly if a game's not gone well. It's actually taking
3 positives and not dwelling on the negatives... It's taking the learning points and
4 moving forward. (R5)

5 Off-the-field, officials talked in detail about how they dealt with transitioning to elite-
6 level football refereeing. Specifically, becoming a full-time professional referee, proving
7 refereeing ability to PGMOL management, and adapting to EPL football were all perceived to
8 be transitional situations that required MT. As such, **mentally tough** officials adopted a host
9 of adaptive cognitions that included: (a) draw upon refereeing experiences, (b) confidence in
10 own ability, and (c) focused on performance goals. Given the rigours of this transition, one
11 official suggested that you have to "accept the demands of the job take time to adjust":

12 Now I've moved into [English] Premier League football I know it's going to take
13 time to establish myself to people [PGMOL management]... So they can
14 understand and trust how I do things. To understand the different kind of demands
15 of the job... I also know it's going to take a while to build that experience to deal
16 with them [demands] as they arise. (R10)

17 Also capturing the cognitions deployed within the higher-order theme of general elite
18 refereeing situations, referees spoke about "maintaining a refereeing-career focus," and
19 "focused on performance goals" throughout progressive circumstances requiring MT. Notably,
20 when refereeing higher-profile matches one **mentally tough** official illustrated how he banks
21 successful performances:

22 I know that I can referee these [EPL] matches because I have refereed these
23 matches well before. I've done them many times and that just breeds confidence. I
24 say "I've already done that type of match and I'll bank that one"... And you just sit
25 down and think I've refereed some big matches. (R2)

1 Moreover, referees also highlighted various MT cognitions when dealing with refereeing
 2 setbacks. In particular, "not taking criticism personally," "bank positives and move forward,"
 3 and "draw upon refereeing experiences" were highlighted. For example, one referee discussed
 4 confidence in own ability when faced with not getting a consistent run of EPL matches:

5 I only refereed seven [English] Premier League matches in the whole of that
 6 season [20^{XX}-20^{XX}]. Kept dipping in and out of [EPL] matches and then the
 7 second season followed in more or less the same pattern. So I only refereed six
 8 matches in the following season. So I'd refereed 13 [English] Premier League
 9 matches in two seasons. So I was thinking that all I need is a run of [EPL]
 10 matches because I knew I was good enough to referee at this level. (R9)

11 Finally, within the general-life higher-order theme, frequently acknowledged cognitions among
 12 **mentally tough** officials included: (a) pigeonhole personal issues, (b) awareness of family
 13 concerns, and (c) put refereeing into perspective. In accordance, a strong emphasis was placed
 14 on not becoming obsessed with the job, for example, "you have to forget about [EPL football]
 15 refereeing at times... The fact is that on Monday you need to put refereeing to one side and
 16 have 24 hours out of it." (R7)

17 Discussion

18 By drawing upon the perceptions of EPL referees, the purpose of the present study was
 19 to gain a detailed account of MT in elite football officiating. In total, 70 situations requiring
 20 MT were identified and converged into five higher-order themes (see Figure 1 and 2). The
 21 findings supplement existing research and indicate that elite athletes as well as officials within
 22 this sport perceive some common MT situations (e.g., Coulter et al., 2010). However, it is
 23 important to note that there were numerous situations found to be role-specific to football
 24 refereeing. With referees sanctioning over 100 decisions in any one match (Helsen &
 25 Bultynck, 2004) findings identified particular types of decisions that required MT during

1 competition (i.e., game-changing decision and confrontational decision). In line with this,
 2 officials highlighted several situations that required MT prior to (e.g., mass-player
 3 confrontation, player vs. player altercation) and immediately following decisions (e.g.,
 4 player/s reaction to a decision, not dwelling on a contentious decision, crowd reaction to
 5 decisions). In addition, there were situations that occurred throughout the 15 minute half-time
 6 period requiring MT (e.g., manager confrontation at half-time). Taken together, results
 7 indicate that situations requiring MT are warranted throughout both active (i.e., live play) and
 8 non-active (i.e., breaks in play) phases of competition.

9 Taking the day of competition in its entirety, one of the most prominent findings was
 10 the extent to which pre-match situations were emphasised. Central to this higher-order theme,
 11 referees perceived a variety of situations requiring MT and also ones that extended well
 12 beyond the 90 minutes of on-field performance. This finding holds considerable importance
 13 concerning the temporal nature of MT in sport. Indeed, when taking into account pre- and
 14 post-match situations, football referees are exposed to both thrive (e.g., following live TV
 15 protocol) and survive-orientated (e.g., written press criticising performance) situations
 16 requiring MT during a match day. This extends Bull, Shambrook, James, and Brooks (2005)
 17 findings when characterising the determinants of "chronic" MT. Accordingly, in the long-term,
 18 just like players, referees have to perform at high levels week in, week out, season in, season
 19 out, over many seasons. However, specific to elite football referees' duties carried out, a form
 20 of chronic MT is necessary throughout a prolonged one-day period. In summary, these
 21 findings expand current literature conceptualising the "state-specific" nature of situations
 22 demanding MT during elite sport competition (e.g., Coulter et al., 2010; Gucciardi et al.,
 23 2008).

24 The inclusion of the elite football officiating perspective is believed to mark an
 25 important contribution to the progressive scientific study of MT. Central to this contribution is

1 the identification of an exhaustive list of off-field situations that require MT at the elite-level.
 2 Notably, numerous officials highlighted that transitioning to elite-level refereeing was a
 3 critical situation (e.g., becoming a professional full-time referee). To some extent, the nature
 4 of this transition might well be unique to officiating in football, given that referees tend to
 5 reach the elite-level at an older age than players (Castanga, Abt, D'Ottavio, & Weston, 2005).
 6 Of additional interest, several participants involved in this study performed their duties at the
 7 super-elite level (i.e., Fédération Internationale de Football Association [FIFA]-List referees).
 8 In line with this, transitioning to international competition in which referees would undertake
 9 fixtures at a European and World level was also considered a circumstance that warranted MT.
 10 These findings support previous research conceptualising sport transitions not only as
 11 undesirable experiences but also situations that are challenging and career-leveraging in
 12 nature (e.g., Bruner, Munroe-Chandler, & Spink, 2008). Furthermore, a wide-range of
 13 personal, professional, and familial issues away from elite football refereeing demanded MT.
 14 Not only does this further highlight life-orientated MT situations encountered by elite
 15 performers (Connaughton, Hanton, & Jones, 2010), but also an initial insight to those
 16 potentially faced by their significant others. With effective social support noted within the
 17 performance excellence research (Gould, Dieffenbach, & Moffett, 2002), this understanding
 18 marks an important area in future MT development.

19 Addressing MT from a conceptual perspective, the second purpose of the study was to
 20 align the behaviours and cognitions utilised by **mentally tough** football referees in situations
 21 requiring MT (see Figures 3 and 4). Leading up to competition, a host of behaviours were
 22 deployed in which referees adopted appropriate levels of team analysis, image management,
 23 and consistent preparation procedures towards every fixture. This finding confirms existing
 24 research when characterising **mentally tough** performers in football as being individuals who
 25 demonstrate a self-regulatory, detailed, and methodical pre-performance approach (e.g.,

1 Coulter et al., 2010; Thelwell et al., 2005). However, a key finding to emerge was the subtle
 2 MT behaviours displayed by referees that might go unnoticed during competition (e.g., make
 3 eye-contact with players, looking calm and composed, create on-field time for yourself). Of
 4 particular importance, in the case of player vs. player altercations, referees acted as a barrier
 5 between players that thwarted any physical conflict that might have occurred. Thus, referees
 6 anticipated these combative and physically threatening confrontations, with the potential
 7 outcome of physical injury in a pro-active and assertive manner. It appears then that this
 8 specific behaviour underpins an effective conflict management component of MT. Taken
 9 together, these MT behaviours are believed to be referee-specific to football, and thus,
 10 enhancing our understanding of the role-specific nature MT presents itself in sport. In
 11 accordance, and following Gucciardi et al.'s (2008) recommendations, characterising the
 12 opposite of MT behaviours throughout mentally tough situations will further conceptualise
 13 MT in elite football officiating.

14 Unique to the present study, **mentally tough** officials used cognitions such as "block-
 15 out crowd noise," "focus in blocks of 5 minutes," and "park-up/bin a decision," to effectively
 16 focus/re-focus throughout competition. This finding might suggest a link between specific
 17 MT cognitions and attentional focus; a core component contained within several
 18 Psychological Skills Training (PST) packages (e.g., Johnson & Gilbert, 2004; Thomas,
 19 Murphy, & Hardy, 1999). Indeed, existing research has consistently associated MT cognitions
 20 with specific psychological skill-based strategies (e.g., positive self-talk; Coulter et al., 2010).
 21 Given the discontinuous nature of competitive football, understanding the time of competition
 22 (e.g., last 5 minutes of the first-half), the type of match-interval (e.g., penalty-kick), and the
 23 field location of foul-play (e.g., attacking-third), during mentally tough situations, might assist
 24 performers when using MT cognitions more effectively.

1 Referees that deployed MT cognitions also acknowledged having an awareness of not
 2 only their own emotions but the emotions of the players' they officiate. In line with this, these
 3 individuals were able to accurately gauge players' emotional states during tough decision-
 4 making situations (e.g., a confrontational decision, not dwelling on a previous decision). This
 5 finding, therefore, seems to be particularly important in referees being able to identify and
 6 manage the "emotional temperature" of competitive football. These findings appear to overlap
 7 somewhat with the construct of Emotional Intelligence (EI; Meyer & Fletcher, 2007). With
 8 previous MT literature acknowledging various forms of EI characterising **mentally tough**
 9 performers (e.g., Gucciardi et al., 2008; Thelwell et al., 2005), further empirical research that
 10 extends upon the relationship between MT and EI is warranted. Finally, the acquisition and
 11 utilisation of certain MT cognitions stemmed from previous everyday life occurrences. As a
 12 result, raising children, going through a divorce process, and previous occupational
 13 experiences were all called upon during numerous competitive situations demanding MT. In
 14 part, this might be due to the fact that elite football referees continue to undertake their duties
 15 well into middle adulthood (e.g., Catteeuw, Helsen, Gilis, & Wagemans, 2009; Lane, Nevill,
 16 Ahmad, & Balmer, 2006; Weston, Castagna, Impellizzeri, Rampinini, & Breivik, 2010). Not
 17 only does this finding offer insight into life experiences that effectively transfer to MT
 18 situations in sport (e.g., mass-player confrontation), but emerging literature citing cases where
 19 MT might be utilised as a life skill (Connaughton, Wadey, Hanton, & Jones, 2008; Gould,
 20 Griffes, & Carson, 2011). To this end, further research exploring life situations in relation to
 21 the development and transfer of MT in both sport and life skill domains are necessary.

22 The study protocol provided a sequential approach as to the association of previously
 23 generated MT attributes (Slack et al., 2012) with behaviours and cognitions deployed by
 24 **mentally tough** referees (see Figures 3 and 4). In doing so, this approach advances existing
 25 research (e.g., Gucciardi et al., 2008; Jones et al., 2007) by outlining the temporal and

1 universal utilisation of MT components (i.e., attributes, behaviours, and cognitions) during
 2 competition-specific and off-field situations. Accordingly, this has provided an initial insight
 3 into the linkage between specific MT attributes (e.g., sport intelligence), behaviours (create
 4 on-field time for yourself), and cognitions (e.g., awareness of players' emotions) throughout
 5 particular situations whereby MT is required (e.g., during-match situations). This information
 6 further enhances our understanding of "when" and in what "form" specific MT components
 7 warrant the utmost consideration in the development of MT. To this end, the findings in their
 8 entirety provide a starting point when designing effective interventions aimed at developing
 9 MT in sport.

10 **Applied Implications for Sport Psychology Consultants**

11 While the development of MT in athletes has been outlined previously (e.g.,
 12 Connaughton et al., 2010), the results of the present study build upon this literature. In line
 13 with this, findings illustrate situations requiring MT within a wider spectrum of elite sport
 14 competition, in which the development of MT might prove most effective. Consequently, this
 15 presents sport psychology consultants operating within MT and its development with
 16 numerous applied implications. First, by identifying particular pre-, during-, and post-match
 17 situations to require MT (e.g., manager and captain introductions), this offers consultants the
 18 opportunity to observe MT behaviours throughout competition (e.g., looking calm and
 19 composed). As a result, this enables the potential to detect these behaviours when attempting
 20 to identify **mentally tough** performers. Second, awareness training of MT might inform
 21 effective psychological development programmes in sport. One notable awareness training
 22 strategy would be via the use of profiling techniques (e.g., Butler & Hardy, 1992) to evaluate
 23 MT attributes and behaviours during performance in the form of self- and coach-ratings.
 24 Furthermore, sport psychology consultants might assist in the development of MT via
 25 repeated, high-pressurised, and environmental-specific, training-ground procedures. In this

1 refereeing context, by way of role-play for example, simulating competition-specific (e.g.,
 2 mass-player confrontation, written press criticising performance) and off-field situations (e.g.,
 3 physical training requirements) to demand MT might be one worthwhile procedure. Taken
 4 together, these procedures address recent calls by academics (e.g., Parkes & Mallett, 2011)
 5 regarding the content of what needs to be integrated into intervention programmes, to whom,
 6 and by whom, in the case of sport-specific MT development. However, questions still remain
 7 as to how best sport psychology consultants deliver these programmes, when to deliver these
 8 programmes, and the effectiveness of these programmes. Research is currently underway in
 9 an effort to address some of these pertinent questions.

10 When coupled with the 360-degree level of media scrutiny (e.g., negative comments
 11 from TV pundits) and the unparalleled enormity of the EPL environment (e.g., size of football
 12 stadia), entry to elite-level refereeing was a unique situation that demanded MT. With this in
 13 mind, it seems critical for referees to cope and function more effectively throughout this
 14 transitional period, and thus, would appear to be an appropriate juncture in which to develop
 15 MT. Therefore, sport psychology consultants might well play a significant role with regards to
 16 the development and implementation of MT behaviours (e.g., effective time-management,
 17 image management) and cognitive strategies (e.g., confidence in own ability, focused on
 18 performance goals) when devising a smooth transition for referees to the elite-level. Not
 19 reported in the current MT literature were various general-life situations away from elite sport
 20 that required MT, and in particular family welfare (e.g., family members being affected by
 21 media, spouse getting ridiculed at work). Given this finding, incorporating some form of MT
 22 induction process and education not only for performers but also for their family members
 23 should be made available.

24

25

1 **Limitations**

2 With gender and cultural differences prevalent throughout world football, the domain-
 3 specific (i.e., EPL football) nature of the elite officials investigated was a limitation of the
 4 study. Triangulating the results across other elite-level domains (e.g., Italian Serie A, U.S.
 5 Women’s National Soccer League) would provide a greater understanding of MT in the
 6 world's best football officials. Also, given that there are role-specific variations of MT within
 7 football, there are likely to be similar differences in other sport officiating domains. Therefore,
 8 a second limitation is the generalisability of the findings to elite referees operating in similar
 9 sporting codes whereby MT might also be important (e.g., National Basketball Association).

10 **Conclusion**

11 The present study provides a comprehensive conceptualisation of MT in elite football
 12 officiating, becoming one of the few investigations within the MT literature to investigate
 13 sport performers outside of the athletes themselves. While results support existing literature
 14 (e.g., Coulter et al., 2010; Gucciardi et al., 2008), there were numerous findings perceived to
 15 be unique to elite football officiating. Accordingly, and in light of the role-specific situations
 16 to require MT in this context, a catalogue of original, multifunctional behaviours (e.g., act as a
 17 barrier between players, make eye-contact with player/s) and cognitions (e.g., tactical
 18 awareness, draw upon life experiences) extend the current literature. Finally, with current
 19 investigations adopting a sport-specific approach towards the development of MT (e.g.,
 20 Gucciardi, Gordon, & Dimmock, 2009b; 2009c), these findings offer theoretical and applied
 21 implications in this area.

References

- 1
- 2 Anderson, M. B. (2011). Who's mental, who's tough and who's both? Mutton constructs dressed
- 3 up as lamb. In D. F. Gucciardi & S. Gordon (Eds), *Mental toughness in sport:*
- 4 *Developments in theory and research* (pp. 69-88). Abingdon, Oxon: Routledge.
- 5 Bruner, M. W., Munroe-Chandler, K. J., & Spink, K. S. (2008). Entry into elite sport: A
- 6 preliminary investigation into the transition experiences of rookie athletes. *Journal of*
- 7 *Applied Sport Psychology, 20*, 236-252.
- 8 Bull, S. J., Shambrook, C. J., James, W., & Brooks, J. E. (2005). Towards an understanding of
- 9 mental toughness in elite English cricketers. *Journal of Applied Sport Psychology, 17*, 209-
- 10 227.
- 11 Butler, R. J., & Hardy, L. (1992). The performance profile: Theory and application. *The Sport*
- 12 *Psychologist, 6*, 253-264.
- 13 Butt, J., Weinberg, R., & Culp, B. (2010). Exploring mental toughness in NCAA athletes.
- 14 *Journal of Intercollegiate Sport, 3*, 316-332.
- 15 Castagna, C., Abt, G., D'Ottavio, S. & Weston, M. (2005). Age-related effects on fitness
- 16 performance in elite-level soccer referees. *Journal of Strength and Conditioning Research,*
- 17 *19*, 785-790.
- 18 Catteeuw, P., Helsen, W. F., Gilis, B., & Wagemans, J. (2009). Decision-making skills, role
- 19 specificity, and deliberate practice in association football refereeing. *Journal of Sports*
- 20 *Sciences, 27*, 1125-1136.
- 21 Connaughton, D., & Hanton, S. (2009). Mental toughness in sport: Conceptual and practical
- 22 issues. In S. D. Mellalieu & S. Hanton (Eds), *Advances in applied sport psychology: A*
- 23 *review* (pp. 317-346). London: Routledge.
- 24 Connaughton, D., Hanton, S., & Jones, G. (2010). The development and maintenance of mental
- 25 toughness in the world's best performers. *The Sport Psychologist, 24*, 168-193.

MENTAL TOUGHNESS IN ELITE FOOTBALL OFFICIATING

- 1 Connaughton, D., Hanton, S., Jones, G., & Wadey, R. (2008). Mental toughness research: Key
2 issues in the area. *International Journal of Sport Psychology*, *39*, 192-204.
- 3 Connaughton, D., Thelwell, R., & Hanton, S. (2011). Mental toughness development: Issues,
4 practical implications, and future directions. In D. F. Gucciardi & S. Gordon (Eds), *Mental*
5 *toughness in sport: Developments in theory and research* (pp. 135-162). Abingdon, Oxon:
6 Routledge.
- 7 Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2008). The development and maintenance
8 of mental toughness: Perceptions of elite performers. *Journal of Sports Sciences*, *26*, 83-95.
- 9 Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in
10 Australian soccer: Perceptions of players, parents, and coaches. *Journal of Sports Sciences*,
11 *28*, 699-716.
- 12 Crust, L. (2007). Mental toughness in sport: A review. *International Journal of Sport and*
13 *Exercise Psychology*, *5*, 270-290.
- 14 Crust, L. (2008). A review and conceptual re-examination of mental toughness: Implications for
15 future researchers. *Personality and Individual Differences*, *45*, 576-583.
- 16 Crust, L., Nesti, M., & Bond, K. (2010). Mental toughness and coping in an ultra-endurance
17 event. *Athletic Insight*, *2*, 35-54.
- 18 Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their
19 development in Olympic champions. *Journal of Applied Sport Psychology*, *14*, 172-204.
- 20 Gould, D., Griffes, K., & Carson, S. (2011). Mental toughness as a life skill. In D. F. Gucciardi
21 & S. Gordon (Eds), *Mental toughness in sport: Developments in theory and research* (pp.
22 163-186). Abingdon, Oxon: Routledge.
- 23 Greenleaf, C. A., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic
24 performance: Interviews with Atlanta and Nagano U.S. Olympians. *Journal of Applied*
25 *Sport Psychology*, *13*, 179-209.

- 1 Gucciardi, D. F., Gordon, S., & Dimmock, J.A. (2008). Towards an understanding of mental
 2 toughness in Australian football. *Journal of Applied Sport Psychology, 20*, 261-281.
- 3 Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009a). Advancing mental toughness research
 4 and theory using personal construct psychology. *International Review of Sport and*
 5 *Exercise Psychology, 2*, 54-72.
- 6 Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009b). Evaluation of a mental toughness
 7 training program for youth-aged Australian footballers: I. A quantitative analysis. *Journal*
 8 *of Applied Sport Psychology, 21*, 307-323.
- 9 Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009c). Evaluation of a mental toughness
 10 training program for youth-aged Australian football: II. A qualitative analysis. *Journal*
 11 *of Applied Sport Psychology, 21*, 324-339.
- 12 Gucciardi, D. F., Mallett, C. J., Hanrahan, S. J., & Gordon, S. (2011). Measuring mental
 13 toughness in sport: Current status and future directions. In D. F. Gucciardi & S. Gordon
 14 (Eds), *Mental toughness in sport: Developments in theory and research* (pp. 108-132).
 15 Abingdon, Oxon: Routledge.
- 16 Helsen, W. F., & Bultynck, J. B. (2004). Physical and perceptual-cognitive demands of top-
 17 class refereeing in association football. *Journal of Sports Sciences, 22*, 179-189.
- 18 Johnson, C. A., & Gilbert, J. N. (2004). The psychological UNIFORM: Using mental skills in
 19 youth sport. *Strategies, 18*, 5-9.
- 20 Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness?
 21 An investigation of elite sport performers. *Journal of Applied Sport Psychology, 14*, 205-
 22 218.
- 23 Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the
 24 world's best performers. *The Sport Psychologist, 21*, 243-264.
- 25 Kelly, G. A. (1955). *The psychology of personal constructs*. New York: Norton.

- 1 Kelly, G. A. (1991). *The psychology of personal constructs: A theory of personality*. London,
 2 UK: Routledge.
- 3 Lane, A. M., Nevill, A. M., Ahmad, N. S., & Balmer, N. (2006). Soccer referee decision making:
 4 'Shall I blow the whistle?' *Journal of Sport Sciences and Medicine*, 5, 243-253.
- 5 Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic enquiry*. London, England: Sage.
- 6 Mascarenhas, D., O'Hare, D., & Plessner, H. (2006). The psychological and performance
 7 demands of association football refereeing. *International Journal of Sport Psychology*, 37,
 8 99-120.
- 9 Maykut, P., & Morehouse, R. (1994). *Beginning qualitative research: A philosophical and*
 10 *practical guide*. London, England: The Falmer Press.
- 11 Meyer, B. B., & Fletcher, T. B. (2007). Emotional intelligence: A theoretical overview and
 12 implications for research and professional practice in sport psychology. *Journal of Applied*
 13 *Sport Psychology*, 19, 1-15.
- 14 Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). London, England:
 15 Sage.
- 16 Parkes, J. F., & Mallett, C. J. (2011). Developing mental toughness: Attributional style retraining
 17 in rugby. *The Sport Psychologist*, 25, 269-287.
- 18 Patton, M.Q. (2002). *Qualitative research and evaluation methods* (2nd ed.). London, England:
 19 Sage.
- 20 Slack, L. A., Maynard, I. W., Butt, J., & Olusoga, P. (2012). Factors underpinning football
 21 officiating excellence: Perceptions of English Premier League referees. *Journal of Applied*
 22 *Sport Psychology*. Advance online publication. DOI:10.1080/10413200.2012.726935
- 23 Thelwell, R., Weston, N., & Greenlees, I. (2005). Defining and understanding mental
 24 toughness within soccer. *Journal of Applied Sport Psychology*, 17, 326-332.

- 1 Thomas, P. R., Murphy, S. M., & Hardy, L. (1999). Test of performance strategies:
2 Development and preliminary validation of a comprehensive measure of athletes'
3 psychological skills. *Journal of Sports Sciences, 17*, 697-711.
- 4 Weston, M., Castagna, C., Impellizzeri, F. M., Rampinini, E., & Breivik, S. (2010). Ageing and
5 physical match performance in English Premier League soccer referees. *Journal of*
6 *Science and Medicine in Sport, 13*, 96-100.

1 **Footnote**

2 ¹ A copy of the interview guide is available from the first author.

1 **Figure Captions**

2 *Figure 1.* Raw-data, lower-order, and higher-order themes for competition-specific situations
3 perceived to require Mental Toughness in elite football officiating.

4 *Figure 2.* Raw-data, lower-order, and higher-order themes for off-field situations perceived to
5 require Mental Toughness in elite football officiating.

6 *Figure 3.* Competition-specific situations perceived to require Mental Toughness and the
7 associated MT attributes, behaviours, and cognitions utilised in elite football
8 officiating.

9 *Figure 4.* Off-field situations perceived to require Mental Toughness and the associated MT
10 attributes, behaviours, and cognitions utilised in elite football officiating.

MENTAL TOUGHNESS IN ELITE FOOTBALL OFFICIATING

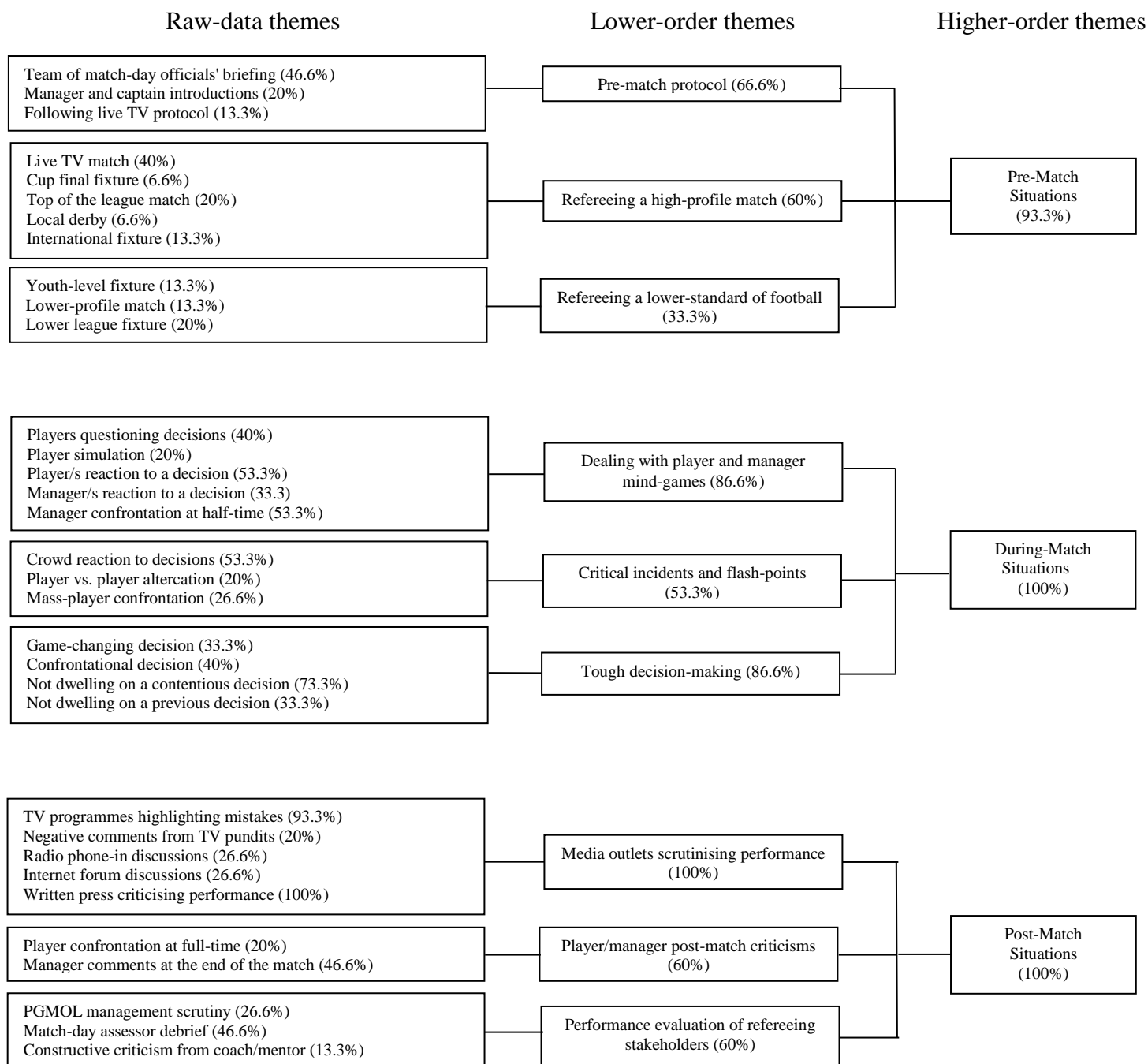


Figure 1. Raw-data, lower-order, and higher-order themes for competition-specific situations perceived to require Mental Toughness in elite football officiating.

Note: Percentage (%) represents the fraction of participants within the sample that cited a particular raw-data, lower-order, and higher-order theme.

MENTAL TOUGHNESS IN ELITE FOOTBALL OFFICIATING

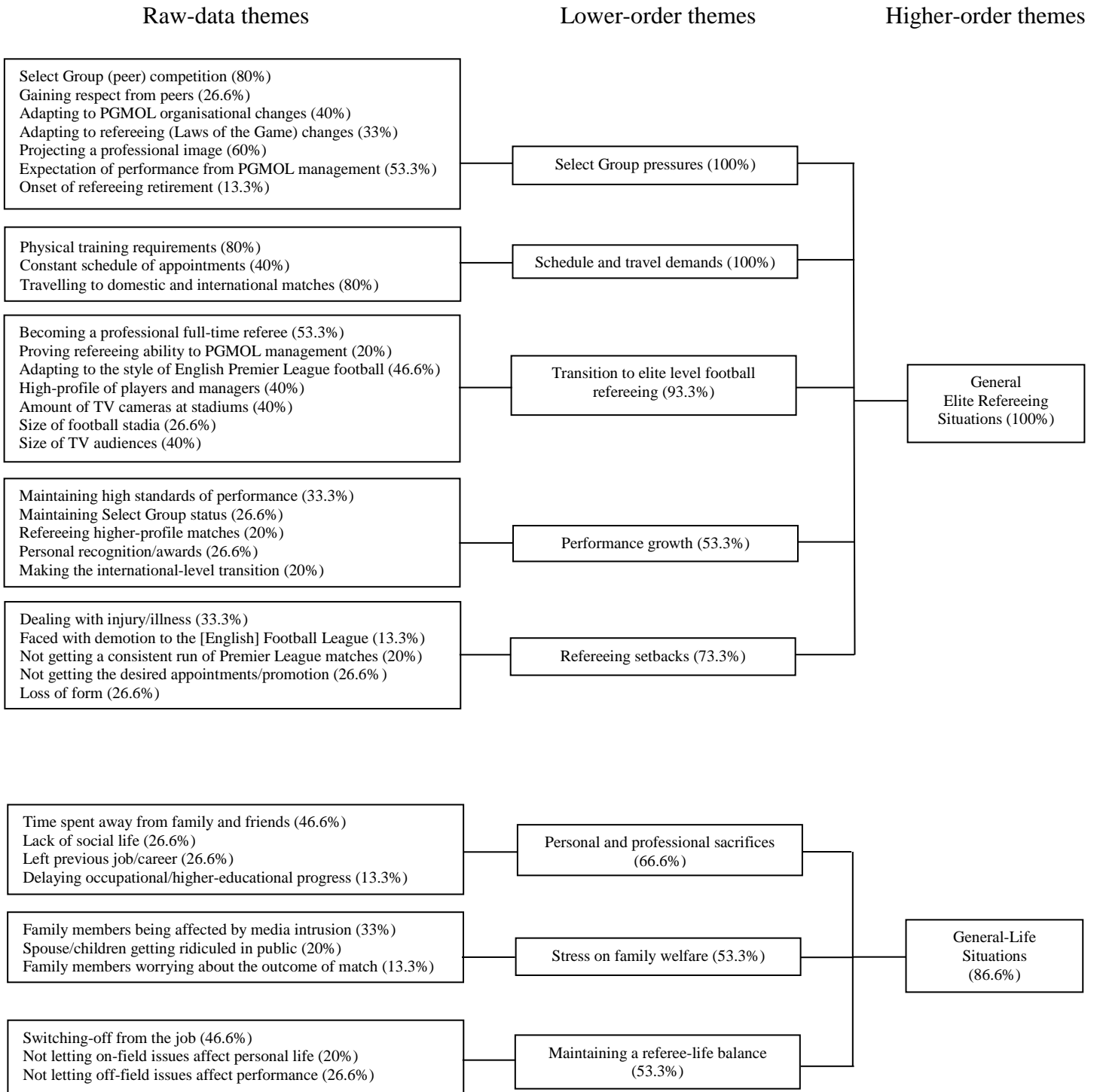


Figure 2. Raw-data, lower-order, and higher-order themes for off-field situations perceived to require Mental Toughness in elite football officiating.

MENTAL TOUGHNESS IN ELITE FOOTBALL OFFICIATING

Situations Requiring Mental Toughness		Mental Toughness		
Higher-order themes	Lower-order themes	Behaviours	Cognitions	Attributes
Pre-Match Situations	Pre-match protocol	Looking calm and composed	Awareness of own emotions Draw upon refereeing experiences Put match into perspective Thrive on the atmosphere of a big crowd	Coping with Pressure
	Refereeing a high-profile match			
	Refereeing a lower-standard of football	Appropriate level of team analysis Consistent preparation Explaining ground rules to teams Outline officials' expectations Image management	Focused on performance goals	Tough Attitude
During-Match Situations	Dealing with player and manager mind-games	Looking calm and composed	Awareness of own emotions Block-out crowd noise Draw upon life experiences Draw upon refereeing experiences	Coping with Pressure
		Work hard [18 yard] box-to-box		High Work-Ethic
	Critical incidents and flash-points		Focus in blocks of five minutes Focus on the next decision Park-up/bin a decision	Resilience
		Clear commands and signals Make eye-contact with player/s Strong body language	Trust in decisions	Robust Self-Belief
Tough decision-making	Act as a barrier between players Create on-field time for yourself	Awareness of players' emotions Tactical awareness	Sport Intelligence	
Post-Match Situations	Media outlets scrutinising performance	Identify developmental areas Take on board constructive feedback		Achievement Striving
	Player/manager post-match criticisms	Do not read or listen to media Looking calm and composed	Draw upon refereeing experiences Put match into perspective	Coping with Pressure
			Bank positives and move forward Not taking criticism personally Turn negatives into positives	Resilience
Performance evaluation of refereeing stakeholders	Clear commands and signals Strong body language		Robust Self-Belief	

Figure 3. Competition-specific situations perceived to require Mental Toughness and the associated MT attributes, behaviours, and cognitions utilised in elite football officiating.

MENTAL TOUGHNESS IN ELITE FOOTBALL OFFICIATING

Situations Requiring Mental Toughness

Mental Toughness

Higher-order themes	Lower-order themes	Behaviours	Cognitions	Attributes
General Elite Refereeing Situations	Select Group pressures	Achieving refereeing-career goals Identify developmental areas Take on board constructive feedback	Bank successful performances Maintaining a refereeing-career focus	Achievement Striving
	Schedule and travel demands			
	Transition to elite level football refereeing	Use all resources available Working hard in training	Bank positives and move forward Not taking criticism personally	High Work-Ethic
	Performance growth	Re-address performance goals Performing well in next match		
	Refereeing setbacks	Effective time-management Not rushing back from injury Image management	Focused on performance goals	Tough Attitude
	General-Life Situations	Personal and professional sacrifices	Discuss issues with family members Distance self from refereeing	Awareness of family concerns Not becoming obsessed with the job Pigeonhole personal issues Pigeonhole refereeing issues Putting refereeing into perspective
Stress on Family Welfare				
Maintaining a referee-life balance		Effective time-management	Accept the sacrifices as part of the job	Tough Attitude

Figure 4. Off-field situations perceived to require Mental Toughness and the associated MT attributes, behaviours, and cognitions utilised in elite football officiating.