Addressing the Context and Make Up of Mental Health Issues in High-Performing Athletes

by

Florence Lebrun

A thesis submitted in partial fulfilment for the requirements for the degree of Doctor of Philosophy at the University of Central Lancashire

June 2020

Student Declaration

Type of Award: **Doctor of Philosophy**

School: **School of Sport and Wellbeing**

1. Concurrent registration for two or more academic awards

I declare that while registered as a candidate for the research degree, I have not been a registered candidate or enrolled student for another award of the University or other academic or professional institution

2. Material submitted for another award

I declare that no material contained in the thesis has been used in any other submission for an academic award and is solely my own work

3. Collaboration

This thesis did not form part of a collaborative project.

4. Use of a Proof-reader

No proofreading service was used in the compilation of this thesis.

Signature of Candidate

Print name: Florence Lebrun

Abstract

Concerns and initiatives about mental health have grown among scholars and sport organisations. As such, refinement of our understanding of mental health issues in high-level sport is an important step to facilitate and improve the support and care of athletes' mental health. As a first step to this end, a thorough review of the literature was conducted, in this thesis, highlighting interesting comparisons and contrasts between high-performing athletes and the general population in terms of the genesis, assessment, and diagnosis of mental health issues. Building on this, a qualitative study enabled a rich exploration of elite athletes' experience of mental health issues. The nature (e.g., depression), the symptomatology (e.g., behaviour, performance and character changes), the perceived triggers (e.g., sport and non-sport related) of their mental health issues as well as their subsequent management strategies (e.g., talking, seeking professional help, and social support) were discussed. The stigma associated with mental health issues in high-level sport environments was also stressed by the participants. Extending this work and reflecting on coaches' role in athletes' performance and well-being, a second study investigated the perspective of coaches working with athletes experiencing mental health issues. While coaches considered monitoring and supporting their athletes' performance and well-being as day-to-day practice, dealing with mental health issues was, however, regarded as falling outside their professional competency. Further examining the complexity of mental health issues in sport, a third study highlighted the influence of the social milieu on athletes' attitudes and beliefs towards depression. Reflecting high-performance coaches' and athletes' specific needs, a rationale for the design of effective mental care in sport was developed with an emphasis on how this may be best operationalised. Overall, this thesis highlighted high-performing athletes' and stakeholders' experience, perception

and understanding of mental health issues as well as the need for sport-specific and evidence-based actions directed towards the management of mental health issues as well as the protection and promotion of mental health in sport populations.

Table of Contents

List of Figures

List of Tables

Acknowledgements

I would like to express my sincere and deepest gratitude to my supervisory team. First and foremost, I would like to thank Prof. Dave Collins and Dr. Áine MacNamara, for their incommensurable patience, their vast expertise and their precious advice throughout my PhD. While their inspiring guidance helped me in all the time of research, their detailed comments and feedback on both the style and content of my writing were undeniably valuable. Thank you both, I could not have done it without your supervision and continuous support.

Completing my supervisory team, I would like to thank Dr. Sheelagh Rodgers, for her insights and encouragement. Additional thanks are extended to everyone in ICaP - and in particular Dr. Howie Carson and Dr. Christopher Carling - for their warm welcome, availability, and for the “curry” nights.

My sincere thanks are, of course, also due to the participants of this thesis for their time and invaluable contributions.

On a more personal level, I would also like to thank my friends for their presence, their indefectible support, their active listening and encouragements at all stages of this journey. Last but not the least, I would like to thank my family, and in particular my father, Prof. P. Lebrun (Université Libre de Bruxelles, Belgium), for their constant support not only over the past few years but throughout the entirety of my academic journey.

Merci à tous.

List of Abbreviations

ADHD	Attention Deficit Hyperactivity Disorder
ANOVA	Analysis of Variance
APA	American Psychological Association
BASES	The British Association of Sport and Exercise Sciences
BPS	The British Psychological Society
CBT	Cognitive and Behavioural Therapy
DSM-V	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
GAD	General Anxiety Disorder
GP	General Practitioner
HCPC	The Health and Care Professions Council (UK)
ICD-11	International Classification of Diseases, 11th revision
IPA	Interpretative Phenomenological Analysis
MANOVA	Multivariate Analysis of Variance
MDD	Major Depressive Disorder
MHFA	Mental Health First Aid
MHIs	Mental Health Issues
PTSD	Post-Traumatic Stress Disorder
OCD	Obsessive Compulsive Disorder
OTS	Overtraining Syndrome
TD	Talent Development
WHO	World Health Organisation

CHAPTER 1

INTRODUCTION

1.1. Introduction

Concerns about mental health − defined by the World Health Organisation as a " state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2014) − are not new and have been growing for years (WHO, 2018a). Indeed, with one in five adults reporting having considered suicide and one in six having experienced symptoms of common mental disorders (Mental Health Foundation, 2016; McManus, Bebbington, Jenkins, & Brugha, 2016), mental health is a serious public health issue (Keyes, 2005). However, although all mental health issues (MHIs) are characterised by "a combination of abnormal thoughts, perceptions, emotions, behaviours and relationships with others" (WHO, 2018a), they tend to vary in terms of their presentation and prevalence (WHO, 2018a)[1]. Common mental disorders englobe, for example, conditions such as depression, phobias, generalised anxiety disorder (GAD), panic disorder, post-traumatic stress disorder (PTSD) and/or obsessive-compulsive disorder (OCD; Mental Health Foundation, 2016; McManus et al., 2016; NICE, 2011). The twelve-month prevalence of Major Depressive Disorder (MDD), the most common form of depression, and commonly diagnosed MHI, is reported to reach up to 7% of the general population in Europe (APA, 2013; WHO, 2018b). The twelve-month prevalence of social anxiety disorder is estimated to approach 2.3% in Europe, while its estimates for disorders such as GAD vary from 0.4% to 3.6% (APA, 2013), are between 2%-3%

[1] A table summarising the characteristics and incidence rates of key mental health disorders in the general population is presented in Appendix A1.

for panic disorder, between 1.1%-1.8% for OCD, and are about 0.4% among females for eating disorders such as anorexia nervosa (APA, 2013). Other MHIs include psychotic disorders, bipolar disorder, autism, and personality disorders; to name a few.

While the prevalence of MHIs in the general population is of concern, scholars' attention has also been attracted to other specific groups of society, and more specifically those confronted with high demands (e.g., notably physical and mental requirements) and focusing on individuals' performance (Nordin-Bates, 2012). The ability to perform, and more specifically, perform well under adverse conditions (e.g., stress, pressure, competition), lies at the heart of high-performance environments (Nordin-Bates, 2012). Military forces, for example, must stay sharp both physically and mentally to quickly adapt to the stress, changes, and challenges associated with their activity (e.g., technical skill training) and endure the rigours of combat exposure and deployment. In a similar way, art performers must be able to demonstrate their knowledge and expertise (e.g., skills expertise, management of complex processes), deal with stress (e.g., performance anxiety) when performing in front of a demanding and critical audience, and handle the competitiveness of performance settings (Nordin-Bates, 2012). Intense training load, identity foreclosure, injury, psychological pressure (Nordin-Bates, 2012) are only some of the challenges faced by individuals involved in high-performing environments. Yet, despite the costs (e.g., stress, work pressure, physical and emotional demands, pain, injury; Nordin-Bates, 2012), they are expected to be continuously committed and focused on their goals in order to achieve the highest standards of performance.

In comparison to the general population, a higher prevalence of MHIs was reported in U.K. military personnel following combat exposure and deployment-related stressors exposure (MOD, 2015; Reijnen, Rademaker, Vermetten, & Geuze,

2015). Sundin, Forbes, Fear, Dandeker, and Wessely (2011) suggested that the prevalence of military personnel encountering MHIs following deployment approached 20%. More specifically, within that specific niche, the prevalence for PTSD scored between 1.3–6%, while the prevalence of MDD reached up to 3.7%. The prevalence for anxiety disorders in military personnel approached 4.5%, whereas the prevalence for alcohol abuse ranged from 16.4 to 26% (Fear et al., 2010; Iversen et al., 2009; Reijnen et al., 2015; Sundin et al., 2011). Similarly, poorer mental health among art performers (e.g., musicians) has been reported compared to the general population with evidence of work-related health problems (Voltmer et al., 2012). Although based on self-reports, Gross and Musgrave (2016) found that 71.1% of their respondents experienced panic attacks and/ or high levels of anxiety, whereas 68.5% faced symptoms of depression. Such data has led them to suggest that, compared to individuals from the general population, musicians could be up to three times more likely to suffer from a MHI such as depression (Gross & Musgrave, 2016). In addition, while performance anxiety, sleep disturbance, symptoms of depression and symptoms of anxiety seem fairly common in professional musicians (Voltmer et al., 2012), dancers appear to be at a greater risk of developing eating disorders with an overall point prevalence estimated at 12% (Arcelus, Witcomb, & Mitchell, 2014). Given the prevalence of MHIs in both the general population and in high-performing contexts such as in military personnel, musicians and dancers, it should maybe not be surprising that concerns about mental health have also reached the world of high-performance sport.

Sport participation is often praised for its physiological, social and psychological benefits (Eime, Young, Harvey, Charity, & Payne, 2013; Swann et al., 2018). Reduced risks of chronic diseases such as cardiovascular disease, hypertension

and weight management are some of the known physiological advantages of sport and physical activity (Daley, 2008; Hamer, Stamatakis, & Steptoe, 2009). In parallel, sport and physical activity have also been shown to positively affect one's self-esteem and social relationships (Swann et al., 2018), while also reducing one's perceived stress and psychological distress (Eime et al., 2013). Indeed, whilst sport participation can be used to cope with and/or escape from stressors (Daley, 2008; Swann et al., 2018), the recreation, enjoyment and social interactions originating from it can also influence one's perceived level of well-being and overall quality of life (Eime et al., 2013; Swann et al., 2018). Accordingly, sport participation and/or physical activity are often recommended to individuals with MHIs to improve their recovery, lifestyle practices and overall health (Daley, 2008; Morgan, Parker, Alvarez-Jimenez, & Jorm, 2013). However, despite its physiological, psychological and social advantages (Eime et al., 2013), intense sport participation can also have detrimental physical and psychological health effects (Hughes & Leavey, 2012; Schwenk, 2000).

Indeed, despite their "super-human status" and exceptional athletic performances, elite athletes are not immune to MHIs (Bär & Markser, 2013; Rice et al., 2016). They can, as anyone else, be subject to MHIs such as depression, anxiety disorders, substance abuse or eating disorders to name a few (Bär & Markser, 2013; Gouttebarge, Backx, Aoki, & Kerkhoffs, 2015a; Gouttebarge, Frings-Dresen, & Sluiter, 2015b; Hughes & Leavey, 2012; Reardon et al., 2019; Rice et al., 2016; Schaal et al., 2011). There are numerous examples of high-profile athletes such as Michael Phelps (U.S.A.; swimming), Allison Schmitt (U.S.A.; swimming), Gianluigi Buffon (Italy; football); Neil Lennon (U.K.; football), Jack Green (U.K.; track & field), Andy Baddeley (U.K.; middle-distance running), Michael Jamieson (U.K.; swimming) or Josh Edmondson (U.K.; cycling) who have spoken about their struggles with MHI(s).

An interesting question, however, is whether elite athletes are more at risk of MHIs than the general population. Research evidence on this topic is, so far, inconclusive and equivocal (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015) and, therefore, requires further investigation.

1.2. Mental Health Issues and High-Performing Athletes

Due to the public's tendency to idealise high-performing athletes, together with athletes' necessity to develop a range of psychological skills to succeed in their discipline (e.g., ability to focus, to cope with adversity, self-regulation; Gould, Dieffenbach, & Moffett, 2002), MHIs have for a long time been perceived as rare or non-existent in high-level sport (Bär & Markser, 2013; Doherty, Hannigan, & Campbell, 2016; Hammond, Gialloreto, Kubas, & Davis, 2013; Markser, 2011; Reardon & Factor, 2010). This is surprising given the many and varied pressures that athletes experience. For example, high-performing athletes are under considerable societal pressure to win and compete (Souter, Lewis, & Serrant, 2018). This pressure is coupled with physiological (training load) and psychosocial stress (Gustafsson, Kenttä, & Hassmén, 2011; Quignon-Fleuret, 2016) that is a requisite of high-level performance. High-level sport participation does not only impact ones' physical and mental health, it also includes all the sacrifices those athletes must make in order to strive for success. Yet, people often tend to only see the achievements in terms of medals or fame without perceiving the bigger picture.

In the perpetual pursuit of performance and success, athletes must commit, from a young age, to their discipline (Quignon-Fleuret, 2016) and put their bodies and mind through a tremendous load of physical and psychological stress on a regular basis (Sabato, Walch, & Caine, 2016; Souter et al., 2018). Adolescence and young adulthood are key developmental periods for athletes both in terms of peak performance years

and regarding the onset of MHIs (Gucciardi, Hanton, & Fleming, 2017; Gulliver et al., 2012b; Hughes & Leavey, 2012; Kessler & Bromet, 2013; Rice et al., 2016; Sabato et al., 2016; Schinke, Stambulova, Si, & Moore, 2017). Adolescence (10-19 years old; Patel, Flisher, Hetrick, & McGorry, 2007) and young adulthood are stressful, transitional times, and critical periods when it comes to the development of psychopathology (MacNamara & Collins, 2015; Patel et al., 2007). Yet, in the context of high-level sport, adolescence and young adulthood represent a period of growth and development but also a period of pressure and evaluation for young athletes who, not only encounter the common stressors associated with adolescence and school (Mental Health Foundation, 2016) but also, simultaneously, have to overcome specific stressors related to their chosen sport and/or career (Delenardo & Terrion, 2014; MacNamara & Collins, 2015; Reeves, Nicholls, & McKenna, 2009).

Game schedules, strains of intense training, comparison to others (Mann, Grana, Indelicato, O'Neill, & George, 2007), career termination (Wippert & Wippert, 2010), conflict with coaches, making errors, criticisms, social evaluation, selection, referee decision, pressure to perform and fear of injury are some of the stressors faced by adolescents and young adults involved in high-level sport participation (Gustafsson et al., 2011; Reeves et al., 2009; Sabato et al., 2016; Tamminen, Holt, & Crocker, 2012). As a consequence, negative effects of intense sport participation on mental health have been reported by young, developing athletes (Swann et al., 2018). The path to the top of elite sport is long, complex, highly individualised and full of bumps in the road (e.g., challenges, setbacks, sacrifices; cf. Collins, MacNamara, & McCarthy, 2016). Although the nature and intensity of stressors can change over time (Tamminen et al., 2012), Arnold and Fletcher (2012) have estimated that sport performers are confronted with no less than 600 different stressors (e.g., leadership and personnel

issues, cultural and team issues, logistical and environmental issues, performance and personal issues) during their performance career. Periods of transition (e.g., transitioning out of sport and retirement) are, for example, particularly, known as high risk periods in terms of athletes' mental health (Arnold & Fletcher, 2012; Gouttebarge et al., 2019; Park, Lavallee, & Tod, 2013; Wippert & Wippert, 2010).

The increase in evidence and public awareness of both the positive and negative health effects of high-level sport participation have led to an exponential growth of interest from both scholars and the popular media (Hughes & Leavey, 2012; Lundqvist, 2011; Putukian, 2016; Sabato et al., 2016; Schwenk, 2000; Swann et al., 2018; Theberge, 2008). Yet, a lack of consensus regarding the definitions of crucial constructs, such as "elite athletes", "mental health" and "MHIs" has resulted in a paucity of quality and focused research. Without clear definitions, it is not surprising that the literature about the epidemiology (e.g., prevalence, distribution and evolution), the diagnosis, and treatment of MHIs in high-level sport appears conflicting (Doherty et al., 2016). Indeed, on one hand, studies have suggested that the prevalence of MHIs in sport is comparable to the general population (Gulliver et al., 2015; Kamm, 2008; Markser, 2011; Rice et al., 2016; Schaal et al., 2011). On the other hand, research has argued that high-performing athletes might be more at-risk than the general population of developing certain mental disorders (Gouttebarge et al., 2019; Gucciardi et al., 2017; Roberts, Faull, & Tod, 2016) such as eating disorders (Bär & Markser, 2013; Byrne & McLean, 2002; Sudi et al., 2004; Thompson & Sherman, 2014) and common mental disorders (e.g., depression, anxiety disorder, substance abuse, sleep disturbance; Gouttebarge et al., 2015a; Gouttebarge et al., 2015b; Gulliver et al., 2015). For example, while a prevalence of mental health symptoms ranging from 19% for alcohol misuse to 34% for depression and anxiety was found in current elite

athletes, a prevalence ranging from 16% for distress to 26% for depression and anxiety was reported in former elite athletes (Gouttebarge et al., 2019). Current and former high-performing athletes' MHIs merits, therefore, further investigation starting by a clarification of the terms employed to talk about MHIs in "elite" sport.

1.2.1. High-Performing Athletes: Definition.

In terms of populations, college student-athletes to Olympic medallists have been used as participants in research on "elite" athletes throughout the sport literature (Swann, Moran, & Piggott, 2015). Convenience samples of college and university students have often been targeted to obtain epidemiological data on elite athletes' mental health, even though many never reached the "elite" level (Schaal et al., 2011; Schinke et al., 2017; Swann et al., 2015). The lack of precision in participants' inclusion criteria across the literature makes comparisons between studies difficult and/or biased. As such, it is important to be cautious and consider a definition of high-performing athletes before going further.

High-performing athletes in the present thesis can be defined as athletes competing at the highest level in their sport with or without experiencing sustained success at that level (e.g., from competitive-elite athletes to world-class elite athletes; see Swann et al., 2015). Therefore, this definition also includes young, developing athletes. In this regard, a young, developing athlete is "one who has superior athletic talent, undergoes specialised training, receives expert coaching and is exposed to early competition" (Mountjoy et al., 2008, p. 163). Young, developing athletes involved in Talent Development (TD) environments (e.g., regional/national sport academies, national junior programmes) can train up to 15-20 hours per week and compete in national and international youth competitions (Sabato et al., 2016). They commit their time and energy to one-day attaining the objective of competing at the highest level

and experiencing success at that standard (e.g., successful elite athlete). The ultimate goal of any athlete is to become a world-class elite athlete by sustaining success at the highest level over a prolonged period of time (Swann et al., 2015).

1.2.2. Mental Health in Sport: Definition.

In addition to the lack of precision in the definition of an elite athlete in the literature, the literature on athletes' mental health is also characterised by inconsistencies on what mental health looks like (Uphill, Sly, & Swain, 2016). For a long time, mental health was perceived in a dichotomous way (e.g., a person does or does not have a MHI). However, a more contemporary view of mental health proposes the existence of a continuum (Moesch et al., 2018; Pierre, 2012; Schinke et al., 2017). In applied practice, the mental health continuum highlights the need for practitioners to be aware that athletes may suffer from sub-clinical forms of mental disorders where all the criteria for a full-blown disorder are not yet displayed but have an increased potential to develop (Moesch et al., 2018). In line with the World Health Organisation's definition of mental health, Pierre (2012, p. 656) suggested that the mental health continuum includes "normal suffering and reactions to stressors, troublesome complaints and symptoms, subthreshold disorders and *forme frustes*, as well as more clearly demarcated SMI [serious mental illness]". Recently, supporters of the mental health continuum model went even further. They suggested that one end of that continuum represented "high-functioning individuals whose psychological states do not interfere with daily activities, and the other representing low functioning individuals whose psychological states consist of a variety of problematic cognitive, emotional, or behavioural characteristics, often referred to as mental illness" (Schinke et al., 2017, p. 623). In contrast, Keyes (2005) advocated that completely mentally healthy individuals are not only free of MHIs but also have a flourishing well-being

(e.g., subjective, emotional, psychological and social well-being; Keyes, 2005; Lundqvist, 2011). In light of the above, Figure 1.1 attempts to summarise and clarify our view of the mental health continuum as used through the present thesis.

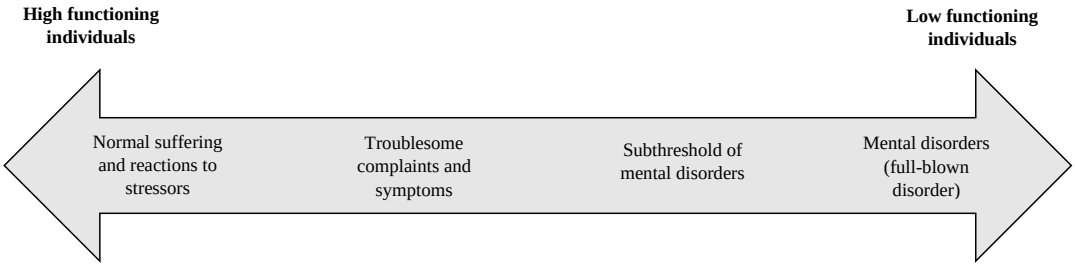


Figure 1.1 Mental health continuum.

1.2.3. Mental Health Issues in Sport: Definition.

Athletes do not have to encounter severe forms of MHI(s) to need help (Henriksen et al., 2019). Symptoms, sub-clinical levels, or subthreshold of mental ill-health can also negatively impact athletes' functioning and performance (Gouttebarge et al., 2018; Gulliver, Griffiths, & Christensen, 2012a; Schinke et al., 2017). Therefore, with high-performing athletes, Henriksen et al. (2019) called for discriminating between:

(1) Clinical mental disorders detected by the means of accepted diagnostic criteria as the ones expounded in the Diagnostic Statistical Manual of Mental Disorders – 5th edition (DSM-V; APA, 2013) or in the International Statistical Classification of Diseases and Related Health Problems – 11th Revision (ICD-11, 2018);

(2) Sub-clinical MHIs with an individual experiencing symptom(s) related to a mental disorder without fulfilling all the minimum criteria leading to the formulation of a clinical diagnostic;

(3) Occasional adversity, less pleasant thoughts and emotions that are part of the human condition; and

(4) Occasional unpleasant thoughts and emotions that are part of the athlete condition and are the result of athletes' engagement in high-level sport participation.

Discerning between MHIs thresholds (e.g., sub-clinical thresholds compared to more clearly demarcated severe forms; Pierre, 2012) is not an easy task and the lack of a clear definition of mental health and mental ill-health further complicates this (Moesch et al., 2018). The lack of consensus regarding the definitions of mental health and MHIs illustrates the complexity of the overall picture (e.g., MHIs presentation, symptoms and subsequent treatment). Accordingly, clarification of the term "MHI(s)" as used throughout this thesis is necessary. Extending on Schinke et al.'s (2017) definition of low functioning individuals, MHIs in the following text refers to mental disorders and/or symptoms of psychological distress interfering, over time, with an individual's psychological state and usual activities; and can be defined as:

> Signs and symptoms that impact how a person thinks, feels, communicates, or behaves. Some common symptoms of mental health issues include changes in a person's mood, changes in how a person interacts with others, and changes in how a person deals with daily stressors. A person with a mental health issue may find it difficult to complete tasks that are part of daily life (Livingston, Tugwell, Korf-Uzan, Cianfrone, & Coniglio, 2013, p. 967).

In this thesis, the adjective "clinical" will precede the term MHI(s) to denote mental disorders that were assessed and diagnosed by a qualified mental health professional. Therefore, all the clinical MHIs discussed in this thesis were causing clinically significant distress and/or impairment over time and met, therefore, the minimum criteria leading to a diagnosis such as the ones described in the DSM-5 or the ICD-11 (APA, 2013; Reardon et al., 2019). Given the topic, it seems also important to clarify that, while people might unintentionally perceive some stigma attached to terms used

throughout this thesis such as “issues” or “suffering from”, this is not my intention. As such, care is taken throughout the thesis, and the data collection, to avoid stigmatising vocabulary in how the findings are presented.

1.3.Stigma Associated with MHIs in High-Level Sport

In addition to the inconsistencies in the literature concerning the definitions of “elite athletes”, “mental health” and “MHIs”, the stigma associated with mental health, both in sport and in the general population, is another important issue to consider in regard to MHIs in sport and its associated literature. Suffering from MHIs is still commonly stigmatised in many sports (Bär & Markser, 2013; Rice et al., 2016; Roberts et al., 2016; Schaal et al., 2011; Sebbens, Hassmén, Crisp, & Wensley, 2016) and in the media (Glick & Horsfall, 2009). This is particularly true for high-performing athletes who are often depicted as strong and powerful (Arvinen-Barrow, 2016) and considered as heroes or role models (Doherty et al., 2016; Markser, 2011; Reid, 2017). The discourse of excellence, the public’s expectations, the values and assumptions associated with the term “mental toughness” embedded in the sport sub-culture (Delenardo & Terrion, 2014; Markser, 2011; Williams, 2012) have led to the idea that only mentally strong athletes are able to compete and stay at the top of their discipline and to the misconception that there was no room for MHIs in high-level sport (Delenardo & Terrion, 2014; Markser, 2011; Williams, 2012).

Sport cultures that value performance “at all cost” (Gucciardi et al., 2017), the media scrutinising high-profile athletes’ character and achievements (Reid, 2017), and a lack of awareness and understanding often perpetuate the public’s and sometimes even the sport clubs’ negative and stigmatised attitudes towards MHIs (Bär & Markser, 2013). Although, high-profile athletes have increasingly started to share their experience of MHIs, athletes are reluctant to disclose or talk about their mental health

and can face many obstacles in seeking help (e.g., lack of time, negative past experiences, denial of a problem; Gulliver et al., 2012a; Reardon et al., 2019). The embarrassment associated with MHIs and the perceived necessity to hide vulnerabilities from coaches, opponents, and teammates seem to perpetuate the idea that it is still not expected nor accepted for high-performing athletes to display signs of what they may consider a weakness or the reflection of a weak character (Bär & Markser, 2013; Delenardo & Terrion, 2014; Doherty et al., 2016; Markser, 2011). Athletes' macho posture (Delenardo & Terrion, 2014; Glick & Horsfall, 2009), a sport culture of masculine ideals (Doherty et al., 2016; Moesch et al., 2018), and a lack of understanding about MHIs and their consequences on one's performance and quality of life have frequently led coaches and athletes to perceive MHIs as a sign of weakness or personal flaw (Armstrong, Burcin, Bjerke, & Early, 2015; Delenardo & Terrion, 2014; Glick, Stillman, Reardon, & Ritvo, 2012; Griffiths, Christensen, Jorm, Evans, & Groves, 2004; Gulliver et al., 2012a).

As a result, many athletes suffering from MHIs try to hide them out of fear of the consequences a disclosure may have (e.g., being excluded from the team or from a game, peer rejection, loss of status, exposure to the negative views of others; Beable, Fulcher, Lee, & Hamilton, 2017; Delenardo & Terrion, 2014; Gulliver et al., 2012a; Hill, MacNamara, Collins, & Rodgers, 2016; Moesch et al., 2018; Souter et al., 2018; Uphill et al., 2016). In some cases, owing to the stigma associated with MHIs, athletes may even deny their symptoms or, going even further, deny MHIs as a medical condition (e.g., "weak not sick"; Connery & Davidson, 2006; Delenardo & Terrion, 2014; Griffiths et al., 2004; Jorm & Wright, 2008). The stigma associated with MHIs, along with the stigma of seeking help (Rickwood, Deane, Wilson, & Ciarrochi, 2005; Talebi, Matheson, & Anisman, 2016) or seeing a health professional (Armstrong et al.,

2015; Watson, 2005) interfere and act as barriers to athletes' help-seeking and care (Connery & Davidson, 2006; Schinke et al., 2017; Schwenk, 2000; Talebi et al., 2016). Furthermore, in the context of high-performance environments where a culture of "boys don't cry" can still persist (Machell, 2016), the stigma surrounding MHIs may also partially explain the difficulty of studying and assessing the true prevalence of MHIs (Gouttebarge et al., 2015a; Gucciardi et al., 2017; Roberts et al., 2016).

1.4.Objective of the Thesis

The increasing visibility of MHIs in high-performance sport has led sport organisations to understand their role concerning both athletes' well-being and their performances. Athletic development is influenced by the environment and shaped by the people involved in that environment (e.g., vicarious experience by exposure to other current or former elite athletes; Gould et al., 2002). Gould et al. (2002) highlighted five sport-specific sources of influence impacting athletes' development: namely, competition, the nature of the sport (e.g., encouraging certain attitudes and development), sport organisations, training, and sport adversity (e.g., learning from past experiences). More specifically, sport environments in themselves have an influence on athletes by inculcating attitudes and ideals through the elite models and values they promote (Gould et al., 2002).

Reflecting these concerns, many initiatives aiming at raising sportspeople's awareness about mental health and MHIs, and promoting positive mental health environments, have recently been launched in the U.K. The U.K. Government (GOV.UK, 2018) and UK Sport have begun to develop and implement a "Mental Health Action Plan" aiming to improve the mental health support provided to high-levels athletes. Other initiatives include UK Sport's and the English Institute of Sport's collaboration regarding the implementation of the "Mental Health Strategy" promoting

and ensuring appropriate support for athletes experiencing MHIs (UK Sport, 2018). This involved the creation in 2018 of an expert panel comprising clinical psychologists and sports psychiatrists providing advice and expertise regarding the management and support of UK Sport athletes' mental health (e.g., provision of services), the delivery of educational programmes aiming at supporting UK Sports' athletes and promoting mental health among their athletes, coaches and support staff, and the launch of a Mental Health Awareness Week (UK Sport, 2019); to name a few of the interventions. However, in order to act proactively and optimise mental health support, a shared and better understanding of the complexity of MHIs in high-level sport as well as the subsequent challenges surrounding this topic is required. Therefore, driven by the need to improve the support offered to high-performing athletes in terms of their mental health, the main objectives of this thesis were:

1. To examine the nature and prevalence of MHIs in high-performance athletes as currently presented in the sport literature whilst also offering comparisons and contrasts to the general population.
2. To provide a rich and in-depth picture of MHIs in high-performing sport environments from the perspective of elite athletes who experienced clinically diagnosed MHIs.
3. To pursue our investigation of MHIs in high-performing sport environments by examining the perspective and concerns of coaches who worked with athletes experiencing MHIs.
4. To explore the influence of the social milieu by comparing the representations of MHIs held by high-level performers, selected from different settings.

5. Building on those data, to critically review, set up parameters and offer recommendations regarding the rationale behind the development of effective mental care in high-level sport environments.

1.5.Overall Philosophical Perspective

1.5.1. The Pragmatic Approach.

Due to the inconsistencies surrounding the study of MHIs in high-level sport (see more details in Chapter 2), a pragmatic approach was adopted to meet the overall aim of the present project. The pragmatic approach, "which may use multiple methods to achieve practical aims, is focused on solving problems that may be defined by multiple stakeholders in order to yield consequences that serve human interests in complex institutions" (Levitt, Motulsky, Wertz, Morrow, & Ponterotto, 2017, p. 7). Pragmatism focuses on the problems people experienced and their practical solutions emerging from applied practice (Giacobbi, Poczwardowski, & Hager, 2005). To do so, pragmatist research uses pluralistic approaches (e.g., multiple and/or mixed method designs) in order to gain an comprehensive understanding about the phenomenon under investigation (Giacobbi et al., 2005; Jones, Brown, & Holloway, 2013) while equally valuing the objective and subjective knowledge generated via those different methods (Culver, Gilbert, & Sparkes, 2012).

According to Morgan (2007), the pragmatic approach prioritises "both the connection between methodology and epistemology and the connection between methodology and methods" (p. 68). Indeed, while Positivism and Constructivism tend to have opposed and contentious epistemological and ontological views, philosophical assumptions behind pragmatic research advocate the existence of a continuum between objective and subjective viewpoints with its choice depending on the research

question (Giacobbi et al., 2005). As described by Onwuegbuzie and Leech (2005, p. 377):

> Pragmatists ascribe to the philosophy that the research question should drive the method(s) used, believing that "epistemological purity doesn't get research done". In any case, researchers who ascribe to epistemological purity disregard the fact that research methodologies are merely tools designed to aid our understanding of the world.

1.5.2. Different Lenses for Different Aims: Selecting and Defining the Research Strategies and Methods.

The purpose of research is to search for knowledge by answering some specific questions (Jones et al., 2013). In the present thesis, pluralistic lenses were used in order to portray the phenomenon under study. Indeed, qualitative and quantitative inquiries are not incompatible (Jones et al., 2013). Rather, qualitative and quantitative research should complement and inform each other (Jones et al., 2013; Onwuegbuzie & Leech, 2005). Accordingly, the choice of methods was guided by the research questions and methods were, therefore, merely the procedures, tools, and techniques used to carry on the research (i.e., practical side of research; Culver et al., 2012). Indeed, qualitative approaches focus on individuals' understanding of a social phenomenon and on the ways in which they make sense of their experience(s), whereas quantitative approaches tend to test an hypothesis and use measurements to study a phenomenon (Jones et al., 2013). The combination of both qualitative and quantitative data enabled me, as a researcher, to "*zoom in* to microscopic detail or to *zoom out* to indefinite scope" (Onwuegbuzie & Leech, 2005, p. 383). Therefore, this pragmatic research focus enabled us to look not only at the micro (e.g., individuals) but also at the macro levels (e.g., social milieu) of the research questions (Onwuegbuzie & Leech, 2005).

By combining qualitative and quantitative research techniques, the pragmatic approach allows a certain flexibility in the investigative methods chosen to address the objectives underlying the present thesis (Onwuegbuzie & Leech, 2005). Given that different lenses have been adopted in the following chapters to respond to the objectives of this project, the design and limitations of the studies conducted are explained in detail in their respective chapters.

1.6. Overview of the Work Programme

Given the range of MHI(s) existing in in high-performing sport environments and the stigma surrounding this topic, the present thesis will focus on MHI(s), in general, to broaden our understanding of sportspeople's experience, perception and understanding of MHIs without being limited to one specific condition. Therefore, ensuing from the concerns raised earlier in this chapter, the aim of Chapter 2 was to address Objective 1 by critically considering (1) the current literature on the nature and prevalence of MHIs in high-level sport, (2) the genesis of MHIs from a person versus an athlete perspective, (3) the challenges of applying general population-based science to high-level performers and (4) the importance of the context regarding the diagnosis of MHIs.

Extending on concerns highlighted in Chapters 1 and 2, Chapter 3 addressed the second objective of this thesis by providing a rich and in-depth picture of MHIs in high-performing sport by examining the experience of British elite athletes who were confronted with MHIs during and/or immediately post their career. Investigating elite athletes' own experience of MHIs from a participant perspective is an important step to broaden our understanding of this phenomenon as well as to compare and contrast their experiences to the current literature in sport and in the general population.

Following this, the study outlined in Chapter 4 extended our earlier investigation of MHIs in high-performing sport environments by looking more closely at the perspective and concerns of coaches who worked with athletes experiencing MHIs (Objective 3). Given the importance of the coach-athlete relationship (Jowett & Cockerill, 2003) and the impact coaches can have in athletes' lives (Gulliver et al., 2012a; Mazzer & Rickwood, 2015a), investigating coaches' experience seemed to be a logical and essential next step to better understand athletes' experience of MHIs in high-performance sport environments.

While the main purpose of Chapters 3 and 4 was to explore MHIs from the perspective of both the athlete and coach, Chapter 5 zoomed out and examined the influence of the social milieu by comparing by comparing the representations of MHIs held by high-level performers selected from different settings (Objective 4). Participants in Chapter 5 were selected from different high-performance environments sharing commonalities with high-performing athletes (e.g., military forces, art performers) and from the general population (reference sample). More specifically, this Chapter compared participants' ability to recognise different levels of severity of MHIs, reactions and personal attitudes towards MHIs.

Building on the studies presented in Chapters 3, 4, and 5, Chapter 6 addressed the thesis' last objective (Objective 5) by (1) reviewing different perspectives on offer concerning mental health interventions, (2) outlining important parameters that mental health programme(s) should consider to take on the challenges raised by MHIs in high-level sport, and (3) adding to the mental health in sport debate with a few thoughts for the future.

Finally, Chapter 7 focused on the unique contributions of this thesis to the sport literature and applied practice. The overall original findings, conclusions and

limitations of the present project are addressed in this final chapter alongside recommendations for future research.

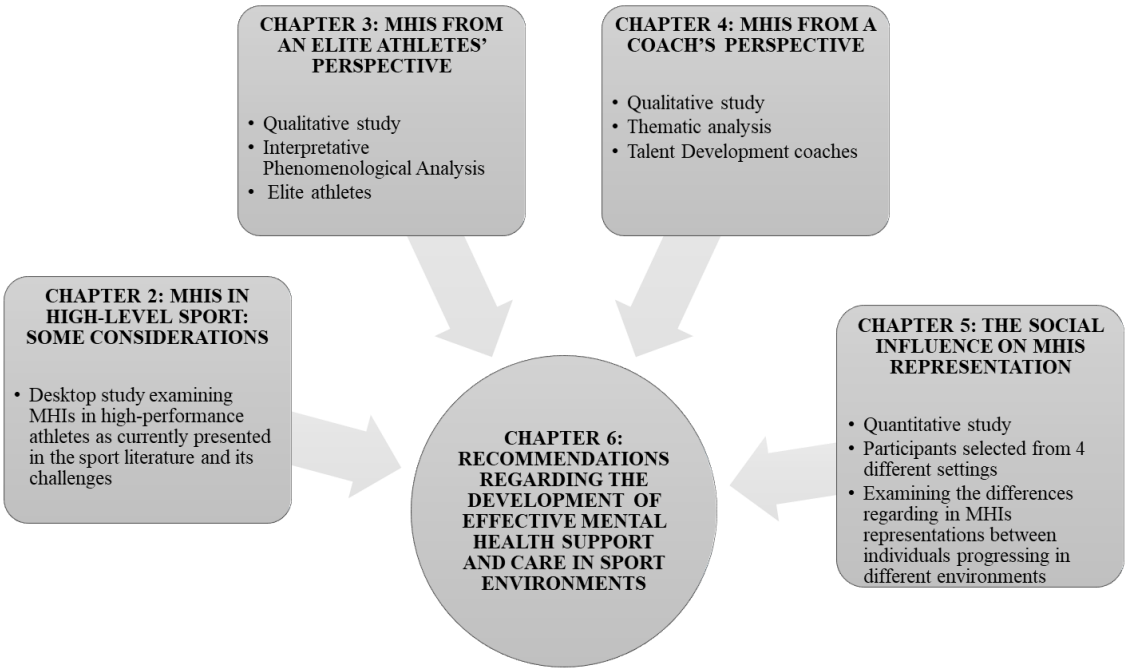


Figure 1.2 Overview of the work programme

CHAPTER 2

MENTAL HEALTH ISSUES IN HIGH-LEVEL SPORT: SOME CONSIDERATIONS

2.1. Introduction

While the breadth, complexities, and heterogeneities of MHIs in high-level sport participation begin to be recognised (e.g., Doherty et al., 2016; Rice et al., 2016; Schaal et al., 2011), the uniqueness of the high-level sport environment has been suggested to influence athletes' presentation, experience, and reactions towards MHIs (Bär & Markser, 2013; Doherty et al., 2016). Reflecting this, and the concerns highlighted in Chapter 1, the aim of the present chapter was to examine the nature and prevalence of MHIs as currently presented in the sport literature whilst also offering comparisons and contrasts to the general population.

2.2. Nature and Prevalence of MHIs in High-Level Sport

2.2.1. Mental Health Issues in High-Performing Athletes: What Does the Literature Say.

As outlined in Chapter 1, high-performing athletes are not protected against MHIs (Bär & Markser, 2013; Rice et al., 2016). Most psychopathologies may be found in athletes (Roberts et al., 2016) with about 5% to 35% of elite athletes prone to MHIs over a 12-month period (Reardon et al., 2019). However, despite the growing literature available, findings about the prevalence of MHIs in high-performing athletes are rather inconsistent (Doherty et al., 2016). While some disorders (e.g., depression, eating disorders, burnout) have been extensively studied, other data on conditions such as psychotic disorders, bipolar disorders, phobia, attention deficit/hyperactivity disorder (ADHD), behavioural addictions or behavioural disorders are rare or limited in the context of high performance sport (Bär & Markser, 2013; Markser, 2011;

Reardon & Factor, 2010; Reardon et al., 2019; Rice et al., 2016). Furthermore, even for intensively studied conditions inconsistencies prevail regarding their true prevalence in high-level sport[2]. These include common mental health symptoms (e.g., distress, depression/anxiety symptoms, alcohol misuse, sleep disturbance; Gouttebarge et al., 2015a; Gouttebarge et al., 2015b; Gouttebarge et al., 2018; van Ramele, Aoki, Kerkhoffs, & Gouttebarge, 2017), anxiety disorders (Markser, 2011; Schaal et al., 2011), depression (e.g., Armstrong et al., 2015; Doherty et al., 2016; Hammond et al., 2013; Nixdorf, Frank, & Beckmann, 2016; Wolanin, Gross, & Hong, 2015), burnout (e.g., Cresswell & Eklund, 2007; Eklund & Defreese, 2015; Gustafsson, Carlin, Podlog, Stenling, & Lindwall, 2018; Gustafsson et al., 2011), addictions (e.g., substance use disorders and other behavioural addictions; Reardon et al., 2019) or eating disorders (e.g., Byrne & McLean, 2002; Nowicka, Eli, Ng, Apitzsch, & Sundgot-Borgen, 2013; Sudi et al., 2004; Thompson & Sherman, 2014).

Eating disorders have, for example, been one of the most studied MHIs in high-level sport (e.g., Byrne & McLean, 2002; Nowicka et al., 2013; Sudi et al., 2004; Thompson & Sherman, 2014). The prevalence of eating disorders and/or disordered eating among athletes has been suggested ranging from 0% to 19% in males and from 6% to 45% in females (Reardon et al., 2019), with cases of anorexia and/or bulimia nervosa affecting up to 15% of high-performing athletes competing at a national or international level in leanness sports (i.e., sports with an emphasis on lean appearance or low body weight such as gymnastics, light-weight rowing, long distance running, diving and swimming) compared to 2% in non-leanness sports (e.g., basketball, hockey, tennis, volleyball; Byrne & McLean, 2002; Markser, 2011). In comparison,

[2] A table summarising studies used within the present thesis regarding the prevalence of common MHIs studied within elite sport is presented in Appendix A2.

Schaal et al. (2011) found that, in a sample of French high-level and developing athletes performing at national and/or interventional levels, the prevalence of eating disorders was on average 4.2% with 86% of those cases classified as Eating Disorders Not Otherwise Specified. Work by Gulliver et al. (2015) found that 10% of their Australian sample, comprising athletes performing at an Olympic or Paralympic, professional, state-, national-, and international-level, met the criteria for eating disorders. Eating disorders have also been reported in some studies as reaching up to 60% in female athletes competing in leanness sports (e.g., long distance running, gymnastics and figure skating; Bär & Markser, 2013; Glick et al., 2012; Reardon & Factor, 2010).

Other MHIs commonly studied in high-performing environments are anxiety disorders (Markser, 2011). Once again, data about the prevalence of anxiety disorders are limited and rather inconsistent. Gulliver et al. (2015) found that 14.7% of their sample, comprised of Australian elite athletes, experienced social anxiety symptoms, whereas 7.1% reported suffering from GAD and 4.5% from panic disorder. In comparison, Schaal et al. (2011) found that GAD was the most widespread MHI among their sample of French high-level and developing athletes with a prevalence of 6%; whereas Reardon et al. (2019) reported a prevalence ranging from 6% when considering clinical diagnoses of GAD to 14,6% in studies using elite athletes' self-reported data. While data regarding the prevalence of anxiety disorders such as social anxiety disorder and panic disorder is limited or lacking (Reardon et al., 2019), the high prevalence of GAD in high-performing athletes should, according to Schaal et al. (2011), not be surprising. Indeed, some at-risk factors for GAD include the amount of pressures athletes endure to excel within their discipline all under the eye of the media

and the public, and the potential extreme worries ensuing from a gap between the desired and actual goals and/or performance (Schaal et al., 2011).

Depression is another MHI that has been extensively studied in the literature. Although there is a growing body of literature, studies investigating depression in elite athletes have also reported inconsistent data. For example, in Schaal et al. (2011), depression was encountered by only 3.6% of the high-level and developing athletes, with the majority of those cases (87%) categorised as minor depression. In their study, Schaal et al. (2011) discriminated between major depression and minor episodes by the number of symptoms reported (e.g., a minimum of two symptoms for minor depression, and a minimum of five symptoms for major depression). In contrast, Beable et al. (2017) reported that 21% of their sample, recruited from the High-Performance Sport New Zealand (HPSNZ) programme, met the criteria for moderate depressive symptoms with 8.6% meeting the criteria for a major depressive disorder. In other studies, its prevalence ranged from 9% in male to 13% in female Swiss first league football players; (Junge & Feddermann-Demont, 2016), reached 24% in college student-athletes (Wolanin, Hong, Marks, Panchoo, & Gross, 2016) and increased to 68% prior to competition in Canadian University swimmers competition at a national and international levels (Hammond et al., 2013). However, most studies based their conclusions on the prevalence of depression in elite athletes upon MDD criteria. The prevalence rates of other disorders such as persistent depressive disorder or adjustment disorder with depressed mood remain undetermined (Reardon et al., 2019).

Discrepancies regarding MHIs seem even greater when looking at studies investigating symptoms of common mental disorders. For example, Gulliver et al. (2015) found that 46.4% of their Australian sample were likely to suffer from at least one MHI. In their study, depression and anxiety were the most prevalent with

approximately 25% of their sample approaching the clinical threshold for depression. However, part of the sample (24.1%) was injured at the time of the study which may have impacted the prevalence of depressive symptoms (Gulliver et al., 2015). Similarly, Foskett and Longstaff (2018) reported that 47.8% of their U.K.-based sample, which included athletes performing at professional, international or national level, presented signs of depression and anxiety while 26.8% reported signs of psychological distress. Gouttebarge and colleagues (2016c) reported a prevalence of symptoms of common mental disorders ranging from 23% for adverse alcohol to 48% for anxiety/depression in elite Gaelic athletes (namely, active senior county level Gaelic footballer or hurler of the Gaelic Players' Association; Gouttebarge, Tol, & Kerkhoffs, 2016c). Those estimates ranged from 24% for adverse alcohol use to 28% for anxiety/depression in retired professional Rugby players (e.g., members of the national Rugby Union players' association from France, Ireland or South Africa; Gouttebarge, Kerkhoffs, & Lambert, 2016b). In a similar study, Gouttebarge et al. (2018) observed a prevalence of symptoms of common mental disorders ranging from 11% for distress to 28% for anxiety/depression among professional rugby players (e.g., from Union, League, Sevens) with 13% facing simultaneously two categories of common mental disorders. Furthermore, Gouttebarge et al. (2015b) reported a prevalence for symptoms of common mental disorders ranging from 5% (burnout) to 26% (anxiety/depression) among current professional football players, recruited from the World Footballers' Union (FIFPro) and national players' unions in Australia, Ireland, The Netherlands, New Zealand, Scotland and the USA. The authors also showed a prevalence reaching 16% (burnout) to 39% (anxiety/depression) in retired professional footballers (Gouttebarge et al., 2015b). Those findings, highlighting some of the nuances associated with MHIs in high-performing athletes (e.g., transition

periods), also contrast with Gouttebarge et al.'s (2017) study comparing the prevalence of common mental disorders symptoms in current and retired Dutch elite athletes where they found prevalence reaching 6% for adverse alcohol use to 45% for anxiety/depression among current Dutch elite athletes, and from 18% for distress to 29% for anxiety/depression among Dutch former elite athletes (Gouttebarge et al., 2017).

2.2.2. Comparing Apples and Oranges.

Although some of the research findings have led authors to conclude that the prevalence of MHIs might be comparable (e.g., Beable et al., 2017; Gulliver et al., 2015; Markser, 2011; Rice et al., 2016; Schaal et al., 2011) or greater (e.g., Byrne & McLean, 2002; Gouttebarge et al., 2015b; Gouttebarge et al., 2016c) in high-performing athletes than in the general population, the picture is far from clear. On one hand, the lack of consensus regarding the definitions of mental health and MHIs (see Chapter 1) and the variation in the presentation of MHIs in these studies do not enable a solid understanding of MHIs across sports. Indeed, the variation in types and thresholds (e.g., mental health symptoms versus disorders) of MHIs presented in those studies further complicates the picture. For instance, Gouttebarge et al. (2015b) defined the umbrella term of common mental disorders as comprising disorders such as distress, anxiety, depression, sleep disturbance or substance addiction, whereas Gulliver et al. (2015) studied a larger range of illnesses such as depression, generalised anxiety disorder, social anxiety disorder panic disorder and eating disorder. On the other hand, the thresholds, definitions and assessment tools are key issues when it comes to discrepancies in the prevalence rates of MHIs reported across studies in high-performing athletes. The discrepancies between studies in regard to their methods of investigation, varied samples (e.g., from Olympic medallists to college student-

athletes, see Chapter 1), range of disorders or symptoms studied, recruiting criteria, and assessment tools (Doherty et al., 2016; Gouttebarge et al., 2016c; Gulliver et al., 2015) do not enable us to draw any firm conclusions regarding the prevalence of MHIs within high-performing athletes.

Additional elements, making comparisons across studies difficult, include the cross-sectional design of most studies, the self-reported nature of the data (Gouttebarge et al., 2019), and variable timepoints of assessment (Moesch et al., 2018). Despite the persistence of a MHI over time being a key aspect of their severity, studies on MHIs in high-performing athletes have used prevalence ranging from "during past week" to 12-month prevalence as point and lifetime prevalence (see Appendix A2; Moesch et al., 2018). Furthermore, most studies on elite athletes tend to not include reference groups from the general population and/or do not use the same assessment instruments nor instruments specifically validated for high-performing athletes (e.g., Bender, Lawson, Werthner, & Samuels, 2018; Gouttebarge et al., 2019). As a result, direct and accurate comparisons with the general population are even more difficult, if not impossible, to make (Gouttebarge et al., 2019; Reardon et al., 2019).

Therefore, before comparing the prevalence of MHIs in high-performing athletes to other samples (e.g., general population), consideration is necessary of the meaning and manifestation(s) mental health symptoms and disorders may have across countries and cultures (Gouttebarge et al., 2019; Reardon et al., 2019), the type of sport performed (Gouttebarge et al., 2019; Reardon et al., 2019; Rice et al., 2016; Schaal et al., 2011), demographics (e.g., age, gender; Gouttebarge et al., 2019), as well as the circumstances in which people are born, grow, live, work (i.e., cultural and socio-environmental factors; Mental health Foundation, 2016; Kessler & Bromet, 2013). For example, the prevalence of MDD is reported as three-times higher for adults aged 18

to 29 than for 60+year old people (APA, 2013). Yet, most of the literature pertaining to the general population does not segregate the data but considers the breadth of the population aged from 18 to 65 (APA, 2013). As a result, comparisons with high-level sport are difficult since most of high-performing athletes are aged between 16 and 34 (Gulliver et al., 2015).

The influence of factors such as age, demographics, socio-environment, and sport-related specificities impacts on the prevalence of MHIs raised in the literature and further questions the reliability and validity of comparing high-level athletes and the general population. Indeed, compared to the general population, developing and high-performing athletes have to face additional, unique sport-specific stressors and physical demands throughout their sporting career (Gucciardi et al., 2017; Hughes & Leavey, 2012; MacNamara & Collins, 2015; Rice et al., 2016) that may increase their vulnerability to certain MHIs and/or at-risk behaviours (Bär & Markser, 2013; Gulliver et al., 2015; Hughes & Leavey, 2012). Those additional stressors may originate from personal (e.g., aging, work-life balance, family issues, reduced social life, athletic identity) as much as from competitive (e.g., competitive failure; training; risk of injury; retirement or career termination, public scrutiny; expectations of the media, sponsors, and coaches), or organisational contexts (e.g., selection processes, cultural and team issues; Arnold & Fletcher, 2012; Gucciardi et al., 2017; Gustafsson et al., 2011; Hughes & Leavey, 2012; Kuettel & Larsen, 2019; Wippert & Wippert, 2010). It can, therefore, be argued that the high-performance environment adds a layer of complexity regarding the recognition, diagnosis, and estimation of the prevalence of MHIs in high-performing athletes.

Gender and sport-based differences have been reported in regard to the nature and prevalence of MHIs found in high-performing athletes (Nixdorf et al., 2016; Rice

et al., 2016; Schaal et al., 2011; Wolanin et al., 2016). Reflecting data from the general population (Schaal et al., 2011), gender-specific trends seem to exist in terms of psychopathology with high-performing female athletes reported as being more susceptible to MHIs than their male counterparts (Gorczynski, Coyle, & Gibson, 2017; Schaal et al., 2011; Wolanin et al., 2016). Sport-specific variations are also apparent with the prevalence of MHIs varying according to the type of sport (Markser, 2011; Schaal et al., 2011). Different sports are associated with different risks of MHIs (Reardon et al., 2019). For instance, in Schaal et al. (2011), the prevalence of depression was highest in athletes participating in aesthetic or aiming and fine motor skills sports; whereas the prevalence of depression was significantly lower in athletes involved in team ball sports. In a similar fashion, athletes involved in individual sports may be at greater risk of experiencing depressive symptoms than athletes playing in team sports (Nixdorf et al., 2016; Reardon et al., 2019; Wolanin et al., 2016). Such difference may be partly explained by the attributional style adopted by athletes towards success and failure with negative internal attribution being more common after failure in individual sports than in team sports (Nixdorf et al., 2016). On the other hand, differences in terms of social support may be another explanation (Wolanin et al., 2016). Eating disorders are another example of MHIs with female athletes (Baum, 2006; Rice et al., 2016), aesthetic sports, endurance sports and sports with weight categories being at greater risk (Baum, 2006; Markser, 2011; Nowicka et al., 2013; Sudi et al., 2004; Swann et al., 2015). In contrast, GAD, although also more prevalent in female athletes and in aesthetic sports, appear to be less common in extreme sports (Schaal et al., 2011). Besides, gender and sport type are not independent constructs. Wolanin et al. (2016) highlighted the relationship between gender and sport type as a

risk factor (e.g., depression in female track and field athletes or in male lacrosse players).

In addition to the elements previously mentioned (e.g., risk of injury, career dissatisfaction), factors such as an athlete's age, salary, and media coverage may also need to be considered when looking into the nature and/or prevalence of MHIs as their impact on mental health may vary from one person to another, from one sport to another as well as from sport to the general population (Arnold & Fletcher, 2012; Rice et al., 2016; Schaal et al., 2011). In sum, given the range of pressures and challenges that are characteristic of high-performance environments, conclusions about the prevalence of MHIs in high-performing athletes must be viewed with caution, especially as we may, when extrapolating research from the general population into sport, inadvertently comparing apples and oranges. As such, research must consider the complexities of the athletes' experience when considering MHIs rather than focusing on single factors that, in isolation, may or may not contribute to the development of MHI(s).

As outlined thus far in the thesis, there is an overall lack of quality research investigating mental health in high-level sport (Rice et al., 2016; Sebbens et al., 2016). This dearth of research can be attributed to both a lack of consensus regarding the diagnosis of MHIs in high-performing athletes and a lack of psychometric measures specifically adapted to this population. In the absence of such a specific focus (Bär & Markser, 2013; Markser, 2011; Reardon & Factor, 2010; Rice et al., 2016), the prevalence and nature of MHIs faced by high-performing athletes cannot be precisely estimated (Doherty et al., 2016; Roberts et al., 2016). Therefore, the assumption that the prevalence of mental health disorders is greater (e.g., Byrne & McLean, 2002; Gouttebarge et al., 2015b; Gouttebarge et al., 2016c) or comparable in high-

performing athletes to the general population (Gulliver et al., 2015; Markser, 2011; Schaal et al., 2011) appears to be somewhat premature. Reflecting this, three particular issues relating to mental health in high-level sport seem to have been overlooked and need to be discussed in more details: namely, (1) differences in the genesis of MHIs between high-performing athletes and the general population; (2) the challenges of applying general population science to non-average people such as high-performing athletes, and (3) the functionality or dysfunctionality of behaviours depending on the context in which they occur.

2.3. Person versus Athlete: The Genesis of Mental Health Issues

Given the context of high-level sport, it seems sensible to discriminate between issues based on their cause. In short, such issues may occur either because the individual is an athlete or for some other reasons (e.g., biological, social, psychosocial) that would have led to MHIs irrespectively of their career choice (Martindale, Collins, & Richards, 2014). In addition to the generic risk factors already found in the general population such as genetic (e.g., family history), physiological and environmental factors (e.g., social isolation; APA, 2013; Reardon & Factor, 2010; Reardon et al., 2019), injuries, competitive pressure, psychosocial stressors, performance issues, and ageing represent some additional risk factors in developing MHIs for high-performing athletes (Hughes & Leavey, 2012; Reardon & Factor, 2010; Reardon et al., 2019; Rice et al., 2016). Severe musculoskeletal injuries, recent adverse life events, career dissatisfaction, low social support (Foskett & Longstaff, 2018; Gouttebarge et al., 2015b; Gouttebarge et al., 2018; Gouttebarge et al., 2017; Gouttebarge et al., 2016c; Kilic et al., 2017), and periods of transition, especially retirement from sport (Park et al., 2013; Wippert & Wippert, 2010), are other at-risk factors among high-performing athletes (Hughes & Leavey, 2012; Kuettel & Larsen, 2019; Reardon & Factor, 2010).

Nevertheless, Reardon and Factor (2010) have rightly pointed out that three situations pertaining to high-level sport and mental health could exist. Firstly, although occurring in parallel to their athletic journey, MHI(s) may have "nothing to do" with an athlete's sport participation (Reardon & Factor, 2010, p. 963). In this scenario, an athlete's journey may even, in some cases, continue unimpeded. Secondly, symptoms of MHI(s) may have already existed and were managed effectively thanks to the athlete's involvement and commitment towards their sport. In this regard, sport participation became a means to cope with pre-existing stressors or condition(s) (e.g., ADHD; Klinkowski, Korte, Pfeiffer, Lehmkuhl, & Salbach-Andrae, 2008; Newman, Howells, & Fletcher, 2016; Reardon & Factor, 2010). Third, MHI(s) might be caused or worsened by high-level sport participation (Reardon & Factor, 2010; Roberts et al., 2016). As previously suggested, certain types of sport may increase the risk of developing a MHI (e.g., eating disorders in leanness sports and sports with weight categories; Baum, 2006; Markser, 2011; Sudi et al., 2004; Swann et al., 2015). Furthermore, athletes might also have previously suffered from MHIs without noticing it until the stressors related to their sport participation precipitated or amplified the symptoms (Klinkowski et al., 2008; Reardon & Factor, 2010; Roberts et al., 2016). In short, the relationship between high-level sport and MHIs is complex. On one hand, high-level sport participation might contribute to the development of MHIs while, on the other hand, it may act as a means for high-performing athletes to deal with pre-existing conditions (Baum, 2006; Reardon & Factor, 2010). However, no causal relationship among cases of MHIs in high-performing athletes has been formally established yet (Klinkowski et al., 2008; Martindale et al., 2014) and both the genesis and underlying reasons for maintenance need to be considered when examining an athlete's issue.

Adding to this complexity, the genesis of psychopathology seems to be multifactorial (Patel et al., 2007) and, despite the presence of multiple stressors associated to ones' personal, social, environmental, and/or sport-related issues, the genesis of psychopathology does not appear to be only intrinsic to an athlete's sport participation (Schaal et al., 2011). The reasons underpinning the development of a MHI are largely idiosyncratic. Therefore, the underlying reasons, or the complex choreography of reasons, will vary from one person to another and therefore, from one athlete to another (Klinkowski et al., 2008). Considering Reardon and Factor's (2010) suggestion that three possible relationships may exist between MHIs and sport participation, it is important to reflect on the whole picture to determine how many athletes: (1) experience MHIs because of their sport, (2) would have suffered from it regardless of their athletic participation, and/or (3) are protected from such issues as long as they stay competing. Brain biology and chemistry, genetics, drugs, other health problems, or life events are some of the many risk factors for MHIs (National Institute of Mental Health, 2015). Therefore, an athlete's personal and familial medical history as well as their social context should be considered in addition to the additional aforementioned stressors and factors that may originate from the sport context (e.g., e.g., from personal, competitive and organisational contexts) before jumping to the conclusion that high-level sport participation is the reason behind the development of a mental disorder (see Figure 2.1, p. 34).

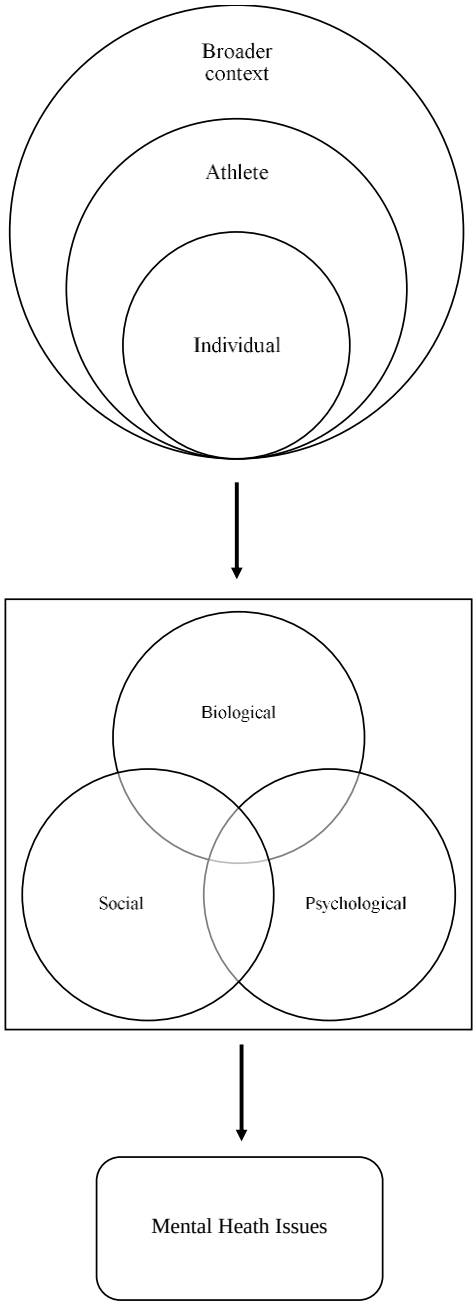


Figure 2.1 A comprehensive and integrative approach to the development of MHIs in high-performing athletes.

Indeed, as aforesaid, the genesis of psychopathology is a complex multidimensional process with multiple factors in action such as biological (e.g., genetic and physiological features), psychological (e.g., emotions, cognitions, behaviours) and social factors (i.e., familial, spiritual, sport, and environmental factors; cf. the Biopsychosocial approach – Collins et al., 2012; Havelka, Lucanin, & Lucanin, 2009). It is, therefore, of upmost importance to encourage and adopt a

comprehensive and integrative approach (see Figure 2.1, p.34) when formulating an opinion or establishing any causal relationship regarding the development of an athlete's MHI(s). Indeed, according to the biopsychosocial model, the individual is the centre of interest, not the disease (Havelka et al., 2009). As such, all potential and/or relevant determinants of health should be considered and integrated in the assessment, prevention and treatment of a MHI, especially as each of those factors can influence their development, course and treatment outcomes (Havelka et al., 2009).

2.4.What Does Normal Mean with Non-Average Populations.

As outlined in Chapter 1, mental health is too often portrayed and considered as the absence of psychopathology (Keyes, 2005). However, it important to interrogate that statement and tease out what "normal" or "pathological" really mean. Differentiating normal responses to stressful events from MHIs by judging the proportionality of a reaction might be particularly difficult (Pierre, 2012). Discriminating between normal and pathological becomes even more challenging considering the existence of cultural variations or the lack of discrete boundaries between MHIs and mental health (Pierre, 2012). For example, when athletes injure themselves, an emotional reaction will follow and includes processing the medical information about their injury as well as coping with the injury (Putukian, 2016). On the other hand, a reaction will become problematic when the symptoms persist, worsen over time, or become excessive in terms of their severity (Putukian, 2016). The key consideration is when does problematic become problematic *per se*. In a high-level sport, the focus on pathology is too narrow as it fails to account for athletes' behaviours and the context in which they operate (Bloodworth, McNamee, & Tan, 2017).

Discriminating between normal (healthy) and pathological (abnormal) is not always clear when it comes to high-level sports (Markser, 2011), perhaps because

symptoms encountered by high-performing athletes may differ from the usual diagnostic criteria, making MHIs even more difficult to detect (Armstrong et al., 2015; Doherty et al., 2016). Psychiatrists and psychologists routinely diagnose psychopathological conditions based on diagnostic criteria and screening tools originally developed from, and for, the general population. Yet, the assessment and diagnosis of MHIs may need to move beyond the obvious symptoms and reintroduce the context and meaning (Mulder, 2008). Hasty generalisations being, in some cases, more harmful than helpful (Mulder, 2008), it appears important to consider the specific nature of athletic performance and its environmental context before deciding whether the use general population-based diagnostic criteria and screening tools with high-level performers is appropriate or not. This is especially true given that most clinical guidelines and measures have been developed and adapted in regard to the prevalence and symptoms found in the general population (APA, 2013) but not with high-performing athletes (Bender et al., 2018). Reflecting this, high-performing athlete's mental health and MHIs (e.g., symptoms identification and management; cf. Henriksen et al., 2019; Moesch et al., 2018; Reardon et al., 2019) and the development of athlete-specific screening tools (e.g., Bender et al., 2018; Donohue et al., 2019; Rice et al., 2019) have recently experienced a growth of interest.

As discussed earlier in the thesis, high-performing athletes may be seen as specific group distinct from the general population, in the sense that they face unique challenges and stressors throughout their sporting career (Arnold & Fletcher, 2012; Gucciardi et al., 2017; Hughes & Leavey, 2012; MacNamara & Collins, 2015; Rice et al., 2016). Standardised, but decontextualised, criteria and tools typically used to diagnose and screen individuals may, therefore, fail to consider the specific sport and/or socio-cultural contexts in which athletes perform (Henriksen et al., 2019).

Without a consideration of the sport context in which athletes are progressing and/or the development of subsequent criteria specific to elite performers, there might be a risk to jump erroneously to the conclusion that a behaviour is pathological when the behaviour or attitude in question might be useful and/or functional in that particular context. Furthermore, because of the increased concern regarding MHIs and their consequences if not appropriately handled (WHO, 2018a), there may be a tendency to "cry wolf" too soon when it comes to high-level and, especially, high-profile athletes.

According to recent estimates, as many as four out of ten people receiving health care may face errors related to diagnosis, prescription and/or medication (Singh, Schiff, Graber, Onakpoya, & Thompson, 2017; WHO, 2019a). Among those latter, erroneous or delayed diagnoses were categorised as a high-priority problem by the World Health Organization (WHO, 2019a). Although high-quality evidence are lacking and the prevalence of erroneous diagnoses in primary care is difficult to determine (Singh et al., 2017), mistakes can happen. In terms of MHIs, when they do occur, erroneous diagnoses are often due to a lack of understanding regarding the nuances of an individual's culture leading to consider as pathological normal variations of their behaviour (APA, 2013). Individuals from different cultures can interpret or express symptoms of MHIs in a different way than the diagnostic criteria used in the DSM-V or ICD-11 (APA, 2013; Gouttebarge et al., 2019; Whiteford et al., 2013). As an example, the DSM-V/ ICD-11 criteria or, as it may have been previously the case, the use of anthropometric measures like the Body Mass Index might not be the best indicators when it comes to detecting eating-disorder patterns in high-performing athletes. Compared to the general population, athletes are routinely subject to intense physical training, diet restrictions, lower bodyweights, and/or lower fat percentages independent of any eating disorder or symptoms (Bär & Markser, 2013;

Reardon & Factor, 2010). Furthermore, whilst a lean body is an advantage for performers in many sports (e.g., gymnastics, ski jumping, and long-distance running; Baum, 2006; Sudi et al., 2004; Thompson & Sherman, 2014), increased body mass is beneficial in others (i.e., open-water long distance swimming, sumo wrestling, linemen in American football; Berglund, Sundgot-Borgen, & Berglund, 2011). So, although weight gain might raise concerns within the general population, adipositas athletica is considered as functional and indispensable in sports where an increased body fat protects against hypothermia or improves performances (e.g., increased strength, endurance; Berglund et al., 2011). Such elements may complicate and sometimes confuse the formulation of a problem when applying common diagnostic criteria (e.g., DSM-5) to high-performing athletes (Reardon et al., 2019).

Due to the focus on weight and body image in some sports, eating disorders have been one of the most studied MHIs in high-level performers (e.g., Byrne & McLean, 2002; Nowicka et al., 2013; Plateau, Arcelus, Leung, & Meyer, 2017; Scott, Haycraft, & Plateau, 2019; Sudi et al., 2004; Thompson & Sherman, 2014). Despite this attention, discriminating between eating disorders, disordered eating, and context-normal nutrition in such environments remains challenging. Without an understanding of sport performance, eating behaviours might be too quickly seen as symptomatic of an eating disorder instead of as an informed attempt to improve performance (Thompson & Sherman, 2014). Eating disorders or disordered eating are complex and should not be simply viewed as resulting mainly and exclusively from sport participation. Athletes with eating disorders might have developed them even without performing at a high level or without doing any sport (Thompson & Sherman, 2014). Moreover, in some cases sport participation might actually serve to prevent the development of such disorders and become a protective factor by increasing athletes'

satisfaction with their body image (Giel et al., 2016), feeling of competence, autonomy (Kuettel & Larsen, 2019) and self-esteem (Klinkowski et al., 2008). Presence or severity may be wrongly estimated; partly because the sport culture in which high-performing athletes operate may influence the way they live, express, and react to MHIs (Doherty et al., 2016). Whilst some athletes might suffer from eating disorders, others might present anorexia-like behaviours or physique while being ─ psychologically speaking ─ healthy (Berglund et al., 2011; Klinkowski et al., 2008). In this scenario, although an athlete may present concerning behaviours (e.g., dieting practices), those behaviours may not impede their well-being or daily functioning and be restricted to the sport environment (Reardon & Factor, 2010). As a result of this complexity, both diagnosis and treatment planning may become even more challenging (Markser, 2011).

Eating disorders may only be one of many conditions where common criteria may be erroneously applied to non-average people, such as high-performing athletes. Differences between high-performing athletes and the general population may also be highlighted by drawing a parallel with medical conditions. For instance, a left ventricular hypertrophy is a cardiovascular malformation. Yet, in swimmers, rowers or cyclists, this heart remodelling becomes a functional physiological adaptation due to intense exercise training (Muir, MacGregor, McCann, & Hillis, 1999; Perseghin et al., 2007). Above a certain threshold, albeit different to the general population warning level, this condition is also considered as pathological for athletes (Muir et al., 1999). However, this analogy exemplifies a perhaps neglected point, namely that high-performing athletes may be special in many ways (e.g., commitment to intense physical training and competition; Schwenk, 2000). There has been some recognition

of these differences; in physiology, for example, a condition called “athlete’s heart” has been highlighted (e.g., Muir et al., 1999; Scharhag et al., 2002).

The same distinction regarding an athlete’s psychological state could be advocated. Indeed, if we consider high-performing athletes as a special case, then, it could be suggested that the diagnostic criteria and/or thresholds used with this population may need to include the performance dimension and sport culture. While negative outcomes and psychological distress resulting from dysfunctional behaviours should not be minimised or overlooked, some behaviours may be too quickly and/or too easily pathologised, especially when the multi-faceted nature and heterogeneity of such disorders are neglected (Billieux, Schimmenti, Khazaal, Maurage, & Heeren, 2015). Taking depression as an example, it may not be surprising that individuals, who have dedicated their persona to achievement in a certain field, feel depressed when they fail. Much more relevant to an accurate diagnosis and appropriate treatment is to consider the duration (e.g., acute or chronic state), genesis (e.g., from sport, life or both), severity (e.g., clinical or non-clinical), and impact of the condition. This is even more important given that functional impairment (and/or significant distress) and the stability of a dysfunctional behaviour over time are mandatory components when considering a condition as pathological (Billieux et al., 2015).

2.5. Functional versus Dysfunctional Behaviour – It Depends on the Context

As aforementioned, the use of research conducted on the general population as a means of informing practice with high-performing athletes might be somewhat questionable. Practitioners and, researchers sometimes reflect on topics such as MHIs as a black-and-white issue (e.g., normal versus pathological) while forgetting that shades of grey exist in between. Such blurred lines depend on both the individual and the context in which they operate. As suggested by Williams (2012), the lines between

pathology and the actions of a committed athletes are unclear. A simple dichotomy between people deviating or not from normative patterns does not exist. Research sometimes seems to neglect the unique characteristics of high-level athletes' lives and fails to understand the decisions they take in a constant effort to stay on top. Behaviours, functional when it comes to high-level performers (e.g., an apparent lack of work–life balance, excessive training, self-centred ruthlessness) can, sometimes, be considered as abnormal and "look like" symptoms associated with MHIs when compared to the general population (Bloodworth et al., 2017; Klinkowski et al., 2008; Reardon & Factor, 2010). As another example, the boundaries between OCD, pre-performance routine and superstitious beliefs in high-performance contexts can sometimes seem blurred (Swann et al., 2015). Performance routines are used by athletes to facilitate their mental preparation before a competition and consist of well-established routinised behaviours applied consistently to help them prepare for and focus on the upcoming performance (Orlick & Partington, 1988). While habitual behaviours and/or repetitive routines are common in high-performing athletes (Reardon et al., 2019) and are relevant to the task in hand, they may sometimes show similarities with rituals and OCD. Nevertheless, unlike superstitious beliefs, performance routines are not a consequence of an erroneous cause-and-effect assumption (Dömötör, Ruíz-Barquín, & Szabo, 2016) nor, unlike OCDs, involve the presence of psychological distress or impairment (APA, 2013)

Being a high-level athlete is "not just a job, it's a lifestyle, it's a way of life" (Pickering, 2016). Reflecting this, what could be considered as normal or healthy in some (social) contexts may be seen as abnormal or unhealthy in others (Theberge, 2008). As such, it could be suggested to replace the terms normal and pathological (as used to describe the general population) with the terms functional versus dysfunctional

in high-performance contexts. Even though some behaviours might be perceived negatively in everyday life (e.g., selfishness; MacNamara & Collins, 2015), some of those so-called unhealthy behaviours and/or attitudes might be, to some extent, functional and effective in a high-performance context. A behaviour will, therefore, be seen as functional when beneficial to an athlete's performance and personal development, and dysfunctional when their performance and/or well-being are threatened in the short- and/or long-term. It should also be acknowledged that high-performing athletes must function as both a performer and a person. As such, the scope of any behaviour, as well as its potential for dysfunctional impact, must be considered within both contexts.

Reflecting this complexity, caution is required when using this new perspective. Some functional behaviours can, given the context, become dysfunctional (MacNamara & Collins, 2015). Perfectionism and passion, for example, are often considered as positive psychological characteristics in performers but may also adversely affect an athlete's performance, development and well-being when deployed in excess or inappropriately (i.e., over-commitment, obsessive passion, burnout; Hill, MacNamara, & Collins, 2015; MacNamara & Collins, 2015). In the same way, intense training and continuing efforts - considered as functional and praised within sport environments – can bear a heavy price on athletes' immediate or long-term physical health (e.g., fatigue, immunity, chronic arthritis; Nixdorf et al., 2016; Theberge, 2008). In much the same way, a lack of certain behaviours might become a problem. Again, it is important to emphasise the need to carefully consider the context in which those behaviours occur. A positive psychological characteristic may become detrimental when extended to the wrong context (e.g., performance environment versus everyday life context) or over time (e.g., short versus long term). Furthermore, adding to this

complexity, while normative behaviours (what is usually expected in a certain societal group) may encourage actions perceived as dysfunctional in other contexts (e.g., aggression in martial artists), behaviours or attitudes silently accepted might be problematic (Thompson & Sherman, 2014). Finally, sport expectations may also need to be considered as they may inhibit more general development (e.g., underdeveloped life skills, identity foreclosure; Murphy, Petitpas, & Brewer, 1996).

2.6. Implications for Research and Applied Practice

This chapter has highlighted several important issues for consideration. The meaning of the term "normal" when dealing with a non-average population such as high-performing athletes may, for example, need to be challenged. This latter further questions the adequateness of general psychiatric knowledge such as the use of general population-based diagnostic criteria and screening tools with high-performing athletes given that the performance dimension and its challenges are not considered (Markser, 2011). For example, whilst never included in the DSM-5 or the ICD-11, diagnoses such as adipositas athletica, overtraining syndrome (OTS), and burnout syndrome have, at some point, been used specifically for athletes. Those conditions have been created or adapted with the intention of taking specific sport-related criteria into account while formulating a clinical opinion (Bär & Markser, 2013; Eklund & Defreese, 2015; Meeusen et al., 2006). The recent development of screening tools specific to the early identification of MHIs in athletes (cf. Bender et al., 2018; Martinsen, Holme, Pensgaard, Torstveit, & Sundgot-Borgen, 2014b; Rice et al., 2019) seems to further support the need for sport-based clinical criteria and screening tools. For instance, despite their similarities, the main difference between MDD and OTS rests upon the nature of the role dysfunction (athletic training and performance in OTS versus social, cognitive and work in MDD; Reardon et al., 2019; Schwenk, 2000).

Meeusen et al. (2006) suggested that “athletes and the field of sports medicine in general would benefit greatly if a specific, sensitive simple diagnostic test existed for the diagnosis of OTS” (p. 4). This suggestion is also true for many of the other MHIs that athletes may encounter, especially when those conditions have a genesis in sport involvement. For instance, burnout syndrome was originally viewed by Maslach and Jackson (1984) as experienced by human service providers and comprising three dimensions; namely, emotional exhaustion, depersonalization, and reduced personal accomplishment (Eklund & Defreese, 2015; Raedeke & Smith, 2001). This syndrome has been extensively studied in sport (Eklund & Defreese, 2015; Gustafsson et al., 2011; Raedeke & Smith, 2001) but, in order to properly investigate this phenomenon, researchers have had to adapt Maslach and Jackson’s original definition to the sport-specific context. Primary symptoms regarding athlete burnout are slightly and subtly different from the ones commonly mentioned in the general population (Eklund & Defreese, 2015; Raedeke & Smith, 2001). Thereby, athlete burnout is considered as “a cognitive-affective syndrome characterised by symptoms of emotional and physical exhaustion, reduced sense of accomplishment, and sport devaluation” (Eklund & Defreese, 2015, p. 64). In doing do, an athlete burnout takes the sport dimension into account linking an athlete’s emotional and physical exhaustion to the intense demands of training and competing, reduced sense of accomplishment to unmet expectations and inability to reach personal goals, and sport devaluation to an athlete’s lack of desire and insensitivity regarding their sport and own performance (Raedeke & Smith, 2001). Such diagnostic adaptations exemplify the nuances the sport context and its specificities may bring while defining the criteria leading to the formulation of a problem within high-level performers. In a similar fashion, it might also be sensible

and interesting to compare this peculiar population to other performance domains such as music, dance or business.

2.7. Conclusion and Next Steps

MHIs in high-level sport is an important topic but, perhaps, with greater complexity than currently acknowledged. Normal rules might not apply to non-normal people, and high-performing athletes are, by definition, not normal in the sense of average. Some of the issues and challenges resulting from applying general population-based science to non-average people have been highlighted within the present chapter. This critical examination of MHIs in high-level sport compared to the general population led to the idea to move the debate from a normal-versus-pathological point of view to a functional-versus-dysfunctional and person-centred perspective that considers the context in which athletes are progressing.

In sum, and although the prevalence of mental health disorders in high-level sport remains unclear (Roberts et al., 2016; Uphill et al., 2016), this prevalence should not be maximised, nor minimised. Even though athletes with MHIs may require a diagnosis and treatment to function in their chosen sport but also in their everyday life (Glick et al., 2012), in order to formulate a problem, all the parameters should be taken into account. Health professionals should not only consider the functional or dysfunctional nature of a behaviour but also the context in which a behaviour is displayed, its longevity, intensity and consequences (e.g., impairment or distress). Furthermore, while primary-care physicians may not be sufficiently trained to diagnose and treat MHIs (Dworkin, 2001), sport psychologists without expertise in mental health or clinical psychologists and psychiatrists without expertise in sport may not be the best option in managing MHIs in high-performing athletes. There seems, therefore, to be a need for (1) the development and validation of more sensitive and

context-specific clinical criteria and screening tools adapted to this unique population (Gouttebarge et al., 2015a; Raedeke & Smith, 2001) and for (2) qualified and trained practitioners with both clinical and sport expertise to deal with the diagnostic and therapeutic challenges relative to mental health in high-performance environments

While all those aforementioned avenues for research and applied practice are of importance and need further investigation, differences between high-performing athletes and the general population need first to be addressed in order to improve the detection, treatment and prevention of MHIs in high-level sport (Bär & Markser, 2013). Reflecting this, Chapter 3 sought to provide a rich and in-depth picture of MHIs of MHIs in high-performing sport environments from the perspective of elite athletes who experienced clinically diagnosed MHIs (Objective 2).

CHAPTER 3

MENTAL HEALTH ISSUES IN SPORT: FROM AN ELITE ATHLETES' PERSPECTIVE

3.1.Introduction

As outlined in Chapter 1, numerous high-profile athletes have recently chosen to talk openly about their MHIs (Arvinen-Barrow, 2016). However, the stigma attached to MHIs (see Chapter 1) has curtailed an understanding about the nature and development of MHIs in high-performing athletes. This gap in knowledge is problematic as, in order to support athletes with MHIs both during and after their sporting career, it is essential to understand the nature and development of their MHI(s) as well as the way they experience it. Such information is particularly valuable in order to proactively work with athletes to prevent or limit the impact of MHIs. Reflecting both the gap in the literature and the associated impact on practice, this chapter focused on providing a rich and in-depth picture of MHIs in high-performing sport environments from the perspective of elite athletes who experienced clinically diagnosed MHIs. To do so, four areas which needed further examination, were investigated and examined in comparison to the well-documented picture of MHIs in the general population. More specifically, the four areas were (1) the nature and manifestation of elite athletes' MHI(s) (e.g., diagnosis and symptomatology), (2) its genesis (e.g., athletes' perceived triggers), (3) athletes' views of MHIs in sport environments (i.e., prevalence and associated stigma), and (4) the coping strategies athletes use to manage such issues.

3.1.1. Experience of MHI(s).

Chapter 1 highlighted some of the obstacles (e.g., stigma) associated with high-performing athletes' reluctance to acknowledge being confronted with MHIs (e.g.,

"weak not sick"; Jorm & Wright, 2008), to disclose it (Delenardo & Terrion, 2014; Gulliver et al., 2012a; Hill et al., 2016) and to, subsequently, seek professional help (Armstrong et al., 2015; Watson, 2005). In Chapter 2, I made a case that high-performing athletes are confronted with unique physical and psychological stressors inherent to their sporting career that may increase their vulnerability to MHIs (Gulliver et al., 2012a; Rice et al., 2016; Wolanin et al., 2015). However, research seems to have, so far, failed to consider that the symptoms and clinical presentation of MHIs encountered by high-level athletes might differ compared to the general population (Bär & Markser, 2013; Doherty et al., 2016). Reflecting this, the stigma associated with MHIs, and a sporting culture that rewards toughness at any cost (Uphill et al., 2016), it is perhaps unsurprising that our understanding of high-performing athletes' experience of MHIs remains unclear.

3.1.2. Coping with MHIs.

Furthermore, while significant literature has focused on the psychological factors required by high-performing athletes to convert their potential into world-class performance (Collins et al., 2016; Gould et al., 2002; Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999; MacNamara, Button, & Collins, 2010; MacNamara & Collins, 2015; Orlick & Partington, 1988), less attention has been paid to the coping strategies employed by high-performing athletes to deal with MHIs. This lack of emphasis is somewhat surprising given the considerable attention MHIs in high-performing athletes have attracted in recent years (Gouttebarge et al., 2015a; Reardon & Factor, 2010; Rice et al., 2016; Schaal et al., 2011).

Coping, defined by Lazarus and Folkman (1984) as "constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141), is a key

concept regarding an individual's adaptation and health (Lazarus, 1993). In other words, coping is mostly a self-regulatory mechanism consisting of cognitions and behaviours aimed at helping individuals deal with a variety of stressors (Nicholls, Taylor, Carroll, & Perry, 2016). Following Lazarus and Folkman's (1984) definition, various forms of classifications and labels regarding coping have been developed in the literature (Nicholls & Polman, 2007; Richards, 2011). Whilst the debate on how to best categorise coping remains unanswered (Norris, Didymus, & Kaiseler, 2017), the categories most widely used in sport psychology research are problem-focused, emotion-focused, appraisal-focused, and avoidance coping. These categories classify coping strategies based on the intention and function of the coping efforts (Lazarus & Folkman, 1984). Problem-focused coping, for example, purposely addresses and alters the stressful situation (e.g., seeking information, planning, setting goals) while emotion-focused strategies address the internal and emotional responses caused by the situation and/or stressor (e.g., seeking emotional support, relaxation, meditation; Lazarus, 1993; Nicholls & Polman, 2007; Richards, 2011). Appraisal coping includes cognitive strategies, such as restructuring, which aim to re-evaluate the situation and modify the initial thinking processes and thoughts responsible for perceiving a situation as a challenge or a threat (Nicholls & Polman, 2007; Richards, 2011). Avoidance coping refers to cognitive (e.g., cognitive distancing, blocking) and behavioural (e.g., removing self from the situation) strategies that allow individuals to avoid, escape, or deny a situation (Nicholls & Polman, 2007; Richards, 2011). Although the sport literature tends to consider problem-focused strategies as the most effective approach to deal with stressors (Lazarus, 1993; Nicholls & Polman, 2007), the effectiveness of coping strategies are dependent on both the context and the individual, as well as dependent on the outcomes being sought (Lazarus, 1993).

Among the limited number of research papers investigating the coping strategies used by high-performing athletes encountering MHIs, Doherty et al.'s (2016) study showed that elite athletes (3 competitive, 1 world-class and 4 successful elite performers) used both adaptive and non-adaptive coping processes to deal with their depression. Adaptive strategies involved, for example, their commitment to recovery, their acceptance and expression of real self in therapy, and the support from others (Doherty et al., 2016). On the other hand, non-adaptive processes included isolating themselves from social support, alcohol consumption, overtraining, to name a few (Doherty et al., 2016). Perhaps related to the use of these coping strategies, Beable et al. (2017) highlighted the relatively low use of antidepressant medication in athletes compared to the general population. Within the general population, where the use of coping strategies has been studied more extensively, help-seeking behaviours such as talking to others and social support (Alexander, Haugland, Ashenden, Knight, & Brown, 2009; Biringer, Davidson, Sundfør, Lier, & Borg, 2016; Cornford, Hill, & Reilly, 2007; Fogarty et al., 2015), physical activity (Biringer et al., 2016; Daley, 2008; Fogarty et al., 2015), positive thinking (Alexander et al., 2009; Biringer et al., 2016), meditation (Fogarty et al., 2015), engaging in pleasant or neutral activities (Alexander et al., 2009; Fogarty et al., 2015; Liu & Thompson, 2017), and more conventional approaches such as medical treatments (Cornford et al., 2007) or psychotherapies (e.g., Cognitive and Behavioural therapy (CBT); Alexander et al., 2009) have been reported as strategies used to cope with MHIs such as depression. Although various coping strategies differentially impact one's level of distress, their mechanisms of actions (i.e., the process(es) by which those strategies might alleviate one's symptoms) are not always well understood (e.g., physical activity; Daley, 2008). Coping strategies are believed to help people suffering from MHIs by alleviating the inner turmoil, helping

them to manage their problems (e.g., active and resourceful everyday life), and gain some inner peace (Biringer et al., 2016). Alexander et al. (2009), for example, suggested that strategies such as positive thinking, talking to someone, or even spirituality could counteract hopelessness, isolation and despair in people with suicidal thoughts. In a similar fashion, pleasant activities (e.g., physical exercise, listening to music, working, experiencing nature) are thought to help an individual focus on something else or serve as a source of distraction from their worries and unpleasant thoughts (Alexander et al., 2009; Biringer et al., 2016; Daley, 2008). As such, it seems important to consider the role of coping strategies in dealing with MHIs, especially given that people can adapt their use according to their needs (e.g., mood, symptoms or problem severity; Fogarty et al., 2015). Indeed, despite the lack of consensus about the prevalence and manifestation of MHIs in elite sport (e.g., masked, atypical or sport-specific expression; Doherty et al., 2016; Reardon & Factor, 2010), encouraging athletes to develop and deploy a range of coping strategies appears indispensable for both their well-being and performance outcomes. While this is important for high-performing athletes in general, it may be even more pertinent for athletes with MHIs.

3.1.3. Objectives.

Extending the issues outlined in Chapters 1 and 2, understanding how the experience of elite athletes may differ from the general population is an important avenue for exploration. Accordingly, the aim of this chapter was to provide a rich and in-depth picture of MHIs in high-performing sport environments from the perspective of elite athletes who experienced clinically diagnosed MHI(s). In this regard, the present study further examined four areas in comparison to the well-documented picture of MHIs in the general population: namely, (1) the nature and manifestation of athletes' MHIs (e.g., diagnosis and symptomatology), (2) its genesis (e.g., athletes'

perceived triggers), (3) athletes' views of MHIs in sport environments (i.e., prevalence and associated stigma), and (4) the coping strategies athletes use to manage such issues. In doing so, we examined participants' "at the time"-perceptions and post-hoc reflections about their subjective and unique experience of MHI(s) during or immediately post their athletic career.

3.2. Method

3.2.1. Interpretative Phenomenological Analysis (IPA).

Reality is often viewed as subjective, multiple, and personally constructed (Smith & Caddick, 2012). Given this, athletes' perception of their own MHI(s) and its impact on their sporting performance were sought. Interpretative Phenomenological Analysis (IPA) can provide rich, descriptive accounts of how people perceive and make sense of their own lived experience (Smith, 2011). Although phenomenological and pragmatic approaches (see Chapter 1) are from different paradigmatic traditions, those two approaches are not mutually exclusive nor exhaustive (Levitt et al., 2017). The interpretative phenomenological approach underpinned this study as the main focus was on individuals' subjective perception of the world they live in, their experience and the meaning they give to it (Jones, Brown, & Holloway, 2013; Smith & Osborn, 2007). IPA allowed analysis of each narrative in detail and in-depth examination of each participant's subjective experience in order to understand "what it is like, from the point of view of the participants" (Smith & Osborn, 2007, p. 53). Furthermore, with this analytic method a double hermeneutic or two–stage process takes place: 1) the participants are trying to make sense of their world and experience and 2) the researcher is trying to make sense in his/her turn of the participants' interpretation of their own experience and of the world they live in (Smith & Osborn, 2007).

3.2.2. Participants.

Following Smith and Osborn's (2007) suggestion that a sample of three participants is enough in IPA to analyse each participant's subjective experience in depth, four British elite athletes (1 female and 3 males; M = 33, SD = 4.82) were purposefully sampled to participate in the present study. In order to meet the inclusion criteria, participants had to: be over 18; be currently competing or have previously competed at the highest level in their sport whilst experiencing or having experienced some success (successful-elite athlete) or sustained success (world-class elite athlete) at that level (Swann et al., 2015); and to be currently experiencing or have previously experienced a formally diagnosed MHI(s) (e.g., as defined by the WHO) during or immediately after ending their athletic career.

At the time of the interviews, two participants were still competing at an elite level while two had just retired (see Figures 3.1-3.4, pp. 54-55). Reflecting potential sport-specific differences, participants were purposefully sampled from individual (n = 2) and team (n = 2) sports. Research about MHIs presents certain complexities, not least in regard to participants discussing their personal experiences. Although there were deemed to be no serious risks of taking part in the study, such recollection may still induce an emotional response or discomfort in participants. Therefore, as a concern for their well-being, an additional inclusion criterion was that participants had to be either free of ongoing MHIs or have their condition safely under control.

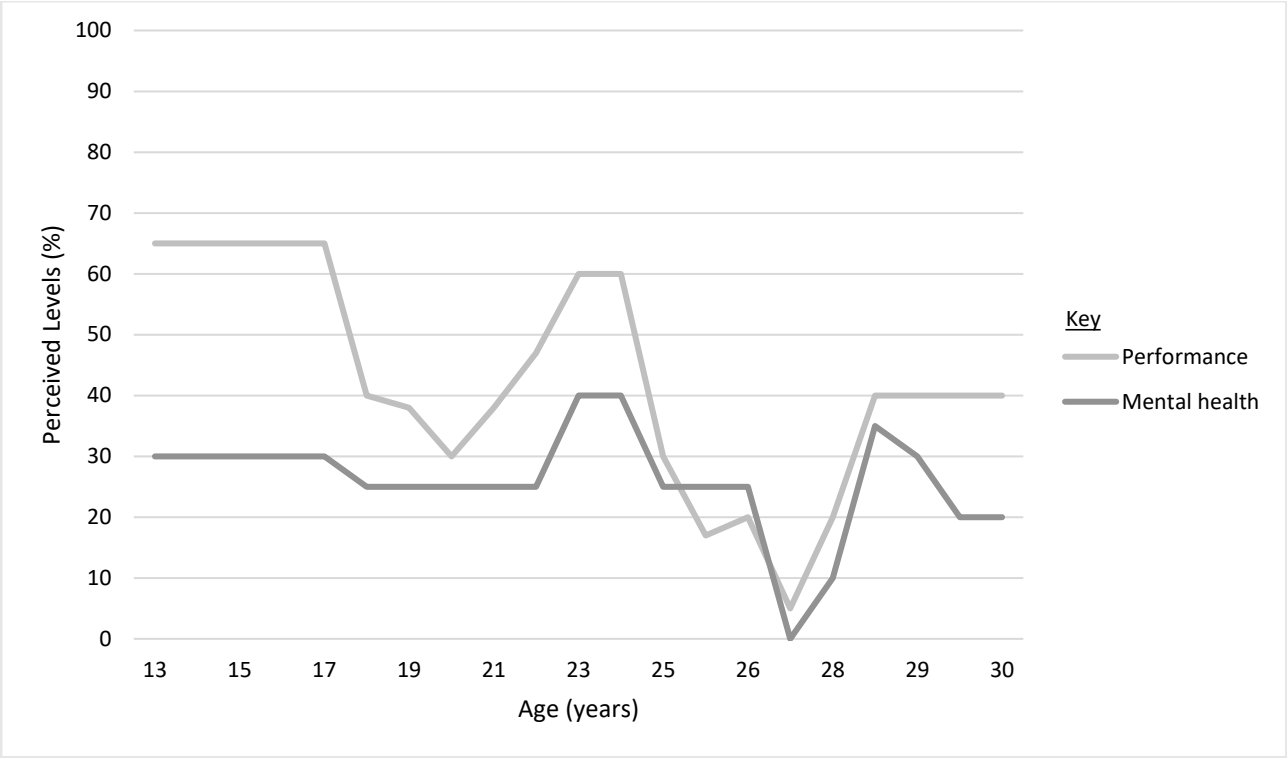


Figure 3.1 Participant 1's graphic timeline

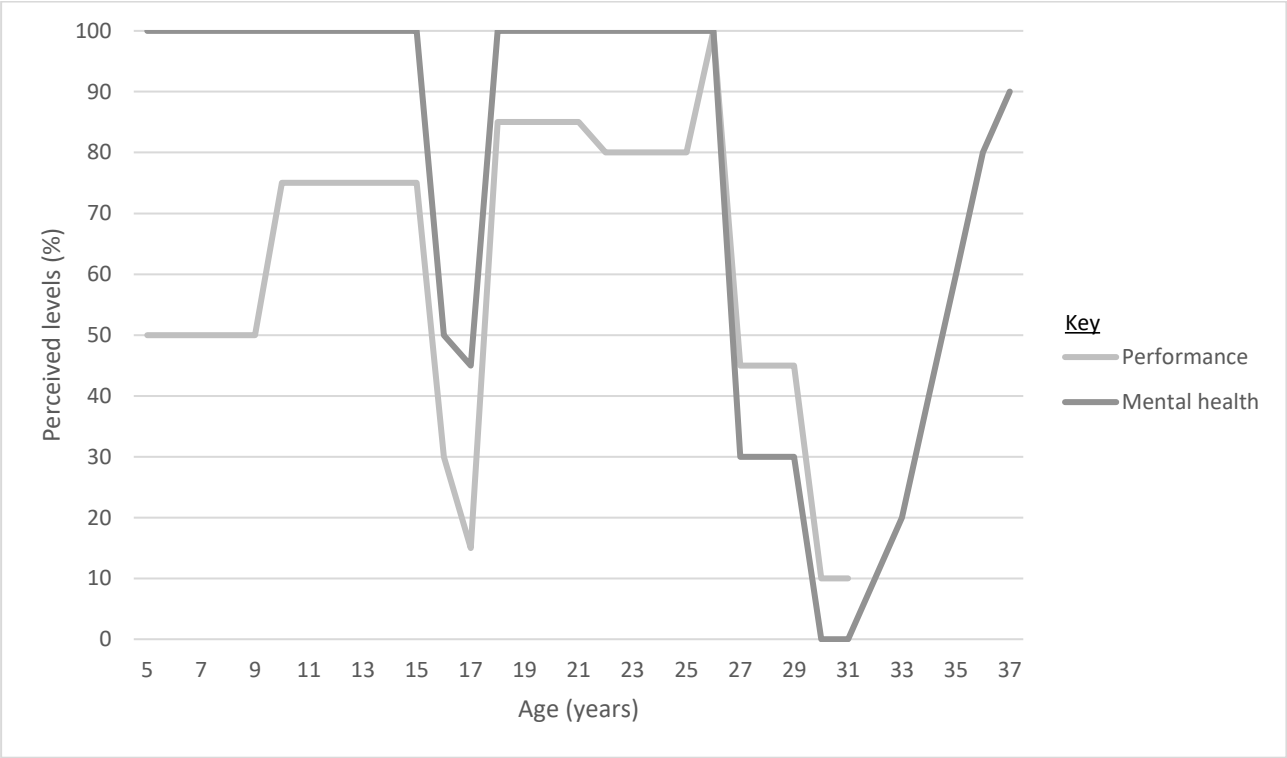


Figure 3.2 Participant 2's graphic timeline

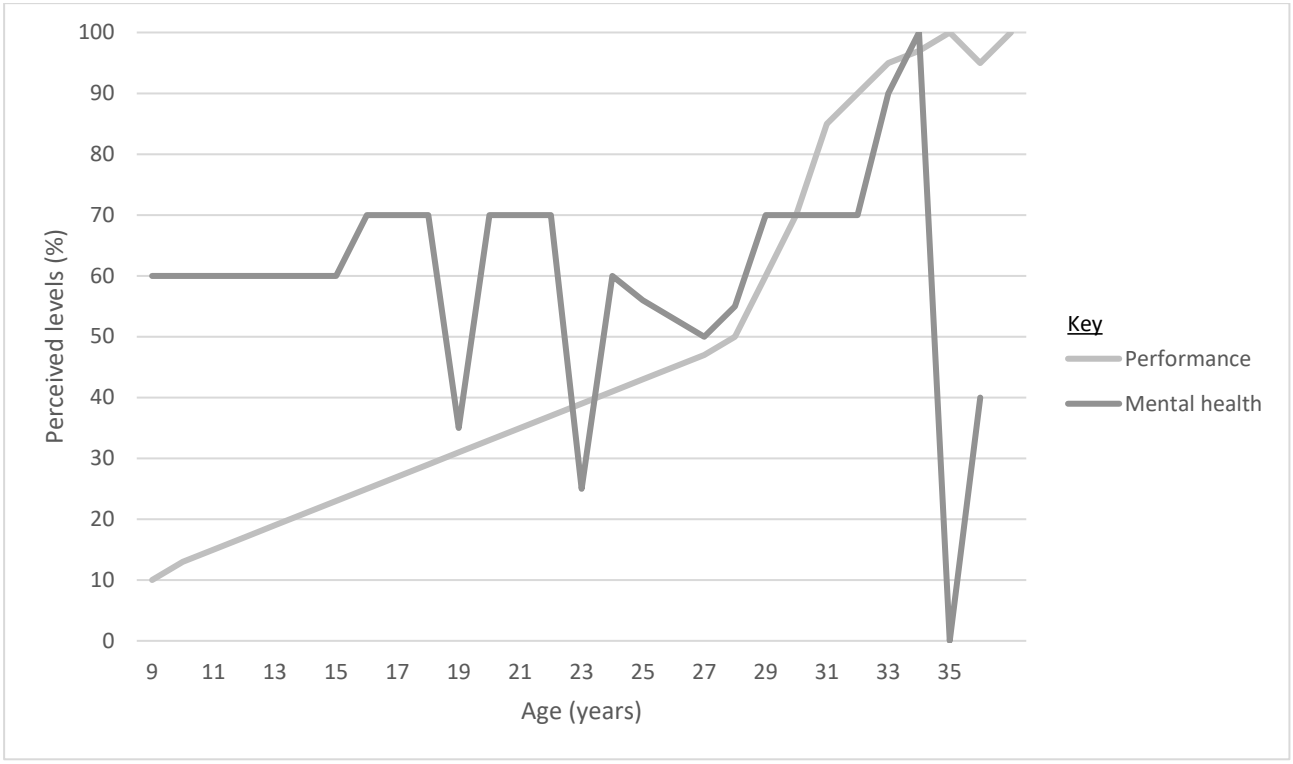


Figure 3.3 Participant 3's graphic timeline

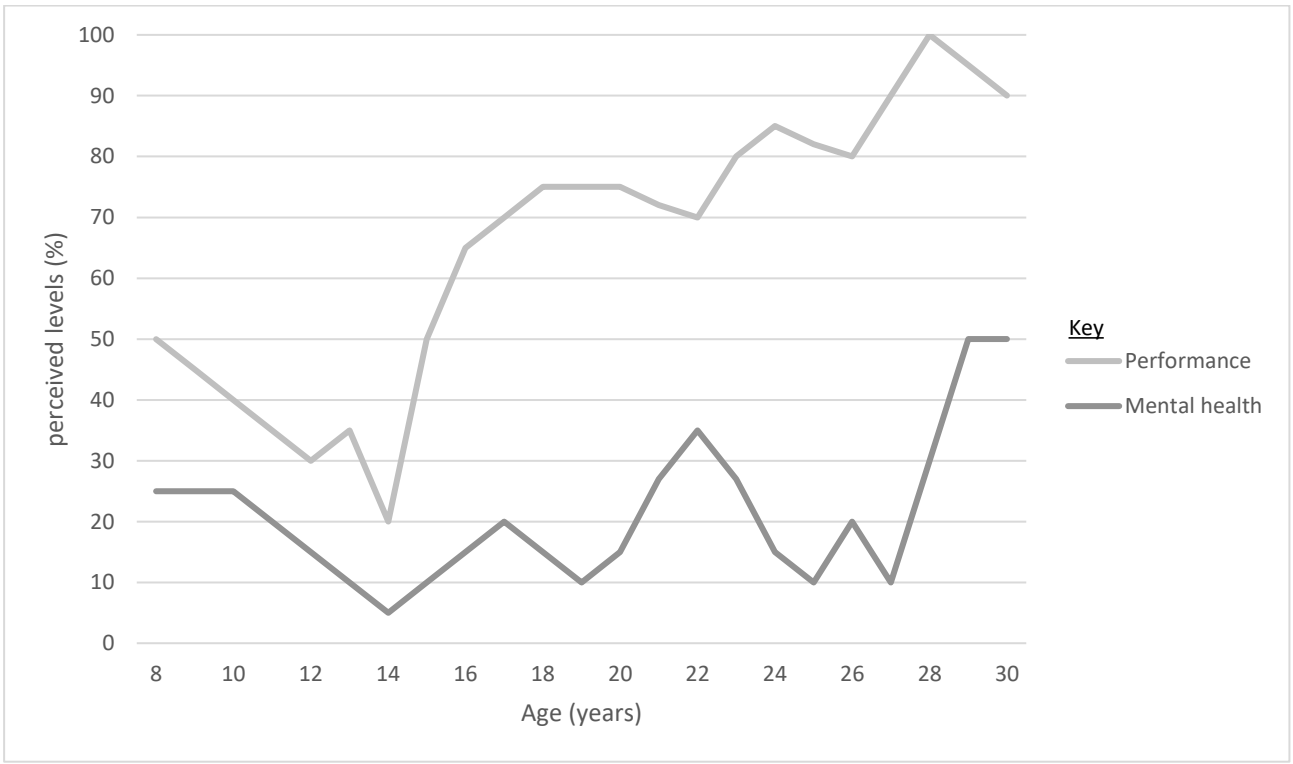


Figure 3.4 Participant 4's graphic timeline

3.2.3. Procedure.

Ethical approval was granted from the University BAHSS Ethics Committee (BAHSS 395; see Appendix B). Athletes who met the inclusion criteria were first contacted via e-mail through a network of professional contacts. Informed consent was obtained from each participant prior the start of their interview and they were reminded that they could decide not to answer any question or withdraw from the project at any stage up until interviews had been anonymised (see Appendix C). Data were collected by means of semi-structured interviews (Smith & Osborn, 2007) conducted in two phases. In the first phase, a graphic timeline reporting key events related to their mental health and career was drawn by each participant (see Figures 3.1- 3.4, pp. 54-55). This aided recall method not only offered a picture of participants' mental health and performance fluctuations over time but also offered a means to improve the accuracy of retrospective recalls in terms of comprehensiveness and characteristics of an episode or of an event by using landmarks events (Drasch & Matthes, 2013). Indeed, this aided recall method was suggested to help participants to overcome some memory decay and reduce recall biases inherent in the retrospective recall of specific times. Building on this first stage, the second stage of the interview employed an interview guide (see Appendix D1) specifically developed for the purpose of this study to ensure a certain uniformity between the interviews. The one-on-one interviews lasted approximately 90 minutes (e.g., respectively 91'50'', 83'20'', 97'05'' and 84'45'') and were carried out face-to-face. Interviews were audio-recorded and transcribed verbatim.

3.2.3.1. Graphic timeline.

At the start of the interview, participants were asked to draw a graphic timeline detailing important events related to (1) their mental health and (2) their sporting

career (see Appendix D1). More specifically, participants were asked to draw a graph representing their progression as an athlete. The Y axis represented participants' perceived levels of performance (from worst (0%) to best (100%)) while the X axis showed their corresponding ages. Participants were, then, asked to draw on the same graph, but in another colour, a second blueprint representing their perceived mental health. The X axis, once again, represented participants' ages, whereas the axis Y was used to rate their perceived overall mental health (from worst (0%) to best (100%)). Although not used within the data analysis, these graphs (see Figures 3.1- 3.4, pp. 54-55) were used by both the interviewer and the interviewee as a reference point through the interview. Those graphs allowed both participants and interviewer to focus on times and helped the interviewer to better understand each participants' unique experience over the years within a broader context (e.g., key incidents, mental health and performance fluctuations).

3.2.3.2. Interview guide.

Although the interview guide (see Appendix D1) and graphic timeline were used to guide the discussion, participants were given the opportunity to freely share their subjective experience while at the same time ensuring a certain uniformity between interviews (Jones et al., 2013). The questions avoided the use of jargon, were open-ended, and were framed as simply as possible using examples to clarify the questions if needed. The interview started with a first question asking about the participants' background. This preamble was followed by various questions covering the main areas of investigation and designed to gain insight into athletes' mental health history. Probes and prompts were used to encourage participants to develop their answers, deepen the information shared and clarify relevant points (Drasch & Matthes,

2013; Jones et al., 2013) while at the same time allowing some flexibility to expand on issues raised by each participant.

3.2.3.3. Pilot study.

During the development of the methods, pilot interviews were conducted with two athletes (two males; Mean age = 33, SD = 5.66), matching the study inclusion criteria. The development of interviewing skills requiring time, several attempts are often needed before mastering the relevant skills. Although this might be an issue with small sample sizes (Jones et al., 2013), the decision to pilot the interview with two athletes instead of one, while not using those data in the analysis, was made to help the interviewer to be better prepared for the demands this type of exercise might place on the interviewees and interviewer (Jones et al., 2013). After the interview, participants were asked to give feedback regarding the overall content of the interview in order to modify as appropriate and improve the interview guide created specifically for this study. Following the pilot study, participants' feedback was positive about the content and format of the interview. The most notable modification made to the interview guide was the inversion of two questions in terms of the flow of the interview.

3.2.4. Data Analysis.

Data analysis drew on Biggerstaff and Thompson's (2008) and Smith and Osborn's (2007) step-by-step approaches to IPA. Each transcript was first read multiple times along with the original recordings in order to become as familiar as possible with their content (Biggerstaff & Thompson, 2008; Smith & Osborn, 2007). During this stage, my thoughts, observations, and other comments were annotated in the left margin (Biggerstaff & Thompson, 2008; Smith & Osborn, 2007). Meaningful units reflecting participants' quotes were then highlighted and the revision tools on

Word (e.g., comment button) were used to comment and title those themes (Nicholls, Holt, & Polman, 2005; Smith & Osborn, 2007). Those initial themes and comments meant to capture the essence of each meaningful unit found in the text while also taking into consideration my own interpretations (Nicholls et al., 2005; Smith & Osborn, 2007). This process was repeated for each transcript until original meaningful units were all coded into themes and ordered using NVivo – a qualitative data analysis software (Nvivo 11; QSR International Pty Ltd., 2015). An inventory of those themes was then realised and similar themes were clustered together (Smith & Osborn, 2007). Clusters were given a name and represented a higher order theme. The themes were then organised hierarchically providing an overall structure to the data set (Biggerstaff & Thompson, 2008). Patterns across the transcripts were considered after the analysis was completed (Smith, 2011) and a list combining all the themes contained in every transcript was produced (Biggerstaff & Thompson, 2008). A particular focus was on the divergences and convergences between the transcripts (Smith, 2011; Smith & Osborn, 2007). At this stage of the analysis, the hierarchy between themes was reconsidered and an overall structure of the data set was achieved by the realisation of an hierarchical inventory of the themes (Biggerstaff & Thompson, 2008). Following the inductive analysis, deductive analysis was used regarding the creation of higher themes such as the categorisation of participants' recalled symptomatology (e.g., DSM 5 criteria) and coping strategies which have both been previously intensively described and theorised in the literature. Indeed, for the sake of clarity and ease of comprehension regarding the symptoms they may have encountered and the coping strategies they may have implemented, the DSM-5 criteria (APA, 2013) and common coping classifications often reported in the sport psychology literature (e.g., Kristiansen & Roberts, 2010; Lazarus & Folkman, 1984; Nicholls & Polman, 2007;

Richards, 2011) were used to give an overall description on how participants experienced and responded to their MHI(s).

The themes are presented in the results section using anonymised quotations which emphasised the similarities and dissimilarities between the interviews as well participants' subjectivity (Smith & Osborn, 2007). In order to ensure confidentiality, participants are referred to by numbers and no information enabling their identification (e.g., sport, club name) were reported.

3.2.4.1. Trustworthiness.

Peer-debriefing, direct quotes (Jones et al., 2013) and member reflection (Smith & McGannon, 2018) were the methods used to increase the trustworthiness of my findings. Following Jones et al.'s (2013) suggestion, peer-debriefing was used in order to help guide the analysis and interpretation, and occurred through the supervisory team over the course of the present study and, in particular, during the data analysis stage (Jones et al., 2013). The supervisory team was used for critiques and challenges. Dr. MacNamara, for instance, is an experienced qualitative researcher who independently reviewed my data analysis, coding, and interpretation. We, then, openly discussed the grouping of codes with Dr. MacNamara challenging me until a consensus between the two of us was found. Subsequently, Dr. Rodgers and Prof. Collins acted as critical friends (Smith & McGannon, 2018) and reviewed the final codes.

After the cross analysis between the four transcripts and the final thematic structure, participants were provided with an overall summary of the data in order to support the peer-debriefing process (Jones et al., 2013). The summary of data encompassed a table summing up the different themes generated from the entire set of data as well as a more specific summary of the results generated from their own data.

This summary was accompanied with an explanation of each theme and sub-theme as a way to highlight the logic behind the analysis. Each participant was then asked to give feedback on the themes generated from their own transcript, as well as to reflect and comment on a summary of the key findings of the study. Member reflection is "a practical opportunity to acknowledge and/or explore with participants the existence of contradictions and differences in knowing" (Smith & McGannon, 2018, p. 108). It provides participants and researchers with an opportunity to engage in a dynamic process in order to explore and highlight any gaps, similarities, contradictions or differences between the researchers' and participants' understanding of their accounts (Smith & McGannon, 2018). This dynamic process, indeed, allows participants and researcher(s) to confront their understanding of the same data set (Smith & McGannon, 2018). While all participants were contacted for member reflection, only one participant (Participant 3) actively engaged in this process and offered reflections on the data. At that point, I discussed the final findings and thematic structure with my supervisory team until a consensus was reached. The results were, then, re-discussed, reviewed once again, and rewritten. Finally, the use of thick descriptions by the means of direct quotes provides a rich source of untampered information to the reader (Jones et al., 2013).

3.3. Results and Discussion

The overall aim of the present study was to explore athletes' "at the time" perceptions and post-hoc reflections about their subjective and unique experience of MHI(s). The following section focuses on five main higher themes; namely the type of MHI(s) encountered and diagnosed, participants' perceived primary triggers, their recalled symptomatology, their perception of MHIs within their sport environments and the coping strategies they used to deal with their MHI(s).

3.3.1. Type of MHI(s) Encountered.

All participants reported a range of symptoms causing distress and/or functioning impairment severely enough to have been diagnosed either by their general practitioner (GP; n=2) or by a psychiatrist (n=2) with clinical depression. In addition, three of them also presented comorbidities such as ADHD (n = 1), anxiety issues (n = 3) and OCD (n = 1). An overview of the key findings is presented in Table 3.1 (see pp. 63-64), whilst Figures 3.1 to 3.4 (see pp. 54-55) illustrate participants' perception of their levels of mental health and performance over time. Those figures have the advantage of offering a broad overview of their mental health and performance fluctuations before, during, and after their episode of clinical depression. More detailed tables highlighting the main findings for each participant can be found in Appendix D2.

The existence of depressive disorders in elite sport is, perhaps, unsurprising given their prevalence in the general population and the overlap between MHIs first appearance and athletes' peak performance periods (Gulliver et al., 2012a; Hughes & Leavey, 2012; Kessler & Bromet, 2013; Rice et al., 2016; Sabato et al., 2016; Schinke et al., 2017). Besides, depression is also one of the most reported and commonly studied MHIs within sport populations (Doherty et al., 2016; Hughes & Leavey, 2012; Rice et al., 2016; Schaal et al., 2011) and, particularly, in retired athletes (Park et al., 2013; Wippert & Wippert, 2010). Consequently, the remaining findings focused on athletes' experience of depression. Depression offers a good vehicle to better understand how elite athletes experienced and viewed their condition, as well as to examine the coping strategies they used. Using depression as a vehicle also allows some interesting "compare and contrasts" with the literature on depression in the general population.

Table 3.1 *Summary of key findings (n_{total}=4)*

Diagnosed MHI(s)	**Perceived Primary Triggers of Depression**	**Recalled Symptomatology of Depression**		**Perception of MHIs in Sport Environments**	**Coping Strategies Implemented to Deal with Depression**
	Sport-related triggers:	***Recalled symptoms meeting DSM-5 diagnostic criteria:***	***Other signs or symptoms attributed to their depression:***	***Perceived prevalence of MHIs:***	***Problem-focused:***

• Depression (n=4)
• Anxiety (n=2)
• OCD (n=1)
• ADHD (n=1)
	• Bullying and mistreatment within a sport organisation (n=1)
	• End of career due to a life-changing injury (n=1)
		• Depressed mood (e.g., sadness, emptiness; n=4)
		• Diminished interest or pleasure in activities (n=4)
		• Change in weight or appetite when not dieting (n=2)
		• Fatigue or loss of energy (n=4)
		• Diminished ability to think or concentrate (n=1)
			• Change of character (n=2)
			• Behavioural changes (n=4) such as:
			  ○ At-risk behaviour (n=2)
			  ○ Aggressiveness (n=3)
			  ○ Increased impulsivity (n=2)
			  ○ Disengaging/isolating themselves from others (n=3)
			  ○ Withdrawing behaviour (n=3)
			  ○ Increased anxiety (n=2)
				• MHIs are more common in sport than we think (n=4)
				• Many other athletes are/have suffered from MHIs (n=4)
					• Seeking for professional help and appropriate treatment (n=4)
					Emotion-focused:
					• Seeking and receiving emotional support from different sources (n=4)
					• Use of stress decreasing tools or activities (n=2)
					• Emotional eating (n=1)
					• Becoming a spokesperson (n=3)

Table 3.1 *(Continued)*

Diagnosed MHI(s)	Perceived Primary Triggers of Depression	Recalled Symptomatology of Depression		Perception of MHIs in Sport Environments	Coping Strategies Implemented to Deal with Depression
	Non-sport related triggers:	***Recalled symptoms meeting DSM-5 diagnostic criteria:***	***Other signs or symptoms attributed to their depression:***	***Perceived stigma:***	***Appraisal-focused:***

	• Miscarriage (n=1)
	• OCD (n=1)
		• Feelings of worthlessness or guilt (e.g., loss of self-esteem and self-value; n=4)
		• Sleep disturbance (n=1)
		• Recurrent thoughts of death, recurrent suicidal ideation without or with a specific plan (n=3)
		• Significant distress and/or impairment in social, occupational, or other important areas of functioning (n=3)
			• Negative impact on performance (n=3):
			  ○ Performance drops (n=3)
			  ○ Loss of passion and/or motivation (n=2)
				• Stigma is still present within sport environments despite the efforts made to decrease it (n=3)
				• Stigma surrounding MHIs in sport are mainly due to a lack of knowledge and understanding (n=4) leading people to fear to be seen as weak (n=3) or to be rejected (n=3).
					• Cognitive restructuring and/or reappraisal strategies (n=3)
					Avoidance:
					• Removing self from a stressful environment (n=2)
					• Engaging in new activities (n=3)
					• Postponing help seeking (n=3)
					• Disengaging/isolating themselves from others (n=3)
					• Training & competing – use of their sport as a catharsis (n=2)

3.3.2. Participants' Experience of Depression.

3.3.2.1. Perceived Primary Triggers of Depression.

Although the development of depression is a multidimensional process with multiple factors in action (e.g., biological, social, socio-economical, and environmental; Gouttebarge et al., 2016b; van Ramele et al., 2017), participants made sense of their experience and conceptualised the aetiology of their depression by identifying a variety of triggers that had, according to them, precipitated or could have precipitated their depression. While for two participants the main identified triggers were linked to their sport participation (e.g., injury, sport organisation), for the other two participants their issue had "nothing to do with their athletic pursuit" (Reardon & Factor, 2010, p. 963) and was instead attributed to non-sport but life-related factors (i.e., miscarriage, OCD).

3.3.2.1.1 Sport-related Triggers.

Participants 1 and 2 were strong in their belief that their depression was caused by their participation in elite level sport. The institutional mistreatment and bullying experienced by Participant 1 were identified as the main triggers for his depression. He further claimed that it was the sole focus of his sport organisation on performance excellence that negatively impacted his physical and mental health (cf. Miller & Kerr, 2002). Illustrating this, Participant 1 described how:

> I got put under so much pressure and I think ethically it was completely wrong. The association even got sued, that they paid out of court in the end for mistreatment and bullying, institutional bullying ... They caused me problem after problem. They caused my, as bad as me saying that, but generally, wholeheartedly they caused my deterioration in health ... They were awful.

> Like you'd have condescending remarks and stuff like that. They would devalue what I was doing and then expect me to go and perform ... I was an inconvenience to have a personality.

Participant 2 conceptualised his depression as triggered by his involuntary retirement from sport which had a number of social, financial, and identity-related consequences. Reflecting this, Participant 2 described how:

> I got forced into retirement through serious, two serious injuries ... [sport] is the only job I've ever had since leaving school which meant I lost my job, I lost my career ... I've always been a [sport] player, that's my identity and I lost it. I didn't know if I belonged anymore ... And when I got forced into retirement, I lost thirty best mates.

Transition to retirement is known as a high risk period for depression and emotional distress especially when leading to a loss of identity (Park et al., 2013; Wippert & Wippert, 2010). As Participant 2 explained, "*I don't miss playing, I don't miss the [sport] side. That doesn't bother me. It was just not being able to support my family. That's when I couldn't get the thoughts of suicide out of my mind*". Losing his providing role for his family, in addition to the loss of his athletic identity, was emotionally difficult for Participant 2.

3.3.2.1.2. Non-sport related Triggers.

In contrast to the sport-related triggers described by Participants 1 and 2, Participant 3 perceived her miscarriage as the major life event precipitating her depression:

> I had a miscarriage. We were trying to; I went back to work because we were trying to start a family. [it happened] At Christmas 'yeah'. That makes it all, that's the worst time of year because it's all about families at Christmas.

Participant 4 also identified a non-sport related trigger, his pre-existing OCD, as the main factor leading to his depression:

> I remember being depressed for a long time, so I don't really remember sort of having OCD and then being depressed. I remember the last time when it was diagnosed. It was the OCD that caused the depressive disorder. I'd say that OCD isn't particularly negative in my life, apart from the fact that it makes me depressed or has made me depressed. And still does at times make me depressed.

The present findings further emphasise the importance of a person- and context-centred approach to understand MHIs in elite sport. Supporting Reardon and Factor's (2010) suggestion that sport participation can precipitate, worsen or have nothing to do with an athlete's MHIs, participants attributed their depression either to sport-related (e.g., forced retirement, institutional bullying and mistreatment) or life-related (e.g., miscarriage, previous MHI such as OCD) factors. Additionally, the present findings are also consistent with previous studies highlighting severe injuries, major life events, comorbidities, career dissatisfaction (Gouttebarge et al., 2015a; Gouttebarge et al., 2016c), and career transition (e.g., retirement; Park et al., 2013; Wippert & Wippert, 2010) as common at-risk factors of depression in elite sport.

3.3.2.2. Recalled Symptomatology.

Even though all the participants reported different triggers precipitating their depression, it was expected that they would report and share common symptoms underpinning the diagnosis of such a MHI (cf. APA, 2013, p. 161). A brief overview of participants' subjective experience of depression, including the symptoms reported, is summarised in Table 3.1 (see pp. 63-64). While some of those symptoms met the DSM-5 criteria (see Appendix A1), participants also recalled other signs and/or

symptoms that they attributed to their experience of depression. Although some of additional symptoms may, in some cases, be indicative of comorbid conditions (e.g., self-harm, anxiety), they were highlighted and experienced by the present participants as being an integral part of their depressive symptomatology. Overall and beyond the usual set of criteria leading to the diagnosis of depression, athletes in the present study reported a mixed pattern of additional warning signs such as changes in behaviour (e.g., having at-risk behaviours, being out of control), in performance (e.g., performance drops, loss of passion), and personality. Whilst this is not meant to represent the true complexity of those experiences, participants described how symptoms or warning signs, for example behavioural changes, personality changes, and performance decrements manifested themselves over time (see Table 3.1, see pp. 63-64). Those results add to Bär and Markser's (2013) and Doherty et al.'s (2016) argument that there is a need to look beyond the DSM-5 criteria when working with elite athletes, especially. For Participant 1, one of the most difficult aspects was, for example, the feeling of being out of control and looking for a way-out (e.g., drugs or self-harm):

> It manifests in certain behaviours like things I would do, you're just like so out of character. Like my impulsive nature, I couldn't control, I was just like, 'oh I need some help because I am out of control' ... I wasn't happy and I didn't feel anything. And so, you'd do, you'd go chasing sensations and stuff like that. I talked about doing heroin during that time because I was just like I can't live in this, in this state ... I broke up with my girlfriend because I was basically cutting all ties with everyone. So that, to make it easier for me to just sever it and just go.

Like Participant 1, Participant 4 was looking for an escape but in his case his thoughts about making life changes and self-harm, which were an aspect of his OCD, were intensified by his depression:

> 'Yeah' just 'um' lower energy, tired, don't like doing things, just feel irritable, hungry all the time, don't sleep particularly well, 'yeah' always looking to change something like I could change jobs or something like that you know ... My compulsion would be to think about self-harm and think about suicide. I mean to, to have compulsive thoughts about self-harming.

While Participants 1 and 4 reported mostly behavioural changes, Participant 2 also described what he perceived as a change of personality:

> Just my personality had completely changed. When I was suffering it just wasn't me, it wasn't my personality ... I don't know, my wife just said it was just, you didn't take anyone, didn't take us on. You weren't speaking. You weren't doing anything. You were just, you used to just sit watching the telly and there was just no thingy in my face ... I used to get upset at the littlest thing and stuff like that.

In addition to behavioural and character/personality changes, participants also mentioned performance decrements as a symptom or sign of their depression. Elite sport participation can affect "the mood, thinking, personality and health of the participants in specific ways" (Glick, Kamm, & Morse, 2009, p. 608) but, in return, an athlete's state of mind can also have a significant influence on performance (Glick et al., 2009; Gouttebarge et al., 2018). Figures 3.1 to 3.4 (see pp. 54-55) illustrate the participants' perceived relationship existing between their mental health and performance. The impact of MHIs on productivity and output might be more obvious for athletes than the general population. Notably, however, the relationship is complex

and idiosyncratic. When looking back at his performance at the time of his depression, Participant 1 identified performance decrements and remembered that "*It* [performance] *was dropping and dropping and people were saying, 'oh he's gonna win a medal at the games, he's gonna do everything like that' but I wasn't getting any help or any coaching input*". Yet, little attention was paid by others (e.g., coaches, peers, family) to his dramatic drop in performance (see Figure 3.1, p. 54). Although her performance decline was perceived as modest compared to Participant 1 and 2 (see Figure 3.3, p. 55), Participant 3 also recognised that her mental health and perceived well-being had an impact on her performance. As she explained, "*I think if I was happier, then, I would perform better … I feel a lot better than I did this time last year but it's hard to get your best performance when you don't feel happy"*. Participant 4, however, was somewhat of an outlier in that his level of performance was not closely linked to his mental health. He acknowledged, however, that:

> Sometimes it would affect performance, sometimes it wouldn't. It would affect how you train. So, when you're feeling low sometimes your training isn't very good you don't train very well you don't practise very well. But I wouldn't say it would affect my match performance really.

Interestingly, despite their symptoms and the extent to which depression impacted on their overall functioning and sport performances, Participants 1, 3 and 4 continued to compete and train at the highest level whereas Participant 2 tried a comeback after his recovery from injuries, this despite the fact that he was, at the same time, suffering from depression. Although elite athletes frequently continue to more or less function in their sport by training and performing whilst simultaneously trying to hide their distress (Doherty et al., 2016), a difference was noticeable between those whose triggers were sport related (i.e., Participants 1 and 2) and those whose triggers were

not sport-related (i.e., Participants 3 and 4). In this regard, Participants 1 and 2 described how their depression negatively impacted their passion and/or motivation for sport. Exemplifying this, Participant 2 mentioned how:

> I couldn't be bothered training; I couldn't be bothered. Although I did train, but I was, I'd just turn up. Felt like I was just turning up. I wasn't there because I was enjoying it. The only reason I carried on playing in 2011 is because I wanted to get some money in for my family. So [Sport Club] offered me £750 a game which is £750 a week but I was just doing it for the money. I was doing it for the wrong reasons.

In contrast, Participant 3 noted that training and competing had a positive impact on her mental health. For her, "*training is like a release and, in every other situation, training has always made me feel better and feel back to normal again ... I did start training as soon as I could. And it did make me feel better"*. Participant 4 presented a mixed picture in this regard in that, even though he often lacked the motivation to train, in general training and maintaining participation helped him to feel better afterwards.

> Sometimes I'm feeling low and then I go, we have like a training session makes me better afterwards but sometimes you feel bad after training. Sometimes you feel good going for a session feel bad afterwards so 'yeah' ... And the thing, like exercising in general can lift the mood. So, sometimes feeling very low and don't want to train, don't want to go and then finish afterwards and just feel pretty good.

Those last accounts illustrated how Participants 3 and 4 used their sport participation as a means to cope with their mental health fluctuations and depression

(see Figures 3.1-3.4, pp. 54-55), while Participants 1 and 2 had to find some other ways.

3.3.2.3. MHIs within Sport Environments.

3.3.2.3.1. The Perceived Prevalence of MHIs in Sport.

Participants described MHIs in general as being more common in elite sport than it is usually portrayed. About the prevalence of MHIs in sport, Participant 1 mentioned how:

> It is a lot higher than most people would think ... There was another player, she also had ... And then there was another player who also had a problem. So, you can see that then suddenly you go, 'hold on a minute, all these people are having mental health issues, what is organisationally wrong with it'.

Supporting Participant 1's opinion, when asked about the prevalence of MHIs in elite level sport, Participant 2 replied that they are "*very common just because of the amount of highs that we get. I know that 200 players have sought help. So, it's 23-25% of [sport] players*". In line with these subjective accounts, Participants 3 also perceived the prevalence of MHIs as more common than it is recognised or generally accepted, at least in her sport environment:

> It is definitely more common than people think, and I think most people don't admit it if they are. Some admit it personally and some are in denial and some, I guess, just are depressed but don't know and have never been diagnosed with it ... I know quite a few of them [other athletes] have been through the same as me. I can think of four or five at the moment that are in the same position.

Although all the participants perceived MHIs as prevalent in sport, and all knew other athletes suffering from MHIs, Participant 4 questioned the extent of the

severity of those MHIs differentiating between sub-clinical and clinical levels of such issues as well as between their chronicity or acuteness:

> I would say they are very, very common. To the extreme which I have it or I've had it I don't think so ... The number of people that contacted me, who have said they felt similar was, 'yeah'. A high proportion of the number of people I've met over the years would have spoken to me and said and felt something ... A lot of teammates, a lot of former teammates have said 'I have felt very low during this period or during this year, in that year' and stuff like that so I think it's very, very common but whether it's a prolonged illness or whether it's a short thing I don't know.

The present findings are in line with the suggestion made in Chapter 2 that there is a need for more rigorous research to properly assess the prevalence of MHIs in high-level sport.

3.3.2.3.2. The Perceived Stigma.

Despite their prevalence in sport and in society in general, participants highlighted the stigma associated with MHIs as a tenacious and damaging factor in high-level sport environments. Participant 2 explained why, in light of this stigma, he would not talk about his MHI and why he now considers stigma as the main issue in sport:

> The stigma around there was there for me. I didn't want to tell anyone. I didn't want to tell the coaches in case they didn't pick me which meant I'd have lost money for my family. Scared of teammates not trusting me. Scared of backlash from fans and stuff like that but it's just a load of rubbish. I don't know why I was thinking that. Mental health, depression, that's not the killer. The stigma is the killer because they don't want to speak about how they're feeling ...

> There's a big taboo, it's a big taboo subject that people don't want to talk about if you ever mentioned mental health.

Supporting Participant 2's view, Participant 4 explained that *"there can be a lot of stigma around mental health particularly for males".* The stigma, often caused by a lack of knowledge and understanding about MHIs and depression, can be detrimental for the people confronted with MHIs. False beliefs about depression, for example, led Participant 1's physiotherapist to be afraid to work with him which, in turn, negatively impacted his knee rehabilitation:

> So, when we talk about my knee and rehabilitation, I was at a disadvantage because of how he [the physiotherapist] felt ... He was like, 'oh I can't be left in a room on my own with him'. Eight months later my next knee goes because I didn't have the proper rehabilitation and that's because of my mental health because I was blacklisted in terms of help for a bit.

Another false, yet widespread idea, often conveyed in sport environments and in general society, is that elite athletes are mentally tough and, therefore, should not show any sign of weakness (Doherty et al., 2016; Gulliver et al., 2012a; Schwenk, 2000). As a consequence, it took a long time to Participant 4 to see a doctor or simply talk about his MHIs because of the embarrassment caused by these misconceptions: "*I knew it wasn't right, but I was ashamed of it because it was perceived as weakness at the time*". Although suffering from OCD and from depressive episodes probably since his childhood (see Figure 3.4, p. 55), Participant 4 was formally diagnosed with depression by a psychiatrist for the first time at the age of 26. As a result of perceiving MHIs as a mental weakness, athletes tend to hide their problems. As further explained by Participant 2:

> A lot of players used to think it was a weakness to ask for help. If you're injured on a [sport] field you never show signs of weakness because it, the opposition will exploit you and they'll run at you and they'll target you.

When talking about their experience of depression and their views of MHIs within the elite environment, participants shared the common opinion that more education and resources on mental health are needed in order to reduce the stigma surrounding this topic and the detrimental consequences those false beliefs can have on athletes' mental health. It is, for example, important for Participant 4 to *"to show people that you're trying to sort of make sure to remove that sort of stigma as much as possible that".* It was noteworthy that participants in the present study, like in Gulliver et al. (2012), believed that increasing MHIs visibility in sport environments could encourage others currently in the same situation to reach for help. As summarised by Participant 2:

> I've come to learn is that depression and mental health has no boundaries. It doesn't matter if you're £5 an hour cleaner or £100,000 a week footballer. It doesn't matter. It can get anyone so ... Just to realise that you never, even though you're a professional athlete you should never think that you're immune to mental health issues ... It's just like an injury. It's just some of you can't…you can't help. You know, it's not a flaw, it's an illness. It can be treated, it can be fixed, it can be sorted out just like any other injury.

In addition to the absence of obvious identifiable signs of ill-health, a lack of knowledge and understanding − often cited as a barrier to help-seeking (Doherty et al., 2016; Gulliver et al., 2012a) − may also explain the reluctance of athletes to consider depression as a proper illness instead of a personal flaw which, in turn, delays any help-seeking behaviours and treatment (McNair, Highet, Hickie, & Davenport, 2002).

The stigma surrounding MHIs described in this study not only mirrored findings elsewhere in the literature (see Chapter 1) but also stressed the need and importance of broadening our understanding of elite athletes' experience of clinical and sub-clinical MHIs to reduce the stigmatisation of MHIs. Educating and increasing sportspeople's knowledge and understanding about MHIs are useful strategies to reduce the stigma associated with MHIs (Schinke et al., 2017; Sebbens et al., 2016). Such actions could play an essential role in the prevention, early detection and management of MHIs (Sebbens et al., 2016). Indeed, increasing elite athletes' awareness of MHIs is essential in order to early intervene on issues that untreated could lead to more severe problems in terms of mental health, functional impairment and in terms of performance (Gulliver et al., 2012a; Markser, 2011; Schinke et al., 2017).

3.3.3. Coping Strategies Used by Participants Regarding their Depression.

As with the general population (Cornford et al., 2007; Rickwood & Thomas, 2012), athletes used conventional medical and psychotherapeutic treatment in combination with a broad range of other strategies to cope their MHI(s). Ensuing from the diagnosis of clinical depression common across participants, the following results focused solely on the recalled coping strategies implemented by the present sample to address their depression.

On first review, our findings offered little new data. They rather confirmed that, like people from the general population, athletes experiencing depression tend to use a variety of strategies to manage it (Alexander et al., 2009; Biringer et al., 2016; Cornford et al., 2007; Fogarty et al., 2015; Liu & Thompson, 2017). On a deeper examination, however, the present findings considered how participants responded to and coped with their experience of depression. As a result, a wide and mixed range of

problem-focused, emotion-focused, appraisal-focused, and avoidance strategies used, alone or in combination were highlighted.

3.3.3.1. Problem-Focused Strategies.

All participants described how they attempted to change the situation they were in. For example, they described *help-seeking behaviours* such as seeking out tangible and informational support from a variety of formal sources (e.g., GP, psychiatrist, counsellor, social worker; Rickwood & Thomas, 2012). Seeking treatment and appropriate social support are critical resources to deal with MHI(s) such as depression (Talebi et al., 2016). Seeking help is a process involving different stages starting by becoming aware of the problem, followed by a perceived need for help and the identification of appropriate sources of help to access, and finally by the individual's willingness to seek out and disclose their issue(s) to a potential source of help (Gulliver, Griffiths, & Christensen, 2010). Participant 1 exemplified this by describing the journey he went through in order to get help:

> I tried to get help. I accessed the EIS [English Institute of Sport] and BUPA [Health Insurance Company] healthcare ... So, I managed to reach out to a doctor. They then diagnosed me and put me on some medication. They also put me onto sessions with the Priory [Treatment centre].

Whilst social support associated with family is often considered as emotional coping, it can, in some cases, lead to more tangible and informational support. Participant 2 explained how he was encouraged to seek help by his family and, specifically, by his father:

> My dad mentioned it. He said, when I opened up, he just said, 'I think you're suffering from depression' … then we decided to go and see my GP, put me on some antidepressant medication and then I got talking to a counsellor.

Participant 3 described a very similar journey, describing how her GP who had made the initial diagnosis and encouraged her to take some time off work. Following this, she also sought to see a counsellor, as she explained:

> I went into the doctor's appointment and I just couldn't speak. I just cried for about half an hour and overran several other people's appointments. And then he's like, 'you can't work if you're like this. It is better if we sign you off' ... I did everything I could think of. I had counselling.

Illustrating the range of sources of support that were availed of, Participant 4 described his help-seeking journey as follows:

> I went to my GP who referred me to [Hospital's Name] which is a mental hospital in [City's Name] which is my hometown ... So, I originally saw a social worker while we were waiting and then saw both a psychologist and a psychiatrist and it was the psychiatrist who diagnosed the OCD.

3.3.3.2. Emotion-Focused Strategies.

Such as within the general population (Cornford et al., 2007; Rickwood & Thomas, 2012), seeking professional help and conventional medical treatment was only one of the coping strategies employed by these elite athletes. In addition, participants employed a variety of other strategies to address the emotional responses caused by their depression. These strategies ranged from *emotional eating*, *stress decrease strategies* (e.g., relaxation, meditation, acupuncture), and various ways to *vent unpleasant emotions* such as seeking emotional support from a variety of sources or becoming a spokesperson and sharing their experience with others. Participant 1, for example, mentioned both the informational and emotional help he received from his counsellor and how he was able to combine this with other coping strategies such

as meditation: "*The Priory helped me with like their psychological input and stuff. But then I started using things like Headspace* [meditation app]."

In a similar manner to Participant 1, Participant 2 sought support from a professional counsellor and became a fervent advocate of the benefits of talking therapies. *Talking* was emphasised by Participant 2 as the most important and effective step on his path to recovery (e.g., *"And then I got talking to a counsellor and talking and talking and talking just saved my life."*). Aware of both the stigma associated with MHIs and of the importance of talking, Participant 2 decided to share his story publicly with others and used it "*like a therapy because it is good to speak about what I went through and I feel it was really, really useful*." Like Participant 2, Participant 3 and 4 shared their experience with others via different channels.

Participant 3 also mentioned various strategies to address her emotional state. In addition to counselling, talking and sharing her experience with others, she also tried hypnotherapy, acupuncture, and meditation. According to her:

> I did everything I could think of. I had counselling, hypnotherapy, meditation. I spoke, speaking to my coach maybe helped, speaking to [Name], sport psychologist helped ... I started doing meditation ... I'm trying acupuncture at the moment. I'm always trying to try different things to see what helps ... Well meditation does help, and I think I'm always a busy person and my mind is always busy. So, I think it's good for me anyway to calm the mind down ...

Likewise, and in addition to becoming a spokesperson (e.g., working with charities), Participant 4 also used strategies such as engaging in emotional eating to feel better [e.g., "*I eat a lot of food when I'm feeling low. Makes me feel better. So, chocolate, ice cream, crisps. It makes me feel happier.*"].

Moreover, all participants emphasised the importance of the emotional support provided by their entourage (e.g., friends and family; Rickwood & Thomas, 2012). Participant 1 described how his family and friends were there for him when he was suffering from depression:

> My family is lovely. So, like in no way when they talk, people talk about bad parenting, like my family's the epitomy of a great family. And we were talking about generally people outside of sport, actually quite good for mental health … like friends and everything like that are wonderful.

Participant 2 also described how talking in general and, in particular, to his family and friends became a big component of his life and a means of coping with his symptoms. He explained how:

> Socialising … just going for a coffee or anything. You know, just chatting with your mates. It's, even if you're not talking about your problems, even if you're talking about utter rubbish, you're still breaking things down and you're getting things off your chest. … I don't keep anything bottled up anymore. If anything's getting on top of me, I'll speak to my wife, I'll speak to my parents. People think it can't be that easy but talking is, honestly, it's saved my life.

Participant 3 also reported the importance of social support, and just having someone to talk to:

> The most important thing is support from other people and being able to talk to someone that understands it 'yeah' … I think talking to other people is more important than any other tool, I suppose. Just being able to get things off your chest and say things, even if they seem irrational.

Similarly, Participant 4 received a lot of emotional support from his friends, family and, teammates. Perhaps surprisingly given the significance places on peers and

teammates in sport (Bianco, 2001), Participant 4 was the only one who mentioned teammates as a source of support:

> So, I talked to my fiancée about it, I talked to just friends and even sometimes I'm feeling really down and say to my friend 'I'm feeling really down at the minute' and then talk for a couple of minutes and all of a sudden you're feeling better just for saying it. Like doesn't necessarily mean like it's like magic or anything like that but it 'yeah' I feel better just for you know having people to talk to, having told people makes a massive difference … if I have a bad game I know my teammates will be keeping an eye on me making sure everything's OK but that's just their way of caring and showing support.

Participants particularly emphasised the importance of talking and reaching for professional help. This supports previous research having stressed the key role talking to others about one's problems (e.g., to a trusty professional, family member or friend) and having a safe place to express ones' emotions (Alexander et al., 2009; Doherty et al., 2016; Fogarty et al., 2015) can have in the recovery process (Biringer et al., 2016; Doherty et al., 2016). When perceived as matching one's needs, social support can, indeed, facilitate the implementation of coping strategies, help individuals to acknowledge a problem and encourage them to seek professional help (Bianco & Eklund, 2001; Cornford et al., 2007; Doherty et al., 2016; Gulliver et al., 2012a; Talebi et al., 2016). An effective social network of family, peers, and companionship is particularly important for people with suicidal ideation due to the role of connectedness in recovery (Alexander et al., 2009). Therefore, and given that social support can take on different forms (e.g., emotional, tangible, and informational) and can be offered by various sources (e.g., family, friends, teammates or health professionals), people suffering from MHIs need to gain awareness in regard to the

social support and resources that are at their disposal as well as being given the means to use these resources appropriately (Bianco & Eklund, 2001; Rickwood & Thomas, 2012).

Nevertheless, if the importance and benefits of having a good social support network was emphasised by all the participants, they were also aware of the potential negative impact others could have. Participant 1, for example, explained that when he announced his retirement "*everyone kept asking me, 'so what are you gonna do?' And I'm like, 'I ain't got a clue'*", and described how these remarks were not helpful at that time. Negative forms of social support were also reported by Participant 3 in the form of unsolicited or unwanted advice "*The only annoying thing is people trying to give me advice and…that's just another athlete's opinion and what do they know compared to what the consultant knows. So that, the unwanted advice frustrates me*". Despite good intentions, undesired support can be as unhelpful or harmful to athletes' well-being than inadequate or a lack of support given that their needs are not met (Bianco, 2001; DeFreese & Smith, 2014).

3.3.3.3. Appraisal-Focused Strategies.

Cognitive restructuring and/or reappraisal strategies (e.g., positive thinking, acceptance, alternative thoughts) were mentioned by three out of the four participants. Participant 1 described how he tried to reappraise his situation by using a mix of positive thinking and alternative thoughts allowing him to put the situation and his thoughts into perspective:

> It's like an existential crisis, you kind of reframe and look at things. And you kind of understand happiness is a different equation to what's been shoved down your face ... whereas before I would be very impulsive, so you said something, I'd go, 'oh that must be right because I cannot be wrong'. Whereas

> now I'm just like, 'no it doesn't necessarily mean that at all. There's no absolute' … Instead of thinking, 'oh okay, life is', there's so many other things like it doesn't matter. It just doesn't matter. In the grand scale of things what's going on it really doesn't matter.

Likewise, Participant 3 tried to alter her thought patterns using mix of acceptance, positive thinking, alternative thoughts as well as other strategies such as meditation:

> Just trying to change the thought processes and all the suggestions that I get from the counsellor or from my coach or [Name of her sport psychologist] ... And maybe meditation helps with that as well because as soon as you realise, you're having unhelpful thoughts, just try and forget it and think of something else. 'Yeah' try and replace it with a positive thought or just move on and just don't think about that anymore ... I guess I would always be frustrated that something had happened and wishing I could change it. But then now accepting you can't change what has happened in the past. What can you do now and what can you do right now, this minute ...I guess if something genuinely bad happens, it puts other things into perspective. So, I do make more efforts to sort of step back and have time to think before reacting to things.

Similarly, participant 4 employed a range of cognitive strategies including acceptance of his mental state and the role played by his OCD, re-evaluating his thoughts in a more rational way, as well as using alternative thoughts to cope with intrusive thoughts:

> I've accepted that I do have an illness and times I feel very, very low, so it can be because it can be torture for yourself to think you know if this has happened, if this has happened, if I was better at this, if I was better at or that, if I was better at [sport] there then I'd be instantly happier. You can certainly think God

> that's torture, whereas now I'm thinking 'OK I wanted to be a better [sport] player I want to be better at all these things. But it doesn't necessarily mean I'm going to be genuinely happier'. And that's the single biggest thing which lead me to feeling better.

Although three of the participants used a variety of cognitive strategies, Participant 3 was the only one who explicitly described how she was able to transfer the skills she learned from her sport psychologist for performance enhancing effects to handle her MHIs (i.e., anxiety and depression):

> I think a lot of the skills from sport psychology are useful in other situations as well. Just about if you can't control something then don't waste your energy worrying about it. And what are the things that you can, what can you change and focus on that instead ... I think it is good to learn the skills of sport psychology, of focusing on the helpful things and try and not to think about unhelpful things and things you can't change ... Everything to do with sport, the harder you work for something then you improve, and you move towards your goals.

There is a significant body of literature supporting the importance of psychological skills as precursors of sporting excellence. As such, performers must develop and use a range of skills and strategies to self-monitor their progress (Bartulovic, Young, & Baker, 2017) and to cope effectively with the inevitable ups and downs encountered as they progress in sport (Gould et al., 2002; MacNamara et al., 2010). Although Participant 3 was the only one to report employing the psychological skills learned from her sport involvement to deal with her MHI, both the present data and previous studies (Gould & Carson, 2008; Kendellen & Camiré, 2019) suggest the possibility of a skills-based transfer from sport to daily life. Still, the present findings also suggest

that the use of the knowledge and skills athletes have learned through their sport participation to respond to the challenges encountered in everyday life such as the challenges associated with their mental health (e.g., everyday life stressors, troublesome complaints, sub-clinical and more serious forms of MHIs) may need to be further encouraged.

3.3.3.4. Avoidance Strategies.

Avoidance strategies such as *physically removing self from a stressful situation* (e.g., leaving the problematic environment) and *engaging in new activities* (e.g., physical activity, new hobbies, working with charities) were described. Illustrating this, Participant 1 purposefully started to search for new interests in an effort to distance himself from the sport environment responsible, according to him, for his depression. He reported:

> I started finding things which interested me, because up until then I didn't have anything because it was monopolised by [sport]. I just started to do things more what I wanted to do ... Going back home, I lived with my parents for about three months whilst I got better.

In a similar fashion, Participant 2 started new activities outside of his sport and became involved with charities:

> Doing stuff for charity and doing stuff for other people makes me feel good about myself ... I also got into physical activity as well, although I couldn't run or do anything much, but I got into boxing. And that was another antidepressant that I used.

Similarly, Participant 4 described the positive impact exercising had on his mood:

> Exercising in general can lift the mood. So, sometimes feeling very low and don't want to train don't want to go and then finish afterwards and just feel

> pretty good ... Sometimes I'm feeling low and then I go, we have like, a training session makes me better afterwards but sometimes you feel bad after training, sometimes, you feel good going for a session feel bad afterwards so 'yeah' ...

Unlike Participant 2's new physical activity, Participants 3 and 4 - for whom the perceived triggers behind their depression were not related to their sport participation - also mentioned training and competing as a helpful strategy. Participant 3, for example, explained that:

> Training is like a release, and in every other situation, training has always made me feel better and feel back to normal again ... I did start training as soon as I could. And it did, it did make me feel better ... All my ambitions are then in sport. So that's what drives me, and I need to …, it just makes me happy to achieve something and work hard in sport. And then that's where I get satisfaction from.

While emotion and cognitive strategies were used by the participants to reappraise the meaning of the emotion-eliciting situation and regulate the emotions attached to it (Lazarus, 1993; Liu & Thompson, 2017), distracting strategies were used, as their names suggest, to distract themselves. Indeed, Nolen-Hoeksema (1991) defined distracting processes as "*purposeful turning one's attention away from one's symptoms of depression and its possible causes and consequences to pleasant or neutral activities*" (cited in Liu and Thompson, 2017, p. 187). In this scenario, physical activity can be seen as a way to distract themselves from anxious and/or depressive thoughts (Daley, 2008). It was, however, interesting to note that training and competing were only used by the participants for whom depression was not considered as related to their sport participation. When depression is a consequence of sport participation, a break away from the sport environment could help athletes associating

their depression to their sport participation or environment to better deal with their distress (Doherty et al., 2016). As such, it is important to carefully consider both the individual and the context in which the problem occurs (Lazarus, 1993), especially as it has been suggested that participation in elite sport could either help athletes cope with MHIs or be a trigger for MHIs (Reardon & Factor, 2010).

Nevertheless, while distracting strategies can have a positive impact on participants' emotional state, other avoidance-based strategies (e.g., *disengaging/isolating themselves from others, postponing help seeking, denying a problem until it is not possible to do otherwise*) can be detrimental in the long term. (Un)consciously postponing help seeking could be related to some cognitive distance in the form of denial. Even though the participants did not explicitly report postponing help seeking, there appeared to be a delay between the manifestation of symptoms, their worsening, and the implementation of help-seeking behaviours. Three out of four of the participants had suicidal thoughts or plans to commit suicide before they sought help. Participant 1 explained how, even after seeing a GP and receiving medication, he waited before seeking help from a counsellor:

> From diagnosis in 2014, I did nothing apart from taking an antidepressant which was prescribed to me. 2015, again no, no…like until I snapped my knee and then I'd become even more suicidal ... So, it would have been actually 2014, I think, the, the initial GP diagnosis. And then it would have been about 2015, it would have been about June, July I started seeing the woman at the Priory.

Participant 2 mirrored these behaviours and waited to the point where he had suicidal ideation to seek help, and only then as a result of encouragement from his family. As he described:

> I found myself in [City] in my car, gonna take me own life. I had a box full of pills, strongest drugs you can get ... Oxynorm, Oxycotin, the strong morphine-based drugs. I was gonna take my own life. And for some reason I don't know why I didn't whether it was my kids or my wife or my parents, I couldn't tell you because I was in a total different place ... I've got a real close family around me and they'd noticed a big difference in my personality, and it was them that saved my life really ... And we spent hours talking and crying and then we decided to go and see my GP.

Likewise, Participant 4 described how it took him years to finally seek help. Indeed, Participant 4 recounted how, even though he suffered from suicidal thoughts since his childhood, he only sought help in his adulthood:

> I struggled with mental illness since a young age. I first remember having thoughts of self-harm around 8 or 9 and then I eventually went to first see a Doctor about it in January of 2014 ... I first went to the Doctor at 26. I would have, yes so diagnosed around that time 26/27.

Upon reflection, Participant 4 realised he should have sought help sooner but felt, at the time, that he did not have the information, or ability, required to make such a decision.

> Around that age if someone had said to me, if there was a load of mental health campaigns, if there was people I looked up to in [sport] and in other sports talking about their mental health and they've got it then I'd have been like 'Oh OK well this isn't something that I should be scared of this isn't something that I should be ashamed of' and would've gone to the Doctor ... I knew it wasn't right, but I was ashamed of it because it was perceived as weakness at the time.

Whereas if someone who I'd looked up to had it I'd have been like 'Oh well if that person has it then you know it's OK'.

Understanding the context and complexities of elite sport is clearly an important step. While this delay in seeking help might be partly explained in sport by the stigma, embarrassment and lack of understanding surrounding mental health (Addis & Mahalik, 2003; Gulliver et al., 2012a), the difficulty to discriminate between normal feelings and MHI symptoms might be another explanation (Cornford et al., 2007). Critically however, the reluctance to seek professional help is one of the biggest challenges in the treatment and prevention of MHIs, especially for men (Addis & Mahalik, 2003; Gulliver et al., 2012a; Rickwood & Thomas, 2012; Talebi et al., 2016). As a result, and as experienced by Participants 1, 2 and 4, by the time individuals finally seek help, their condition has often worsened from a subclinical to a clinical level of severity and impairment (Schinke et al., 2017; Schwenk, 2000).

3.4. Summary and Conclusion

The present findings gave a broad picture of how four British elite athletes experienced and coped with a MHI such as depression (see Figure 3.5, p. 90). Whilst their symptomatology was perceived to have been triggered by either sport- or non-sport-related factors, participants recalled encountering a range of behavioural, performance, and personality changes attributed to their depression. As a consequence, they implemented a wide range of problem-focused, emotion-focused, appraisal-focused and avoidance strategies to help them cope with the symptoms of depression and their consequences. Finally, while acknowledging the potential widespread prevalence of MHIs in elite sport, the participants also stressed the stigma that remains associated with this topic in high-level sport environments and the detrimental impact this may have on athletes.

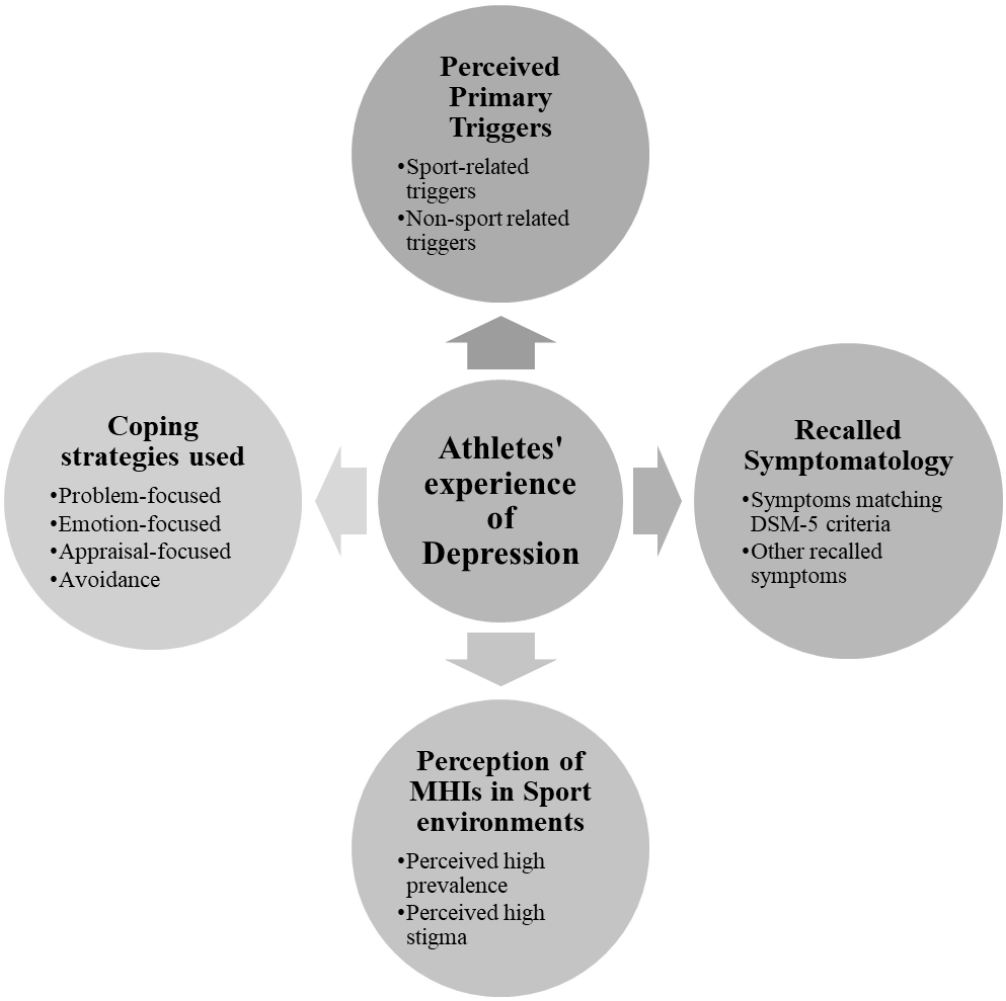


Figure 3.5 British elite athletes' lived experience of depression.

3.4.1. Elite Athletes' Experience of Depression.

Differentiating between signs of depression and normal range of reactions or feelings (e.g., sadness, tiredness) to adverse events can be difficult (Cornford et al., 2007; Gulliver et al., 2012a). This argument is especially valuable when looking for signs or potential indicators of MHIs in a population that may experience them in ways that may go beyond usual diagnostic criteria (Doherty et al., 2016). In line with the present findings highlighting additional possible signs to consider, increased avoidance, risk-taking, irritability, anger and aggression are potential transdiagnostic indicators of psychological distress (Brownhill et al., 2005; cited in Rice et al., 2019). In this regard, it might be useful to consider any accumulation of, and persistent changes in, behaviours and/or performance over time, as potential warning signs

warranting further investigation (Hill et al., 2016) as well as the spectrum on which those issues might occur. Due to diagnostic challenges, people easily consider that MHIs is a black-and-white issue. The distinction between an issue as such and a disorder *per se* is not easily discernible. Participant 4, for example, questioned the severity of MHIs met in sport environments – going from symptoms of mental health problems to mental disorders – and, thereby, highlighted the necessity to understand and recognise the different levels of severity (spectrum) when it comes to MHIs. However, to date, research about clinical depression – its' extent, symptoms, and consequences − among elite athletes remains lacking. This dearth of information can partly be explained by the gap between the true prevalence of MHIs in sport and the MHIs that are actually treated (Henderson, Evans-Lacko, & Thornicroft, 2013) or reported (e.g., self-reported; Gorczynski et al., 2017).

3.4.2. Elite Athletes Coping with Depression.

In terms of coping strategies, our findings highlighted how, using a range of diverse coping strategies (alone or in combination), high-performing athletes tried to in managing MHIs which supports previous research conducted in the general population (e.g., Biringer et al., 2016; Cornford et al., 2007; Fogarty et al., 2015). Furthermore, while particularly stressing the importance of talking, seeking professional help, and social support, the activities reported by the participants (e.g., being involved in charity, physical activity) are consistent with findings highlighting the usefulness of changing one's emotional and cognitive states by engaging in pleasant or neutral distracting activities (Biringer et al., 2016; Liu & Thompson, 2017). Perhaps, one of the most interesting findings in that section was the overlap between the categories of coping strategies highlighted in the present study and those found in

previous research on how sport performers cope with sport and organisational stressors (Kristiansen & Roberts, 2010; Nicholls & Polman, 2007).

The intention here was not to offer a selective list of strategies that athletes should systematically apply when confronted with MHIs. Instead, given that athletes already have developed a range of coping strategies through their engagement in elite sport, the present results suggest that athletes may need to be more encouraged to use the knowledge and skills learned to cope with sport challenges to better handle other kind of challenges such as dealing with MHIs. A logical focus of psychological support in sport would, therefore, be on the development of a broad range of psychological skills, supporting both athletes' ability to monitor their own mental health and their ability to deploy those skills to deal with challenges from both within (e.g., injury, deselection) and outside of their sporting lives (Collins, MacNamara & Cruickshank, 2019). Although such interventions may not prevent the development of MHIs, nor explicitly and solely enable athletes to self-address such issues, increased knowledge about MHIs and mental skills may promote skills transfer by increasing athletes' understanding on how skills learned in a sporting context can be transformed and applied to respond to the demands encountered in other contexts and *vice versa* (e.g., opportunities, needs, or benefits of life skills transfer; Kendellen & Camiré, 2019). The types of intervention providing athletes with sufficient awareness and tools to monitor, early detect, prevent and/or respond to developing MHIs are examined in more depth in Chapter 6.

3.5. Study Limitations

The study reported in this current chapter presented both strengths and limitations. One strength concerned the participants' clinical diagnosis of depression by a GP or a psychiatrist compared to studies often resting upon self-reported measures

(Gorczynski et al., 2017; Gouttebarge et al., 2015a). The research design allowed the exploration of participants' experience of depression from their unique perspective in greater depth and, even if saturation is not an aim in IPA (Saunders et al., 2018), saturation was considered to be met during the data analysis when no new codes seemed to occur in the data.

As previously mentioned in the inclusion criteria, participants had either recovered from their MHIs by the time of the interview or had their condition safely under control. However, while the four participants in this study reported being formally diagnosed with depression and comorbidities (e.g., anxiety, ADHD and OCD), no third-party information was sought. Furthermore, and despite some of the steps taken to counter the limitations of retrospective research, such as the use of a graphic timeline to aid memory recall (Drasch & Matthes, 2013), some memory decay may still have persisted and impacted on the results. Due to the retrospective nature of the present investigation and whilst member reflection was preferred to member-checking, the time-delay existing between the data collection and their analysis and participants' memory may have impacted the present findings (Bengtsson, 2016). An additional element worth discussing is the potential influence of social desirability on participants' account as participants may have been more willing to participate in this study due to their own interest in the present topic. Furthermore, participants may have consciously or unconsciously omitted information due to the potential emotional difficulty and/or discomfort generated by the recollection of a distressful period of their lives.

Regarding the coping strategies, it is worth considering that participants reported coping strategies as only those actions they had in mind at the time of the interview or the ones they believed that had a positive impact on their condition.

However, their effectiveness was not assessed *per se*. The effectiveness of a coping strategy (e.g., adaptive or non-adaptive) depends on the individual, on the context, and on the desired outcomes (Lazarus, 1993). As such, it is important to consider the subjectivity of a person and the whole context surrounding one's journey to recovery (Cornford et al., 2007). Recognising the retrospective nature of this investigation, a number of coping strategies could have been omitted. Moreover, the problem-focused, emotion-focused, appraisal-focused and avoidance classifications may give the impression that each strategy can only fit in one theoretical and functional category. However, similar strategies can serve different functions depending on the "at-that-time" situation and on the individual (Gaudreau & Blondin, 2002; Richards, 2011). As such, the classification of strategies was dependent on my perspective and interpretation. Ultimately, nomenclature notwithstanding, the coping strategies impacted the participants' emotional state and cognitions associated with the situation. Therefore, the categories of coping strategies should not be seen as mutually exclusive (Richards, 2011). In this study, the classification of strategies was merely used in order to give an overall description on how participants responded to depression.

Finally, although a sample of three participants is enough in IPA to realise an in-depth and detailed analysis of each participant's data set, whereas big samples may weaken the analysis due to the amount of data generated (Smith and Osborn, 2007), the small sample size, the inter−variability between the participants (e.g., individual versus team sport, males versus female), as well as the uniqueness of the targeted cohort, do not enable the findings to be (fully) generalised.

3.6. Next Steps

Even though coaches are often considered by athletes as their main source of support, the present data highlighted some differences experienced by athletes in

regard to the support they perceived having received from their sport environment and more specifically from their coach(es) [e.g., "*I wasn't getting any help"* (Participant 1) versus "*speaking to my coach maybe helped*" (Participant 3)]. Reflecting this and the importance of the sport-related social environment regarding athletes' well-being (DeFreese & Smith, 2014), Chapter 4 addresses Objective 3 of the present thesis to pursue our investigation of MHIs in high-performing sport environments by examining the perspective and concerns of coaches who worked with athletes experiencing MHIs. Moreover, given the significant role the coach-athlete relationship can play in (young) athletes' life (Gulliver et al., 2012a; Mazzer & Rickwood, 2015a) and the increased risk of MHIs first onset in adolescence and young adulthood (Kessler et al., 2005; Patel et al., 2007), the study in Chapter 4, more specifically, examined Talent Development (TD) coaches' experience and perceived role in supporting their athletes confronted with MHIs.

CHAPTER 4

MENTAL HEALTH ISSUES IN SPORT: FROM A COACH'S PERSPECTIVE

4.1. Introduction

An important finding from the study reported in Chapter 3 was the quality of the support participants perceived having received from different sources, particularly their sporting environment and coaches. Given its impact on athletes' perceptions of their well-being within the sport environment (Bianco, 2001; DeFreese & Smith, 2014), social support is an important construct to consider regarding mental health. Indeed, athletes often seek support and advice from people they trust and with whom they are familiar and comfortable with, such as coaches (Ferguson, Swann, Liddle, & Vella, 2018; Gulliver et al., 2012a; Jowett & Cockerill, 2003; Mazzer & Rickwood, 2015a). As such, and reflecting the nature and importance of the coach-athlete relationship in high-level sport (Gulliver et al., 2012a; Jowett & Cockerill, 2003; Mazzer & Rickwood, 2015a; Ringland, 2016), it is surprising that more attention has not been paid to the examination of athletes' MHIs from a coach's perspective. As a parallel issue, while interest in high-performing athletes' mental health and its impact on performance and well-being has rapidly grown (Kamm, 2008; Rice et al., 2016; Schaal et al., 2011), less attention has been paid to young and developing athletes (Hill et al., 2016).

Similarly to high-performing athletes who have to deal with unique stressors and demands associated with their sporting career in addition to the normal stressors inherent to human life (MacNamara & Collins, 2015; Schaal et al., 2011), young, developing athletes face stressors and demands associated with childhood, adolescence and young adulthood, as well as stressors and demands specific to the TD

pathway. The timing of the TD journey is salient. As outlined in Chapter 1, childhood and adolescence are known to be critical periods when it comes to young athletes' development and, perhaps even, prevention of MHIs (Kessler et al., 2005; MacNamara & Collins, 2015). About 10% of children (aged 5 to 16) in the U.K. experience MHIs (Green, McGinnity, Meltzer, Ford, & Goodman, 2005). This prevalence rate tends to increase during adolescence (Green et al., 2005) and reaches up to 25% in young adults aged between 16 to 34 regarding symptoms and disorders such as depression, anxiety, panic disorder, substance abuse, or eating disorders (Gulliver et al., 2012a; Gulliver et al., 2015). Given the overlap between at-risk periods for the first onset of MHI(s) (Kessler et al., 2005; Patel et al., 2007) and the peak competitive years for high-performing athletes (Rice et al., 2016), young, developing athletes may be an at-risk cohort regarding the development of MHIs. This is even more important as MHIs in young people can have long-term effects that tend to carry on in later life (Mazzer & Rickwood, 2009; Patel et al., 2007). Therefore, due to the significance of the athlete-coach relationship (Jowett & Cockerill, 2003) and the role they can play in young athletes' life (Gulliver et al., 2012a; Mazzer & Rickwood, 2015a), this chapter focuses on the perspective and concerns of TD coaches who worked with young athletes experiencing MHIs.

4.2. The Exploration of Mental Health in Elite Sport Environments from a Coach Perspective: The Contextual Backdrop

Importantly, whilst MHIs can negatively affect young people's overall well-being and personal development, they may also lead to a derailment from the TD pathway (Hill et al., 2015). However, despite their impact, young athletes are often reluctant to seek help (Gulliver et al., 2012a). Several reasons can explain this reluctance. Firstly, young athletes have been shown to have a relatively poor

knowledge about mental health and mental health services (Gulliver et al., 2012a). Secondly, like their older counterparts, young athletes are often unwilling to reveal any sign of vulnerability to others, especially to coaches, teammates, and opponents (Gulliver et al., 2012a; Mazzer & Rickwood, 2009; Schaal et al., 2011) due to the competitive nature of sport environments which exacerbates the social stigma associated with MHIs (e.g., "weak not sick"; Jorm & Wright, 2008). Notably, when young athletes do seek help, they tend to solicit support and advice from a knowledgeable, supportive, trusted adult such as a coach (Ferguson et al., 2018; Gulliver et al., 2012a; Jowett & Cockerill, 2003; Mazzer & Rickwood, 2009, 2015a; Swann et al., 2018). Indeed, although coaches can be a source of stress for athletes (e.g., emotional abuse, see Chapter 3; Frey, 2007; Sabato et al., 2016), they often hold the role of a confidante and/or of a mentor for their athletes (Ferguson et al., 2018; Jowett & Cockerill, 2003). Swann et al. (2018) further suggested that young athletes' decision to confide to their coaches about their MHIs would greatly dependent on the quality and nature of the coach-athlete relationship(Swann et al., 2018).

This presents a potential conundrum. Although they might not be the best qualified or suitable individuals to deal with MHIs (Roberts et al., 2016), coaches can play a key role in facilitating their early detection and fostering subsequent help-seeking behaviours (Ferguson et al., 2018; Gulliver et al., 2012a; Mazzer & Rickwood, 2015a; Nowicka et al., 2013; Putukian, 2016; Swann et al., 2018). Due to their regular contact with athletes over a prolonged period of time, coaches are in a unique position to notice any behavioural change(s) that may act as a warning sign and identify the development of MHIs from an early stage (Ferguson et al., 2018; Hill et al., 2015; Hill et al., 2016; Mazzer & Rickwood, 2015a; Sebbens et al., 2016). They are on the front line to support their athletes' mental health needs (Sebbens et al., 2016), to encourage

help-seeking behaviours (Gulliver et al., 2012a), and to refer them (if necessary) to a health professional preferably knowledgeable in performance environments and in that particular sport (Hill et al., 2015; Hill et al., 2016). This is especially important given that early detection and intervention has been shown to lead to a better chance of recovery (Kamm, 2008).

Reflecting these issues, and the role played by coaches in supporting young athletes, the main purpose of this chapter was to investigate the perspective and concerns of coaches who worked with athletes experiencing MHIs. Such an in-depth investigation of coaches' experiences may further help better complexity of MHIs in high-level sport as well as the subsequent challenges surrounding this topic. In line with the aim of the present thesis, considering athletes' MHIs from a TD coach's perspective may help design future interventions and guidelines for health and sport professionals working in TD environments and, thereby, improve the mental health support provided to their athletes.

4.3. Method

4.3.1. Participants.

Through a network of personal and professional contacts, 11 coaches (two females and nine males; Mean age = 42.55; SD = 11.13; max= 62 years old, min= 30 years old) working in TD environments were recruited to take part in this study. All participants were: English speakers, coaching young athletes competing in an individual or team sport within the U.K. (e.g., Football (n=4), Rugby (n=3), Hockey (n=1), Judo (n=1), Swimming (n=1), Athletics (n=1)), and working or had worked in high-level TD environments for at least four years prior to data collection (Mean working experience = 16.36; SD= 9.33; max= 30 years, min= 4 years). As previously defined in Chapter 1, TD environments refer to environments meeting the higher

standards of youth sports such as regional/national sport academies and national junior programmes. Whilst young, developing athletes involved in such environments are usually exposed early to high levels of competition and perform in age classes often ranging from under-13 to under-21 (Sabato et al., 2016), most coaches in the present sample had experience of working with various age groups (from under 9 years old to 21+). More specifically, at the time of this study, Coaches 2, 3, and 4 were predominantly working with athletes under 16 years old, whereas Coaches 1, 5, 6, 7, 8, 9, and 10 were coaching athletes age 16 years and older. Coach 11 was the only one coaching athletes from 8 to 21 years old. Lastly, another important selection criterion entailed that all participants had, at some point during their career, encountered athletes experiencing MHIs. Information, which might enable participants' identification, was omitted or changed to ensure confidentiality to the participants and their athletes.

4.3.2. Procedure.

Following ethical approval from the University BAHSS Ethics Committee (BAHSS 395, 2nd Phase; see Appendix E), prospective participants received an invitation email that included an information sheet explaining the purpose of this project and inviting them to take part in the present study (see Appendix F). Participants meeting the inclusion criteria and expressing an interest in taking part in this study were invited to contact me. Individual interviews were then organised at a convenient time and location. Prior to the beginning of each interview, participants were reminded of the aim of the study, that their participation was entirely voluntary, and all signed a consent form. Interviews lasted between 54 and 134 minutes (Mean 93.36; SD = 27.54), were conducted face-to-face, recorded and transcribed verbatim.

4.3.2.1. Interview Guide.

An interview guide was created for the purpose of this study (see Appendix G) and was used to guide the interview and give the participants the opportunity to share their experiences without restrictions (Jones et al., 2013). The same semi-structured interview guide was used with all participants as a means to improve consistency across the interview. The interview guide contained questions enabling us to gain more insight into coaches' experience of coaching young athletes suffering from MHIs. The interview started by inquiring about the participants' background in sport and coaching. Following this introductory phase, a series of open-ended questions explored coaches' understanding and experience of MHIs in young elite athletes. Probes and prompts were used to help participants to clarify and/or elaborate on their answers (Jones et al., 2013).

4.3.2.2. Pilot study.

Interviews were piloted with three participants (three males; Mean age = 39; SD = 9.54) matching the inclusion criteria. As in Chapter 3, the interview was piloted with more than one coach, while not using those data in the analysis, to enhance the interviewer's confidence in her interviewing skills and better prepare her for the demands of this exercise (Jones et al., 2013). After the interview, these participants gave a feedback on the structure and content of the interview. Following their comments, no adjustment was deemed necessary to the interview guide.

4.3.3. Data Analysis.

Given the aim of the current study, and similarly to the study conducted in Chapter 3, a qualitative methodology was deemed the most appropriate approach to better understand a phenomenon such as the human condition (Bengtsson, 2016) while, at the same time, enabling participants to freely share their experiences (Jones

et al., 2013). Transcripts were analysed inductively through a thematic content analysis using Braun and Clark's (2006) step-by-step guide such that the themes produced were closely linked to the data set (Braun & Clarke, 2006). Patterns of data were defined, examined, and reported without these being embedded within any established theoretical framework. As thematic analysis can be a realist or a constructionist method, a realist approach focusing on participants' experience, meaning and reality was chosen for the present study (Braun & Clarke, 2006). This approach being realist and inductive, the data analysis was driven by the data and not by the interview guide nor the researchers' theoretical interest, and the themes were generated at a semantic level (Braun & Clarke, 2006).

To enable familiarization with the raw data, multiple active readings of each transcript were completed before starting the analysis (Braun & Clarke, 2006; Jones et al., 2013). Coding was performed by use of a qualitative data analysis software (Nvivo 11; QSR International Pty Ltd., 2015). Raw data were analysed and organised in meaningful units to create early codes (Braun & Clarke, 2006). Initial codes and sub-codes sharing a similar meaning were then grouped together to generate common themes in relation to the phenomenon studied. Those themes were then reviewed and refined into broader categories. This procedure was repeated until all meaningful units of raw data were ordered into the existing codes (Braun & Clarke, 2006). Ensuing from this analysis, data were organised into higher order themes. Examples of codes and themes are reported in the results section by means of participants' quotes. To respect participants' confidentiality, no information enabling their identification was reported and numbers were used in the result section when mentioning participants' quotes.

4.3.4.1. Trustworthiness.

To improve the credibility and trustworthiness of the present data, two validation methods, peer-debriefing and member reflection were used (Jones et al., 2013; Smith & McGannon, 2018). After the present interviewer conducted the analysis, the data analysis and its ensuing codes and themes were individually reviewed by Dr. MacNamara who had previous experience in qualitative methods. We, then, engaged in an open discussion about the development of the codes and themes, as well as the interpretation that came out of it. Dr. MacNamara challenged me until a consensus between the two of us was reached while Dr. Rodgers and Prof. Collins acted as critical friends (Smith & McGannon, 2018) and reviewed the final thematic structure. This peer-debriefing process enabled all the researchers involved in the present study to establish, and then critically share, an understanding of the codes and themes (Jones et al., 2013). The peer-debriefing process was a feature of every stage of the analysis process and, as such, helped guide the analysis and interpretation of the data (Jones et al., 2013).

For member reflection (Smith & McGannon, 2018), the themes obtained at the end of the analysis stage were sent back, along with a brief description, to each participant who then had the opportunity to reflect and comment on the researchers' interpretation of the transcripts. Seven out of eleven participants responded and shared their feedback. While they all agreed that the findings accurately represented their views, a number of participants offered some enriching reflections. Those reflections included, for example, the importance of the club/academy policy regarding athletes' well-being, the impact of athletes' age in regard to their understanding of what was happening to them, coaches' needs of education, the need to have a multi-disciplinary approach to support the athlete, and the importance of good and open communication

between all the stakeholders (e.g., coaches, players, parents). Once member reflection and validation were completed, discussions between the research team continued until a final agreement on hierarchical structure and themes was reached (Jones et al., 2013).

4.4. Results

The purpose of this study was to examine TD coaches' perspective and concerns in regard to young athletes with MHIs. Over the years, participants have worked with performers confronted with different MHIs and different thresholds. These MHIs ranged from signs or symptoms of psychological distress (e.g., bullying, body image, anxiety issues, difficulties following a traumatic event, and substance use) to clinically diagnosed disorders (e.g., depression, eating disorder, OCD, ADHD, psychotic episode) (see Table 4.1).

Table 4.1 *MHIs reported by the participants ($n_{total}=11$)*

Range of MHIs	$n_{Coaches}$
Signs of Psychological Distress (or undiagnosed issues)	
Depressive mood	5
Due to disappointment	3
Due to family issues	2
Anxiety	4
Performance anxiety	2
Difficulties to cope with pressures	2
Grief/Bereavement	3
Traumatic event	3
Bullying	2
Dependency to another person	1
Substance use	1
Body Dissatisfaction	1
OCD	1
Mental Disorders (clinically diagnosed)	
Depression	5
Eating Disorder	3
General Anxiety Disorder	1
ADHD	1
OCD	1
Psychotic Episode	1
Self-Harm	1

The following section focuses on three main higher themes; namely, TD coaches' perceived role when confronted with young athletes with MHIs regardless of their severity; TD coaches' perceived literacy about MHIs; and the areas for improvement identified to improve the support available within sport environments for athletes and coaches in regard to MHIs. A summary of the themes is presented in Table 4.2.

Table 4.2 *TD Coaches' perception of their role, knowledge and needs regarding MHIs*

Higher order theme	Second order theme	First order theme
TD Coaches' perceived role	Monitoring athletes' performance and overall well-being	Through the athletes themselves Through fellow teammates Through the parents Through members of staff Through coach's own observation
	Supporting athletes' performance and overall well-being	Emotional support Informational support Tangible support
	Coaches' perceived role limits	Awareness of their limits as coaches Athletes' reluctance to talk about MHIs with coaches Potential conflict of interest
TD Coaches' perceived literacy about MHIs	Perceived level of knowledge and understanding regarding MHIs	Poor and/or limited Moderate
	Knowledge acquisition	From formal sources From the media From personal experiences From professional experiences
Areas for improvement	Increasing coaches' and athletes' knowledge about mental health	Increased awareness. Increased set of skills Tailored approach Use of role models
	Concerns regarding mental health interventions	Over-cautious Over-confident
	Creation of a support network with health professionals	Sport Psychologist. Clinical Psychologist
	More support for coaches within sport environments	Increasing the awareness on coaches' MHIs

4.4.1. TD Coaches' Perceived Role.

The role of a TD coach is diverse. Although their role has its limits, especially in regard to MHIs, as explained by Coach 4 in the following quote, monitoring and supporting their athletes' performance and well-being (see Figure 4.1) are a big part of their everyday job:

> Monitoring and supporting young players are a massive part of the job. We are in the best position to get a picture of how the child is doing and to notice any changes in them. Particularly, when things are not going so well. There may be a number of reasons as to why that is the case and it is important that this information is shared amongst staff.

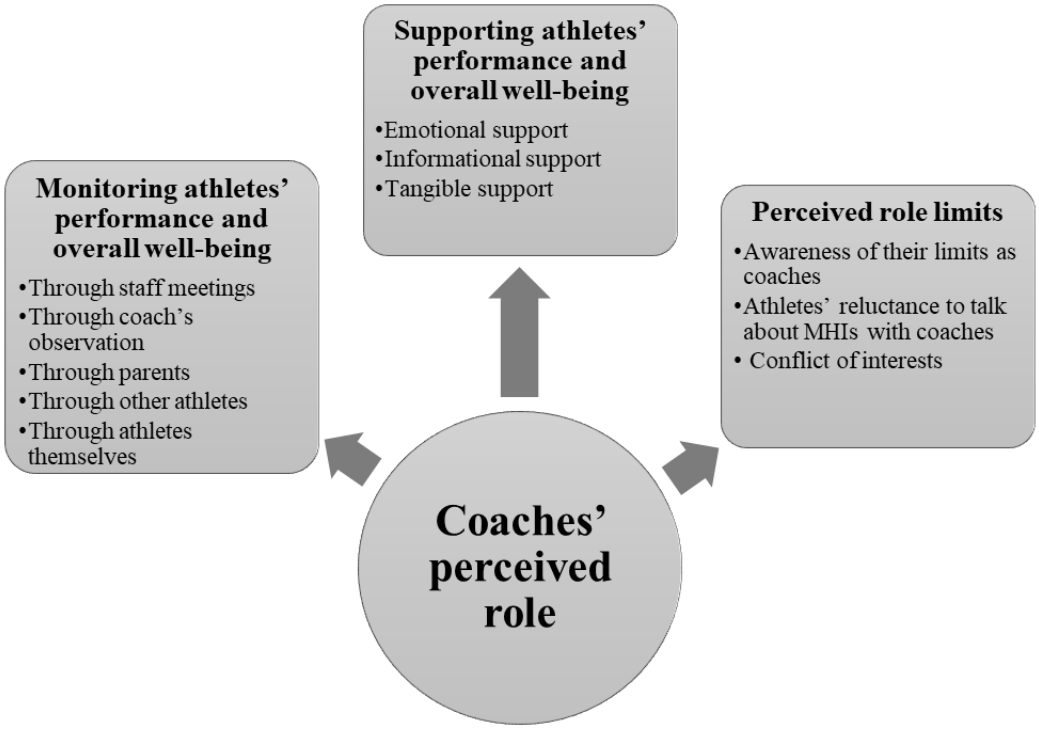


Figure 4.1 TD coaches' perceived role (e.g., duties and limits) regarding their athletes' performance and overall well-being.

4.4.1.1. Monitoring Athletes' Performance and Overall Well-being.

As highlighted by Coach 4, monitoring their athletes' performance and well-being over a period of time allowed coaches to get a picture of what was happening for their athletes, to monitor their progress and to notice any changes. Coaches in the

present study suggested that, although they sometimes discovered about potential problems *from the athletes themselves*, this was not the most common way. In fact, the coaches described how it was often a third party that pointed out the difficulties faced by an athlete. As such, concerns over an athlete's well-being were raised by *fellow teammates* [e.g., "*Other athletes that were living with that person who said that maybe there is some other issues going on with this individual"* (Coach 8)], the *athlete's parents* [e.g., "*The people that raised the issue were his house parents. They said his behaviour was a concern."* (Coach 1); "*His Mum told me about the ADHD.*" (Coach 11)], or *a member of staff*. The latter was reported as more common, especially when the coaches were operating within an interdisciplinary team. Illustrating this, Coach 6 explained how:

> We would work, you know, pretty in an interdisciplinary manner where a Physio would mention something, and we would then sit down and having put lots of things together, things emerge. And for example, the player I originally talked about [concerns of OCD] and how, it was actually the Physio that first raised potential issues because of some compulsive behaviour with taping …

It was, however, predominantly through their regular contact with their athletes and through their *own observation* that coaches predominantly became aware of any concern. Coach 6 described how often it is:

> Through observation, through communication with the player. I'd suggest that in most cases it is observation, it is probably a tacit thing of having seen a very large number of boys, young men at that age. And also, knowing that individual and knowing what their average behaviour is. And seeing how their body language and seeing how their training behaviour, how their behaviour, generally, change.

Behavioural, physical (e.g., eating disorders, body image issues), social, and performance changes over time were some of the main indicators identified by the coaches as warning signs with the accumulation of changes from an athlete's habitual pattern of behaviours that raised concerns. Typifying this, Coach 2 and 4 described, in the following quotes, how they were able to pick-up some red flags:

> The boy's behaviour, an outgoing boy really good fun, great to work with, got on with the job, very competitive in a [sport] sense, and just a smashing lad to work with. All of a sudden, he became withdrawn. Didn't come up to you. When he turned up to training very quiet. Totally different character. And I spotted this, and I thought you know 'He's not right, this is not right' … we decided we'd monitor it and if we still thought that he wasn't improving we'd ask a question. So, nothing changed and the following week we said: 'Are you OK, is there something wrong?'. And he just broke down, he just burst into tears. So, then obviously we realised something was wrong. (Coach 2)

> There was a change in his mood, a change in his attitude, a change in his application. Just a change in attitude. Change in level of performance, behaviour slightly changing. All those sorts of things were signs and indicators just saying to you something is not quite right. (Coach 4)

Once a concern had been raised, coaches working within an interdisciplinary team shared their concerns and information they might have with other relevant members of staff (e.g., lifestyle manager, physiologist, nutritionist, and psychologist). The coaches described two main goals to this sharing of information. Firstly, the coaches wished to gain a comprehensive picture of the situation and secondly, to come up with a plan to adequately and supportively act in response to that situation. In this regard, Coach 6 exemplified how:

> We would work in an interdisciplinary manner … So, we would have a weekly meeting to discuss how different players were going on. We would have a critical incident or a critical player bit at the start where we would discuss 'Right what's come up this week' and then we would also discuss other players who were on a regular cycle … I think that very often it would be the sharing of concern within the staff group. That is then monitored in whatever way that was. And then, the decision is taken to, to seek more further help, or not. And, in this particular case [concerns of OCD], it was monitored over a period of weeks.

In a similar fashion, Coach 1 explained how, within his sport environment:

> We have a process, a process called the case study process where we sit, and we talk about the player every 6 weeks. So, every week we'd have a meeting as a whole interdisciplinary staff. So, we've the coach, the physio, the fitness conditioner, the lifestyle and education officer, the welfare officer. We all sit in one room and we talk about 3 players – we literally all give an input. So, I would say 'So this is how it's going on the pitch; he's not performing well, he looks a bit down at the moment, but because he's not performing well.' And then the education guy might come in and say, 'Well you know that's because he's at this exam time so they've got a lot going on' and then the lifestyle guy might jump in and say, 'Well we know his family just moved house, which is a difficult time'. So, we're all in the room talking so that we get you know a wider perspective of what's going on in their life. … So, in this meeting we'll say 'right, that's happening, that's happening, what are the actions, what do we need to do?'

It has to be noted, however, that not all the coaches interviewed had the same support network at their disposal (e.g., multidisciplinary staff). Coach 8, for example, recognised that he "*was privileged that I had a sport psychologist and I had a doctor. 99% of coaches, 99.999% of coaches, don't have that, they're on their own".* In this regard, Coach 11 explained that she did not have access to sport psychologists:

> At that time, the best they had was a lifestyle manager. They had a couple of different 'um' sport psych's who seemed to do a little bit of work at the higher end with the elite lot but they, in fact [Sport Psych's Name] has done some and [2nd Sport Psych's Name] but each of them seems to have had a fairly, short-term role.

Coach 7 further stressed the inequalities existing in terms of support by describing how:

> When you get to a high enough level where there's the resources to do that, somebody is there to monitor the individual quite intensely as to what they're doing what they're not doing. Whereas at the levels below there isn't the resources to co-ordinate all that so 'yeah' I think that's a grey dangerous zone sometimes ... if the player wasn't a promising player, would the same support have been accessible? And we go back to that kind of sub-elite. So, when you're in an environment and the resources are there to pass them onto, it can be dealt with. But where you're in an environment where the resources aren't there – because either the sport isn't evolved enough to become a power sport or you're at a level that isn't quite. Then, would that support have happened? So, within some squads you can have players on different levels of funding. So, if you're player A, and you have access to all the funding and have an issue,

there'd be a mechanism there to support you. If you were player C with not the same amount of funding, because you're not perceived to be as high a potential.

Clearly, differences exist between sport environments and their funding, which, in turn, impact the nature of the support available to athletes within their sport environment.

4.4.1.2. Supporting Athletes' Performance and Overall Well-being.

4.4.1.2.1. Emotional Support.

Despite some inequalities in terms of support available within TD environments, caring and being supportive of their athletes was described as one of the biggest components of a coach's role. As explained by Coach 4, "*we [coaches] are duty bound to ensure that we look after them*". A host of actions were, therefore, identified by participants in regard to supporting their athletes. Coaches explained trying to emotionally support their athletes with MHIs by being more understanding, tolerant, and showing that they cared. This mostly consisted of taking the time to talk and listen to their players. Illustrating this, Coach 4 explained how:

> Without prying too much, you speak to them … A talk is cheap. I think you have to ensure you know when you have got something you keep an eye out for that. A real conscious effort to ensure, don't dismiss it … Don't just talk for the sake of talking. Something positive has to come out of it at the end of the day. But just that constant encouragement I think does help.

4.4.1.2.2. Informational Support.

In addition to emotional support, coaches also provided informational support. This type of support, for example, involved coming up with a strategy with the staff members, the parents or/and with the athlete him/herself "*so that he feels engaged,*

empowered, and part of the process, rather than removed from the process"(Coach 10).

Once aware of the existence of a potential problem, another strategy implemented by those coaches to actively support their athletes was to monitor those athletes more closely as explained hereafter by Coach 7 in relation to eating disorders:

> I think that made me more sensitive to my players, at the time, who were of a concern to me. Because the behaviours that I was hearing of in other environments I was more sensitive to monitoring in mine. And I tended to put some mechanisms in place where even though it wouldn't have looked like it, I was probably monitoring those issues. So, all the players would always weigh in the mornings and like before matches after matches and all of that. So, I had a lot of data around all the players, but it was all the players. So, without being intrusive I could keep an eye on some stuff. … It was integrated, in anyhow, it's part of our daily practice so the players never saw that as a change. Because I've made this a logical background at the time 'um' that was in my kind of 'um' thought process with the rehydration and everything. So, I think the difference was that I introduced the mechanism for one reason and that had been going on for a while, but then actually saw the same mechanism as another method to actually monitor some of the concerns.

Furthermore, when deemed appropriate (e.g., depending on the type of MHIs), the coaches described how they would try to educate and increase their athletes' awareness about those types of issues (e.g., disordered eating, body image)*"through the nutritionist, through the psych. You know around healthy eating or body images or whatever it might be"* (Coach 10).

Although being present for and supporting their athletes was emphasised as being one of the most important parts of their job, some coaches also described the negative impact they could have on their athletes' well-being and the need to be careful in regard to their coaching behaviours. As Coach 3 reported:

> I have to acknowledge that sometimes, I may have unwittingly caused or exacerbated the problem. For example, 'if you don't start paying attention to us coaches, you won't last long at this club' interpreted as 'I'm going to be chopped' with all the consequent anxiety.

Being flexible and able to adapt their coaching behaviours and expectations to the situation was, therefore, another important aspect of the coaching and informational support provided to their athletes. As exemplified by Coach 5:

> We treated him [player] quite differently to the rest of the group because [sport] environments can be quite harsh in terms of, because of the physicality of [sport] and how hard you have to work, we had to almost let some of those standards and behaviours a bit more lenient with him.

4.4.1.2.3. Tangible Support.

Depending on the type of MHI(s), on its severity and on the context (e.g., what does the athlete want), coaches also noted other strategies they employed to support their athletes. These support strategies involved, as one example, removing the athlete experiencing MHIs from the sport environment [e.g., "*He wanted to leave the environment and he had a free invite to come back in whenever he wanted to"* (Coach 6); "w*e sent him home … Obviously we kept in touch* (Coach 10)]. In other instances, the coach removed himself from the relationship in order to alleviate the situation. Regarding one of his athletes, Coach 10 explained how:

> I removed myself from that situation. Somebody else trained him … I put my emphasis on other players and another member of staff looked after him physically because all we were doing was at logger heads so at not going at each other but generating frustration. He was frustrated with me and I was frustrated with him because we were trying to get to an end point which he wasn't willing to put himself to … So, I removed myself for the benefit of him.

4.4.1.3. TD Coaches' Perceived Role Limits.

4.4.1.3.1. Awareness of their Limits as Coaches.

Whilst, it was interesting to note that although coaches described, and emphasised, to greater or lesser extent, a range of strategies employed to support their athletes, they all agreed on the importance of involving qualified health professionals (e.g., doctor, psychologist). The reason to include a health professional was reported as twofold. Firstly, coaches described the importance of getting help and advice from a professional about how to manage the situation. Coach 2 mentioned how him, and his fellow coaches would:

> … talk to different people, we talk to [Sport Psychologist Name] and he might say 'Well what you need to do is this, this and this' or he might say 'I think we'd better arrange a meeting with the boy's parents' or whatever. It depends on each situation in particular, take it as each individual situation … That's the first thing. That was the first port of call. This was an issue too serious for us to deal with. We are not, we are not, we can't deal with that we're not qualified. So, we needed to report to somebody which we did, they then took it on and said 'What you can do in the meantime is this, this and this' ... Of course, we have [Sport psych's Name] ... he had a meeting with the parents, he met

privately and with the boy one-to-one. He gave us, he gave the coaches the feedback that he was able to but gave guidance on how the boy could be helped.

Secondly, whilst they described the importance of supporting their athletes as much as possible, all agreed that dealing with MHIs was not part of their role. All our sample recognised that they were not qualified nor trained to deal with MHIs. They, therefore, preferred to "pass it on" to qualified professionals. Summarising most coaches' opinion, Coach 7 exemplified with the following quote how recognising and accepting the limits of their role is also part of their job.

> I think, it's sometimes recognising that you can't be the person who can fix it, and I wasn't that person. Because I think 'um', there is a level where expertise is needed, and you have to realise where your level of expertise is and isn't … I think 'um', for me this was a clear case that there were some expertise that was needed there that went outside my skill set.

4.4.1.3.2. *Athletes' Reluctance to Talk about MHIs with Coaches.*

Furthermore, coaches also perceived that they might not be the person an athlete involved in in TD environments would want to talk to about MHIs. The fear of the consequences of disclosing MHIs and/or some impression management on the part of the athlete may explain such their reluctance to broach that topic with their coaches. Coach 7 described how:

> At the end of the day a coach will always select or drop a player and therefore a conversation with a coach is not always the best because they determine the outcome of selection. So even though sometimes you may want to help, you're never going to be perceived as that because ultimately you're going to be perceived as the person that makes the decision whether the player goes or not and that will always be the first thing in the player's mind … Whereas other

people then can actually take on more of a kind of supporting role because, not that they're more trusted because I wouldn't say I wasn't trusted, but coaches are powerful in that they do ultimately make the decision.

4.4.1.3.3. *Potential Conflict of Interest.*

In addition to the athletes' reluctance to talk about MHIs, coaches subsequently mentioned the conflict of interest some of them could perceive or be subject to when it comes to MHIs and selection. There was a divergence of opinion in this regard. Whilst Coach 1 suggested that *"... as a player you can feel you might be giving someone an excuse to drop you. I would never do that for that reason ... I think that is crap*", other coaches, however, disclosed the uncomfortable situation they were in when making decisions about their team selection in regard to their funding, which was dependent on their athletes' and/or team's performances. Illustrating this, Coach 8 explained how:

> It was pretty clear to me that if those athletes didn't perform then they would be out of the national centre and that I'd be joining them; I wouldn't be there either … I think the positions that I have held have made it more difficult, you know. I was the Head Coach of a national programme, deciding whether people were in or out of national training centres, but also whether they were gonna be funded or not funded. So, wearing 2 caps as a coach definitely was a challenge. A position for me as head coach of a national programme and also coaching TD was extremely difficult … I think there was a level of an underlying tone in my later position of dishonesty through fear of what the repercussions of telling me what some issues might be.

4.4.2. TD Coaches' Perceived Literacy about Mental Health Issues.

The perceived literacy about MHIs varied across participants. Those differences were mainly owing to how TD coaches evaluated their own knowledge and understanding about MHIs as well as how they recalled acquiring those knowledge (see Figure 4.2).

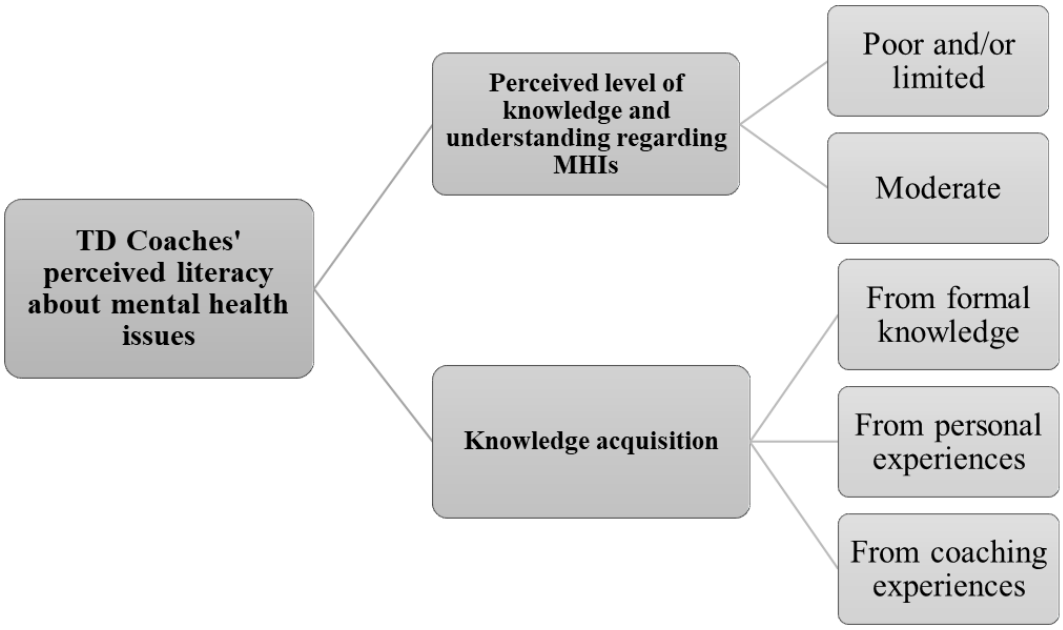


Figure 4.2 TD Coaches' perceived literacy about mental health issues.

4.4.2.1. Perceived Level of Knowledge and Understanding regarding MHIs.

Ten participants out of eleven rated their perceived knowledge and understanding regarding MHIs**.** as poor or limited with only one coach self-reporting it as moderate. Coach 5, for example, evaluated his knowledge as "*quite poor. I would say very poor knowledge*". Likewise, Coach 7 considered her knowledge about MHIs as "*still very limited, very basic"*, while Coach 6 judged that:

> I wouldn't be comfortable saying that I was very knowledgeable about mental health issues. 'Um', I'd like to think that I would be able to recognise some of the signs and be able to direct them appropriately or, direct the help to the person appropriately by directing them to somebody else but I wouldn't say that I was particularly knowledgeable about, about mental health.

4.4.2.2. Knowledge Acquisition.

Even though they self-evaluated their level of knowledge and understanding regarding MHIs as mostly poor or limited, coaches in the present study described acquiring it from a variety of sources. Among them, four coaches reported acquiring their knowledge and understanding about MHIs from *formal sources* such as University lectures (e.g., teaching qualification), safeguarding workshops, and readings. Typifying this, Coach 6 reported how he "*read a few recent papers about it. I think possibly as a teacher I might have had a bit of training about recognising mental health related issues. But certainly nothing in my current context* [coaching]". In a similar fashion, Coach 11 mentioned having graduated as "*a teacher. So, I am trained to work with ADHD and those kinds of issues*."] and having read some articles on the subject.

In contrast to any evidence-based knowledge, most coaches reported having learned about MHIs via *the media, through personal and/or professional experiences*. Coach 8 explained, for instance, learning to handle the training of athletes presenting MHIs as a result of the experiences he had to face over the years throughout his coaching career ["*We only know what we know, and I was just dealing with the knowledge level that I had at the time. Now it's been increased with the experiences that I have had*"]. Seven coaches also recognised becoming more familiar or mindful about MHIs because of personal or vicarious experiences (e.g., family members, friends). For example, Coach 6 explained how:

> I have got significant family experience of mental health issues … so my brother, really struggled with depression from the age of about 14 ... My Dad struggled, well my Dad I think it's a depression, he struggled with some depression and a few other bits that, you know, he attempted suicide … I would

> describe it as tacit rather than declarative knowledge of what's mental health, yes. So, I suppose, in that sense, that might attune me a little more to seeing people with mental health issues.

Similarly, Coach 11 expressed how:

> I get mildly depressive. I have depressive issues. My Grandmother was on medication for years, but my father was a diagnosed manic depressive … I have various experiences of mental health issues personally through family, and within sport. I have come to realise there is a lot more happening for a lot more people than you might think on the surface. And so, there is a lot of learned experience and then through and somewhat with child development in my teaching degree, I have had some formal education with psychology. But very limited.

Interestingly, five out of these seven coaches reported having experienced MHIs or symptoms of MHIs themselves at some point in their life.

4.4.3. Areas for Improvement.

Coaches in the present study identified some areas for improvement in reaction to their perceived role and perceived lack of knowledge and understanding about MHIs (see Figure 4.3, p. 120). Even though they pointed out the need to better educate both coaches' and athletes' about MHIs in order "*to have a better awareness of it, a better understanding of it and possibly be more ready for potential red flags"* (Coach 1), they also shared some concerns about mental health interventions. Moreover, they also recommended to increase the support for coaches and create a health professional network around them (e.g., doctor, clinical or sport psychologist, physiotherapist, nutritionist) to support both the athletes' but also the coaches' and other staff members' physical and mental health.

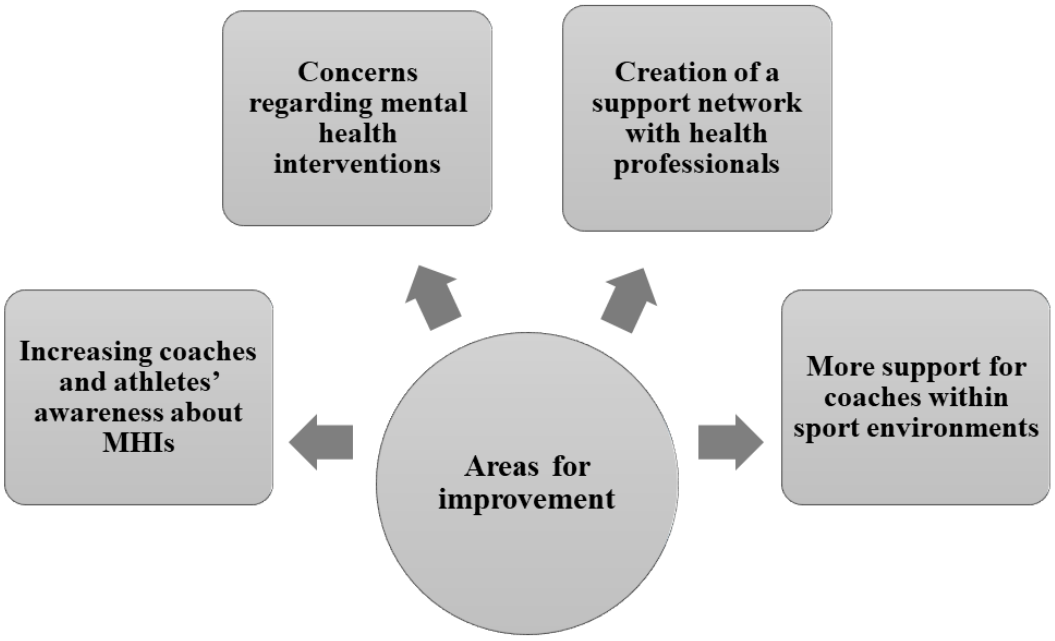


Figure 4.3 Areas for improvement as seen by TD coaches

4.4.3.1. Increasing Coaches' and Athletes' Knowledge About Mental Health.

When reflecting on their past experiences, most participants highlighted the need for *increased awareness* about mental health, but also for more guidance on what coaches should/can or should not/cannot do regarding MHIs. Coach 9 stressed how:

> Probably people like me need education in being able to recognise it before it gets to that, if you understand me … It could be it could be good to have guidelines to sort of say 'OK right these are the things that you should be aware of' and then give it over to somebody that knows what they're doing.

Being able to recognise some red flags and act accordingly were particularly stressed as important *skills* to acquire for coaches. Discriminating between normal behaviours or reactions and signs of MHIs was particularly viewed as challenging, especially for TD coaches working with young athletes and adolescents – as exemplified in the following quote:

> Puberty is kicking in. There are all sorts of things going on 12s, 13s, so we look at them and think 'Ah yeah' you know it's that, that's what's happening.

> And we allow for that. But sometimes, it could be something more serious … For example, with the age of the players we deal with, and with so much going on in their lives, can we really identify what is a MHI as opposed to just growth or life issue? (Coach 2)

In addition to the difficulty in recognising the warning signs of MHIs, coaches also described how they found it difficult to broach the subject with their athletes. Coach 5 wondered:

> What do you say? And almost how do you open up in terms of trying to get him to open up … what skills I would need? I think it's probably more of an awareness and how to maybe speak to. If they are undergoing treatment how to dialogue with that person. Which techniques to use when you're having those interactions, which techniques are they to use when I'm coaching, teaching. So, the biggest one would be the awareness and then you've got that backup, the backup would be that technique.

Increased awareness and knowledge about MHIs were not only deemed necessary for the coaching environment but also for the athletes, especially given the stigma attached with MHIs and athletes' reluctance to talk about MHIs. Increasing athletes' knowledge and awareness about MHIs may, according to those coaches, help their athletes to understand that even if it may be "*embarrassing for a kid to actually come up to someone and say: 'I have got an issue'. That is where we have got to try. It's OK to talk*." (Coach 4). However, supporting Coach 2's previous quote, Coach 7 went further and advocated for a *tailored approach* (e.g., content) targeting its consumers (e.g., coaches or athletes) in order to make it as effective and impactful as possible. According to her:

> It is important to differentiate the ages of performers and how the approach to mental health needs to be tailored to match the age ranges is essential. This in turn will influence the content which needs to be embedded within our coach education structure to support coaches … I think the content needs to consider early warning signs and where the professional boundaries of the coach lie. Additionally, the information in such educational packages need to consider access to specialist, when and how this is done and perhaps consider the challenges this might present at different levels of the performance pathway. I think such educational packages need to be separated into one for coaches and a separate one for athletes and parents/significant others.

The *use of role models* was also suggested as a useful and proactive strategy to improve athletes' awareness of MHIs as well as to normalise conversations and discourse about mental health. Coach 7 reported how:

> Certain environments have really highlighted, 'um' the issue and I think because of the way they've been done. 'Um' the role models and the prestige of those environments have really started to make it acceptable to discuss ... And then I think like obviously there's the [Club's Name] player a few weeks ago and then like [Player's Name] and that who 'um' are very powerful people who have admitted to having 'um' some sensitivity towards these issues. And when they do, it makes it OK for other people then.

Finally, in the same way coaches perceived the need to increase their set of skills in order to better support and care for their athletes, they suggested that athletes should also be given the means to better care for their mental health. Coach 9, for example, clarified his earlier thoughts by explaining that:

> Just as I try to get them strong in a gym, I think we should also train the mind to be, to work effectively for the athlete if you understand me 'yeah'? And if that takes training then train it … I personally just do believe that in helping sportspeople to provide them with coping skills, I think that will help them to be better sportspeople but equally better people, human beings as well.

4.4.3.2. Concerns regarding Mental Health Interventions.

While aware of the need to increase his understanding and knowledge about MHIs (e.g., recognition abilities leading to early detection and, as a result, to early intervention), Coach 10, however, wondered whether proactive interventions focusing on MHIs are "*softening them? ... Do they actually need it? Or is it just something that we react to once it shows its head?"* In line with Participant 10, seven other participants raised concerns about the risks associated with interventions targeting coaches' and athletes' education about MHIs and mental health. One of the concerns raised would be for TD coaches to become *overcautious* and see MHIs everywhere. As described by Coach 3:

> There are normal ups and downs in life. I don't want to become paranoiac with all the mental health issues and you going back on the field and saying 'Oh yeah' this one may have depression, this one may have eating disorders' no, that's not the point.

Similarly, and although he acknowledged the importance of learning more about MHIs, Coach 1 mentioned the need to find a balance between support and challenge and how:

> The other thing that's hard as well is we've got this new thing at the moment of challenge versus support ... You don't want to shield them from everything, that's not going to produce elite athletes … I don't want to walk around now

> with a white coat on and being a Doctor and checking everyone every day. Because you get what you get, some won't, in some ways in the medical and sport science world they get wrapped up in cotton wool, from a physical point of view. Wrapped up in cotton wool. People are over cautious … Now, it's almost like you get too much knowledge and it's like 'Woah be careful don't push it!' So that's the exact example of what we've got to be careful of in this world. It's like less, I'm well aware, I appreciate it, I would love to know but at the same time I've got to keep the balance off ...

By contrast, other coaches were afraid of the risks inherent to coaches being *overconfident* in their own knowledge and abilities to deal with MHIs. Coach 8 stressed how:

> A lot of damage can be done, you know. It's really at the forefront obviously mental health and if coaches are out there with a little bit of knowledge trying to help athletes with mental health issues that it could just be misdiagnosed, you know, identifying things that aren't there.

There is, therefore, a balance to find between the quality versus the quantity of knowledge (e.g., enough versus too much) distilled to coaches in order for them to feel comfortable to train, challenge, and support their athletes, but without falling outside their professional competency when it comes to their athletes' physical and mental health.

4.4.3.3. Creation of a Support Network with Health Professionals.

In terms of other elements cited, coaches recommended the creation and implementation of a support network of health professionals, in particular for those who do not already work within an interdisciplinary team. They also suggested an

increase in the professional support (e.g., psychological support) available for both coaches and athletes.

As previously mentioned, coaches raised concerns regarding the possible risks associated with coaches' and athletes' education about MHIs. More specifically, they wondered whether this approach would be the most efficacious manner to deal with MHIs in young athletes. Instead, coaches emphasised the creation of an extended support network of health professionals (e.g., sport psychologist, clinical psychologist, nutritionist, doctor), especially as this type of support network is rarely a feature of the TD environments in which these coaches operated. As summarised by Coach 10:

> It is down to the Club as a whole to decide what value it places on athlete's well-being and how it wants to support. Does it want to promote the support network and utilise experienced staff to support players at varying times in their contracts and careers? …There's no clinical 'psych' linked to this club. There's a sport psych but he's got no clinical support mechanisms, where do we go? … I'm not saying that every club should have a clinical psychologist aligned to them but what I am saying is that we should have an outlet for people that have clinical issues because none of us here are skilled enough to deal with it.

4.4.3.4. More Support for Coaches within Sport Environments.

Improving the support available for coaches in terms of their own mental health was also suggested. As previously discussed, five coaches out of eleven had experienced MHIs or symptoms of MHIs themselves [e.g., "*Depression within coaching is just as much if not more than it is within the athlete population*" (Coach 8)]. Regrettably, the stigma associated with MHIs is also an obstacle for the coaches [e.g., "*There is stigma for the coach as well 'What have you been depressed about?' 'What have you gotta be depressed about?'"(*Coach 10)]. Reflecting this, Coach 10

mentioned how, according to him, "*coaches like players probably need regular services to check themselves and how they are. We work in a macho, Alpha male environment where it is easy to work with a mask on, and not admit or ask for help*". In a similar fashion, Coach 8 reported the need to:

> … try and protect that staffing unit and coaches as much as we can as well. As well as supporting our athletes as well. It's not an easy environment to be working in. … I've worked with a lot of coaches, 'um' and the most serious of mental health issues resulted in suicide. I know coaches that have gone through that. I think it's directly related to the profession they're in.

Finally, Coach 8 also emphasised the role played by the sport culture. According to him, sport organisations have to give their coaches the means to best support their athletes' mental health by clarifying their perspective and priorities. Coach 8 illustrated his thinking explaining how:

> The structures and environments are in place right now to deliver performance across the UK sport network … I just think that a level of absolute clarity on what we're expecting from our high-performance environments is needed. I think, you know, moving into 2012, 2016 it was this, no compromise approach that was drilled down to us from UK Sport. Medals, medals, medals. You don't have to be aligned to that philosophy, obviously I wasn't, but there was an expectation that you would deliver to that and if you didn't you were out of the job. Nothing else mattered, it was irrelevant. So, if we didn't win any medals because we had some mental health issues it was irrelevant. You couldn't have an excuse for not performing, you didn't perform … There's not a clarity on that, there isn't a clarity coming back from UK Sport. And, you know, I saw on something British Cycling did just before Christmas and it's the first time

ever I've heard them say their number one priority was their athletes' mental health and well-being. Not medals.

4.5. Discussion

Addressing Objective 3 of the thesis, the primary aim of this chapter was to extend our investigation of MHIs in high-performing sport environments by examining the perspective and concerns of TD coaches who worked with athletes experiencing MHIs. In doing so, the findings highlighted coaches' perceived role, perceived knowledge and understanding about MHIs as well as the areas for improvement they identified. TD coaches, in the present chapter, identified their role as varied but centred on monitoring and supporting their athletes' performance and overall well-being in various ways. They, however, acknowledged their lack of knowledge, training, and confidence in dealing with MHIs. Further to this lack of expertise, they also noted the athletes' reluctance to talk about MHIs with coaches and the potential conflict of interest that might arise from working with an athlete confronted with MHIs. Finally, they suggested that further support should be offered to coaches in terms of education and that a professional support network, that they could tap into, should be developed to better assist athletes experiencing MHIs and their coaches (e.g., guidance and referral).

Monitoring and supporting athletes' performance and overall well-being was perceived as central to the role of a TD coach. However, as found elsewhere in the literature (Ferguson et al., 2018; Mazzer & Rickwood, 2015a), the TD coaches in the present study did not believe that dealing with MHIs was part of their role. Despite coaches' established, trusted relationship and familiarity with their athletes (Ferguson et al., 2018; Jowett & Cockerill, 2003; Mazzer & Rickwood, 2009, 2015a), the participants in this study reported some reluctance on the part of their athletes to talk

about MHIs with them. Although those findings are not reflective of some studies investigating community coaches (Ferguson et al., 2018; Mazzer & Rickwood, 2015a; Swann et al., 2018), they are, however, in line with studies highlighting elite athletes' reluctance to talk about MHIs due to their fear of stigmatisation and the subsequent consequences disclosing about MHIs may have (see Chapter 1; Delenardo & Terrion, 2014; Gulliver et al., 2012a; Hill et al., 2016; Uphill et al., 2016).

Perhaps one of the most interesting findings in the present study was that TD coaches recognised that they may not be in the best position to talk about MHIs with athletes not only because of athletes' reluctance, but also because of the conflict of interest that may sometimes arise in such situation (e.g., MHIs and performance versus selection). Despite a divergence of opinion across the sample, some coaches conceded that they faced some difficulties when juggling their role as a coach and as a national team selector or head coach. The perceived conflict of interest highlighted in such situations was more likely determined by the way funding was allocated to those coaches and/or sports, and more specifically when their funding is dependent on the athletes' and/or team's performances. Indeed, as highlighted by some coaches, in such instance, they are the ones deciding whether a player is selected, gets funding or not. As indicated in Chapters 3 and 4, athletes experiencing MHIs may encounter some performance decrements. Therefore, when the primary focus is on delivering performances to get the necessary funding and/or keeping their job, coaches may be in a position where the focus on performance excellence (e.g., medals) might take precedence over the selection of an athlete with MHIs for fear of under-performance. Additional research is warranted regarding the conflict of interest head coaches and team selectors may face when dealing with high-performing athletes suffering from MHIs and how they act upon it.

Furthermore, despite their desire to help and support their athletes with emotional, informational and tangible support, coaches suggested that they did not have the right skills or knowledge to effectively assist athletes with MHIs, especially when other member of staff (e.g., sport psychologist, team doctor) may be better trained to do so (Ferguson et al., 2018; Mazzer & Rickwood, 2015a). Closely tied to the type of support (e.g., emotional, informational, tangible) needed by their athletes is the question of whom is the best appropriate source of support (Bianco, 2001). Indeed, while the quality of the relationship between the provider and recipient of social support is important, the provider's level of expertise impacts on the effectiveness and appropriateness of the support offered (Bianco, 2001). Coaches can usually easily spot the signs when their players suffer from a physical injury (e.g., ankle sprain), they seem, however, insufficiently prepared in regard to MHIs. Even though coaches tend to rely on their observation or on a third-party concern (e.g., teammate, member of staff), difficulties in recognising signs and symptoms are often a barrier to the early identification of MHIs (Nowicka et al., 2013).

As outlined in Chapter 2, the detection of early signs of MHIs can be challenging, especially when athletic behaviours might occasionally be similar to MHIs symptoms. Accordingly, coaches recognised the need to develop adequate knowledge about mental health and MHIs to be effective in this role (Ferguson et al., 2018; Mazzer & Rickwood, 2015a). Context-specific mental health training (e.g., sport-and age-related), specially designed for TD and elite sport environments, might be a first step to help those coaches to early detect and adequately assist their athletes with MHIs (Ferguson et al., 2018). Targeting coaches' knowledge and understanding about mental health and MHIs could enable them to adequately respond and better support their athletes' mental health (e.g., knowledge and skills). Indeed, it could aid

them to improve or acquire the "ability to gain access to, understand, and use information in ways which promote and maintain good mental health" (Lauber, Nordt, Falcato, & Rössler, 2003, p. 248) as well as to improve their awareness regarding support types or sources (Bianco, 2001). It could also, in return, encourage their athletes to talk to them given that young athletes' perception of their coaches' literacy influences their willingness to talk to or seek support from them about MHIs (Swann et al., 2018).

Through their established relationship and regular interactions with their athlete, coaches are in a unique position to early identifying concerns and encouraging help-seeking behaviours (Ferguson et al., 2018; Hill et al., 2016; Liddle, Deane, & Vella, 2017; Mazzer & Rickwood, 2015a). Nonetheless, while acknowledging the merits of, and need for, increasing coaches' evidence-based knowledge about MHIs, participants also called for a clarification of their role in such situation (Mazzer & Rickwood, 2015b) and highlighted potential risks associated with coaches increased knowledge about mental health (e.g., becoming over-cautious versus over-confident). Indeed, coaches with insufficient knowledge about MHIs but high level of confidence may do more harm than good (Turk et al., 1999; cited in Martinsen, Sherman, Thompson, & Sundgot-Borgen, 2015). Furthermore, enhanced knowledge about MHIs (e.g., signs, treatments) alone is unlikely to be sufficient in terms of long-lasting outcomes. Therefore, following Liddle et al.'s (2017) recommendation to carefully identify the content, format, audience and outcomes targeted, education targeting coaches' mental health knowledge and awareness should aim to empower them with adequate knowledge and skills to fulfil their role (Mazzer & Rickwood, 2015a; Swann et al., 2018) while, at the same time, addressing their concerns regarding the operationalisation of this support (e.g., "what do you say", challenge versus support).

In addition to their perceived role in supporting young athletes confronted with MHIs and the room for improvement in this regard in TD environments, the benefits of working as part of an interdisciplinary team were also stressed. The lack of infrastructural support within the sport environment can reduce coaches' ability to assist their athletes (Nowicka et al., 2013). In this regard, some of the participants described how the multidisciplinary makeup of the staff within their clubs or academies, and their access to medical and/or psychological expertise (e.g., club doctor, sport psychologist), was seen as an advantage in the detection of MHIs as well as in the overall support provided to athletes and staff members. Recognising the unique skills set of each member and the benefits of working in an integrative approach (Kamm, 2008; Reardon et al., 2019) is especially valuable. More specifically, working as an interdisciplinary team (including health professionals such as sport psychologist, clinical psychologist, nutritionists, physiotherapists) can aid the early detection of psychological distress and improve (proactive and retroactive) support to those concerned (Gouttebarge et al., 2015a; Gouttebarge et al., 2018; Nowicka et al., 2013). Yet, this type of support (e.g., medical expertise) is not available or easily accessible in every sport environments (Nowicka et al., 2013). Not all environments have the opportunity to hire multiple specialists and then ensure that they interact with each other. In line with previous research (cf. Nowicka et al., 2013), those findings further point out the need to develop and implement a referral network of resource providers that coaches could access for support (e.g., advice) and as a means to empower them to appropriately assist their athletes (e.g., through referral).

Finally, athletes are not the only ones needing assistance in a sporting environment. TD coaches stressed their own needs of help and support; not only to care for their athletes' but also regarding their own mental health. Like athletes,

coaches are confronted with tremendous amount of stress that can affect their physical and mental health (e.g., performance, organizational, contextual, interpersonal, and intrapersonal stressors; Frey, 2007; Norris et al., 2017). Yet, while the sport environments' interest and the literature on athletes' mental health is growing (see Chapters 1 and 2), less attention has been paid to coaches' mental health which is somewhat surprising, given the impact it can have on their athletes (Norris et al., 2017).

4.6. Limitations

This study has important implications as how TD coaches perceive their role in supporting their young athletes with MHIs as well as how TD sport environments could better assist and support their coaches working with athletes experiencing MHIs. However, the present study was not without limitations and findings must, therefore, be interpreted with caution. Although the reminiscence of coaches' experiences with young athletes facing MHIs was not the main purpose of this study, some memory recall issues might have impacted the results as it is often the case in retrospective studies. Another issue raising from any qualitative approach is the social desirability that might impact the findings given the sensitivity of the present topic. Participants might have overvalued or undervalued their role or the support they perceived having offered to their athletes experiencing MHIs. The findings must, therefore, not be viewed as exact "at the time" recollections of events and actions.

Furthermore, participants varied in terms of diversity and types of sports (individual or team sports) which could have an impact on the nature and prevalence of MHIs encountered as MHIs vary according to the type of sport performed (Markser, 2011; Reardon et al., 2019; Schaal et al., 2011). The type of sport also influences the interpersonal relationships formed within the environments (e.g., coach-athlete's, athlete-athlete's relationship) and the ressources available (e.g., funding). Moreover,

coaches also varied in terms of career length, gender and coaching age which, accordingly, influenced their experiences of working with athletes with MHIs (e.g., in terms of type and number of MHIs cases experienced during their career). The chosen population, the diversity of sports included and the sample size do not, therefore, enable a naïve generalisation of the current results (Jones et al., 2013).

4.7. Conclusion and Next Steps

In summary, the present chapter highlighted some of the current challenges faced by coaches working at all ends of the spectrum and more specifically TD coaches' perception of their role and limits as coaches when dealing with young athletes experiencing different kind and thresholds of MHIs (e.g., from signs of distress to diagnosed mental disorder). Furthermore, while TD coaches emphasised their supporting role regarding their athletes, they also identified their need to be supported by health professionals (e.g., referral network) and to acquire more quality knowledge and skills to adequately fulfil their role and assist athletes experiencing MHIs. The present data were in line with earlier ones highlighting the perceived lack of mental health knowledge and understanding in sportspeople (see Chapters 3). Accordingly, the next Chapter explores the influence of the social milieu by comparing the representations of MHIs held by individuals selected from different settings.

CHAPTER 5

EXPLORING THE SOCIAL INFLUENCE ON PERFORMERS' REPRESENTATION OF MENTAL HEALTH ISSUES

5.1. Introduction

As outlined in Chapter 1, MHIs are not only common in sport. Both incidence of and reactions to MHIs appear, perhaps unsurprisingly, to vary across performance domains and social settings. For example, higher prevalence of MHIs were found in specific groups such as the U.K. military personnel (Fear et al., 2010; Iversen et al., 2009; Reijnen et al., 2015; Sundin et al., 2011) or art performers (e.g., musicians or dancers; Arcelus et al., 2014; Gross & Musgrave, 2016; Nordin-Bates, 2012; Voltmer et al., 2012). Yet, despite the rising number of individuals suffering from MHIs (WHO, 2018a) and the growing body of research on mental health, suffering from a MHI is still highly stigmatised (see Chapter 1). This appears especially true in high-performance environments (e.g., music, sport, dance and the army; Langston et al., 2010; Rona, Jones, French, Hooper, & Wessely, 2004) where performers are expected to be mentally tough (Bär & Markser, 2013; Delenardo & Terrion, 2014) and/or where a culture of risk tends to normalise pain and injuries (e.g., performance at all cost; Gucciardi et al., 2017; Henriksen et al., 2019; John, Gropper, & Thiel, 2019). As a consequence, high-level performers are often reluctant to seek help and/or medical care should they experience a MHI (Gulliver et al., 2012a; Langston et al., 2010; Reardon et al., 2019). Concerningly, however, in spite of the negative impact stigmatised attitudes may have on an individual's help-seeking behaviours, and, thus, on their mental health (Griffiths et al., 2004; Rickwood et al., 2005), research investigating and comparing the representation of MHIs (e.g., recognition abilities,

reactions and attitudes towards MHIs) in different high-performance environments remains lacking.

Therefore, following earlier investigations, this chapter addressed Objective 4 of the thesis: namely, exploring the influence of the social milieu by comparing the representations of MHIs held by high-level performers, selected from different settings. Such investigations were thought warranted as they may further inform the design of effective and sustainable context-specific mental health interventions. Furthermore, given that depression is the leading and still rising cause of ill health worldwide (Kessler & Bromet, 2013; Sai & Furnham, 2013; WHO, 2018b), it was deemed to offer a good vehicle to better understand performers' representations of a common MHI and the differences which may exist between individuals embedded in different high-performing environments and, consequently, in different sub-cultures.

5.2. Importance of Mental Health Literacy

Being able to recognise that one's self or someone else is suffering from a MHI is an essential aspect of mental health literacy. In fact, Jorm et al. (1997) defined mental health literacy as "the ability to recognise specific disorders, knowing how to seek mental health information, knowledge of risk factors and causes, of self-treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking" (p.182). Extending Jorm et al.'s (1997) definition, Lauber et al. (2003, p. 248) went further and defined it as:

> The ability to gain access to, understand, and use information in ways which promote and maintain good mental health. It refers to knowledge and beliefs about mental disorders which aid their recognition, management or prevention including the ability to recognise specific disorders; knowing how to seek mental health information; knowledge of risk factors and causes, of self-

treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking.

This broad-based definition carries important implications for how mental health literacy is best developed. For example, whilst being able to identify a MHI like depression is likely to facilitate subsequent help-seeking behaviours (Burns & Rapee, 2006), discriminating between normal reactions and signs of psychological distress and/or MHI can be challenging, in particular for lay people (Burns & Rapee, 2006). In a study investigating the identification of depression, Lauber et al. (2003) highlighted that only 39.8% of their sample correctly recognised a vignette describing a depression episode whilst the majority of their respondents categorised it as a life-crisis experience. Yet, acknowledging that one's self or someone else is suffering from a MHI is an important first step, as early identification is likely to be followed by early interventions (Lauber et al., 2003; Reavley & Jorm, 2011).

Early interventions are, especially, valuable as they can not only prevent the development of full-blown mental disorders and/or the onset of comorbidities (Kessler et al., 2005), but they have also been shown to lead to a better chance of long-term recovery (Kamm, 2008; Kelly, Jorm, & Wright, 2007). Indeed, with high-level performers being potentially at greater risk to experience MHIs (see Chapters 1 and 2), it may be particularly relevant for people working in such demanding environments to be able to recognise early signs of mental health issues and referral processes for diagnosis and subsequent treatment (see Chapter 4; Armstrong et al., 2015). Furthermore, a lack of knowledge and understanding about MHIs, and subsequent stigma, can affect the people confronted with a MHI as well as those individuals' support system. For example, depression can partly rely on others observations (Heim, Smallwood, & Davies, 2005). As a result, it can stand in the way not only of a diagnosis

of MHIs but also inhibit the actions of those people securing social support (Anderson & Pierce, 2012).

Where one's personal experience with MHIs and ethnicity have been shown to influence one's recognition abilities and attitudes towards MHIs such as depression (Chandra & Minkovitz, 2006; Connery & Davidson, 2006; Griffiths et al., 2006; Langston et al., 2010), myths and misinformation about MHIs, the subsequent stigma associated with MHIs and negative attitudes towards help-seeking can act as particularly challenging barriers to the early identification of MHI(s), seeking help (e.g., referral process), and, as a result, the implementation of a treatment when deemed necessary (Andrade et al., 2014; Armstrong et al., 2015; Connery & Davidson, 2006; Delenardo & Terrion, 2014; Heim et al., 2005; Kitchener & Jorm, 2008; Rickwood et al., 2005).

In addition, age and gender can also affect one's attitudes towards MHIs (Connery & Davidson, 2006; Jorm & Wright, 2008). Women and young adults were, for instance, suggested to be more likely to identify depression symptoms as a sign of MHIs but also to be less likely to hold stigmatising attitudes compared older and male counterparts (Connery & Davidson, 2006; Jorm & Wright, 2008). In contrast, Yap, Mackinnon, Reavley, and Jorm (2014) highlighted inconsistencies across the literature suggesting that previous conclusions about the relationship between gender and stigmatising attitudes towards MHIs may not be entirely reliable. Nevertheless, while the impact of age and gender on stigma is complex (Jorm & Wright, 2008), Jorm and Wright (2008) found, in a study comparing the stigmatising attitudes held by young people (aged between 12 and 25 years old) and their parents, that social distance and belief that a person with MHIs was weak rather than sick tended to decrease with age.

As for the belief in dangerousness and unpredictability, the perceived stigma and participants' reluctance to disclose experiencing a MHI, Jorm and Wright (2008) found them to increase with age (Jorm & Wright, 2008). In contrast, Yap et al. (2014) suggested, more recently, that people aged between 30 and 59 owned less personal stigma compared to younger and older counterparts, whereas the desire for social distance was lower in younger adults. Yap et al. (2014). Of interest for the current thesis, Yap et al.'s (2014) scoring system also shows some signs of confusion as to exactly how the liker scores are interpreted. Indeed, while Yap et al. (2014) reported that for both stigma scales, their participants aged between 30 and 59 years old had the lowest mean stigma scores compared to other age groups. While according to their scoring system low mean scores should mean greater stigmatising attitudes (e.g., "from 1 = strongly agree to 5 = strongly disagree"; cf. Yap et al., 2014, p. 52), their conclusions lower stigmatising attitudes in adults between 30 and 59 years old.

Adding to this complexity, the severity threshold and the willingness to report MHIs and to obtain help, also tends to differ across countries (Andrade et al., 2014; Kessler & Bromet, 2013). Personal stigma has, indeed, been shown to differ across countries and cultures (e.g., greater in Japanese than in Australians; Griffiths et al., 2006). Such differences may also be hypothesised to exist across different sub-groups or cultures given that recognition and attitudes towards MHIs seem to be shaped by societal, environmental and cultural beliefs about mental health (Gorczynski et al., 2017; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999). Different performance-focused groups (e.g., sports, military, music, dance) own specific, subsequent sub-cultures and norms (Williams, 2012). Accordingly, and due to the emotional, social and financial impacts MHIs can have on one's life (Anderson & Pierce, 2012), it would

be both informative and useful to examine differences in knowledge, awareness and attitude across high-performance groups compared to the general population.

Therefore, the exploratory study presented in this chapter sought to address Objective 4 of the thesis by studying the influence of the social milieu on the representations of a MHI such as depression. To do so, this study sought to compare different populations' recognition abilities, reactions and attitudes towards MHIs, and more specifically towards depression. The main argument for this hypothesis was that recognition, reactions and attitudes towards MHIs are influenced by the context; namely the subculture and norms within which each protagonist is embedded (Williams, 2012). Athletes, combat-experienced military forces and art performers were chosen as samples of high-performers operating in different sub-cultures; whilst a sample form the general population was used as a reference sample. Furthermore, given its influence on stigma, participants' age was also considered. The variable age seemed particularly relevant, especially in sport, where athletes are often categorised in age classes (Sabato et al., 2016). Understanding performers' representation of a common MHI such as depression and the differences which may exist between individuals operating in different high-performance settings was deemed crucial for the design of context-specific mental health interventions.

5.3. Method

The vignette method has been previously used in research studying participants' ability to identify MHIs (Burns & Rapee, 2006; Connery & Davidson, 2006; Kitchener & Jorm, 2004; Link et al., 1999; O'Dell, Crafter, de Abreu, & Cline, 2012), and has been suggested to be one of the most common approaches in the study of the stigma of MHIs (Link, Yang, Phelan, & Collins, 2004). Although, this method has, so far, mostly been used to evaluate the knowledge and recognition rate of

depression and schizophrenia (Burns & Rapee, 2006; Connery & Davidson, 2006; Kitchener & Jorm, 2004; Lauber et al., 2003; Link et al., 1999; O'Dell et al., 2012; Sai & Furnham, 2013), the present study employed a vignette-method to examine performers' ability to discriminate between different severity levels of depression, together with their reactions and personal attitudes towards individuals presenting such symptomatology.

5.3.1. Participants.

To take part in the present study, English-speaking participants over 21 had to be currently or have recently been employed as either a professional athlete having experienced success at an elite level, a professional artistic performer (e.g., music, dance), a high-level soldier (e.g., fighting forces with direct combat experience) or in a full-time employment (e.g., general population). In contrast, English-speaking participants between 18 and 21 years old had to be currently part of a sport academy (e.g., young, developing elite athlete), an artistic performing academy (e.g., aspiring elite musician or dancer), or enrolled in full-time education. Athletes, art performers and combat-experienced military forces were chosen as samples of high-performers with some shared commonalities such as operating in highly demanding and competitive environments and being commited to intense training. As for the cut off for age, this was set at 21 years old for three reasons. First, while estimates of age for peak performance range from 20 years – 39 years depending on the sport (e.g., swimming versus distance cycling; Allen & Hopkins, 2015), athletes competing at national and international level, in youth competitions, do so in age categories going up to under-21 (Sabato et al., 2016). In addition, in the general population, most students complete their undergraduate studies by the age of 21. Finally, the first onset of most MHIs occur in late adolescence (Kessler et al., 2005; Kessler & Bromet, 2013).

Overall, 197 British and Irish participants ($n_{females}$= 77, n_{males}=119, $n_{intersex}$=1) took part in this study. Out of the present sample:

- 97 participants were high-performing athletes (49.2 %; $n_{high\text{-}performing\ athletes}$= 31, $n_{sport\ academy}$= 66) involved in sports such as golf, swimming, target rifle shooting, hockey, rugby, and football to name a few.
- 17 participants were art performers (8.6 %; $n_{professionals}$ = 11, $n_{academy}$= 6) such as dancers (e.g., ballet, contemporary dance) or musicians (e.g., guitar, piano, trumpet, French horn).
- 26 participants (13.2 %) were combat-experienced military forces (e.g., army or navy, soldiers or officers).
- 57 participants were from the general population (28.9 %; $n_{students}$=17, $n_{general\ population}$=40).

Participants' age varied from 18 to 61 years old (M_{age}= 28.31; SD= 11.24) with: (1) athletes ranging from 18 and 60 years old (M_{age}= 22.58; SD = 7.57), (2) art performers varying from 20 to 60 years old (M_{age}= 31.59; SD = 13.59), (3) combat-experienced military forces being between 34 and 45 years old (M_{age}= 40.65; SD = 2.35) and (4) participants from the general population varying from 18 to 61 years old(M_{age}= 31,47; SD = 12.16). Of the participants, 89 (45%) were between 18 and 21 years old at the point of data collection (labelled youngsters) while 108 were older than 21 years old (labelled adults). Then, among these participants, 112 (56.9%; $n_{youngsters}$=32, n_{adults}=80) acknowledged having previously had contact with someone suffering from mild, moderate or severe MHIs (e.g., depression, eating disorders, anxiety disorders), whereas 25.4% of the sample ($n_{youngsters}$=17, n_{adults}= 33) reported having personally suffered from such MHIs. More information about participants' characteristics are presented in Tables 5.1 (p. 142) and 5.2 (p. 143).

Table 5.1 *Participants' demographic characteristics (n_{total}=197)*

Characteristics	n	Percentage (%)
Gender (n_{total}=197)		
Male	119	60.4%
Female	77	39.1%
Other/intersex	1	0.5%
Age (n_{total}=197)		
Youngsters (18-21)	89	44.2%
Adults (21+)	108	54.8%
Groups (n_{total}=197)		
Athletes	97	49.2%
Arts Performers	17	8.6%
Military	26	13.2%
General population	57	28.9%
Highest level of education (n_{total}=197)		
School to age 16	19	9.6%
A levels/BTEC or equivalent	64	32.5%
Further education	18	9.1%
Degree	43	21.8%
Postgraduate degree	53	26.9%
Familiarity with MHIs (n_{total}=182)		
Through contact	112	61.5%
Depression	93	51.4%
Eating disorders	41	22.7%
Anxiety disorders	67	37%
Obsessional and compulsive disorder (OCD)	27	15%
Bipolar and related disorders	39	21.5%
Posttraumatic stress disorder (PTSD)	25	13.8%
Other (e.g., psychosis)	7	3.9%
Own history of MHIs	50	27.5%
Depression	34	16.8%
Eating disorders	11	6.1%
Anxiety disorders	29	16%
Obsessional and compulsive disorder (OCD)	6	3.3%
Bipolar and related disorders	1	0.6%
Posttraumatic stress disorder (PTSD)	8	4.4%
Other (e.g., psychosis)	2	1.1%
Confidence in helping someone suffering from MHIs (n_{total}=182)		
Not at all confident	14	7.7%
A little bit confident	64	35.2%
Moderately	68	37.4%
Quite a bit	31	17%
Extremely confident	5	2.7%

Table 5.2. Participants' demographic characteristics by groups

Characteristics n (%)	Athletes	Art Performers	Military	General Population
Gender (n_{total}=197)	97	17	26	57
Male	57 (58.8%)	2 (11.8%)	23 (88.5%)	37 (64.9%)
Female	39 (40.2%)	15 (88.2%)	3 (11.5%)	20 (35.1%)
Other/intersex	1 (1%)	0 (0%)	0 (0%)	0 (0%)
Age (n_{total}=197)	97	17	26	57
Young adults (18-21)	66 (68%)	6 (64.7%)	0 (0%)	17 (29.8%)
Adults (21+)	31 (32%)	11 (35.3%)	26 (100%)	40 (70.2%)
Highest level of education (n_{total}=197)	97	17	26	57
School to age 16	15 (15.5%)	1 (5.9%)	0 (0%)	3 (5.3%)
A levels/BTEC or equivalent	47 (48.5%)	3 (17.6%)	1 (3.8%)	13 (22.8%)
Further education	8 (8.2%)	1 (5.9%)	2 (7.7%)	7 (12.3%)
Degree	14 (14.4%)	8 (47.1%)	5 (19.2%)	16 (28.1%)
Postgraduate degree	13 (13.4%)	4 (23.5%)	18 (69.2%)	18 (31.6%)
Familiarity with MHIs (n_{total}=182)	90	13	25	54
Through contact (n_{total}=112)	38 (42.2%)	12 (92.3%)	20 (80%)	42 (77.8%)
Depression	32 (35.6%)	10 (76.9%)	17 (68%)	34 (63%)
Eating disorders	16 (17.8%)	11 (84.6%)	3 (12%)	11 (20.4%)
Anxiety disorders	22 (24.4%)	9 (69.2%)	9 (36%)	27 (50%)
OCD	7 (7.8%)	8 (61.5%)	2 (8%)	10 (18.5)
Bipolar and related disorders	13 (14.4%)	8 (61.5%)	6 (24%)	12 (22.2)
PTSD	3 (3.3%)	5 (38.5%)	10 (40%)	7 (13%)
Other (e.g., psychosis)	1 (1.1%)	2 (15.4%)	1 (4%)	3 (5.6%)
Own history of MHIs (n_{total}=50)	17 (18.9%)	9 (69.2%)	4 (16%)	20 (37%)
Depression	10 (11.2%)	8 (61.5%)	1 (4%)	15 (27.8%)
Eating disorders	1 (1.1%)	4 (30.8%)	1 (4%)	5 (9.3%)
Anxiety disorders	7 (7.9%)	7 (53.8%)	1 (4%)	14 (25.9%)
OCD	2 (2.2%)	2 (15.4%)	1 (4%)	1 (1.9%)
Bipolar and related disorders	0 (0%)	0 (0%)	0 (0%)	1 (1.0%)
PTSD	2 (2.2%)	3 (23.1%)	1 (4%)	2 (3.7%)
Other (e.g., psychosis)	0 (0%)	2 (15.4%)	0 (0%)	0 (0%)
Confidence in helping someone suffering from MHIs (n_{total}=182)	90	13	25	54
Not at all confident	10 (11.1%)	0 (0%)	2 (8%)	2 (3.7%)
A little bit confident	36 (40%)	2 (15.4%)	7 (28%)	19 (35.2)
Moderately	27 (30%)	6 (46.2%)	10 (40%)	25 (46.3%)
Quite a bit	15 (16.7%)	4 (30.8%)	5 (20%)	7 (13%)
Extremely confident	2 (2.2%)	1 (7.7%)	1 (4%)	1 (1.9%)

5.3.2. Procedure.

Following ethical clearance from the University BAHSS Ethics Committee (BAHSS 439, see Appendix H), participants were recruited using an opportunistic sample via researchers' professional contacts in sport, in music, the military and in the general population. An initial email invitation was sent to gatekeepers who were asked to circulate the project information sheet (see Appendices I and J) to participants meeting our selection criteria. The self-completed questionnaire was presented as an electronic version (Survey Monkey). One version was available for participants between 18 and 21 years old and another similar version was created for participants 21+ (see Appendices I and J). Prior to their involvement in this project, participants were reminded that their participation was entirely voluntary, that their responses would be confidential, and that completing the questionnaire would take approximately 30 minutes (see Appendices I and J). Once consent was obtained, and before starting the survey, participants were advised to read carefully each question and description before answering. They were also encouraged to respond using their first impression (e.g., when evaluating the severity of depression) (Heim et al., 2005). The anonymity of the participants was guaranteed.

5.3.3. Materials.

5.3.3.1. Vignettes identification.

Vignettes were used to firstly examine ability to differentiate between four severity levels of depression – namely, normal ups and downs (no depression), some emotional distress (mild or sub-clinical level of depression), clinical depression (moderate depression) and suicidal ideation (severe depression) - and then to examine participants' personal attitudes and reactions towards those issues. To do so, four fictional short stories were created for the purpose of this study and were developed

using the DSM-V criteria for MDD (APA, 2013) as well as my supervisory team's clinical experience. Written carefully to be easily understood by the target population, the vignettes ranged between 128 and 165 words. The lack of details on either the characters or the context was deliberate in order to give participants the opportunity to "project their feelings, views and social norms onto the character in the vignette" (O'Dell et al., 2012, p. 704). Furthermore, in order to minimise the influence of gender and age on the participants' responses (Connery & Davidson, 2006; Sai & Furnham, 2013), a gender-neutral name was assigned to each character with no mention of their age. Following Sai and Furnham's (2013) suggestion, the same number of symptoms were used in each vignette to avoid any deduction regarding the severity of the diagnosis based on the quantity of symptoms described. While the vignettes detailing "normal ups and downs" and "some emotional distress" presented signs of sadness and distress, the clinical level of a depressive symptomatology was absent (Burns & Rapee, 2006).

5.3.3.2. Questionnaire.

Although predominantly quantitative, the present design was mixed with a small, complementary qualitative component. The questionnaire was specifically developed for the purpose of this study (see Appendices I and J) and involved closed questions (e.g., multiple choice) based on themes and questions from previous studies investigating awareness and attitudes towards MHIs (Burns & Rapee, 2006; Connery & Davidson, 2006; Griffiths et al., 2004; Kitchener & Jorm, 2004; O'Dell et al., 2012; Sai & Furnham, 2013) as well as open-ended questions seeking to provide more insight into participants' responses.

5.3.3.2.1. Demographic Information.

The first part of the questionnaire was designed to collect demographic information about participants (see Table 5.1 and 5.2, pp. 142-143), followed by questions related to their previous contact or personal experience concerning MHIs. The term "mental health issues" was defined, at the beginning of the section using Livingston et al.'s (2013) definition (see Chapter 1; Appendices I and J).

5.3.3.2.2. Vignette-style questionnaire.

The second part of the survey included a vignette-style questionnaire using Likert scales and open-ended questions enabling participants to express their own thoughts and beliefs (Burns & Rapee, 2006). Vignettes were presented in a quasi-random, crossed order to reduce any potential order effect and subsequent biases (see Appendices I and J). For each vignette, participants were asked to rate on a 5-point Likert scale their level of concern about the character portrayed (from 0 "not worried at all" to 4 "extremely worried"). They were, then, asked to evaluate if those vignettes were describing people experiencing normal ups and downs (e.g., "Nothing, those are normal ups and downs"), some emotional distress (e.g., "S/he sounds emotionally low"), clinical depression (e.g., "S/he is suffering from depression") or suicidal ideation (e.g., "S/he sounds suicidal"). Questions investigating basic knowledge about depression (e.g., "would the person described benefit from professional help?"), and behaviours (e.g., "would it be difficult for you to talk with the character described in this vignette") followed. While most of those questions used dichotomous (e.g., Yes =1, No and don't know =0) or Likert-scale responses (e.g., from 0 "not difficult at all" to 4 "extremely difficult"), blank lines were provided to allow the participants to explain the rationale for their answers.

5.3.3.2.3. Personal subscale of the Depression Stigma Scale.

Finally**,** the third part of the questionnaire was based on the personal subscale of the Depression Stigma Scale originally developed by Griffiths et al. (2004). This subscale comprises 9 statements assessing one's personal beliefs towards depression such as: (1) People with depression could snap out of it if they wanted, (2) Depression is a sign of personal weakness, (3) Depression is not a real medical illness, (4) People with depression are dangerous, (5) It is best to avoid people with depression so you don't become depressed yourself, (6) People with depression are unpredictable, (7) If I had depression I would not tell anyone, (8) I would not employ someone if I knew they had been depressed, and (9) I would not vote for a politician if I knew they had been depressed. Acceptable internal consistency (e.g., Cronbach alpha of 0.76 in Griffiths et al. (2004) and 0.77 in Griffiths, Christensen, and Jorm (2008)) and test-retest reliability of this subscale (Griffiths et al., 2004) were reported in the past. It has, however, to be noted that the scoring of the scale varied from studies to studies [e.g., Griffiths et al. (2004) versus Griffiths et al. (2006)]. Therefore, in the present study, the items were rated on a five-point Likert scale (from 1 "strongly agree" to 5 "strongly disagree") such as in Griffiths et al. (2006) and Yap et al. (2014). Higher scores on those questions marked lesser personal stigma about depression with an overall score ranging from 9 to 45.

5.3.3.3. Pilot.

The vignettes and questionnaire were piloted with six individuals from the general population (M_{age}= 43.17, SD= 15.79; 5 females and 1 male). After having completed the survey, they were asked to give feedback on the clarity of the overall questionnaire (e.g., format, length, content; O'Dell et al., 2012). Following their

feedback, no change was deemed necessary to the questionnaire and data from those pilots were used in the analysis.

5.3.3.4. Validity.

The validity of the present questionnaire was achieved through the following steps: (1) As aforementioned, the questionnaire was selected from existing literature using previous developed measures and statements designed to capture one's recognition abilities, reactions and attitudes to mental health disorders such as depression (Burns & Rapee, 2006; Connery & Davidson, 2006; Griffiths et al., 2006; Kitchener & Jorm, 2004; O'Dell et al., 2012; Sai & Furnham, 2013). As such, the measure had demonstrable face and construct validity.

(2) Once the vignettes and questionnaire were created, my supervisory team – comprising two trained sport psychologists and one senior clinical psychologist – were used as an expert panel playing the role of critical friends. This provided another criterion of face validity.

(3) The pilot study allowed us to test the readability and comprehensiveness of the questionnaire with respondents that were representative of the targeted sample. This supported the construct validity of the tool.

(4) While the aforementioned steps informed the construct validity of the questionnaire, we also had the opportunity, at the end of the pilot study, to ask participants' opinion about MHIs such as depression. Participants' oral opinion gave additional information regarding the level of agreement between the features assessed by the questionnaire and participants' representations of a MHI such as depression (e.g., concurrent validity). This final step added to the ecological validity of the method used.

5.3.4. Analysis.

5.3.4.1. Logic Behind the Decision-Making.

A power analysis is often run in quantitative research before data collection in order to determine the smallest sample size required to detect a significant effect on a given test and, thus, reduce the likelihood of a type II error (Dancey & Reidy, 2017). In this exploratory study, however, the power analysis was judged to be not appropriate given that the expected effect size, namely a preliminary requirement (Dancey & Reidy, 2017), was undetermined. Indeed, in the absence of any empirical evidence as to what would or would not constitute an 'important' level of difference, such calculations would inevitably be speculative. Consequently, the likelihood and relative impact type I versus type II errors were considered in any subsequent decisions made regarding the data analysis. If, on one hand, a small sample size can impact the reliability of an experiment; on the other, small statistically significant differences found with big sample size may not always be meaningful from an applied perspective (Dancey & Reidy, 2017; Kaplan, Chambers, & Glasgow, 2014; Page, 2014). As absence of evidence does not mean evidence of absence, a third consideration in our decision-making process were our sample size and variables of interests. In short, in the absence of any *a priori* specification, results were critically considered against the objectives of the study.

5.3.4.2. Dependent and Independent Variables.

Whilst, participants' recognition abilities, reactions and attitudes towards depression were the dependent variables, the choice of independent variables was more complex due to the amount of data generated by the questionnaire. Many variables such as gender and level of education could have been of interest and indeed, as shown by earlier sections of this chapter, such investigations could all have been grounded in

previous literature. However, any additional analysis would have influenced the power and complicated the analysis process. Accordingly, the decision to focus mainly on the levels of severity of depression, participants' age, group and potential familiarity with MHIs was in the continuance of the broader purpose of the thesis and ensued from the findings from Chapter 3 and 4. Participants' recognition abilities were assessed via the responses they gave on the perceived level of severity for each vignette and the accuracy of those responses. Then, their reactions towards individuals facing different levels of severity of depression were assessed using participants' perceived level of concern, difficulty to engage with characters as depicted in the vignettes, as well as their inclination to recommend professional help. Finally, the variable 'familiarity with MHIs' corresponded to a range of previous encounters such as being personally affected and/or knowing someone (e.g., family and friends) having experienced a MHI.

5.3.4.3. Descriptive Statistics and Analysis of Variance.

A content analysis was conducted on open-ended questions, whilst statistical analyses were performed on quantitative variables. After their initial categorisation, qualitative data from the content analysis were, in a second phase, transformed and ordered as quantitative data. The sample characteristics were summarised using descriptive statistics. Furthermore, Norman (2010) suggested that "parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, … with no fear of 'coming to the wrong conclusion' " (p. 631). Accordingly, parametric tests were employed to assess whether participants differed on recognition, attitudes and reactions towards individuals suffering from depression according to which sub-groups they belonged (e.g., groups or age). Statistical analyses run on participants' recognition abilities and reactions were conducted by age, by groups and

as a function of the four levels of severity of the vignettes. Finally, participants' personal stigmatising attitudes towards depression were analysed overall as well as by items as a function of participants' groups, age and familiarity with MHIs. All data were examined using descriptive statistics and analysis of variance tests (ANOVA - controlling for sub-groups) on Likert scales or the correspondent non-parametric tests (Cochrane) on dichotomous variables. In order to control type I error at 5%, omnibus F tests (in this case MANOVA) were run on parametric data (1^{st} level of analysis). Follow-up tests were then conducted using simple or repeated measures (One-Way or Two-Way) ANOVAs (2^{nd} level of analysis). Repeated measures were used when examining the variables as a function of the four levels of severity of the vignettes. All statistical analyses were first carried out using SPSS for Windows (Version 25) with the significance threshold initially tested at $p < .05$ level and effect sizes estimated using Cohen's (1992) values for partial eta squared (η^2) (i.e., 0.01 = small, 0.09 = medium, and 0.15 or greater= large effect size; cited in Sofronoff, Silva, & Beaumont, 2015). However, as four MANOVAs were used throughout the data analysis, a Bonferroni adjustment was applied with the significance level adjusted and reported in the result section at $p < .01$. Finally, to reduce any type I and type II errors, both the significance level and effect size were used to interpret and discuss the following results.

5.4. Results

The objective of this exploratory study was to examine the influence of the social milieu on performers' representation of a MHI such as depression. As a result, this study sought to compare participants' ability to recognise different levels of severity, together with their reactions and personal attitudes towards depression. Not all participants completed all the questions in the survey. Of the 197 participants who

originally started the survey, only 138 fully completed it. This varied level of completion is a common issue across such investigations so, rather than complete a lower power and potentially over-conservative analysis, the number of respondents ("*n*") for each variable varies reflecting the completion rates. Procedurally, missing values were coded 99 in SPSS and were automatically removed from the analyses by the software. Therefore, a variation in the numbers can be noticed throughout the results with respondent numbers shown in the relevant tables. Furthermore, in discussing the results, it is important to bear in mind that statistical significance observed on the Likert scales used within this study, may or may not be associated with 'real world' differences in terms of individuals' attitudes and behaviours (cf. Andersen, McCullagh, & Wilson, 2007). Accordingly, the magnitude and implication of differences must be considered in parallel to statistical significance.

5.4.1. Examining Participants' Recognition Abilities.

An omnibus F test (in this case MANOVA) was conducted to analyse participants' recognition abilities by age (i.e., younger (18-21 years old) and older (21+) groups) and by groups (i.e., athletes, art performers, military and general population) as a function of the four levels of severity of depression as presented in the vignettes. The values reported were adjusted using Greenhouse-Geisser correction when Mauchly's Sphericity Assumption Test indicated that this assumption (e.g., condition where the variances of the differences between pairs of within-subject conditions are equal) had been violated. Furthermore, in addition to the MANOVAs, one dichotomous variable (e.g., correct recognition rate) was analysed using Cochrane's test; the equivalent non-parametric test (see Table 5.3, p. 153).

Table 5.3 *Mean (SD) and effect sizes depending on the severity for each vignette*

Variables	**Levels of Severity of Depression**						
	Vignette 1 No depression (n=145)	Vignette 2 Mild depression (n=163)	Vignette 3 Moderate depression (n=139)	Vignette 4 Severe depression (n=151)	F(df)	Partial η^2	Post hoc tests
Level of concern M (SD)	1.15 (.70)	2.05 (.81)	2.83 (.85)	3.60 (.71)	109.4 (2.92, 385.2)***	.45	V_4***>
- Not at all (%)	20 (13.8%)	1 (0.6%)	1 (0.7%)	0 (0%)			V_3***>
- A little bit worried (%)	89 (61.4%)	41 (25.2%)	7 (5%)	3 (2%)			V_2***>
- Worried (%)	30 (20.7%)	75 (46%)	36 (25.9%)	11 (7.3%)			V_1***
- Very worried (%)	6 (4.1%)	41 (25.2%)	65 (46.8%)	30 (19.9%)			
- Extremely worried (%)	0 (0%)	5 (3.1%)	30 (21.6%)	107 (70.9%)			
Level of severity selected M (SD)	1.71 (.61)	2.45 (.60)	2.93 (.46)	3.79 (.52)	138.9 (2.8, 369)***	.51	V_4***>
- No depression (%)	54 (37.2%)	8 (4.9%)	2 (1.4%)	0 (0%)			V_3***>
- Mild/sub-clinical depression (%)	79 (54.4%)	74 (45.4%)	14 (10.1%)	8 (5.3%)			V_2***>
- Moderate depression (%)	12 (8.3%)	80 (49.1%)	115 (82.7%)	16 (10.6%)			V_1***
- Severe depression (%)	0 (0%)	1 (0.6%)	8 (5.8%)	127 (84.1%)			
Vignette recognition (%)	37.2% (.48)	45.4% (.50)	82.7% (.38)	84.1% (.37)	Cochran's Q***		
Difficulty to engage M (SD)	.51 (.84)	1.26 (1.06)	1.58 (1.18)	1.72 (1.33)	20.45 (2.77, 366.1)***	.13	V_4=V_3>
- No problem at all (%)	96 (66.2%)	51 (31.3%)	35 (25.2%)	39 (25.8%)			V_2>V_1
- Slightly awkward (%)	32 (22.1%)	42 (25.8%)	30 (21.6%)	28 (18.5%)			
- 50/50 (%)	9 (6.2%)	48 (29.4%)	36 (25.9%)	34 (22.5%)			
- Somewhat difficult (%)	8 (5.5%)	21 (12.9%)	35 (25.2%)	36 (23.8%)			
- Extremely difficult (%)	0 (0%)	1 (0.6%)	3 (2.2%)	14 (9.3%)			
Help recommended (%)	46% (.50)	77% (.42)	92% (.27)	97% (.16)	Cochran's Q***		

**p-value< .05, **p-value< .01, *** p-value< .001.*
*Small (*Partial η^2=0.01), *medium (*Partial η^2= *0.09*), *large (*Partial η^2=*0.15 or greater*) effect size (Cohen, 1992, cited in Sofronoff et al., 2015).

Participants' ability to correctly respond to the vignette task increased with the severity level of depression as described in the vignettes ($F_{(2.8,369)}$ = 138.9; p<.01) and also evidenced by its large effect size (partial η^2= .51; see Table 5.3, p. 153).

The more severe forms of depression (e.g., 84.1% for severe depression) were significantly more recognizable, while discriminating between the less severe forms seemed more difficult with only 37.2% of the participants identifying "normal ups and downs" as portrayed in vignette 1 (see Figure 5.1). However, no group or age-related differences were noticeable regarding participants' recognition abilities.

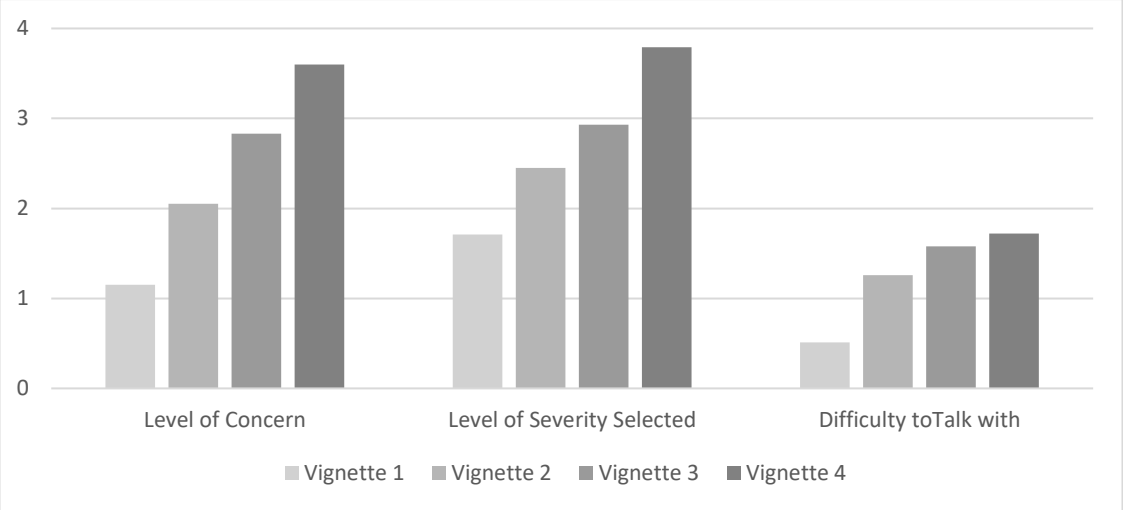


Figure 5.1 Overall level of concern (from 0 "not worried at all" to 4 "extremely worried"), recognition abilities (from 1 "no depression" to 4 "severe depression") and difficulty to talk the characters described in the vignettes (from 0 "not difficult at all" to 4 "extremely difficult) as a function of the vignettes.

Nevertheless, when asked to explain how they determined the severity of depression for each vignette, participants mostly mentioned the overall changes experienced by the characters (ranging from 7.7% for vignette 1 to 11.6 % for vignette 3), the symptoms portrayed and identified as such (ranging from 18.3 % for vignette 1 to 56.5 % for vignette 3) or the period of time mentioned in the vignette (e.g., length; ranging from 18.3 % for vignette 1 to 2.9 % for vignette 3). Other explanations included the mention of normal ups and downs, sleep disturbances, specific feelings (e.g., guilt, sadness), participants' own familiarity with depression (e.g., own

experience or previous training), their perceived lack of qualification in such instance or the need for differential diagnosis. This said, the mention of suicidal thoughts set off the alarm bells of 71.5% of the participants regarding the severe depression vignette.

5.4.2. Examining Participants' Reactions towards Depression.

Similar to the examination of participants' recognition abilities, two omnibus F test (MANOVAs) were conducted to analyse participants' level of concern and difficulty to talk with the character depicted in the vignette. In addition, the dichotomous variable "help recommended" was analysed using Cochrane's test.

5.4.2.1. Examining Participants' Level of Concern.

Participants' level of concern significantly increased with the severity of the depression portrayed in the vignettes ($F_{(2.92,385.2)} = 109.4$; ; $p<.01$), as also shown by its large effect size (partial $\eta^2 = .45$). No group or age-related differences were, however, observable. Participants' levels of concern as a function of the depression level of severity are presented in Table 5.3 (see p. 153) and Figure 5.1 (see p. 154).

5.4.2.2. Examining Participants' Difficulty to React and Engage with a Person as Depicted in the Vignettes.

Participants' perceptions of their difficulties to talk with people depending on the perceived severity of their issues as well as their recommendations for help are also illustrated in Table 5.3 (see p. 153). Interestingly, participants seemed to perceive less difficulties in talking to someone with depression than in feeling confident in helping someone experiencing MHIs (see Table 5.1 and 5.2, pp. 142-143). The majority of respondents mentioned not having too many difficulties in talking with someone suffering from depression (ranging from 0.51 regarding vignette 1 to 1.72 for vignette 4 with 0 meaning "not difficult at all" and 4 "extremely difficult"). Their perception

regarding those potential difficulties increased, however, with the level of severity of the character's depression ($F_{(2.77, 366.1)} = 20.45$; $p<.01$; see Figure 5.1, p. 155). This trend was also supported by a medium effect size (partial $\eta^2=.13$).

When given the opportunity to give more insight on their perceived level of difficulty in talking to a person showing signs of depression as depicted in each vignette, participants tended to increasingly highlight their lack of knowledge or fear to worsen the situation the more severe the vignette became. For example, when confronted with the vignette describing an individual suffering from severe depression with suicidal thoughts, participants expressed their concerns as shown in the following quotes: *"My biggest fear would be saying something wrong", "I don't feel qualified enough to help and would be more worried about preventing the potential idea of suicide",* or *"I would be afraid that I am not qualified to help with such situation and might make it worse (i.e., push him closer to committing suicide by suggesting he might need to seek professional help"*. The difficulty with broaching such a subject, or the low level of intimacy shared with the person were other reasons cited by the participants to explain their potential difficulties. In contrast, participants' desire to be supportive (e.g., by being present, talking and/or listening), familiarity with depression through experience and previous training were mentioned as facilitators.

5.4.2.2.1. Age-Related Differences in Participants' Ease to Engage with a Person as Depicted in the Vignettes.

Participants' perceived difficulty to interact with the characters depicted in the vignette was significantly different depending on their age ($F_{(2.77, 366.1)} = 4.1$; $p<.01$) and was evidenced by a large effect size (partial $\eta^2=.03$). The estimated marginal means are presented in Table 5.4 (see p. 157) and show a differential rate of increase in participants' difficulty to talk depending on their age. With higher scores meaning

more difficulties to talk with someone as depicted in the vignettes, it is interesting to notice that younger participants showed overall lower scores that the older group (21+) except for Vignette 4.

Table 5.4 *Mean (SD) of participants' difficulty to talk depending on the perceived severity for each vignette by age*

Variable	**Levels of Severity of Depression**			
Difficulty to talk	Vignette 1 No depression	Vignette 2 Mild depression	Vignette 3 Moderate depression	Vignette 4 Severe depression
Participants over 21 years old M (SD)	.48 (.11)	1.24 (.13)	1.49 (.15)	1.40 (.17)
Participants 21 years old and under M (SD)	.36[a] (.24)	.80[a] (.29)	1.16[a] (.32)	2.22[a] (.36)

a. Based on modified population marginal mean.

In sum, whilst young participants (i.e., between 18 and 21) seemed to perceive less difficulty to talk to people as presented in vignettes 1 to 3 (e.g., normal ups and downs to clinical depression), they found it much more difficult to interact with more severe forms of depression (Mean= 2.22) compared to their older counterparts (Mean=1.40; see Figure 5.2).

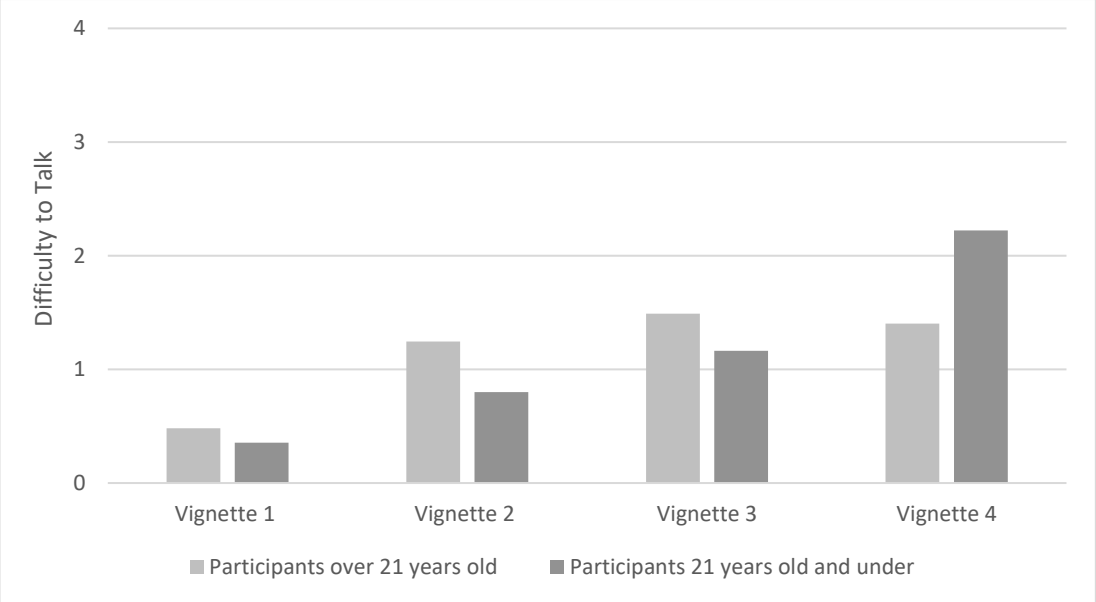


Figure 5.2 Age-related differences in participants' perceived difficulty (from 0 "not difficult at all" to 4 "extremely difficult) to talk with someone as depicted in the vignettes.

5.4.2.2.2. Participants' Recommendations for Professional Help.

Participants' recommendation for professional help significantly increased with the perceived level of severity of depression (see Table 5.3, p. 153) with 46%, 77%, 92% and 97% of the participants recommending professional help to the characters as respectively depicted in vignettes 1,2, 3 and 4. Moreover, Table 5.5 (see p. 159) shows the different options participants selected from a help-seeking perspective. Considering the level of severity of the depression depicted in each vignette, higher percentage indicates participants' preferential sources of help. It was particularly interesting to notice the somewhat low percentages of health professionals selected regarding the person in vignette 4 (i.e., severe depression with suicidal thoughts) even though 97% of the respondents would advise that person to seek some help. Indeed, less than 50% of those respondents selected a psychiatrist, only 57 % chose a GP and only 53% picked a clinical psychologist as the source of help they would recommend. An explanation for those surprisingly low percentages may come from participants' lack of awareness regarding the differences between a psychiatrist, a GP and a (clinical) psychologist.

Table 5.5. *Mean in percentage (SD) of the options selected by the participants from a help-seeking list*

Help-Seeking Options	**Level of severity of depression**			
	Vignette 1 No depression % (SD) (n=145)	Vignette 2 Mild depression % (SD) (n=162)	Vignette 3 Moderate depression % (SD) (n=139)	Vignette 4 Severe depression % (SD) (n=151)
1. A typical GP or family doctor	24% (.43)	50% (.50)	58% (.50)	57% (.50)
2. A chemist or pharmacist	3% (.16)	1% (.08)	2% (.15)	4% (.20)
3. A counsellor	17% (.37)	35% (.48)	47% (.50)	59% (.49)
4. A social worker	4% (.20)	6% (.23)	16% (.37)	17% (.38)
5. Telephone counselling service	3% (.18)	10% (.30)	23% (.42)	42% (.50)
6. A psychiatrist	3% (.18)	14% (.34)	32% (.47)	48% (.50)
7. A clinical psychologist	6% (.23)	21% (.41)	36% (48)	53% (.50)
8. Help from his close family	29% (.46)	41% (.49)	47% (50)	56% (.50)
9. Help from some close friends	30% (.46)	38% (.49)	50% (.50)	55% (.50)
10. A naturopath or an herbalist	0% (.00)	2% (.14)	3% (.17)	3% (.18)
11. The clergy, a minister or a priest	1% (.12)	2% (.16)	6% (.23)	10% (.30)
12. Other	1% (.08)	2% (.16)	0% (.00)	3% (.16)

5.4.3. Examining Participants' Personal Attitudes towards Depression.

Only 138 participants out of the original 197 completed the personal subscale of the Depression Stigma Scale. Overall, while most participants seemed to have a positive attitude there was, however, some variability highlighting different patterns of thoughts across elements. Mean scores and standard deviations are illustrated in Table 5.6 (see p. 161). Higher scores marking lesser personal stigma, personal attitudes were checked by a "2x4 (age x group)" MANOVA to examine differences between participants' attitudes towards depression. The MANOVA showed an overall significant effect of the variable "groups" (λ_{Wilks}=2.16; p<.01) but no significant age effect. Differences in personal attitudes depending on participants' group were also evidenced by a medium effect size (partial η^2=.14)

5.4.3.1. Group-Related Differences in Participants' Personal Attitudes towards Depression.

Although potentially increasing the risk of type I error, follow-up tests (e.g., item-based analyses) were conducted to examine groups-related differences in participants' personal attitudes using one-way ANOVA and Tukey tests. Those follow-up tests highlighted significant differences across items according to participant groups (see Table 5.6, p. 161).

More specifically, three items relating to negative perceptions showed significant difference between groups – namely "People with depression could snap out of it if they wanted" ($F_{(3,137)}$= 2.81; p< .05), "Depression is a sign of personal weakness" ($F_{(3,137)}$ = 4.47; p< .01), and "I would not employ someone if I knew they had been depressed" ($F_{(3,137)}$ = 6.99; p< .01).

Table 5.6 *Means (SD) by items and by groups for the personal components of the Depression Stigma Scale*

Statement about Personal Beliefs about Depression	**Depression Stigma Scale**				
	Overall (n=138) M (SD)	Athletes (n=69) M (SD)	Arts performers (n=10) M (SD)	Military (n=22) M (SD)	General Population (n=37) M (SD)
1. People with depression could snap out of it if they wanted *	4.25 (.79)	4.07 (.85)	4.50 (.53)	4.55 (.51)	4.35 (.82)
2. Depression is a sign of personal weakness **	4.35 (.88)	4.09 (1.01)	4.60 (.70)	4.68 (.48)	4.57 (.69)
3. Depression is not a real medical illness	4.46 (.85)	4.36 (.86)	4.80 (.42)	4.64 (.90)	4.46 (.87)
4. People with depression are dangerous	3.53 (1.01)	3.42 (.96)	3.70 (.95)	3.50 (1.10)	3.70 (1.08)
5. It is best to avoid people with depression, so you don't become depressed yourself	4.30 (.73)	4.19 (.60)	4.20 (1.03)	4.59 (.73)	4.38 (.83)
6. People with depression are unpredictable	2.72 (.93)	2.64 (.86)	3.40 (.52)	3.00 (.98)	2.78 (1.08)
7. If I had depression, I would not tell anyone	3.34 (.93)	3.35 (.87)	4.00 (.94)	3.14 (1.13)	3.27 (.87)
8. I would not employ someone if I knew they had been depressed***	3.86 (.82)	3.93 (.67)	4.40 (.70)	3.23 (.81)	3.97 (.93)
9. I would not vote for a politician if I knew they had been depressed	3.87 (.88)	3.83 (.84)	4.40 (.70)	3.82 (.73)	3.84 (1.04)
Total	34.69 (4.31)	33.87 (4.34)	37.00 (2.87)	35.14 (4.29)	35.32 (4.37)

**p-value< .05, **p-value< .01, *** p-value< .001*

Reflecting my comment at the start of the results section, there are notable differences in the standard deviations within groups but also across the same item between groups. Figure 5.3 illustrates the responses selected by each group on each statement.

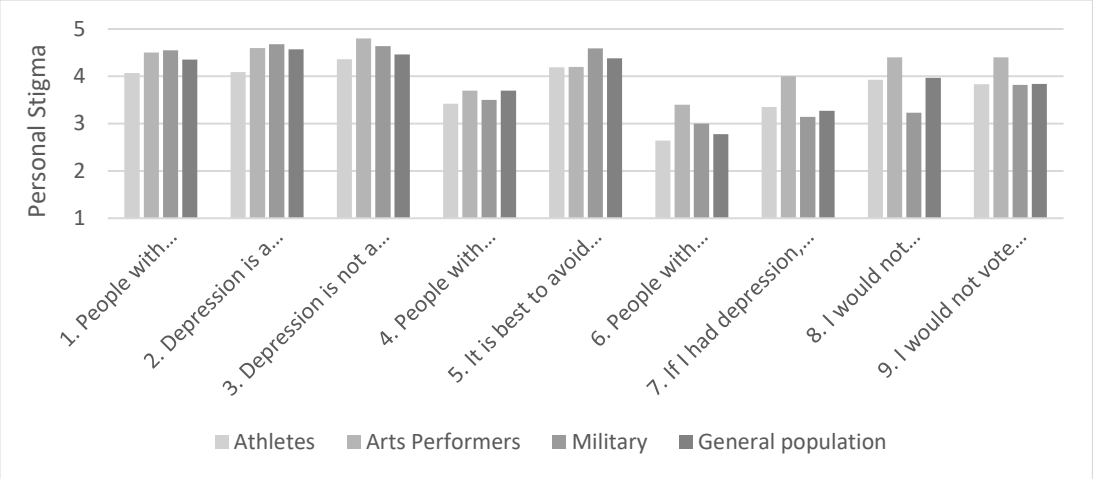


Figure 5.3 Groups differences in personal beliefs about depression across items (from 1 "strongly agree" to 5 "strongly disagree").

In this instance, participants' personal beliefs were significantly different between athletes and combat-experienced military forces ($p=.02$), as well as between athletes and the general population ($p=.03$), regarding the item stating that "Depression is a sign of personal weakness". Thereby, with a lower score on that statement, athletes seem more prone to believe that depression is a sign of personal weakness compared to combat-experienced military forces and people from the general population. In contrast, the item "I would not employ someone if I knew they had been depressed" showed significant differences between combat-experienced military forces and the three other groups, namely: athletes ($p<.01$), art performers ($p<.01$) and the general population ($p<.01$). Accordingly, compared to the three other groups, combat-experienced military forces would be more inclined to agree with the statement suggesting to not employ someone with depression. Although a risk of type I error might exist, item-based differences across groups are, particularly, interesting as they

may further inform the design of mental health interventions targeting a change in attitudes towards MHIs.

5.4.3.3. Impact of Participants' Familiarity with MHIs on their Personal Attitudes towards Depression

Among the present participants, 88 mentioned being familiar with MHIs either by knowing someone with MHIs or by having experienced MHIs themselves. While a test of between-subjects effect highlighted a significant effect of participants' familiarity on the overall attitudes towards depression ($F_{(1,137)}$=15.99; p<.01), further analyses were conducted to see how participants' familiarity with MHIs may have impacted their personal attitudes towards depression (see Figure 5.4).

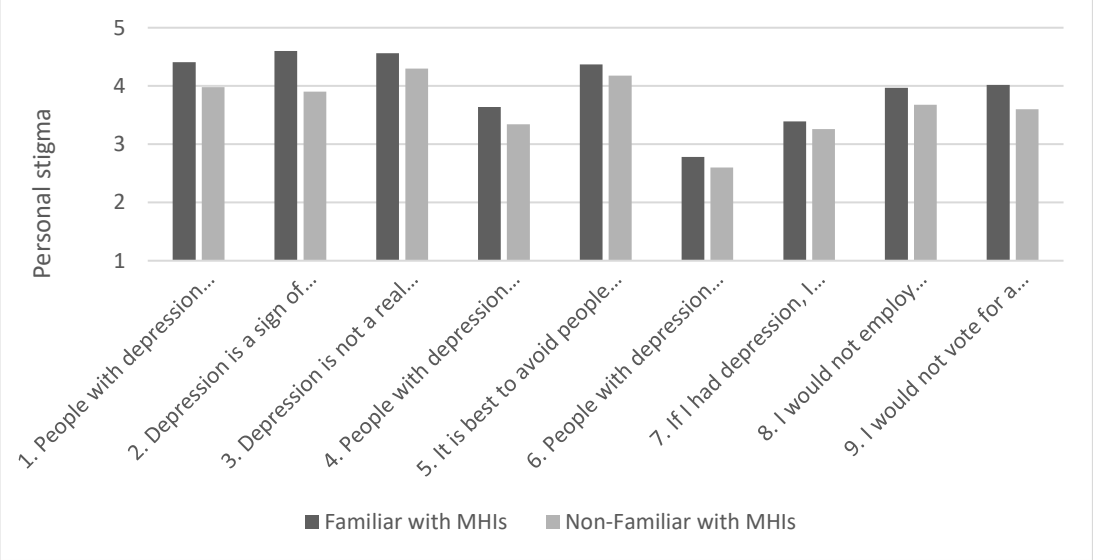


Figure 5.4 Differences in personal beliefs about depression across items (from 1 "strongly agree" to 5 " strongly disagree") depending on participants' familiarity with MHIs.

As shown on Figure 5.4. as well as on Table 5.7 (p. 164), previous familiarity with MHIs had a significant impact on four specific items. People familiar with MHIs tended to significantly disagree more with statements such as "People with depression could snap out of it if they wanted", "Depression is a sign of personal weakness", "I would not employ someone if I knew they had been depressed", "I would not vote for a politician if I knew they had been depressed".

Table 5.7 *Influence of participants' familiarity of the personal components of the Depression Stigma Scale*

Statement about Personal Beliefs about Depression	Depression Stigma Scale		
	Familiar M (SD) (n=88)	Non-Familiar M (SD) (n=50)	$F_{(1,137)}$
1. People with depression could snap out of it if they wanted **	4.41 (.69)	3.98 (.89)	9.95
2. Depression is a sign of personal weakness***	4.60 (.62)	3.90 (1.07)	23.87
3. Depression is not a real medical illness	4.56 (.87)	4.30 (.79)	2.97
4. People with depression are dangerous	3.64 (1.01)	3.34 (1)	2.77
5. It is best to avoid people with depression, so you don't become depressed yourself	4.37 (.81)	4.18 (.56)	2.29
6. People with depression are unpredictable	2.78 (.93)	2.60 (.93)	1.26
7. If I had depression, I would not tell anyone	3.39 (.95)	3.26 (.90)	.58
8. I would not employ someone if I knew they had been depressed *	3.97 (.82)	3.68 (.79)	3.95
9. I would not vote for a politician if I knew they had been depressed**	4.02 (.84)	3.60 (.88)	7.75
Total ***	35.75 (3.97)	32.84 (4.30)	15.99

**p-value< .05, **p-value< .01, *** p-value< .001*

5.4.4. Further Interesting Results.

Although statistically non-significant, some results are worthy of consideration as they may have shown some degree of significance with a bigger sample. Indeed, when looking more closely to each group, slight differences were detectable (see Table 5.8, p. 166). Athletes, for example, rated their difficulties to talk to a person suffering from depression in each vignette higher than the other groups except for vignette 2 (mild or sub-clinical depression). The perceived negative consequences of talking about and, maybe disclosing suffering from MHIs, was noteworthy. In addition, even

though the variable "age" did not have a statistically significant impact on the overall data set, the partial eta square associated with this measure (partial η^2=.10) indicated a medium effect size of this variable. Follow-up tests (one-way ANOVA and Tuckey tests) revealed a main effect of participants' age group on three individual elements: "Depression is a sign of personal weakness" ($F_{(1,137)}$= 9.46; p< .01), "Depression is not a real medical illness" ($F_{(1,137)}$= 5.07, p< .05) and "It is best to avoid people with depression so you don't become depressed yourself" ($F_{(1,137)}$= 9.46, p< .01) (see Table 5.9, p. 167). In each of those instances, younger participants scored lower than participants 21+. Therefore, with higher scores showing less stigma, in the present sample, younger participants showed more stigmatising attitudes towards depression compared to their older counterparts. It would therefore seem that, even if this difference was not statistically significant (p = 0.055), participants 21+ were inclined to be more tolerant towards depression than the younger group. This finding is particularly interesting considering the differential willingness to talk displayed by these age groups. Those findings added to previous research highlighting lower stigmatising attitudes in adults compared to young people (Yap et al., 2014) but also showed some inconsistencies with others suggesting significant age differences in attitudes (Jorm & Wright, 2008; Livingston et al., 2013). For example, while the present findings were consistent with Jorm and Wright's (2008) suggestion that the "weak not sick" belief as well as the social distance decreased with age, participants in the present study showed a positive attitudinal change with age whereas Jorm and Wright (2008) found an increase in participants' belief about the dangerousness and unpredictability of people suffering from MHIs as well as in their reluctance to disclose. Finally, even though these data were not significant, they are included to offer a complete picture of the data for readers of the thesis.

Table 5.8 *Mean (SD) of perceived level of severity of depression for each vignette by groups*

Variables	**Groups (n=139)**	**Level of severity of depression**			
		Vignette 1 No depression M (SD)	Vignette 2 Mild depression M (SD)	Vignette 3 Moderate depression M (SD)	Vignette 4 Severe depression M (SD)
Level of concern	Athletes (n=70)	1.21 (.78)	2.00 (.85)	2.73 (.85)	3.59 (.81)
	Arts Performers (n=10)	1.10 (.32)	2.20 (1.03)	3.00 (.82)	3.50 (.71)
	Military (n=22)	0.95 (.58)	1.82 (.73)	2.95 (.79)	3.55 (.67)
	General Population (n=37)	1.14 (.67)	2.05 (.62)	2.92 (.89)	3.68 (.58)
Level of severity selected	Athletes (n=70)	1.74 (.63)	2.29 (.66)	2.86 (.55)	3.79 (.54)
	Arts Performers (n=10)	1.70 (.66)	2.50 (.53)	2.90 (.32)	3.70 (.48)
	Military (n=22)	1.64 (.58)	2.50 (.51)	3.05 (.21)	3.77 (.53)
	General Population (n=37)	1.73 (.61)	2.62 (.55)	3.00 (.41)	3.86 (.42)
Vignette recognition (%)	Athletes (n=70)	36% (.48)	53% (.50)	77% (.42)	84% (.37)
	Arts Performers (n=10)	40% (.52)	50% (.53)	90% (.32)	70% (.48)
	Military (n=22)	41% (.50)	50% (.51)	95% (.21)	82% (.40)
	General Population (n=37)	35% (.48)	32% (.48)	84% (.37)	89% (.32)
Difficulty to talk to a person suffering from such issues	Athletes (n=70)	0.61 (.89)	1.33 (1.09)	1.70 (1.23)	1.90 (1.29)
	Arts Performers (n=10)	0.20 (.42)	0.5 (.85)	1.30 (1.16)	1.30 (1.16)
	Military (n=22)	0.59 (1.01)	1.55 (1.10)	1.68 (1.09)	1.50 (1.37)
	General Population (n=37)	0.38 (.72)	1.22 (1)	1.35 (1.14)	1.57 (1.43)

Table 5.9 *Influence of participants' age on the personal components of the Depression Stigma Scale*

Statement about Personal Beliefs about Depression	**Depression Stigma Scale**		
	Participants 21 years old and under. Mean (SD) (n=58)	Participants over 21 years old. Mean (SD) (n=80)	$F_{(1,137)}$
1. People with depression could snap out of it if they wanted	4.10 (.93)	4.36 (.66)	3.66
2. Depression is a sign of personal weakness**	4.09 (1.08)	4.54 (.64)	9.46
3. Depression is not a real medical illness*	4.28 (1.01)	4.60 (.69)	5.07
4. People with depression are dangerous	3.53 (.96)	3.53 (1.06)	.003
5. It is best to avoid people with depression, so you don't become depressed yourself **	4.09 (.66)	4.46 (.75)	9.46
6. People with depression are unpredictable	2.62 (.86)	2.79 (.98)	1.09
7. If I had depression, I would not tell anyone	3.31 (.82)	3.36 (1.01)	.11
8. I would not employ someone if I knew they had been depressed	3.98 (.69)	3.77 (.90)	2.17
9. I would not vote for a politician if I knew they had been depressed	3.86 (.78)	3.87 (.95)	.007
Total	33.86 (4.38)	35.29 (4.18)	3.75

**p-value< .05, **p-value< .01, *** p-value< .001*

5.5. Discussion

The present study sought to examine the impact of the social milieu on representation of a MHI such as depression held by performers selected from different settings. Specifically, we compared participants' ability to discriminate between different levels of severity, together with their reactions and attitudes towards people suffering from depression. Findings revealed significant increases evidenced by medium to large effect sizes in participants' recognition (e.g., ability to correctly respond to the vignette task) and reactions (e.g., level of concern, difficulty to engage with individuals suffering from the portrayed issues, recommendation for professional help) as a function of the depression severity. An age effect but no group effect was observable on participants' perceived difficulty to engage with the characters depicted in the vignettes. Furthermore, while the present findings highlighted that participants' tendency to advise someone to seek help was dependent on the perceived severity of the issues depicted in the vignettes, participants did not, however, always seem to recommend the most appropriate source of help (e.g., professional help), especially regarding the most severe form of depression presented. Finally, overall group and familiarity effects were identified regarding participants' personal attitudes and beliefs towards depression. Those differences were even more noticeable when looking at each statement separately. A summary of these key findings is presented in Table 5.10 (see p. 169).

Table 5.10 *Summary of key findings*

Variables	Key Findings
Recognition Abilities	Effect of the perceived level of severity (large effect size) No group effect No age effect
Level of Concern	Effect of the perceived level of severity (large effect size) No group effect No age effect
Difficulty to Engage	Effect of the perceived level of severity (medium effect size) No group effect Age-related effect (large effect size)
Recommendation for Help	Effect of the perceived level of severity No group effect No age effect
Personal Beliefs towards Depression	Group – related effect (medium effect size) No age effect Familiarity effect

5.5.1. Recognition Abilities.

Participants in the present sample tended to be better able to recognise clinical forms of depression (i.e., clinical threshold (83%) and severe depression with suicidal thoughts (84%)) compared to less severe forms (i.e., sub-clinical depression (45%) and normal ups and downs (37%)). These findings are in line with previous research depicting relatively good rates of recognition for vignettes describing levels of clinical depression (Reavley & Jorm, 2011). Those findings were, however, somewhat contradictory compared to others such as Lauber et al. (2003) who found that only 39.8% of their participants correctly identified the depression vignette whilst the majority categorised that vignette as a life-crisis experience. In the present sample, participants rather tended to consider a more severe form of depression than the one presented in the vignette task. Those findings may partly be explained by the increased attention of the media on depression (Reavley & Jorm, 2011) as well as by the booming diffusion of mental health awareness campaigns targeting depression and its

symptomatology. While there is no reason to assume that people share a common understanding of the term "depression" (Burns & Rapee, 2006), potential explanations for those discrepancies may come either from the different study methods used (Lauber et al., 2003) or from an overgeneralization and concern about depression and its common symptoms (Reavley & Jorm, 2011).

5.5.2. Reactions towards Depression.

Furthermore, even though participants showed a better recognition rate and increased levels of concern for the more severe forms of depression, they also acknowledged perceiving more difficulties in talking to those individuals as the depression became more severe. Participants between 18 and 21 especially expressed more difficulties to engage with someone suffering from severe forms of depression compared to participants aged 21+. Those results are in line with those reported by Langston et al. (2010) who found that U.S. junior Navy personnel were more likely to feel uncomfortable discussing emotional issues with their peers than senior staff. This is important as, whilst appearing weak to others and its perceived consequences may partially explain the difficulty and/or awkwardness felt in broaching a topic such as depression, one's age and perceived severity of their own psychological distress is likely to influence their help-seeking intentions (Wadman, Webster, Mawn, & Stain, 2019).

The ability to recognise a problem is crucial, as it impacts individuals' attitudes and behaviours (Lauber, Ajdacic-Gross, Fritschi, Stulz, & Rössler, 2005) such as promoting help-seeking behaviours (Burns & Rapee, 2006; Reavley & Jorm, 2011). However, correctly identifying a MHI such as depression by discriminating between normal reactions of dysphoria and depressive symptomatology is challenging (Burns & Rapee, 2006). Therefore, when approaching the notion of support, the present

findings regarding recommended sources of help are surprising. Participants did not always suggest the most appropriate sources of support compared to the depression severity portrayed. Such data are consistent with previous research highlighting a preference to seek help and support from GPs (Reavley & Jorm, 2011), family and friends in such situation rather than from a health professional (Rickwood et al., 2005). The results might be partly explained by factors such as individuals' low perceived need for treatment in mild case but also more alarmingly in more severe cases (Andrade et al., 2014) and/or low perceived helpfulness of treatment (Reavley & Jorm, 2011). Whilst seeking help from and talking to their friends and family is already a first step, the kind of help they can provide may not be most suitable one in terms of moderate and severe depression. Indeed, even though, realistically, any referral could be seen as an opportunity to get help when it comes to assist those with MHI, friends and family might be poorly equipped to manage such problems (Rickwood et al., 2005). Barriers for seeking professional help may also arise from a general lack of awareness regarding "from whom" to seek help, the different roles each health professional play in regard to MHIs, or how to access professional help (Gulliver et al., 2012a; Reavley & Jorm, 2011). In line with Reavley and Jorm (2011) and Burns and Rapee (2006), the present findings highlighted the tendency to turn to GPs or counsellors when looking for professional help instead of psychiatrists and/or psychologists; this despite the fact that the latter are the registered professionals specialised in mental health (Reavley & Jorm, 2011) and are more likely to offer evidence-based treatments (Burns & Rapee, 2006). On the other hand, such results might reflect participants' desire or believes that such issues should be handled by oneself (Andrade et al., 2014).

As stigma and lack of knowledge act as barriers to mental health care, with people choosing not to access mental health services despite their benefits (Corrigan, 2004), the present observations support the need to normalise seeking professional help and educate people on the different roles and trainings of health professionals (Reavley & Jorm, 2011). Especially since one's decision to seek professional help might be influenced by friends' and family's attitudes towards those professionals (Vogel, Wade, Wester, Larson, & Hackler, 2007). Educating high-level performers is especially important as it has been suggested that young performers (e.g., young athletes) owned less positive attitudes than the general population (e.g., non-athletes) towards seeking help, which may partly explain their reluctance to seek help (Gulliver et al., 2012a). Such action may not only normalise and foster help seeking behaviours but also allow individuals to better identify and reach out to suitable or better sources of support within their environment (Vogel et al., 2007).

5.5.3. Personal Attitudes towards Depression.

Despite within-group differences (e.g., standard deviations) but also between-group differences across the same item, participants' scores on the personal components of Griffiths et al.'s (2004) Depression Stigma Scale reflected their tendency to either report no opinion or disagree with the statements presented. Importantly, these scores may be due to the impact of previous contacts and familiarity with MHIs on personal stigma (Griffiths et al., 2008), a reflection of societal changes over the years (Langston et al., 2010) or merely the results of current awareness and anti-stigma campaigns. Indeed, as reported by the present and previous studies (Duffy, Rooney, & Matthews, 2019; Griffiths et al., 2008; Jorm & Wright, 2008), familiarity with MHIs can have a positive impact on ones' personal attitudes towards depression.

Nevertheless, athletes (scoring 33.87 out of 45) showed the lowest score on the personal stigma scale. With higher scores marking lesser stigmatised attitudes towards depression, individuals progressing in high-performance sport environments appeared less tolerant towards depression than the other groups (e.g., military, art performance and the general population). In line with previous studies (e.g., Armstrong et al., 2015; Delenardo & Terrion, 2014; Glick et al., 2012; Griffiths et al., 2004; Gulliver et al., 2012a), athletes appeared more inclined to perceive depression as a sign of personal weakness compared to combat-experienced military forces and the general population. Nevertheless, the spread of opinion within that group indicates that many disagree or at least struggle with this position. In contrast, combat-experienced military forces showed significantly more stigmatising attitudes towards the employment of individuals having experienced depression. Those results are consistent with previous research, highlighting the persistence of stigma associated with MHIs in sport and military forces despite the efforts made to increase awareness about MHIs and their treatments options (Bauman, 2016). Even though they are supportive and positive towards dealing with others (e.g., colleagues and/or subordinates) experiencing MHIs (Langston et al., 2010), participants from the military setting would, for example, prefer to hide having MHIs from their environment (e.g., "If I had depression I would not tell anyone"). Personal stigma influencing help-seeking behaviours and intentions (Wadman et al., 2019), the present findings are of particular interest from an applied perspective. Indeed, differences in personal beliefs about depression across environments may be relevant to consider when developing mental health issues prevention programmes adapted to their targets. Supporting Wadman et al. (2019), those findings suggest that personalised, context-specific approaches may be more suitable. Identifying and targeting groups' specific stigmatising beliefs about

depression and/or MHIs may be of particular value given that their impact might not only vary from one group to another but also have an influence on people's future actions (e.g., help-seeking behaviours, intentions and recommendations).

Overall, the present findings support the need to pursue current efforts aiming to increase people's mental health literacy. Increasing one's literacy about mental health might have an impact on attitudes and ability to recognise MHIs. In addition, it would contribute to disseminating a more accurate perception of need for professional help as it is thought to greatly influence one's help-seeking attitudes and behaviours (Burns & Rapee, 2006; Gulliver et al., 2012a). Recognising a problem is in general an important first step leading to an increase in the likelihood of professional help-seeking behaviours (Gulliver et al., 2010; Reavley & Jorm, 2011). Improving people's mental health literacy will allow individuals to better recognise (having) a problem as well as the benefits of receiving professional help. It will also give them the knowledge and understanding to access the most suitable source(s) of mental health support depending on their needs (Burns & Rapee, 2006). Moreover, increased mental health literacy is believed to be linked to lower personal stigma and to increased coping skills and confidence in individuals' capacity to help others experiencing MHIs (Anderson & Pierce, 2012; Hadlaczky, Hökby, Mkrtchian, Carli, & Wasserman, 2014).

5.6. Limitations

Due to the complex data set and the decisions made in regard to the data analysis, the present study was explorative and not without limitations, but these do need to be critically considered. Whereas some might argue that the vignettes were. too brief to adequately represent the reality of the elements studied, O'Dell et al. (2012) suggested that a lack of details gives participants the opportunity to "project their feelings, views and social norms onto the character in the vignette" (p. 704). The

vignettes being fictional and participants being not really facing the situation described (Link et al., 2004; O'Dell et al., 2012), this approach does not perfectly replicate what participants would do or say if they were really experiencing those situations (Burns & Rapee, 2006; O'Dell et al., 2012; Yap et al., 2014). Instead, this approach gives an indication on how participants think they would respond in such situation and has the advantage to present a more elaborate stimulus to the participants than simply asking about MHIs and depression (Link et al., 2004). Furthermore, although the vignettes were presented in a quasi-random, crossed order, the same order was used with all the respondents. Future studies using this design may want to adopt a randomised design in order to reduce the bias potentially attributable to potential order effects (e.g., fatigue, boredom; cf. Auspurg & Jäckle, 2017).

If mass media can sometimes negatively stigmatise people with MHIs, media coverage and current mental health campaigns may also, in contrast, have a demystifying effect (Lauber et al., 2005; Lauber et al., 2003). Efforts undertaken by the media (Reavley & Jorm, 2011) and current mental health campaigns to increase people's awareness about MHIs may partly explain the high recognition rate of moderate and severe forms of depression. It is, therefore, possible that participants would be more familiar with depression than with any other disorder due to the worldwide incidence of this MHI (Lauber et al., 2005; Sai & Furnham, 2013; WHO, 2018b) and hence, more disposed to show any concerns in regard to that MHI. Then, in addition to the impact of media coverage and awareness campaigns, self-reported responses may also be tarnished by some social desirability. Participants having rated their own knowledge, attitude and reactions, their responses are susceptible to respondent bias. Furthermore, while participants were asked about previous contact or experience with MHIs, they were not asked about formal training they may have

undertaken at some point. Future studies investigating ones' representation of MHIs may want to examine the impact of extraneous variables such as previous training, gender and having a MHI themselves.

Then, given the focus on depression, the present findings might not be generalizable to other mental disorders as they might not be representative of participants' perceptions and attitudes towards other existing MHIs, especially as the stigma might be different from one MHI to another (e.g., Jorm & Wright, 2008; Lauber et al., 2003). From a statistical perspective, even though the Central Limit Theorem stipulates that the means of sample sizes greater than 5 or 10 per group are approximately normally distributed and are, therefore, big enough to be used with ANOVAs (Norman, 2010), caution is required in terms of generalising the present findings due to the different participation rates between groups. A reason explaining this low participation or completion rate for certain sub-groups (e.g., art performers, military) may be attributed to the stigma or to the research topic generating some emotional discomfort in participants or, alternatively, the questionnaire length. Given the limitations arising from the sample used within the present study, replications of the present study using larger and more equivalent sample sizes are warranted. In doing so, future studies may decide to use an estimate value of the expected size effect for the power analysis in order to determine the sample sizes, based on the data presented herein. Finally, the present study did not look at important features of stigma such as perceived or experienced stigma, for instance, nor at the differences between groups in terms of gender nor within-group differences in terms of age and gender. Further studies should not only consider those constructs but also investigate how previous personal experience of MHIs may influence perceived stigma or experienced stigma as well as participants' role perception and engagement in helping behaviours.

5.7. Conclusion and Next Steps

In conclusion, the present chapter addressed Objective 4 of this thesis and added to the current literature on mental health by highlighting how the social context may impact on performers' recognition abilities, reactions and attitudes towards a MHI such as depression. Slight differences in knowledge, reactions and significantly different attitudes towards depression depending on the environment in which participants were embedded (e.g., sport, art, military, general population) were identified. The present data, therefore, confirmed previous findings (e.g., see Chapter 4) highlighting the importance of tailored mental health literacy interventions. Accordingly, Chapter 6 sought to address those needs by (1) critically reviewing the literature, (2) setting up parameters for the design of mental health prevention programmes and (3) offering recommendations regarding the development of effective mental health support and care in high-level sport environments.

CHAPTER 6

RECOMMENDATIONS REGARDING THE DEVELOPMENT OF EFFECTIVE MENTAL HEALTH SUPPORT AND CARE IN SPORT ENVIRONMENT

6.1. Introduction

As emphasised in previous chapters, mental health has become a hot topic in sport with greater attention from the media and an exponential growth of research on high-performing athletes' MHIs (see Chapter 1). Reflecting the prevalence of MHIs in the general population and the growing recognition of the impact of untreated MHIs on quality of life (WHO, 2018a), mental health campaigns (e.g., Mental Health Awareness week, Blue Light programme, Time to Change) and interventions (e.g., Mental Health First Aid; Kitchener & Jorm, 2002) have been launched to raise public awareness and support for those experiencing such challenges. The development and implementation of mental health interventions specifically targeting high-level sport environments are, however, still in the early stages of development. Accordingly, the purpose of this chapter was to critically review, set up parameters and offer recommendations regarding the rationale behind the development of effective mental care in high-level sport environments. Reflecting Objective 5, the current chapter focuses on (1) reviewing different perspectives on offer concerning mental health interventions, (2) outlining important parameters that mental health programme(s) should consider to take on the challenges raised by MHIs in high-level sport, and (3) adding to the mental health in sport debate with a few thoughts for the future.

6.2. Brief Overview of the Current Literature on Mental Health Interventions

The growing focus on mental health, the stigma surrounding MHIs and the difficulties encountered to seek and/or access professional help (Kelly et al., 2007)

have led to the development of a variety of interventions and awareness campaigns targeting the general population (e.g., Anderson & Pierce, 2012; Bapat, Jorm, & Lawrence, 2009; Kitchener & Jorm, 2002, 2008; Lauber et al., 2005; Livingston et al., 2013). The main purpose of these interventions is to increase the general public's knowledge and attitudes towards MHIs as well as their confidence to be of assistance if needed (Anderson & Pierce, 2012; Bapat et al., 2009).

Mental Health First Aid (MHFA; Kitchener & Jorm, 2008) is, for instance, one of the most widely used interventions and is applied across various settings. This 2-day standardised programme aims to: (1) inform the general public about mental health in general, common mental disorders found in the general population (e.g., depression, anxiety disorders, psychosis, substance abuse) and their treatment options, (2) promote self-help strategies, help-seeking and supporting behaviours and, as a consequence, (3) reduce the stigma and negative attitudes associated with MHIs (Hadlaczky et al., 2014; Kitchener & Jorm, 2002, 2008). However, while evidence suggests that MHFA increases participants' mental health knowledge and confidence in supporting individuals suffering from MHIs (Hadlaczky et al., 2014; Kitchener & Jorm, 2002, 2008), there is a lack of information and/or research regarding the long-term efficacy of such interventions. Furthermore, reflecting some of the concerns raised earlier in this thesis (see Chapter 2), the design of MHFA is based on the needs of the general population, without any apparent recognition that consumers' requirements and needs may vary across environments (Kitchener & Jorm, 2008; Ross, Hart, Jorm, Kelly, & Kitchener, 2012). So, with the performance dimension and its challenges not being considered, MHFA in its current format may not catch the nuances highlighted earlier in regard to MHIs in high-performing athletes (see Chapters 3, 4 and 5) and, as a result, does not seem appropriate for high-performance environments, including sport.

Nevertheless, due to the growing attention being paid to MHIs in sport, some sport-specific interventions have been developed in and for sport environments. While a few preventive initiatives targeting eating disorders have been developed specifically for athletes with promising results (Bar, Cassin, & Dionne, 2016), programmes targeting MHIs in athletes are, however, less common and less widely promoted than MHFA. Sebbens et al. (2016), for example, aimed to develop a brief, less generic, and more context-specific mental health literacy workshop targeting coaches and support staff working in high-level sport environments. In contrast, Gulliver et al. (2012b) developed a brief Internet-based intervention targeting young athletes' depression literacy, help-seeking attitudes, intention, and behaviours. Expanding on this, Gavrilova and Donohue (2018) stressed the importance of skill development as a key component of mental health interventions. In contrast to the other interventions, Gavrilova and Donohue (2018) emphasised the use of cognitive-behaviour therapy and positive psychology components which, even if taught initially to optimise sport performance, were proposed to support performance outside the sporting arena. Gavrilova and Donohue (2018) also stressed the importance for programme trainers to be familiar with the culture of the organisation in which they deliver the programme; another element which seems lacking from the use of MHFA.

Although sport-specific interventions are welcomed and show some promising results, however, the lack of methodological rigor and consistency limit the extent of their comparison as well as the significance of their conclusions (e.g., frequency and duration of each program, content, delivery methods, modalities, efficacy assessment; Breslin, Shannon, Haughey, Donnelly, & Leavey, 2017; Powell, Proctor, & Glass, 2014). Those limitations are further supported by the lack of evidence about the sustained effectiveness of the interventions currently available (Breslin et al., 2017).

Therefore, more research on primary and secondary prevention programmes targeting athletes' mental health and MHIs (e.g., longitudinal studies, follow-up studies) are warranted.

6.3. Parameters of Effective Mental Health Care in Sport

6.3.1. Culture Change.

6.3.1.1. "Performance – Person-Centred" Shift Refinement.

In recent years, sport organisations have been encouraged to promote and include the importance of mental health within their governance and organisational structures (Henriksen et al., 2019; Miller & Kerr, 2002). If the pursuit of success is paramount in a high-performance sport context, some sport cultures (or previous regimes) tend, however, to focus exclusively on the number of medals (Henriksen et al., 2019; Miller & Kerr, 2002). As exemplified by Coach 8 (see Chapter 4):

> The structures and environments are in place right now to deliver performance across the UK sport network … I think, you know moving into 2012, 2016 it was this no compromise approach that was drilled down to us from UK sport. Medals, medals, medals. And you don't have to be aligned to that philosophy, obviously I wasn't. But there was an expectation you would deliver to that and if you didn't you were out of the job. Nothing else mattered, it was irrelevant. So, if we didn't win any medals because we had some mental health issues it was irrelevant. You couldn't have an excuse for not performing; you didn't perform.

Performance and winning are implicit to high-level sport and some aspects of high-performance environments are, of arguable necessity, brutal (e.g., training load, risk of injury, sacrifices). Nevertheless, athletes' performance and health should not be seen as mutually exclusive. Even though the emphasis in high-level sport is on

performance, athletes' welfare also has importance, not only because experiencing MHIs can interfere with one's performance level (Gulliver et al., 2012a), but also because a focus on performance alone can negatively impact performers' physical and mental health (Miller & Kerr, 2002). This is not only true for athletes but also for coaches and staff members whose careers may depend on their athletes' performance. Therefore, to achieve better performance and maintain their well-being, Miller and Kerr (2002) recommended a shift from an exclusively performance-centred to an athlete-centred model addressing the person as a whole (e.g., the performer and the person behind the performance). Accordingly, sport organisations and National Governing Bodies must not only promote, but also actively undertake a refinement of their focus (e.g., "winning" but in "optimum" health conditions) by ensuring the requisite support for their members' physical and mental health. This shift of focus, valuing both performance excellence and health (i.e., physical and mental), would encourage athletes to develop both the sport and life skills needed to negotiate their everyday life within and outside the sport context (Miller & Kerr, 2002).

6.3.1.2. Reducing the Stigma.

As emphasised in Chapter 3, stigma surrounding mental health in sport environments is still present. More importantly, such stigma is perceived by athletes that have been confronted with MHIs as very damaging (e.g., *"the stigma is the killer"*; see Participant 2, see Chapter 3) and occurrences as mostly due to misconceptions and/or misunderstanding associated with topics such as mental health (see Chapter 3, Schwenk, 2000) and mental toughness (Gucciardi et al., 2017). As previously mentioned, mental health is often reported as tainted with "stigmatisation, denial, and dichotomous paradigms of "psychological" versus "physical" disease" (Schwenk, 2000, p. 94). Yet, such views can often lead to athletes' reluctance to seek help

(Gucciardi et al., 2017; Gulliver et al., 2012a; Putukian, 2016; Schinke et al., 2017), which negatively impact their care (Schwenk, 2000; Talebi et al., 2016). Stigma is, therefore, an important feature to address when considering the support and care of athletes' mental health.

Nevertheless, the stigma associated with MHIs in sport culture is not a universal phenomenon. U.K. Rugby League, for instance, is on face value a very macho sport but has focused on athletes' mental health and welfare for a number of years (e.g., Rugby League Cares - providing practical advice and professional referral). Cricket is another example of sport in the U.K which has developed funds and resources to support their athletes in terms of MHIs (Souter et al., 2018). Therefore, to properly reduce the stigma surrounding MHIs in sport, a first step may be to target and identify the cause of that stigma (e.g., attitudes and beliefs) at every level of an organisation (e.g., stakeholders, staff members, coaches, athletes, fans) in order to address both individual and structural discriminations (Link & Phelan, 2001). This idea is not new but has, perhaps, been recently and potentially overly emphasised by the media. One concern would be that, as a consequence, national sport organisations may have made a somewhat blanket, almost knee jerk reaction to MHIs. In reality, however, the genuine situation regarding MHIs may, as suggested in previous chapters, require a more sport- and micro context-specific approach; in short, sport generic and sport-specific. The contention here would be that, rather than top-down driven culture change initiatives, a bottom up approach targeting both an individual's and their social system's empowerment would be a more effective strategy (cf. Martinsen et al., 2014a; Martinsen et al., 2015) whilst not imposing an overly formal cultural structure. As an extension, a combination approach with top-down and bottom-up elements may be even more efficacious.

Furthermore, although MHIs may often lack visible symptoms and/or might be considered as more personal than physical injuries (Delenardo & Terrion, 2014; McNair et al., 2002), as highlighted earlier by Participant 2 in Chapter 3, a MHI is *"... not a flaw, it's an illness. It can be treated ...It can be sorted out just like any other injury*". Other interesting comparisons can be made between MHIs and physical injuries in sport. Notably, athletes do not report stigma following physical injuries even though specialist knowledge to treat these injuries is usually lodged solely with medical and paramedical staff. In fact, Malcolm and Sheard (2002) stressed the need for an increased "awareness of health issues and the long term consequences of injury" among athletes (p. 167; cited in Theberge, 2008). Given the (presumed) prevalence, and certainly the impact of MHIs in sport, reframing MHIs in the same way as physical problems could potentially reduce the stigma associated with MHIs and encourage athletes to seek professional help (Kitchener & Jorm, 2008; Talebi et al., 2016). Finally, in addition to the de-stigmatisation of MHIs and de-mystification of mental health service providers, reducing the stigma also implies opening the dialogue about MHIs at every level of the sport organisation. Opening the dialogue seems a crucial first step as it may increase the normalization of experiencing symptoms of MHIs or a MHI, decrease the stigma associated with asking for help (Vogel et al., 2007) and maximise the support offered to athletes and staff members. This may be even more effective when it is built on checking what already exists. Enforcing checks on already tolerant and caring environments (e.g., UK Sport's Culture Health Check produces) are, at best, counterproductive and often also alienating. In short, in line with previous studies (e.g., Andrade et al., 2014; Kelly et al., 2007), findings from the present thesis (see Chapters 3, 4 and 5) suggest that an increased understanding and awareness of MHIs is required along with increased recognition of the need for and the means to

access professional help in order to address the relationship between stigma and MHIs in sport.

6.3.2. Implementing Long-Term Changes – What Would such an Approach Involve and Look Like.

Despite the growing attention that MHIs are receiving in sport, there is still little scientific evidence regarding the programmes and/or practices available to assist athletes' mental health. So, whilst there is an undeniable need to promote mental health and demystify MHIs in sport settings, the question regarding what is needed remains unanswered. Based on the findings from earlier chapters (e.g., participants' experience, representation and perceived needs) as well as on cognitive and behaviour change literature, a preliminary response to that complex question was attempted.

6.3.2.1. Considering the Full Picture.

With an overwhelming number of behaviour change theories offering a unique perspective on how and when a behaviour does or does not occur (Allan, Vierimaa, Gainforth, & Côté, 2018; Michie, van Stralen, & West, 2011; Vallis et al., 2018), the principles ensuing from psychotherapeutic models such as cognitive and behavioural therapy (CBT) can offer some lead regarding the parameters to consider in terms of athletes' mental health support and care. CBT is, indeed, one of the most researched, employed and empirically supported psychotherapeutic models (Fenn, 2013; McArdle & Moore, 2012). One of the main objectives of this approach is to reduce one's psychological distress by increasing their awareness of what they experience (e.g., what is happening and why) as well as by providing them with skills allowing them to be actively involved in their own care (Fenn, 2013; Rodgers & Tajet-Foxell, 2011). Often used with people experiencing mild to severe problems to help them develop more adaptive cognitions and behaviours (Fenn, 2013; Rodgers & Tajet-Foxell, 2011),

the CBT principles could be pertinent to consider in relation to the development of primary (e.g., aiming at reducing the incidence of new cases of MHIs) and secondary (e.g., addressing early symptoms of MHIs) prevention programmes.

As postulated by the CBT framework, our experience is affected by our emotions, cognitions, behaviours and physical symptoms and their interactions (see Figure 6.1). Such interactions are not only idiosyncratic in nature, but they are also influenced by external factors such as the context (e.g., social, cultural, familial) in which an individual operates (Collins, 2011; McArdle & Moore, 2012). Furthermore, while one needs associated knowledge (e.g., how, why, what) to behave in a certain way (Martinsen et al., 2015), behaviours also needs to be taken into consideration to achieve sustainable outcomes (see Figure 6.1).

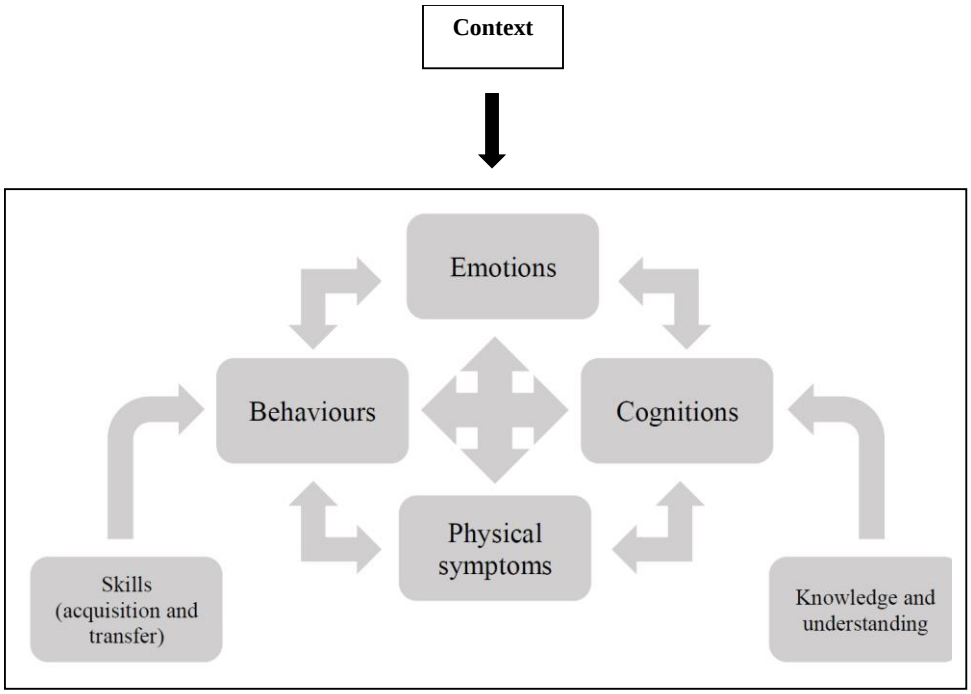


Figure 6.1 CBT premises to a mental health prevention programme (figure adapted from Greenberger and Padesky (1995); cited in Fenn, 2013).

Indeed, as indicated by its name, this model postulates to work on both cognitions and behaviours in order to achieve sustainable change. Besides, enacting on one component affects the others which can further lead to the consolidation of new cognitions and behaviours.

6.3.2.1.1. Targeting Knowledge and Mental Health Literacy.

As suggested by participants in Chapter 3 and 4, a good starting point starting point would be to increase individuals' mental health literacy. Improving individuals' knowledge, attitudes, and behaviours towards MHIs is, indeed, one of the key components previously emphasised by mental health interventions having shown promising short-term success rate (Gulliver et al., 2012b; Kitchener & Jorm, 2002, 2008; Sebbens et al., 2016). When targeting knowledge, however, it is worth considering the exact role an increase of knowledge should or could play.

Perhaps such work should, therefore, seek an attitudinal change (acknowledgement, perception and tolerance) coupled with empowerment (things that can be done) with this outcome facilitated by general information rather than driven by condition-specific breakdowns. In short, what conditions might generally look like rather than a symptom-based distinction between conditions (e.g., MHFA). As stressed by coaches in Chapter 4, people working within high-performance environments (e.g., coaches, support staff) do need to be adequately equipped to be able to acknowledge the potential existence of a problem (e.g., signs) and to be aware of the benefits of seeking professional help. They do not need to be, however, nor indeed want to become experts, or possess the same amount of information on MHIs than health professionals. The issue here is, therefore, not so much if sportspeople are able to recognise the difference in degrees of severity and/or to make the right diagnosis (see Chapter 5) but whether they have enough understanding about mental health and MHIs in general to notice when it might be more serious than the normal ups and downs inherent in sport, especially as the symptoms (Doherty et al., 2016) and prevalence of certain type of MHIs can differ from one sport to another (Rice et al., 2016; Schaal et al., 2011). Moreover, athletes have shown to better adhere to programmes adapted and

sensitive to the environments they are embedded in (Gavrilova & Donohue, 2018; Shannon et al., 2019). Therefore, as suggested by the findings in Chapter 4 and in line with Sebbens et al. (2016), context-specific knowledge in relation to audience's sport and sport environment may be more appropriate and efficient than broad and general information. Indeed, as suggested in Chapter 4, athletes and coaches may better respond to programmes meeting their perceived needs and focusing more on the quality than on the quantity of the information shared.

The lack of knowledge and understanding about mental health services (e.g., providers and the services provided; see Chapter 5), their availability and, more importantly, how and when to access them (Gulliver et al., 2012a; Rickwood et al., 2005) are other obstacles to help-seeking that need to be addressed by preventive initiatives. Indeed, as outlined in Chapters 3 and 5, people tend to either not perceive the need for help and/or treatment (Andrade et al., 2014) or turn to informal sources such as family and friends for support (Reavley & Jorm, 2011; Rickwood et al., 2005). However, when individuals seek professional help, they tend to see a GP or a counsellor instead of a health professional such as a psychiatrist and/or psychologist (Burns & Rapee, 2006; Reavley & Jorm, 2011). A shared understanding is indispensable to any collaborative work (Bickley, Rogers, Bell, & Thombs, 2016), so attention should also be paid to individuals' education and genuine understanding regarding the professional help available and, more specifically, on the differences between the roles and services provided for instance by counsellors, clinical psychologists, sport psychologists and sport psychiatrists (Reavley & Jorm, 2011).

6.3.2.1.2. Skills Development, Deployment and Transfer.

Cognitive changes influencing behaviour change (McArdle & Moore, 2012), shaping knowledge and instructions are commonly used as behaviour change

techniques (Allan, Vierimaa, Gainforth, & Côté, 2018). Although education and awareness are essential components of an anti-stigma campaign, used alone, education and awareness are unlikely to achieve long-lasting outcomes (Livingston et al., 2013). To prevent and/or reduce the incidence of MHIs, the support offered to athletes would need to also be directed towards the protection and flourishing of their mental health and overall well-being (Uphill et al., 2016).

Being equipped with appropriate resources (e.g., knowledge, skills and/or tools) to better care for their mental health was a key message from participants interviewed in Chapter 3 and Chapter 4. Indeed, compared to previous studies (e.g., Gavrilova & Donohue, 2018; Sebbens et al., 2016), participants in the present thesis emphasised the importance of (1) improving athletes', coaches' and support staff's knowledge of and attitudes towards MHIs as well as (2) empowering them with skills (things that can/cannot be done). As high-level performers have to develop and deploy a variety of skills and strategies on their way to the top and to sustain performance excellence (MacNamara et al., 2010; Nicholls & Polman, 2007), another useful step may be to encourage athletes to identify their personal resources and use them more widely. Indeed, while the possibility of a skills-based transfer from sport to daily life is speculated upon in the literature (Gould & Carson, 2008; Kendellen & Camiré, 2019), findings from Chapter 3 suggested that elite athletes tend to not use the skills acquired through their sport career to deal with challenges faced outside the sport context. Therefore, in addition to increasing their mental health literacy, athletes and coaches should not only be encouraged to develop and apply new strategies but, more importantly, they should also be encouraged to use their already well-established skills to take on the challenges associated with mental health and MHIs when facing them. Indeed, while athletes can learn and develop knowledge, skills and behaviours in

regard to maintaining, protecting or managing their (mental) health, supporting athletes to recognise the transferability of such skills (e.g., from life to sport and from sport to life) may be of uniquely valuable. However, to do so, psychological skills and strategies may need to be explicitly taught and practised as being transferable to other contexts. Indeed, according to previous studies (Fogaca, 2019), skills-based transfer from sport to daily life would be more effective when explicitly taught and rehearsed.

Being able to retrieve and effectively implement such strategies at the appropriate time and depending on one's needs is an important skill in itself that athletes can acquire through practice (Dohme, Backhouse, Piggott, & Morgan, 2017). While declarative memory is comprised of factual information, the procedural memory is more automatic and contains information on how to perform a task or a skill (McArdle & Moore, 2012). Practise and rehearsal are, therefore, essential features of the skill acquisition process (Allan et al., 2018; Martinsen et al., 2014a; Michie, van Stralen, & West, 2011) given that the consolidation of a new task or skills in the procedural memory is achieved through its repetition (Michie et al., 2011). Practising and rehearsing skills and behaviours (e.g., practical skills assignments) are, indeed, common behaviour change techniques. Engaging in practise and rehearsal (e.g., via practical skills assignments) can foster one's sense of control and, in turn, enhance their self-efficacy and/or confidence in that skill or behaviour (Wilson, 1999). Besides, sense of mastery further increases one's sense of competence (e.g., self-efficacy) a requirement for sustained engagement in a behaviour (Bandura, 1978; Duffy et al., 2019) and in mental health self-management (Shannon et al., 2019).

6.3.2.1.3. Importance of Social Support.

Another element stressed in Chapters 3 and 4 is the importance of social support. The use of social support is also, coincidentally, one of the fundamental skills

of developing excellence in pursuit of athletic achievement as mentioned earlier (MacNamara et al., 2010). Due to its stress buffering effects (Fogaca, 2019; Freeman & Rees, 2010; Lazarus & Folkman, 1984), the development, improvement, and use of one's social support is essential to promote in regard to mental health (Schinke et al., 2017; Uphill et al., 2016). A good social network can foster one's emotional disclosure and support, tangible support, coping opportunities as well as one's confidence in their capability to cope (Fogaca, 2019). Although the ultimate decision to seek help is personal, social support, encouragements from others, sense of connection, and environments where the expression of emotion and openness are encouraged are often considered as protective factors (Patel et al., 2007). These factors can have a high influence on whether athletes' acknowledge a problem and can subsequently foster help-seeking behaviours (Gulliver et al., 2012a; Rickwood et al., 2005; Talebi et al., 2016; Vogel et al., 2007). For example, Scott et al. (2019) emphasised the active role teammates may play in the prevention and support of fellow teammates regarding issues such as disordered eating behaviours. Consequently, in line with Participant 4's experience (e.g., "*my teammates will be keeping an eye on me making sure everything's OK but that's just their way of caring and showing support*"; see Chapter 3), taking the example of the military model (e.g., peer support; Langston et al., 2010) and Wadman et al.'s (2019) suggestion of peer-led support, a buddy system where athletes buddy up and support one another may be an option to consider and encourage given that friendship is one of the primary sources of support (Swann et al., 2018).

Furthermore, as pointed out by Bar et al. (2016), primary and secondary prevention programmes may have a better chance to be effective when offered to multiple targets (e.g., athletes, coaches and sport administration). Thus, involving athletes' families and sporting staff (e.g., coaches, administrators, support staff) could

not only foster the development of a shared understanding between the athlete and their whole entourage regarding MHIs and its subsequent care (Bickley et al., 2016), but also increase the effectiveness of a preventive action implemented in the sport environment (Bar et al., 2016). Indeed, as part of an athlete's social support, coaches, support staff and athletes' entourage have a key role to play in the creation of an environment that promotes mental health (Martindale et al., 2014). Whilst coaches and athletes' close entourage can facilitate the early detection of psychological distress, support athletes, and foster subsequent help-seeking behaviours (Martinsen et al., 2015; Nowicka et al., 2013; Rickwood et al., 2005; Schinke et al., 2017; Sebbens et al., 2016; Vogel et al., 2007), their involvement in and support towards mental health prevention programmes is believed to impact athletes' adherence towards the conveyed message by such initiatives (Bar et al., 2016). As such, coaches and athletes' entourage can help prevent psychological distress and sub-clinical MHIs to escalate to a full-blown disorder (Heim et al., 2005; Nowicka et al., 2013). Nevertheless, as stressed in Chapter 4 and previous research, in order to do so they need to develop adequate knowledge and skills about mental health to fulfil their role (Mazzer & Rickwood, 2015a; Swann et al., 2018) and respond to their athletes' needs in a helpful way (e.g., Martinsen et al., 2014a; Martinsen et al., 2015; Sebbens et al., 2016). This is even more important as young athletes perceive their coaches' and family's mental health literacy, and the relationship they have with them (e.g., supportive, trustworthy), as important prerequisites when considering whether they seek help or talk to them about mental health concerns (cf. Swann et al., 2018).

Nevertheless, when discussing the importance of empowering athletes, coaches, and significant others, caution is required. As previously stressed (see Chapter 3), the idea is not to teach athletes a list of strategies that they should

systematically apply when confronted with MHIs. Instead, in order to be willing, ready, or able to learn or change their behaviours, they need to have a better understanding and awareness of why and how to do so. As such, developing psychological skills does not simply refer to building a skills set but also involves developing performers' ability and confidence to identify and deploy their skills (alone or in combination) to address the challenges they are facing (Collins & Macnamara, 2017). Accordingly, promoting both the development and transfer of psychological skills allowing participants to better handle challenges both within and outside the sport domain, such as their mental health and well-being, seems to be a logical path to follow when designing mental health interventions. Moreover, as summarised in Figure 6.2, involving one's social support system involves multiple targets (e.g., teammates, coaches, support staff, significant other) which, in turn, requires to adapt the design of any prevention programmes to their targeted audience (see Chapter 4; Gavrilova & Donohue, 2018; Martinsen et al., 2014a; Martinsen et al., 2015).

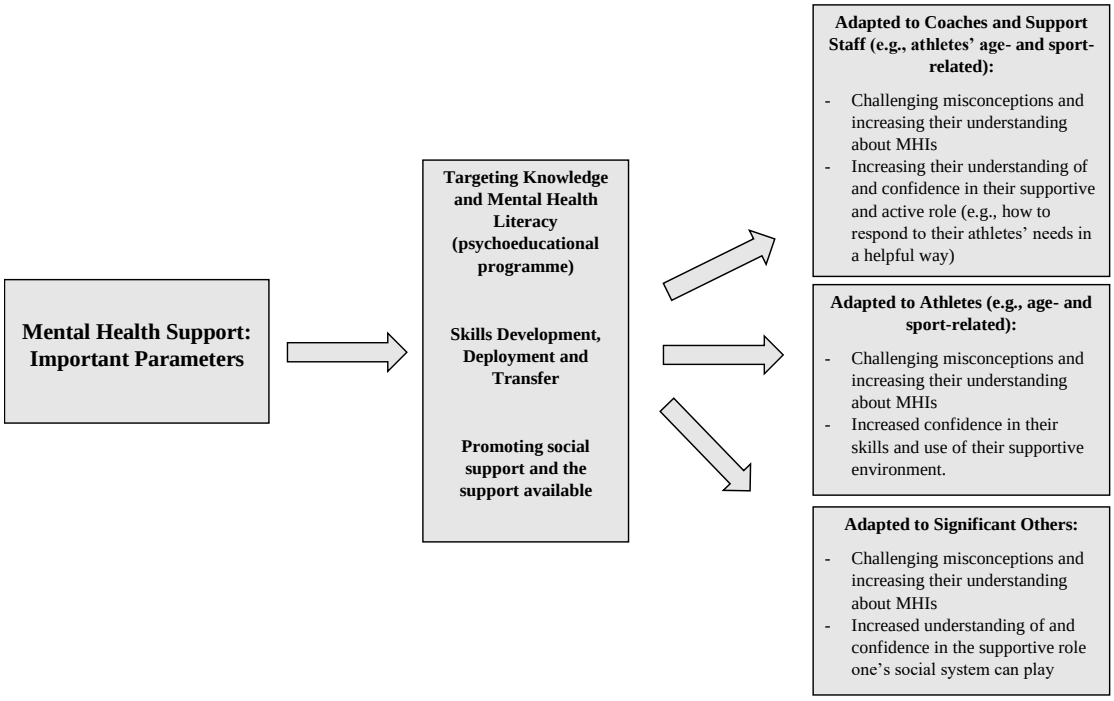


Figure 6.2. Parameters to consider for the design of MHIs prevention programmes.

6.3.2.2. Programme Design: Ready, Willing, Able to Change.

Although built on the premises of the CBT model, the parameters and recommendations (e.g., targeting knowledge and skills) discussed so far are in line with previous behaviour change models such as the COM-B (Michie et al., 2011) or Bandura's social–cognitive framework (e.g., competence and self-efficacy). Indeed, adding to the CBT model where the outcomes involve changes in an individual's own thoughts pattern and behaviours, the changes suggested in this chapter are in line with the COM-B which entails changes at both an internal (e.g., physical and psychological) and external (e.g., environmental) levels (Michie et al., 2011). Michie et al.'s model postulates that engaging in a new behaviours and sustaining it depends on one's capability, opportunity and motivation (Michie et al., 2011). In this instance, one's capability includes physical and psychological knowledge (e.g., reasoning and comprehension) as well as the skills necessary to engage in the aforementioned behaviour. In contrast, motivation refers to the emotional, reflective (e.g., analytical) and habitual (e.g., automatic) cognitive processes influencing and directing a behaviour (Michie et al., 2011). Then, opportunity involves all the factors that may influence the likelihood of a behaviour and that are outside an individual's control (e.g., physical and/or social environment; Michie et al., 2011). Such as with the 4 features of the CBT model, those three elements interact and influence each other. Therefore, focusing on sportspeople's (e.g., coaches, athletes, stakeholders) knowledge and skills would, for example, influence the "capability" pole of the COM-B model and, as a result, their motivation and opportunities to engage in such actions.

6.4. Where to Go from Here:

6.4.1. Use of Referral and Appropriate Measures.

Multidisciplinary collaboration (e.g., psychologists, sport organisations, coaches and experts in sport medicine) and actions may be more effective to promote mental health and prevent MHIs in athletes (Bar et al., 2016). Interdisciplinary approaches would seem to offer even more benefit. Consequently, prevention programmes targeting athletic populations should not only aim to be context-specific (Sebbens et al., 2016), but should also encourage the collaboration between stakeholders (e.g., sport community and mental health professionals) to guarantee that prevention programmes meet the athletes' and staff's needs (Bar et al., 2016).

One way to do so may be to promote the support available within the sport environments and endorse referral systems adapted to their population by facilitating partnerships with suitable service providers (Curran et al., 2017). Indeed, while coaches and significant others are in a good position to monitor and support their athletes' performance and well-being, they are, however, not equipped to properly deal with MHIs (see Chapter 4). Therefore, recognising that dealing with MHIs *per se* is not their job (Ferguson et al., 2018; Mazzer & Rickwood, 2015a), it is crucial for stakeholders and sport environments, to recognise the benefits and limits of each member's actions (e.g., authority and expertise; Miller & Kerr, 2002). In this regard, working together with the sport environment - by recognising the unique skills set of each member (e.g., coaches, support staff, health professionals) and the benefits of working as an interdisciplinary team in an integrative approach (Kamm, 2008; Reardon et al., 2019) - is especially valuable in the present context where it can aid the early detection of psychological distress and provide better (proactive and retroactive) support to those concerned (Gouttebarge et al., 2015a; Gouttebarge et al., 2018).

Therefore, as suggested in Chapter 4, developing a comprehensive support network including trained clinical psychologists owning expertise in both their area and sport (see Chapter 2; Moesch et al., 2018), or at least working in collaboration and alongside a sport psychologist in a complementary way (Eubank, 2016), could be a first step to make the most of the support available. Those are important requirements given the stigma associated with health professionals (Glick & Horsfall, 2009) and sportspeople's "absence of trust or skepticism surrounding the professionals' understanding of the challenges of the sporting environment" (Roberts et al., 2016, p. 3). Trust and sense of security are of upmost importance to build an alliance between a person in need and a health professional (Rickwood et al., 2005). Therefore, given the potential facilitative component of having an established relationship with health professional(s) (Gulliver et al., 2012a), creating and promoting such support networks may ease the referral process and improve the trust towards health professionals (Gulliver et al., 2012a).

It is, therefore, also important that MHI interventions in sport focus on the mental health literacy of the support staff working with athletes. Often, sport psychologists do not own the professional training and experience required to adequately assist athletes suffering from MHIs (Roberts et al., 2016), while sport physicians are often too focused on physical factors without paying attention to the potential psychological factors involved (Mann et al., 2007). As such, both sport psychologists and physicians may need to be better trained about mental health and to acknowledge when a situation falls outside their professional competency in order to trigger the appropriate referral (MacNamara & Collins, 2015; Moore, 2003; Roberts et al., 2016). Whilst working with high-performing athletes involves unique challenges

for sport medical and support teams (Glick et al., 2012), MHIs definitely brings additional challenges to the picture.

In addition, as emphasised in Chapter 2, there is serious risk for under-treatment (Pierre, 2012), especially considering athletes' potential denial of psychological problems or pain (Glick et al., 2012). This risk must be, then, balanced with careful considerations about (mis)diagnosis (Schwenk, 2000). Since mental health in high-performance sport is currently a focus, and as "the borderline between under- and over-diagnosis is very difficult to judge" (Meeusen et al., 2006, p. 3), people working in those environments may tend to become overcautious seeing MHIs everywhere (see Chapter 4). As shown in Chapter 2, 4 and 5, it can, sometimes, be easy to worry too quickly and confuse normal growth or life issues with precursors of MHIs, especially if not considering the whole picture; namely, the context (e.g., within and outside the sport environment) and the individual (e.g., age, gender). As one of many examples, adolescent performers may exhibit depression-like symptoms as they wrestle with their identity. Rushing to full-blown treatment may exacerbate a decidedly non-clinical problem. An accurate diagnosis is an essential first step for subsequent, effective, and successful treatment (Glick et al., 2012). Therefore, to avoid any misdiagnosis and its consequences in terms of treatment and/or care, both sport stakeholders and health professionals must recognise the differences between:

> … clinical mental health disorders (diagnosed according to recognised criteria), subclinical mental ill health (not severe enough to meet diagnostic criteria), the human condition (periodic experiences of adversity and unpleasant thoughts and emotions as a consequence of living a full life), and the athlete condition (periodic experiences of unpleasant thoughts and

emotions, such as performance anxiety, as a consequence of engaging in athletic pursuits) (Henriksen et al., 2019, p. 3).

Therefore, when health professionals working within sport environments assess performers' mental health and needs, it is important that they do not limit their evaluation to screening tests. Although the results of such testing might be informative (e.g., indicating when there is a need to involve registered professionals specialised in mental health), clinical screening tools developed for the general population may not be the most suitable for use with high-performing athletes. As the performance dimension and its challenges are overlooked (see Chapter 2), data ensuing from common psychometric measures that were not properly validated with athletes (Bender et al., 2018) should be interpreted with caution. To avoid any misinterpretation, such assessment could, as suggested in Chapter 2, seek to include the use of both functional-versus-dysfunctional and athlete-centred perspectives in order to consider the individual as a whole (e.g., performer and human being) as well as the context in which they are progressing. In similar fashion, the use of generic culture guidelines or evaluations would seem equally questionable. Once again, the context has its importance.

6.4.2. Mental Health Policies and Guidelines.

In parallel to improving and promoting the support available at a micro level (e.g., coaches and athletes), national governing bodies' and sport environments' policies and guidelines need to be revised. Roles, responsibilities and boundaries of each stakeholder must be clarified (Miller & Kerr, 2002). For instance, changing the "performance at all cost" mentality (Henriksen et al., 2019), clarifying members' roles, promoting mental health and making resources available to tackle its challenges (e.g., from a financial and human perspective; Curran et al., 2017) are some of the

responsibilities of sport organisations in order to create a supporting environment for their members. New policies need to focus on the limits of each role (e.g., "who does what?", see Chapter 4) and the steps to follow at each level in reaction to MHIs (e.g., what to do when facing MHIs and how to do it) or to promote mental health. Indeed, clarifications of their roles (e.g., duties and limits) and procedures may help to reduce or avoid any conflict of interest some coaches might be subject to in such situation (e.g., performance-oriented funding and/or job security; see Chapter 4). As previously mentioned, the debate needs to consider promoting mental health and taking action towards mental health conditions (e.g., from mild to severe psychiatric conditions) in the same way physical conditions are treated without stigma. People often do not know how to handle those issues (e.g., "what issues?", see Chapter 4). While destigmatising MHIs in sport could lead some to treat them in the same way as other physical conditions, realistically much more is needed regarding the duties and obligations of sport organisations *vis-à-vis* their members' mental and physical health.

6.4.3. Ethical Considerations.

Discussions about policies, guidelines and the creation of professional support network(s) are necessary but also bring its share of ethical challenges. Sport environments are unique in terms of applied psychology (Brown & Cogan, 2006). More specifically, ethical challenges and consideration arise from the combination of different practices (e.g., clinical and sport psychology) within the sport culture (Brown & Cogan, 2006). For instance, if on one hand, the development and promotion of a professional support network may help to overcome help-seeking barriers; on the other, ethical issues regarding the expectations and the confidentiality of such actions must be carefully considered (Anderson & Pierce, 2012; Roberts et al., 2016). Confidentiality is one of the most primordial factors in the creation for therapeutic

alliance (Brown & Cogan, 2006) and one of the most challenging factors in regard to sport settings. When hired by a third party to provide services such as counselling or psychotherapy, health professionals should to be aware of the amount and type of information which is expected to be shared, especially when working within an interdisciplinary team (cf. Collins, Moore, Mitchell, & Alpress, 1999). For example, one may wonder if a diagnosis need to be shared with the sport organisation (Brown & Cogan, 2006). Issues regarding the confidentiality (e.g., limitations) and communication must be clearly and carefully considered, discussed and agreed by all involved parties (Brown & Cogan, 2006; Moore, 2003). Indeed,

> Psychologists providing psychological services to a third party/organisation (such as when working for a college athletic department or professional sport organisation) present to the client, at the onset of the consulting relationship, his or her professional roles and responsibilities, identify the recipients of information, and discuss any and all limits of confidentiality that are part of the psychologist's employment contract with the organisation. (Moore, 2003, p. 602)

Furthermore, when creating such a network, it is essential for practitioners to acknowledge the boundaries of their practice (Brown & Cogan, 2006; Martindale et al., 2014). If not specially trained as such, a clinical psychologist or a psychiatrist is not a sport psychologist, and *vice versa*. More attention must be paid to "one's professional position from ethical, legal and philosophical standpoints" (Martindale et al., 2014, p. 70). Therefore, ethical dilemmas that may ensue from the implementation of such a professional network must be carefully addressed at its creation according to the practitioners' code of professional conduct and ethical standards (e.g., BASES, BPS, HCPC).

6.5. Conclusion

Despite the importance of mental health in sport, proactive and reactive actions are still in their development phase with no evidence of sustaining effectiveness. Reflecting these concerns, a whole community and an person-centred approach targeting the prevention, management, and de-stigmatisation of MHIs by improving individuals' understanding, attitudes and tolerance towards MHIs, as well as by increasing their resources (e.g., knowledge, coping skills, social support; Schinke et al., 2017) must be advocated. Empowering sportspeople to recognise and adequately react to any sign of distress in others and/or themselves (e.g., fostering help-seeking behaviours, providing referral; Schinke et al., 2017) along with a sport culture supporting both performance excellence and health may be a good start. Nevertheless, when planning and delivering mental health interventions, the organisation (e.g., its needs and culture) and the audience (e.g., age, role, sport, help-seeking facilitators or barriers; Beable et al., 2017; Gavrilova & Donohue, 2018; Gulliver et al., 2012a; Kelly et al., 2007) must be carefully considered. Indeed, attention must be paid to the overall packaging (e.g., content and format) and delivery methods of such interventions (Kelly et al., 2007; Powell et al., 2014) as it might enhance consumers' receptiveness to and the potential long-term effectiveness of such interventions.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1. Introduction

With poor mental health being an obstacle for both performance and well-being, athletes' mental health is a major resource through their sporting career and beyond (Henriksen et al., 2019; Schinke et al., 2017). However, despite the growing awareness and increased attention on mental health in high-performing athletes, a paucity of quality research underpinning this phenomenon still exists. This data gap impacts the quality, effectiveness, and appropriateness of the support measures focused on mental health in high-performing sport environments (Gouttebarge et al., 2018). Accordingly, the main focus of this thesis was to better understand how the challenges rising from MHIs are experienced and addressed in high-level sport environments in order to improve the support offered to this unique population. As evidenced throughout this thesis mental health in high-level sport contexts warranted further exploration. Therefore, in an attempt to start bridging the gap in the literature, this thesis utilised a pragmatic approach in combination with a mix of methods.

7.2. Summary of Findings and Discussion

As outlined in Chapter 1, a better understanding of the complexity of mental health, MHIs and their subsequent challenges is required to improve the mental health support in high-level sport environments. Indeed, mental health is more than merely the absence of mental health concerns (Henriksen et al., 2019; Keyes, 2005) and must be understood in a comprehensive way, which includes considering the performer, the person behind the performance, as well as the socio-cultural context in which he/she operates.

While similarities between high-performing athletes and the general population exist, caution is required when comparing the prevalence of MHIs between the general and athletic populations as the challenges regarding mental health and its care may, in some instances, rest upon the differences or nuances between both groups. Indeed, the unique characteristics surrounding sport participation at a high-level, the culture and norms of high-level sport environments, and athletes' personal circumstances can affect their mental health. More specifically, Chapter 2 stressed the importance of considering the socio-cultural context surrounding high-level sport participation and its possible influence on the emergence, manifestation and diagnosis of certain MHIs. By addressing the context and the lack of specificity regarding high-performing athletes' MHIs, that chapter accentuated the importance to consider the performance dimension which, in some instances, may require to adapt the diagnosis criteria (e.g., Burnout, cf. Eklund & Defreese, 2015; Raedeke & Smith, 2001), screening tools (e.g., Bender et al., 2018; Martinsen et al., 2014b; Rice et al., 2019), and support measures to high-level athletic populations by considering the differences or nuances that they might present (Glick et al., 2012; Henriksen et al., 2019). Indeed, the fact that the performance dimension appears to have been overlooked by general norms and instruments has important implications both in terms of research (e.g., quality) and in terms of applied practice (e.g., diagnosis and treatment).

Catching the full picture by highlighting the nuances between high-performing athletes and the general population is an important and crucial step that should precede a consensus regarding norms, instruments for high-performing athletes and informed practices (e.g., evidence-based interventions). As such, Chapter 3 sought to provide a rich and in-depth picture of elite athletes' own experiences of MHIs, and more specifically depression. Discussing elite athletes' perceived triggers (e.g., sport-related

or non-sport related), symptomatology (e.g., recalled symptoms and warning signs), and coping strategies, findings from Chapter 3 importantly reminded us that there is no "one size fits all" or general explanation when it comes to the emergence (e.g., triggers), manifestation (e.g., symptoms), and management (e.g., coping strategies) of MHIs. While the genesis of a MHI is a highly individualised and multidimensional process (Gouttebarge et al., 2016b), in the case of high-performing athletes, both sport-specific and life-related factors that can positively and/or negatively impact their mental health must be considered (Henriksen et al., 2019). This is even more important as not only different sports have different demands and structure, but in some cases sport participation might cause or worsen the situation while in other cases it can be used as a means to cope with MHIs (Reardon & Factor, 2010). Chapter 3 also stressed the stigma that elite athletes perceive attached to MHIs in their sport environment. Interestingly, the participants noted that this stigma was mainly due to a lack of knowledge and understanding about MHIs. Providing athletes with appropriate resources (e.g., knowledge, skills and/or tools) to better care for their mental health was a key message ensuing from participants' interviews in both Chapter 3 and Chapter 4. This seemed even more important given that only one participant explicitly reported transferring the skills and strategies learned to cope with sport stressors to other aspects of her everyday life, such as coping with MHIs. This lack of transfer is particularly concerning given the robust evidence base attesting to the role of psychological skills and strategies in facilitating athletes' development and elite performance in sport (Bartulovic et al., 2017; Collins et al., 2016; Gould et al., 2002; Gould et al., 1999; MacNamara et al., 2010; MacNamara & Collins, 2015; Orlick & Partington, 1988). Moreover, whereas developing and deploying a range of coping skills is an important strategy (Reardon et al., 2019), the importance of having and/or

developing a good social support system was particularly emphasised by athletes (see Chapter 3). Indeed, if, as highlighted in Chapters 3 and 4, social support can come from many different sources such as family, friends, teammates, coaches, and support staff (e.g., psychologists, medical and team staff members; Bianco, 2001), the type of support depends, however, on the provider-recipient relationship as well as on the knowledge and/or expertise associated with the dimension of support offered (Bianco, 2001; Freeman & Rees, 2010). Yet, whilst mental health prevention programmes commonly suggest the involvement of athletes and stakeholders for systematic change (e.g., coaches and sport administration; Bar et al., 2016; Martinsen et al., 2015; Reardon et al., 2019), what each one needs from those interventions to adequately fulfil their role and be an adequate source of support is not always clear.

Reflecting this, and recognising the importance of features such as the coach-athlete relationship (Jowett & Cockerill, 2003; Mazzer & Rickwood, 2015a) and the overlap between the at-risk periods for the first onset of MHI(s), TD pathway and athletes' peak performance years (Kessler et al., 2005; Patel et al., 2007; Rice et al., 2016), TD coaches' perspectives and concerns about MHIs were examined in Chapter 4. Findings suggested that, even though helping and supporting their athletes was a key focus of the TD coaches' job, treating and/or managing MHIs was not part of their role due to their lack of expertise in that area. Moreover, conscious of their young athletes' reluctance to disclose about or seek support regarding mental health concerns, coaches perceived the need for both themselves and their athletes to increase their understanding about MHIs and develop their skills set in order (1) for athletes, to be better prepared to deal with the stressors they might encounter and take care of their mental health (e.g., implementing certain coping strategies and seeking professional help) and (2) for coaches, to adequately respond and better support their athletes.

Whilst coaches also advocated for the creation a support network of health professionals as a means to help them respond to athletes with MHIs in a helpful way, they also recommended a clarification of sport organisations' position and each stakeholder's role (e.g., duties and limits) in regard to MHIs. This is even more important given the potential conflict of interest that may, according to some coaches, exist between MHIs and selection (e.g., selection at regional or national level). Although divergence existed on that matter, some coaches expressed concerns that team selector and head coaches may be more susceptible to experience such conflict of interest, in particular, when their funding (i.e., coaches' and athletes' job security) was depending on those latter's performance excellence. Finally, Chapter 4 also emphasised the importance to care for and research not only athletes' but also coaches' and support staff's mental health.

Following the in-depth investigation of MHIs at a micro-level (i.e., elite athletes and TD coaches), Chapter 5 attempted to zoom out and look at the macro-level by investigating the impact the social milieu in which high-performing individuals operates may have on their perceptions (e.g., knowledge, attitudes, reactions) of a MHI like depression. While slight differences in recognition abilities and reactions were identified, significant differences in personal attitudes towards depression were observable depending on the environment in which participants were embedded (e.g., sport, art, military, general population). Indeed, despite current campaigns and initiatives aiming at raising athletes' awareness (e.g., UK Sport), findings from Chapter 5 suggested that a significant number of high-performing athletes still perceived depression "as a sign of personal weakness". In line with previous research (Gulliver et al., 2012a), additional data from Chapter 5 described participants' apparent lack of information regarding service providers and treatments

(e.g., from who, where, when) which may, in turn, prevent them to seek appropriate help and support.

Together, those findings stressed the benefits of providing athletes, coaches and stakeholders with resources (e.g., coping strategies, tools, social support, and professional network) and guidance (e.g., guidelines) in order to address and adequately respond to any mental health concerns (e.g., signs of distress) in others and/or themselves from an early stage. As discussed in Chapter 6, these findings have important practical implications as they can inform the support and care offered in high-performance sport environments. Specifically, results suggested that the focus should not be solely on the kind of support (e.g., what) but also on the quality of support provided to athletes, coaches, and staff members involved in those environments (e.g., sport- and age-related). This further suggests that sport organisations (e.g., macro-level) may seek to provide coaches, athletes and staff members (e.g., micro-level) with the practical and tangible means to improve, maintain and protect ones' mental health as well as to respond to MHIs. Therefore, building on present findings and the context of high-level sport in the U.K., Chapter 6 emphasised four areas of improvements for sport organisations and governing bodies:

(1) A shift refinement to foster a sport culture advocating for both optimal sport performance and well-being (Henriksen et al., 2019) by addressing both the performer and the person behind the performance.

(2) The development of mental health prevention programmes addressed to athletes and stakeholders.

(3) The creation of a professional support network providing athletes' and stakeholders' access to appropriate expertise and support.

(4) The revision of sport governing bodies' and organisations' policies in terms of their members' roles and welfare.

While the importance of increasing sportspeople's mental health awareness no longer needs to be demonstrated, important reflections about stakeholders' role clarity and responsibilities (e.g., duties and limits) arose from the results and request further considerations. Given the blurred lines existing regarding the support of athletes with MHIs (Roberts et al., 2016) and the differences existing between athletes and the general population, challenges specific to athletes experiencing MHIs (e.g., emergence, manifestation, diagnosis, management and stigma; see Chapter 3) and the challenges faced by health professionals working with high-performing athletes and/or within high-level sport environments (Glick et al., 2012) need further consideration. Finally, even though working as an interdisciplinary team can facilitate the early identification and management of MHIs (Gouttebarge et al., 2015a; Gouttebarge et al., 2018; Nowicka et al., 2013), as highlighted in this thesis (e.g., see Chapter 4), inequalities in terms of support available exist between high-performance sport environments. Medical and/or psychological expertise are not available or easily accessible in every high-level sport or TD environments (Nowicka et al., 2013). More qualified health professionals (e.g., psychiatrists and psychologists) are needed as part of the referral network to deal with the challenges related to mental health in high-level sport (Markser, 2011; Martindale et al., 2014; Moesch et al., 2018; Roberts et al., 2016).

7.3. Limitations of the Thesis

7.3.1. Strengths and Limitations.

Using different lenses, this project highlighted the complexity of MHIs in high-performing athletes and provided some valuable insights on how to move from

knowledge to sustainable actions. Nevertheless, while the current studies have added to the sport literature by investigating MHIs in the context of U.K. high-performing sport environments from both a micro- and a macro-perspective (e.g., from an individual to a social level), there are a number of limitations that must be considered.

Recruiting high-performing athletes to take part in a research project is challenging, especially in regard to a topic such as MHIs (Glick et al., 2012). While "participant willingness, adequate sample size, and homogeneity are difficult to attain" (Glick et al., 2012, p. 642), the fact that MHIs remain taboo (Gouttebarge et al., 2015a) made the recruitment even more challenging than anticipated. Despite sport governing bodies' and organisations' initiatives to change how mental health and MHIs are perceived, the stigma associated with MIHs still persists in high-level sport and may limit individuals' willingness to participate in research on MHIs (Gouttebarge et al., 2015a; Gucciardi et al., 2017; Roberts et al., 2016). These difficulties were partially counteracted by the pragmatic approach adopted during the design of the studies and the subsequent choice of a variety of purposive participant samples (e.g., young, high-performing, elite athletes, TD coaches) and research methods (e.g., qualitative and quantitative methods). Using different samples and methods not only allowed the present findings to complement each other and draw a comprehensive picture of the phenomenon under study, but also to lessen the weaknesses of either type of method used alone (Jones et al., 2013).

There is always a risk of misinterpretation, especially with qualitative inquiry as "misrepresentations may arise due to the informants not telling the whole truth, or their being unable to express themselves, or their being affected by what they think the researcher wants to hear" (Bengtsson, 2016, p. 11). As outlined in their respective chapters, different strategies were embraced to limit, as much as possible, the biases

ensuing from the methods of inquiry. For example, while there undoubtedly are limitations with retrospective research (e.g., recall bias or memory dispersion; Côté, Ericsson, & Law, 2005), aided recall method (Drasch & Matthes, 2013), trustworthiness methods (Jones et al., 2013; Smith & McGannon, 2018) as well as open, neutral, non-judgemental interactions during the data collection (Jones et al., 2013) were used to increase the reliability of the findings. Furthermore, even though the unique context, within which this research project took place, does not enable a strict transferability of its findings to other situations, the samples and methods used throughout this project have increased our understanding of how MHIs are perceived and experienced within U.K. TD, elite, and high-performance sport populations.

7.3.2. Researcher's Background and its Influence.

Following the notion that findings result from the interaction between the inquirer and the phenomenon under study (Guba & Lincoln, 1994), the relationship between me, as the researcher, the topic, and participants needs to be taken into consideration. Indeed:

> Research questions are not inherently 'important', and methods are not automatically 'appropriate'. Instead, it is we ourselves who make the choices about what is important and what is appropriate, and those choices inevitably involve aspects of our personal history, social background, and cultural assumptions (Morgan, 2007, p. 69).

Morgan's (2007) argument seems especially pertinent in regard to context-bounded inquiries given the values and beliefs hold by the researchers and the participants (Jones et al., 2013, p. 4). It is, indeed, impossible for human beings to generate "theory-free" knowledge (Smith & McGannon, 2018). Likewise, no matter how hard we try, complete objectivity, such as complete subjectivity, are impossible to achieve

(Morgan, 2007; Smith & McGannon, 2018). Researchers' and participants' subjectivities will always, at least partially, affect the methods of investigation used and their subsequent data set (Smith & McGannon, 2018). Due to their influence on the research process, researchers' own perspectives and life experiences are, therefore, important features to acknowledge, especially when it comes to the collection and management of data (Levitt et al., 2017).

My personal background as a counselling psychologist as well as the supervisory team's background (e.g., senior clinical and sport psychologists) must, therefore, be acknowledged as they may have impacted upon the choice of methods used as well as upon the interpretation and report of the data. However, our subjectivity, personal history, and background were some resources used throughout this project to assist us in our understanding of participants' accounts (Jones et al., 2013) as well as to design the earlier studies in accordance to the project objectives. Indeed, my theoretical and practical background in clinical psychology (MSc in Clinical Psychology and Psychopathology, Université Libre de Bruxelles, Belgium) as well as my awareness of the performance psychology and context (MSc in Performance Psychology, University of Edinburgh) were indubitably some additional strengths and resources to guide me in my efforts to complete the present thesis. Furthermore, even though I recognise the potential effects of our background and perspectives on the present project, that influence was among other limited by the means of the trustworthiness methods used throughout this project (see trustworthiness sections in Chapters 3 and 4; Levitt et al., 2017).

7.4. Specific Recommendations

7.4.1. Future Research.

In order to be as efficient and effective as possible, interventions, care systems, and support targeting MHIs in sport environments should be designed to meet athletes' and coaches' specific needs (Rice et al., 2016). Extending the present findings by further increasing our understanding of athletes' and coaches' experiences and needs in terms of mental health is an important roadmap for future research.

Further studies are needed to ensure a greater clarity and consistency in the definition and diagnosis of MHIs in the context of high-level sport (Henriksen et al., 2019; Raedeke & Smith, 2001; Tamminen et al., 2012). A better understanding or consensus could help reduce the divergence of opinions that may exist between clinicians' and researchers' compared to athletes' and coaches' views of the (dys)functionality versus (un)healthiness of behaviours displayed by elite athletes and silently accepted by sport environments (Bar et al., 2016). Such results may generate more knowledge about symptoms and at-risk factors to consider when determining if general population-based mental health measures (e.g., diagnostic criteria, screening tools) need to be adapted to high-performing athletes (e.g., Bender et al., 2018; Martinsen et al., 2014b; Raedeke & Smith, 2001; Rice et al., 2019). Whilst the limitations to solely rely on self-reported measure and rating scales in the absence of clinical expertise (e.g., interviews) must be acknowledged (Reardon et al., 2019), the validation and/or development of criteria and screening tools adapted to athletic populations (Gouttebarge et al., 2015a) may allow a more reliable assessment of the extent and scope of MHIs (e.g., from good mental health to mental disorders) in this unique population. Both qualitative and quantitative study across countries, cultures and sports (Reardon et al., 2019) are, therefore, warranted in order to further increasing

our understanding about the nature, emergence, and manifestation of MHIs in the context of high-performance sports. Large scale epidemiological studies using more reliable measures are required to define the extend of mental health symptoms and full-blown mental disorders within high-performing athletes. Moreover, future studies comparing performers' symptoms manifestations and strategies used to manage MHIs depending on the performance-related or life-related perceived attribution are warranted.

Additionally, further research that examines the development of MHIs (e.g., risk-factors and triggers) may increase our understanding of the relationship between MHIs and sport participation; specifically in which cases MHIs are caused, associated, or not related to sport participation (Klinkowski et al., 2008; Reardon & Factor, 2010). MHIs in high-level performers exist but, in order to claim that high-level sport participation is detrimental for one's mental health, a causal link explaining the occurrence of MHIs in high-level athletes needs first to be formally established (Martindale et al., 2014). Distinctions between sport-related and other life challenges may lead athletes to express different symptoms, to not deploy, or feel helpless against challenges such as MHI.

Social support has been stressed in this and other studies as a key factor in the protection and/or management of one's well-being (Bianco, 2001; DeFreese & Smith, 2014; Freeman & Rees, 2010; Gouttebarge et al., 2015b; Gouttebarge et al., 2017). However, few studies have investigated the quality and dimensions(s) of social support coaches and athletes with MHIs perceive to receive from within their sport environment or the quality and dimensions(s) of social support actually offered in such occasion by and/or to fellow coaches and athletes. This stands in contrast to the importance of seeking and using social support as a performance-focused aid

(MacNamara & Collins, 2015). Therefore, examining the dimensions and effectiveness of social support offered to athletes and coaches across sports, levels, ages or/and gender would be an interesting avenue for future research. Accordingly, and given that coaches can be both a source of stress and a source of social support in terms of athletes' MHIs, research should investigate social support from both the athletes' and coaches' perspective. Comparing the providers' and recipients' perspective may provide critical information about the quality and dimension of support sought, offered or required by both formal and informal sources.

While the literature on athletes' mental health is growing (e.g., Doherty et al., 2016; Gouttebarge et al., 2015a; Gouttebarge et al., 2018; Kamm, 2008; Rice et al., 2016), studies looking into coaches' and support staff's mental health are lacking. The protection and flourishing of good mental health are not the monopoly of athletes, it concerns everyone. High-performance environments are stressful for athletes as well as coaches and other support staff members. Given the interaction between key stakeholders, more attention should be paid to coaches' and support staff's mental health. Extending our understanding of the epidemiology of mental health issues in high-level sport would inform the development and/or improvement of the support system offered to athletes, coaches and staff members involved in those high-performance and highly stressful environments (Rice et al., 2016).

7.4.2. From an Applied Perspective.

Despite the importance of mental health in sport, proactive and reactive actions are still in their development phase with no evidence of sustaining effectiveness (Breslin et al., 2017). Yet, sport organisations, coaches and support staff could be instrumentalised to promote good mental health for their athletes (Martindale et al., 2014), and this regardless of the prevalence of MHIs. As suggested in Chapter 6, high-

performance environments have the potential to offer, maximise, and foster actions supporting and empowering their members regarding their physical and mental health. However, to be as effective as possible, proactive mental health interventions need to be familiar with the context (e.g., sport demands) and adapted to the specific needs of sport organisations and their members (e.g., athletes, parents, coaches, staff members; Gavrilova & Donohue, 2018). Tailored actions considering each sport specificities (e.g., barriers and facilitators) must be developed and applied for effective care. As highlighted throughout the thesis, particular attention should be paid to "the well-being of sport protagonist by ensuring that adequate social or professional support remains accessible" (Schaal et al., 2011, p. 8). Furthermore, particular emphasis should be placed on educating and empowering people to develop, transfer and/or improve their knowledge and skills set in order to contribute to improve and/or protect their mental health. The development of psychological skills should seek to support both sportspeople's ability to monitor their own well-being and their ability to deploy those skills to deal with the challenges arising from both within (e.g., injury, deselection) and outside (e.g., MHIs) their sporting lives (Collins, MacNamara, & Cruickshank, 2019). Such skills may not only improve individuals' resourcefulness but may also better prepared them to face challenging career and everyday life challenges (Schinke et al., 2017).

This being said, a next step could be to pilot a sport-specific intervention focused on maximising the support offered to coaches and athletes by enhancing their awareness, knowledge, and resources (e.g., coping skills and support network) about MHIs. This could be achieved by means of an educational and skill-based training offered to coaches, support staff, significant others and athletes working in a high-performance sport environment. Due to the differences existing across sports in terms

of MHIs (e.g., type and prevalence), a "one-size fits all" psychoeducation programmes may need to be avoided. Therefore, while increased knowledge about physical and mental health in general may be help open the discussion on mental health, such an psychoeducational programme may want to adapt its content to its audience (e.g., athletes versus coaches; see Chapter 6) and include specific information relevant to the context in which they operate. For example, such programme could start by:

- Opening the discussion about physical health and mental health in high-level sport.
- Introducing common MHIs found, more specifically, in the sport performed by the audience.
- Discussing some of the general risk factors for those aforementioned MHIs while also looking to sport-specific at-risk factors and/or potential triggers.
- Talking about the service providers, referral systems and treatments available in general, and then more specifically within their environment.

Encouraging participants' involvement and engagement in the discussion(s) (e.g., interactive programmes) has previously been suggested to enhance a programme long-term effectiveness (Bar et al., 2016). Whilst the first phase of such a prevention programme would focus on educating its audience about mental health through interactive discussions to build their knowledge and awareness about MHIs (e.g., "recognise, reach out, refer, and remain supportive"; Sebbens et al., 2016, p. 3), the second phase would focus more on "how, why, and what to do" when personally confronted with MHIs or with someone who may suffer from MHIs. The focus of this second stage would, therefore, be on developing and practising skills such as:

- Spotting signs by means of sport-specific case studies.

- Self-monitoring skills such as being able to identify emotions and their informative value as they impact one's thinking patterns and behaviours.
- Non-judgmental listening skills, seeking for help or support (e.g., what type, from where, from whom), use of one's social support and assertiveness by the mean of group exercises and role-plays.
- Focusing and encouraging the transferability and deployment of the skills and strategies participants learned from different aspects of their life.

The skills development, deployment and transfer from sport to other domains of life and *vice versa* (Fogaca, 2019; Kendellen & Camiré, 2019) are especially valuable as flourishing in one aspect of life does not mean an individual will not struggle in others (Henriksen et al., 2019). Therefore, learning how to cope with stressors in a healthy way (Reardon et al., 2019) by developing and using a range of coping strategies, individually or in combination, is essential for individuals' development, well-being, and performance outcomes. The main objective of such a prevention programme would be to empower its participants by increasing their awareness and skills set to early recognise signs and behaviours that may be associated with common MHIs found in high-level sport participation and more specifically in participants' sport (Reardon et al., 2019) and, as a result, to foster coping strategies and help-seeking behaviours. Although somewhat similar to previous programmes intending to improve the early identification and treatment of MHIs (Kitchener & Jorm, 2002, 2004; Sebbens et al., 2016), this proposed intervention would be adapted to its audience (e.g., content, format), developed and delivered by a team of clinical and sport psychologists experienced in working in high-performance sport environments. As a pilot study, participants would be asked at the end of the intervention to evaluate and give a feedback on the training offered compared to their needs as coaches, athletes and

support staff. Moreover, in order to evaluate their retention of knowledge on short and longer term, participants would be asked to complete a questionnaire at different times (e.g., before, a week after, 3 months after, 6 months after, and a year after the start of the programme). Indeed, while more research looking into the development, implementation, and assessment of preventive and promotive mental health intervention in young and elite sport contexts is warranted, longitudinal studies are required to determine the effectiveness and success of such programmes.

Furthermore, although adolescence and young adulthood are well-known at-risk periods for the first onset of MHI(s) (Kessler et al., 2005; Patel et al., 2007) and despite the negative impact MHIs can have on talent development (Tamminen et al., 2012), services and interventions tailored specifically to young athletes are scarce (Hill et al., 2016; Patel et al., 2007). Critically, TD environments have an important role in facilitating and supporting young athletes' mental health (Henriksen et al., 2019; Kendellen & Camiré, 2019; Swann et al., 2018). Most MHIs have the potential to positively respond to measures such as psychosocial support, coping strategies and education, while still in their early stage (Patel et al., 2007). Implementing sport-specific mental health initiatives as an integral part of TD programmes could be a focus of youth sport pathways. Indeed, young athletes have been suggested to be the easiest target but also at an age where primary prevention programmes might be the most helpful (Bar et al., 2016). Empowering athletes from a young age with appropriate knowledge and resources (e.g., life skills, social support) as well as encouraging them to use those resources within and beyond the sport context could have positive effects for both performance and well-being in the long term.

Finally, as shown in Chapters 3 and 4, encouraging significant others to understand the role they can play in athletes' mental health and the need to be better

trained in this regard has also its importance. As suggested in Chapter 6, parents like coaches are key support providers and can have both a positive and/or negative effect on (young) athletes' development and mental health (Hill et al., 2016; Holt, Tamminen, Black, Sehn, & Wall, 2008; Swann et al., 2018). Reflecting this, parents may also benefit from an increase of mental health awareness. More importantly, increased this may have an impact on their children's willingness to open to them as well as their own confidence in discussing that topic and providing additional support, parents' influence (e.g., involvement and behaviours) on athletes' mental health is another important avenue for research in high-performance sport.

7.5. Conclusion

In conclusion, mental health is an important topic but, perhaps, with greater complexity than currently acknowledged, especially when it comes to high-performing athletes. The focus of this thesis contributed to advances in research and applied practice by offering some stimulating insights on how individuals progressing in high-level sport environments experience, perceive and understand MHIs. In short, the present findings suggested that efforts may need to be directed towards not only the management and treatment of MHIs but also towards the definition, promotion, enhancement, and/or protection of athletes' and coaches' mental health. Improving sportspeople's mental health awareness and helping them to build a set of transferable psychological skills and strategies seem a good starting point. Proactive actions may help sportspeople identify an issue, focus on managing it at hand and, in parallel, help reduce the stigma attached to mental health in sport at its core. Building on the present findings, further research on MHIs in high-performance sport environments is warranted to assess and identify the most effective ways to develop and create

supportive sport environments caring for their coaches, athletes' and stakeholders' mental health.

As pointed out by Giacobbi et al. (2005, p. 23): "the iterative nature of knowledge construction requires scientists to continuously re-examine the application of research findings in many different contexts". A next step may be to pursue this line of work in sport and spread it to other high-performance contexts. Such studies may not only improve the provision of mental health care within those high-performance settings but also draw interesting comparisons and contrasts between environments and populations. Mental disorders being one of the leading causes of the overall disease burden worldwide, the promotion, improvement and/or protection of ones' mental health are important avenues for research and applied practice.

REFERENCES

Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist, 58*(1), 5–14. doi:10.1037/0003-066X.58.1.5

Alexander, M., Haugland, G., Ashenden, P., Knight, E., & Brown, I. (2009). Coping with thoughts of suicide: Techniques used by consumers of mental health services. *Psychiatric Services, 60*(9), 1214–1221. doi:10.1176/ps.2009.60.9.1214

Allan, V., Vierimaa, M., Gainforth, H. L., & Côté, J. (2018). The use of behaviour change theories and techniques in research-informed coach development programmes: A systematic review. *International Review of Sport and Exercise Psychology, 11*(1), 47–69. doi:10.1080/1750984X.2017.1286514

Allen, S. V., & Hopkins, W. G. (2015). Age of peak competitive performance of elite athletes: A systematic review. *Sports Medicine, 45*(10), 1431–1441. doi:10.1007/s40279-015-0354-3

Andersen, M. B., McCullagh, P., & Wilson, G. J. (2007). But what do the numbers really tell us? Arbitrary metrics and effect size reporting in sport psychology research. *Journal of Sport & Exercise Psychology, 29*(5), 664–672.

Anderson, R. J., & Pierce, D. (2012). Assumptions associated with mental health literacy training - Insights from initiatives in rural Australia. *Advances in Mental Health, 10*(3), 258–267. doi:10.5172/jamh.2012.10.3.258

Andrade, L. H., Alonso, J., Mneimneh, Z., Wells, J. E., Al-Hamzawi, A., Borges, G., . . . Kessler, R. C. (2014). Barriers to mental health treatment: Results from the WHO World Mental Health surveys. *Psychological Medicine, 44*(6), 1303–1317. doi:10.1017/S0033291713001943

APA. (2013). *Diagnostic and statistical manual of mental disorders* (A. P. Association Ed. Fifth edition ed.). Washinghton, DC: American Psychiatric Association.

Arcelus, J., Witcomb, G. L., & Mitchell, A. (2014). Prevalence of eating disorders amongst dancers: a systemic review and meta-analysis. *European Eating Disorders Review, 22*(2), 92−101. doi:10.1002/erv.2271

Armstrong, S. N., Burcin, M. M., Bjerke, W. S., & Early, J. (2015). Depression in student athletes: A particularly at-risk group? A systematic review of the literature. *Athletic Insight, 7*(2), 177–193.

Arnold, R., & Fletcher, D. (2012). A research synthesis and taxonomic classification of the organizational stressors encountered by sport performers. *Journal of Sport & Exercise Psychology, 34*(3), 397–429.

Auspurg, K., & Jäckle, A. (2017). First Equals Most Important? Order Effects in Vignette-Based Measurement. *Sociological Methods & Research, 46*(3), 490–539. doi:10.1177/0049124115591016

Arvinen-Barrow, M. (2016). Commentary: The experience of depression during careers of elite male athletes. *Frontiers in Psychology, 7*(1609), 1–2. doi:10.3389/fpsyg.2016.01609

Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioral change. *Advances in Behaviour Research and Therapy, 1*(4), 139–161. doi:10.1016/0146-6402(78)90002-4

Bapat, S., Jorm, A., & Lawrence, K. (2009). Evaluation of a mental health literacy training program for junior sporting clubs. *Australasian Psychiatry, 17*(6), 475–479. doi:10.1080/10398560902964586

Bär, K.-J., & Markser, V. Z. (2013). Sport specificity of mental disorders: The issue of sport psychiatry. *European Archives of Psychiatry and Clinical Neuroscience, 263*(2), 205–210. doi:10.1007/s00406-013-0458-4

Bar, R. J., Cassin, S. E., & Dionne, M. M. (2016). Eating disorder prevention initiatives for athletes: A review. *European Journal of Sport Science, 16*(3), 325–335. doi:10.1080/17461391.2015.1013995

Bartulovic, D., Young, B. W., & Baker, J. (2017). Self-regulated learning predicts skill group differences in developing athletes. *Psychology of Sport and Exercise, 31*, 61−69. doi:10.1016/j.psychsport.2017.04.006

Baum, A. (2006). Eating disorders in the male athlete. *Sports Medicine, 36*(1), 1–6. doi:10.2165/00007256-200636010-00001

Bauman, N. J. (2016). The stigma of mental health in athletes: Are mental toughness and mental health seen as contradictory in elite sport? *British Journal of Sports Medicine, 50*(3), 135–136. doi:10.1136/bjsports-2015-095570

Beable, S., Fulcher, M., Lee, A. C., & Hamilton, B. (2017). SHARPSports Mental Health Awareness Research Project: Prevalence and risk factors of depressive symptoms and life stress in elite athletes. *Journal of Science and Medicine in Sport, 20*(12), 1047–1052. doi:10.1016/j.jsams.2017.04.018

Bender, A. M., Lawson, D., Werthner, P., & Samuels, C. H. (2018). The clinical validation of the athlete sleep screening questionnaire: an instrument to identify athletes that need further sleep assessment. *Sports medicine - open, 4*(1), 23–30. doi:10.1186/s40798-018-0140-5

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open, 2*, 8–14. doi:10.1016/j.npls.2016.01.001

Berglund, L., Sundgot-Borgen, J., & Berglund, B. (2011). Adipositas athletica: A group of neglected conditions associated with medical risks. *Scandinavian Journal of Medicine & Science in Sports, 21*(5), 617–624. doi:10.1111/j.1600-0838.2011.01322.x

Bianco, T. (2001). Social support and recovery from sport injury: Elite skiers share their experiences. *Research Quarterly for Exercise and Sport, 72*(4), 376–388. doi:10.1080/02701367.2001.10608974

Bianco, T., & Eklund, R. (2001). Conceptual considerations for social support research in sport and exercise settings: The case of sport injury. *Journal of Sport & Exercise Psychology, 23*(2), 85–107. doi:10.1123/jsep.23.2.85

Bickley, J., Rogers, A., Bell, J., & Thombs, M. (2016). 'Elephant spotting': The importance of developing shared understanding to work more effectively with talented but challenging athletes. *Sport & Exercise Psychology Review*, *12*(1), 43–53.

Biggerstaff, D., & Thompson, A. R. (2008). Interpretative phenomenological analysis (IPA): A qualitative methodology of choice in healthcare research. *Qualitative Research in Psychology*, *5*(3), 173–183.

Billieux, J., Schimmenti, A., Khazaal, Y., Maurage, P., & Heeren, A. (2015). Are we overpathologizing everyday life? A tenable blueprint for behavioral addiction research. *Journal of behavioral addictions, 4*(3), 119−123. doi:10.1556/2006.4.2015.009

Biringer, E., Davidson, L., Sundfør, B., Lier, H. Ø., & Borg, M. (2016). Coping with mental health issues: Subjective experiences of self-help and helpful contextual factors at the start of mental health treatment. *Journal of Mental Health, 25*(1), 23−27. doi:10.3109/09638237.2015.1078883

Bloodworth, A., McNamee, M., & Tan, J. (2017). Autonomy, eating disorders and elite gymnastics: Ethical and conceptual issues. *Sport, Education and Society, 22*(8), 878–889. doi:10.1080/13573322.2015.1107829

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. doi:10.1191/1478088706qp063oa

Breslin, G., Shannon, S., Haughey, T., Donnelly, P., & Leavey, G. (2017). A systematic review of interventions to increase awareness of mental health and well-being in athletes, coaches and officials. *Systematic Reviews, 6*(177), 1−15. doi:10.1186/s13643-017-0568-6

Brown, J. L., & Cogan, K. D. (2006). Ethical clinical practice and sport psychology: When two worlds collide. *Ethics & Behavior, 16*(1), 15–23. doi:10.1207/s15327019eb1601_3

Burns, J. R., & Rapee, R. M. (2006). Adolescent mental health literacy: Young people's knowledge of depression and help seeking. *Journal of Adolescence, 29*(2), 225–239.

Byrne, S., & McLean, N. (2002). Elite athletes: Effects of the pressure to be thin. *Journal of Science and Medicine in Sport, 5*(2), 80–94. doi:10.1016/S1440-2440(02)80029-9

Chandra, A., & Minkovitz, C. S. (2006). Stigma starts early: Gender differences in teen willingness to use mental health services. *Journal of Adolescent Health, 38*(6), 754.e751–758. doi:10.1016/j.jadohealth.2005.08.011

Collins, D. (2011). Chapter 25 - Practical dimensions of realizing your peak performance. In D. Collins, A. Button, & H. Richards (Eds.), *Performance Psychology* (pp. 381–391). Edinburgh: Churchill Livingstone.

Collins, D., Bailey, R., Ford, P. A., MacNamara, Á., Toms, M., & Pearce, G. (2012). Three worlds: New directions in participant development in sport and physical activity. *Sport, Education and Society, 17*(2), 225–243. doi:10.1080/13573322.2011.607951

Collins, D., & Macnamara, A. (2017). Making Champs and Super-Champs—Current Views, Contradictions, and Future Directions. *Frontiers in Psychology, 8*(823), 1–8. doi:10.3389/fpsyg.2017.00823

Collins, D., MacNamara, Á., & Cruickshank, A. (2019). Research and practice in talent identification and development – Some thoughts on the state of play. *Journal of Applied Sport Psychology, 31*(3), 340–351. doi:10.1080/10413200.2018.1475430

Collins, D., MacNamara, Á., & McCarthy, N. (2016). Super champions, champions, and almosts: Important differences and commonalities on the rocky road. *Frontiers in Psychology, 6*(2009), 1–11. doi:10.3389/fpsyg.2015.02009

Collins, D., Moore, P., Mitchell, D., & Alpress, F. (1999). Role conflict and confidentiality in multidisciplinary athlete support programmes. *British Journal of Sports Medicine, 33*(3), 208-211. doi:10.1136/bjsm.33.3.208

Connery, H., & Davidson, K. M. (2006). A survey of attitudes to depression in the general public: A comparison of age and gender differences. *Journal of Mental Health, 15*(2), 179–189.

Cornford, C. S., Hill, A., & Reilly, J. (2007). How patients with depressive symptoms view their condition: A qualitative study. *Family Practice, 24*(4), 358–364. doi:10.1093/fampra/cmm032

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*(7), 614–625. doi:10.1037/0003-066X.59.7.614

Côté, J., Ericsson, K. A., & Law, M. P. (2005). Tracing the development of athletes using retrospective interview methods: A proposed interview and validation procedure for reported information. *Journal of Applied Sport Psychology, 17*(1), 1–19. doi:10.1080/10413200590907531

Cresswell, S. L., & Eklund, R. C. (2007). Athlete burnout: A longitudinal qualitative study. *Sport Psychologist, 21*(1), 1–20.

Culver, D. M., Gilbert, W., & Sparkes, A. (2012). Qualitative research in sport psychology journals: The next decade 2000-2009 and beyond. *The Sport Psychologist, 26*(2), 261–281. doi:10.1123/tsp.26.2.261

Curran, K., Rosenbaum, S., Parnell, D., Stubbs, B., Pringle, A., & Hargreaves, J. (2017). Tackling mental health: the role of professional football clubs. *Sport in Society, 20*(2), 281–291. doi:10.1080/17430437.2016.1173910

Dancey, C., & Reidy, J. (2017). *Statistics without Maths for Psychology* (7th ed.). Edinburgh: Pearson Education Limited.

Daley, A. (2008). Exercise and depression: A review of reviews. *Journal of Clinical Psychology in Medical Settings, 15*(2), 140–147. doi:10.1007/s10880-008-9105-z

DeFreese, J. D., & Smith, A. L. (2014). Athlete social support, negative social interactions, and psychological health across a competitive sport season. *Journal of Sport & Exercise Psychology, 36*(6), 619–630. doi:10.1123/jsep.2014-0040

Delenardo, S., & Terrion, J. L. (2014). Suck it up: Opinions and attitudes about mental illness stigma and help–seeking behaviour of male varsity football players. *Canadian Journal of Community Mental Health, 33*(3), 43–56. doi:10.7870/cjcmh-2014-023

Doherty, S., Hannigan, B., & Campbell, M. J. (2016). The experience of depression during the careers of elite male athletes. *Frontiers in Psychology, 7*(1069), 1–11. doi:10.3389/fpsyg.2016.01069

Dohme, L.-C., Backhouse, S., Piggott, D., & Morgan, G. (2017). Categorising and defining popular psychological terms used within the youth athlete talent development literature: a systematic review. *International Review of Sport and Exercise Psychology, 10*(1), 134–163. doi:10.1080/1750984X.2016.1185451

Dömötör, Z., Ruíz-Barquín, R., & Szabo, A. (2016). Superstitious behavior in sport: A literature review. *Scandinavian Journal of Psychology, 57*(4), 368–382. doi:10.1111/sjop.12301

Donohue, B., Galante, M., Maietta, J., Lee, B., Paul, N., Perry, J., . . . Allen, D. (2019). Empirical development of a screening method to assist mental health referrals in collegiate athletes. *Journal of Clinical Sport Psychology, 13*(4), 561–579. doi:10.1123/jcsp.2018-0070

Drasch, K., & Matthes, B. (2013). Improving retrospective life course data by combining modularized self-reports and event history calendars: Experiences from a large scale survey. *Quality and Quantity, 47*(2), 817–838. doi:10.1007/s11135-011-9568-0

Duffy, J., Rooney, B., & Matthews, J. (2019). Coaches' mental health literacy and role perceptions for supporting young people's mental health. *Journal of Applied Sport Psychology*, 1–15. doi:10.1080/10413200.2019.1646840

Dworkin, R. (2001). The medicalization of unhappiness. *Public Interest*(144), 85−99.

Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport for adults: informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity, 10*(1), 135−149. doi:10.1186/1479-5868-10-135

Eklund, R. C., & Defreese, J. D. (2015). Athlete burnout: What we know, what we could know, and how we can find out more. *International Journal of Applied Sports Sciences, 27*(2), 63–75.

Eubank, M. (2016). Commentary: Blurred lines: Performance enhancement, common mental disorders and referral in the U.K. athletic population. *Frontiers in Psychology, 7*(1709), 1–3. doi:10.3389/fpsyg.2016.01709

Fear, N. T., Jones, M., Murphy, D., Hull, L., Iversen, A. C., Coker, B., . . . Wessely, S. (2010). What are the consequences of deployment to Iraq and Afghanistan on the mental health of the UK armed forces? A cohort study. *The Lancet, 375*(9728), 1783−1797. doi:10.1016/S0140-6736(10)60672-1

Fenn, K. B., M. (2013). The key principles of cognitive behavioural therapy. *InnovAiT: Education and inspiration for general practice, 6*(9), 579–585. doi:10.1177/1755738012471029

Ferguson, H. L., Swann, C., Liddle, S. K., & Vella, S. A. (2018). Investigating youth sports coaches' perceptions of their role in adolescent mental health. *Journal of Applied Sport Psychology, 31*(2), 235–252. doi:10.1080/10413200.2018.1466839

Fogaca, J. L. (2019). Combining mental health and performance interventions: Coping and social support for student-athletes. *Journal of Applied Sport Psychology*, 1–16. doi:10.1080/10413200.2019.1648326

Fogarty, A. S., Proudfoot, J., Whittle, E. L., Player, M. J., Christensen, H., Hadzi-Pavlovic, D., & Wilhelm, K. (2015). Men's use of positive strategies for preventing and managing depression: A qualitative investigation. *Journal of Affective Disorders, 188*, 179−187. doi:10.1016/j.jad.2015.08.070

Foskett, R. L., & Longstaff, F. (2018). The mental health of elite athletes in the United Kingdom. *Journal of Science and Medicine in Sport, 21*(8), 765−770. doi:10.1016/j.jsams.2017.11.016

Freeman, P., & Rees, T. (2010). Perceived social support from team-mates: Direct and stress-buffering effects on self-confidence. *European Journal of Sport Science, 10*(1), 59–67. doi:10.1080/17461390903049998

Frey, M. (2007). College coaches' experiences with stress – "Problem solvers" have problems, too. *Sport Psychologist, 21*(1), 38–57.

Gaudreau, P., & Blondin, J.-P. (2002). Development of a questionnaire for the assessment of coping strategies employed by athletes in competitive sport settings. *Psychology of Sport and Exercise, 3*(1), 1–34. doi:10.1016/S1469-0292(01)00017-6

Gavrilova, Y., & Donohue, B. (2018). Sport-specific mental health interventions in athletes: a call for optimization models sensitive to sport culture. *Journal of Sport Behavior, 41*(3), 283−304.

Giacobbi, P. R., Jr. , Poczwardowski, A., & Hager, P. (2005). A pragmatic research philosophy for applied sport psychology. *The Sport Psychologist, 19*(1), 18–31.

Giel, K. E., Hermann-Werner, A., Mayer, J., Diehl, K., Schneider, S., Thiel, A., . . . for the, G. s. g. (2016). Eating disorder pathology in elite adolescent athletes.

International Journal of Eating Disorders, 49(6), 553–562. doi:10.1002/eat.22511

Glick, I. D., & Horsfall, J. L. (2009). Psychiatric conditions in sports: Diagnosis, treatment, and quality of life. *The Physician and Sportsmedicine, 37*(3), 29–34. doi:10.3810/psm.2009.10.1726

Glick, I. D., Kamm, R., & Morse, E. (2009). The evolution of sport psychiatry, circa 2009. *Sports Medicine, 39*(8), 607–613. doi:10.2165/00007256-200939080-00001

Glick, I. D., Stillman, M. A., Reardon, C. L., & Ritvo, E. C. (2012). Managing psychiatric issues in elite athletes. *The Journal of clinical psychiatry, 73*(5), 640–644. doi:10.4088/JCP.11r07381

Gorczynski, P. F., Coyle, M., & Gibson, K. (2017). Depressive symptoms in high-performance athletes and non-athletes: A comparative meta-analysis. *British Journal of Sports Medicine, 51*(18), 1348–1354. doi:10.1136/bjsports-2016-096455

Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology, 1*(1), 58–78. doi:10.1080/17509840701834573

Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology*, *14*(3), 172−204. doi:10.1080/10413200290103482

Gould, D., Guinan, D., Greenleaf, C., Medbery, R., & Peterson, K. (1999). Factors affecting olympic performance: Perceptions of athletes and coaches from more and less successful teams. *Sport Psychologist, 13*(4), 371–394.

Gouttebarge, V., Aoki, H., & Kerkhoffs, G. M. (2016a). Prevalence and determinants of symptoms related to mental disorders in retired male professional footballers. *The Journal of Sports Medicine and Physical Fitness, 56*(5), 648−654.

Gouttebarge, V., Backx, F. J. G., Aoki, H., & Kerkhoffs, G. M. M. J. (2015a). Symptoms of common mental disorders in professional football (soccer) across five European countries. *Journal of sports science & medicine, 14*(4), 811–818.

Gouttebarge, V., Castaldelli-Maia, J. M., Gorczynski, P., Hainline, B., Hitchcock, M. E., Kerkhoffs, G. M., . . . Reardon, C. L. (2019). Occurrence of mental health symptoms and disorders in current and former elite athletes: a systematic review and meta-analysis. *British Journal of Sports Medicine, 53*(11), 700–706. doi:10.1136/bjsports-2019-100671

Gouttebarge, V., Frings-Dresen, M. H. W., & Sluiter, J. K. (2015b). Mental and psychosocial health among current and former professional footballers. *Occupational Medicine, 65*(3), 190–196. doi:10.1093/occmed/kqu202

Gouttebarge, V., Hopley, P., Kerkhoffs, G., Verhagen, E., Viljoen, W., Wylleman, P., & Lambert, M. (2018). A 12-month prospective cohort study of symptoms of common mental disorders among professional rugby players. *European Journal of Sport Science, 18*(7), 1004−1012. doi:10.1080/17461391.2018.1466914

Gouttebarge, V., Jonkers, R., Moen, M., Verhagen, E., Wylleman, P., & Kerkhoffs, G. (2017). The prevalence and risk indicators of symptoms of common mental disorders among current and former Dutch elite athletes. *Journal of Sports Sciences, 35*(21), 2148−2156. doi:10.1080/02640414.2016.1258485

Gouttebarge, V., Kerkhoffs, G., & Lambert, M. (2016b). Prevalence and determinants of symptoms of common mental disorders in retired professional Rugby Union players. *European Journal of Sport Science, 16*(5), 595–602. doi:10.1080/17461391.2015.1086819

Gouttebarge, V., Tol, J. L., & Kerkhoffs, G. M. M. J. (2016c). Epidemiology of symptoms of common mental disorders among elite Gaelic athletes: A prospective cohort study. *The Physician and Sportsmedicine, 44*(3), 283–289. doi:10.1080/00913847.2016.1185385

GOV.UK. (2018). Mental health and elite sport action plan. Retrieved from https://www.gov.uk/government/publications/mental-health-and-elite-sport-action-plan

Green, H., McGinnity, Á., Meltzer, H., Ford, T., & Goodman, R. (2005). *Mental health of children and young people in Great Britain, 2004*. Retrieved from Office for National Statistics: https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-great-britain/mental-health-of-children-and-young-people-in-great-britain-2004

Griffiths, K. M., Christensen, H., & Jorm, A. F. (2008). Predictors of depression stigma. *BMC Psychiatry, 8*(25), 1–12. doi:10.1186/1471-244X-8-25

Griffiths, K. M., Christensen, H., Jorm, A. F., Evans, K., & Groves, C. (2004). Effect of web-based depression literacy and cognitive-behavioural therapy interventions on stigmatising attitudes to depression: Randomised controlled trial. *The British Journal of Psychiatry, 185*(4), 342–349. doi:10.1192/bjp.185.4.342

Griffiths, K. M., Nakane, Y., Christensen, H., Yoshioka, K., Jorm, A. F., & Nakane, H. (2006). Stigma in response to mental disorders: A comparison of Australia and Japan. *BMC Psychiatry, 6*(21), 1–12. doi:10.1186/1471-244X-6-21

Gross, S. A., & Musgrave, G. (2016). *Can Music Make You Sick? Music and Depression*. Retrieved from MusicTank: https://www.helpmusicians.org.uk/assets/publications/files/can_music_make_you_sick_part_1-_pilot_survey_report_2019.pdf

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in Qualitative Research. In N. K. Dezin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousands Oaks. CA: Sage.

Gucciardi, D. F., Hanton, S., & Fleming, S. (2017). Are mental toughness and mental health contradictory concepts in elite sport? A narrative review of theory and evidence. *Journal of Science and Medicine in Sport, 20*(3), 307–311. doi:10.1016/j.jsams.2016.08.006

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry*, *10*(1), 113–122. doi:10.1186/1471-244x-10-113

Gulliver, A., Griffiths, K. M., & Christensen, H. (2012a). Barriers and facilitators to mental health help-seeking for young elite athletes: A qualitative study. *BMC Psychiatry, 12*(1), 1–14. doi:10.1186/1471-244x-12-157

Gulliver, A., Griffiths, K. M., Christensen, H., Mackinnon, A., Calear, A. L., Parsons, A., . . . Stanimirovic, R. (2012b). Internet-based interventions to promote mental health help-seeking in elite athletes: An exploratory randomized controlled trial. *Journal of Medical Internet Research, 14*(4), e69–e69. doi:10.2196/jmir.1864

Gulliver, A., Griffiths, K. M., Mackinnon, A., Batterham, P. J., & Stanimirovic, R. (2015). The mental health of Australian elite athletes. *Journal of Science and Medicine in Sport, 18*(3), 255–261. doi:10.1016/j.jsams.2014.04.006

Gustafsson, H., Carlin, M., Podlog, L., Stenling, A., & Lindwall, M. (2018). Motivational profiles and burnout in elite athletes: A person-centered approach. *Psychology of Sport and Exercise, 35*, 118–125. doi:10.1016/j.psychsport.2017.11.009

Gustafsson, H., Kenttä, G., & Hassmén, P. (2011). Athlete burnout: An integrated model and future research directions. *International Review of Sport and Exercise Psychology, 4*(1), 3–24. doi:10.1080/1750984X.2010.541927

Hadlaczky, G., Hökby, S., Mkrtchian, A., Carli, V., & Wasserman, D. (2014). Mental Health First Aid is an effective public health intervention for improving knowledge, attitudes, and behaviour: A meta-analysis. *International Review of Psychiatry, 26*(4), 467–475. doi:10.3109/09540261.2014.924910

Hamer, M., Stamatakis, E., & Steptoe, A. (2009). Dose-response relationship between physical activity and mental health: The Scottish Health Survey. *British Journal of Sports Medicine, 43*(14), 1111–1114. doi:10.1136/bjsm.2008.046243

Hammond, T., Gialloreto, C., Kubas, H., & Davis, H. I. (2013). The prevalence of failure-based depression among elite athletes. *Clinical Journal of Sport Medicine, 23*(4), 273–277. doi:10.1097/JSM.0b013e318287b870

Havelka, M., Lucanin, J., & Lucanin, D. (2009). Biopsychosocial model - The integrated approach to health and disease. *Collegium antropologicum, 33*, 303–310.

Heim, D., Smallwood, J., & Davies, J. B. (2005). Variability in lay perceptions of depression: A vignette study. *Psychology & Psychotherapy: Theory, Research & Practice, 78*(3), 315–325. doi:10.1348/147608305X25793

Henderson, C., Evans-Lacko, S., & Thornicroft, G. (2013). Mental illness stigma, help seeking, and public health programs. *American Journal of Public Health, 103*(5), 777–780. doi:10.2102/AJPH.2012.301056

Henriksen, K., Schinke, R., Moesch, K., McCann, S., Parham, William D., Larsen, C. H., & Terry, P. (2019). Consensus statement on improving the mental health of high performance athletes. *International Journal of Sport and Exercise Psychology*, 1–8. doi:10.1080/1612197X.2019.1570473

Hill, A., MacNamara, Á., & Collins, D. (2015). Psychobehaviorally based features of effective talent development in Rugby Union: A coach's perspective. *The Sport Psychologist, 29*(3), 201–212. doi:10.1123/tsp.2014-0103

Hill, A., MacNamara, Á., Collins, D., & Rodgers, S. (2016). Examining the role of mental health and clinical issues within talent development. *Frontiers in Psychology, 6*(2042), 1–11. doi:10.3389/fpsyg.2015.02042

Holt, N. L., Tamminen, K. A., Black, D. E., Sehn, Z. L., & Wall, M. P. (2008). Parental involvement in competitive youth sport settings. *Psychology of Sport and Exercise, 9*(5), 663–685. doi:10.1016/j.psychsport.2007.08.001

Hughes, L., & Leavey, G. (2012). Setting the bar: Athletes and vulnerability to mental illness. *The British Journal of Psychiatry, 200*(2), 95–96. doi:10.1192/bjp.bp.111.095976

Iversen, A. C., van Staden, L., Hughes, J. H., Browne, T., Hull, L., Hall, J., . . . Fear, N. T. (2009). The prevalence of common mental disorders and PTSD in the

UK military: using data from a clinical interview-based study. *BMC Psychiatry, 9*(1), 68−80. doi:10.1186/1471-244X-9-68

John, J. M., Gropper, H., & Thiel, A. (2019). The role of critical life events in the talent development pathways of athletes and musicians: A systematic review. *Psychology of Sport and Exercise, 45,* 1–13. doi:10.1016/j.psychsport.2019.101565

Jones, I., Brown, L., & Holloway, I. (2013). *Qualitative research in sport and physical activity*. London: SAGE Publications Ltd.

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). "Mental health literacy": A survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *The Medical Journal of Australia, 166*(4), 182–186.

Jorm, A. F., & Wright, A. (2008). Influences on young people's stigmatising attitudes towards peers with mental disorders: National survey of young Australians and their parents. *The British Journal of Psychiatry, 192*(2), 144–149. doi:10.1192/bjp.bp.107.039404

Jowett, S., & Cockerill, I. M. (2003). Olympic medallists' perspective of the althlete-coach relationship. *Psychology of Sport and Exercise, 4*(4), 313–331. doi:10.1016/S1469-0292(02)00011-0

Junge, A., & Feddermann-Demont, N. (2016). Prevalence of depression and anxiety in top-level male and female football players. *BMJ Open Sport & Exercise Medicine, 2*(1), 1–7. doi:10.1136/bmjsem-2015-000087

Kamm, R. L. (2008). Diagnosing emotional disorders in athletes: a sport psychiatrist's perspective. *Journal of Clinical Sport Psychology, 2*(2), 178 – 201.

Kaplan, R. M., Chambers, D. A., & Glasgow, R. E. (2014). Big data and large sample size: a cautionary note on the potential for bias. *Clinical and translational science, 7*(4), 342–346. doi:10.1111/cts.12178

Kelly, C. M., Jorm, A. F., & Wright, A. (2007). Improving mental health literacy as a strategy to facilitate early intervention for mental disorders. *The Medical Journal of Australia, 187*(7 Suppl), S26–S30.

Kendellen, K., & Camiré, M. (2019). Applying in life the skills learned in sport: A grounded theory. *Psychology of Sport and Exercise, 40*(1), 23–32. doi:10.1016/j.psychsport.2018.09.002

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry, 62*(6), 593–602. doi:10.1001/archpsyc.62.6.593

Kessler, R. C., & Bromet, E. J. (2013). The epidemiology of depression across cultures. *Annual Review of Public Health, 34*, 119–138. doi:10.1146/annurev-publhealth-031912-114409

Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*(3), 539–548.

Kilic, Ö., Aoki, H., Haagensen, R., Jensen, C., Johnson, U., Kerkhoffs, G. M. M. J., & Gouttebarge, V. (2017). Symptoms of common mental disorders and related stressors in Danish professional football and handball. *European Journal of Sport Science, 17*(10), 1328–1334. doi:10.1080/17461391.2017.1381768

Kitchener, B. A., & Jorm, A. F. (2002). Mental health first aid training for the public: Evaluation of effects on knowledge, attitudes and helping behavior. *BMC Psychiatry, 2*(10), 1–6. doi:10.1186/1471-244X-2-10

Kitchener, B. A., & Jorm, A. F. (2004). Mental health first aid training in a workplace setting: A randomized controlled trial. *BMC Psychiatry, 4*(23), 1–8. doi:10.1186/1471-244X-4-23

Kitchener, B. A., & Jorm, A. F. (2008). Mental Health First Aid: an international programme for early intervention. *Early Intervention In Psychiatry, 2*(1), 55–61. doi:10.1111/j.1751-7893.2007.00056.x

Klinkowski, N., Korte, A., Pfeiffer, E., Lehmkuhl, U., & Salbach-Andrae, H. (2008). Psychopathology in elite rhythmic gymnasts and anorexia nervosa patients. *European Child & Adolescent Psychiatry, 17*(2), 108–113. doi:10.1007/s00787-007-0643-y

Kristiansen, E., & Roberts, G. C. (2010). Young elite athletes and social support: Coping with competitive and organizational stress in "Olympic" competition. *Scandinavian Journal of Medicine & Science in Sports, 20*(4), 686–695. doi:10.1111/j.1600-0838.2009.00950.x

Kuettel, A., & Larsen, C. H. (2019). Risk and protective factors for mental health in elite athletes: a scoping review. *International Review of Sport and Exercise Psychology*, 1–35. doi:10.1080/1750984X.2019.1689574

Langston, V., Greenberg, N., Fear, N., Iversen, A., French, C., & Wessely, S. (2010). Stigma and mental health in the Royal Navy: A mixed methods paper. *Journal of Mental Health, 19*(1), 8–16. doi:10.3109/09638230802522999

Lauber, C., Ajdacic-Gross, V., Fritschi, N., Stulz, N., & Rössler, W. (2005). Mental health literacy in an educational elite – an online survey among university students. *BMC Public Health, 5*(44), 1–9. doi:10.1186/1471-2458-5-44

Lauber, C., Nordt, C., Falcato, L., & Rössler, W. (2003). Do people recognise mental illness? Factors influencing mental health literacy. *European Archives of Psychiatry and Clinical Neuroscience, 253*(5), 248–251. doi:10.1007/s00406-003-0439-0

Lazarus, R. S. (1993). Coping theory and research: Past, present, and future. *Psychosomatic Medicine, 55*(3), 234−247.

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.

Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative Psychology, 4*(1), 2–22. doi:10.1037/qup0000082

Liddle, S. K., Deane, F. P., & Vella, S. A. (2017). Addressing mental health through sport: A review of sporting organizations' websites. *Early Intervention In Psychiatry, 11*(2), 93−103. doi:10.1111/eip.12337

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology, 27*, 363−385. doi:10.1146/annurev.soc.27.1.363

Link, B. G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*(9), 1328–1333.

Link, B. G., Yang, L. H., Phelan, J. C., & Collins, P. Y. (2004). Measuring mental illness stigma. *Schizophrenia Bulletin, 30*(3), 511–541. doi:10.1093/oxfordjournals.schbul.a007098

Liu, D. Y., & Thompson, R. J. (2017). Selection and implementation of emotion regulation strategies in major depressive disorder: An integrative review. *Clinical Psychology Review, 57*, 183−194. doi:10.1016/j.cpr.2017.07.004

Livingston, J. D., Tugwell, A., Korf-Uzan, K., Cianfrone, M., & Coniglio, C. (2013). Evaluation of a campaign to improve awareness and attitudes of young people towards mental health issues. *Social Psychiatry and Psychiatric Epidemiology, 48*(6), 965–973. doi:10.1007/s00127-012-0617-3

Lundqvist, C. (2011). Well-being in competitive sports—The feel-good factor? A review of conceptual considerations of well-being. *International Review of Sport and Exercise Psychology*, *4*(2), 109–127. doi:10.1080/1750984X.2011.584067

Machell, B. (2016, October 8). The sad lads. *The Times Magazine,* 1−15.

MacNamara, Á., Button, A., & Collins, D. (2010). The role of psychological characteristics in facilitating the pathway to elite performance. Part 1: Identifying mental skills and behaviours. *The Sport Psychologist, 24*(1), 52–73.

MacNamara, Á., & Collins, D. (2015). Profiling, exploiting, and countering psychological characteristics in talent identification and development. *The Sport Psychologist, 29*(1), 73–81. doi:10.1123/tsp.2014-0021

Mann, B. J., Grana, W. A., Indelicato, P. A., O'Neill, D. F., & George, S. Z. (2007). A survey of sports medicine physicians regarding psychological issues in

patient–athletes. *The American Journal of Sports Medicine, 35*(12), 2140–2147. doi:10.1177/0363546507304140

Markser, V. Z. (2011). Sport psychiatry and psychotherapy. Mental strains and disorders in professional sports. Challenge and answer to societal changes. *European Archives of Psychiatry and Clinical Neuroscience, 261*(2), 182–185. doi:10.1007/s00406-011-0239-x

Martindale, A., Collins, D., & Richards, H. (2014). It's good to talk… Is elite sport good for you? *Sport & Exercise Psychology Review, 10*(3), 68–76.

Martinsen, M., Bahr, R., Børresen, R., Holme, I., Pensgaard, A. M., & Sundgot-Borgen, J. (2014a). Preventing Eating Disorders among Young Elite Athletes: A Randomized Controlled Trial. *Medicine & Science in Sports & Exercise, 46*(3), 435–447. doi:10.1249/MSS.0b013e3182a702fc

Martinsen, M., Holme, I., Pensgaard, A. M., Torstveit, M. K., & Sundgot-Borgen, J. (2014b). The Development of the Brief Eating Disorder in Athletes Questionnaire. *Medicine & Science in Sports & Exercise, 46*(8), 1666–1675. doi:10.1249/mss.0000000000000276

Martinsen, M., Sherman, R. T., Thompson, R. A., & Sundgot-Borgen, J. (2015). Coaches' knowledge and management of eating disorders: A randomized controlled trial. *Medicine & Science in Sports & Exercise, 47*(5), 1070–1078. doi:10.1249/mss.0000000000000489

Mazzer, K. R., & Rickwood, D. J. (2009). Community gatekeepers' advice to young people to seek help from mental health professionals: Youth workers and sport coaches. *International Journal of Mental Health Promotion, 11*(2), 13–23. doi:10.1080/14623730.2009.9721783

Mazzer, K. R., & Rickwood, D. J. (2015a). Mental health in sport: Coaches' views of their role and efficacy in supporting young people's mental health. *International Journal of Health Promotion and Education, 53*(2), 102–114. doi:10.1080/14635240.2014.965841

Mazzer, K. R., & Rickwood, D. J. (2015b). Teachers' and coaches' role perceptions for supporting young people's mental health: Multiple group path analyses. *Australian Journal of Psychology, 67*(1), 10–19. doi:10.1111/ajpy.12055

McArdle, S., & Moore, P. (2012). Applying evidence-based principles From CBT to sport psychology. *The Sport Psychologist, 26*(2), 299–310. doi:doi.org/10.1123/tsp.26.2.299

McManus, S., Bebbington, P., Jenkins, R., & Brugha, T. (2016). *Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014.* Retrieved from https://webarchive.nationalarchives.gov.uk/20180328140249/http://digital.nhs.uk/catalogue/PUB21748

McNair, B. G., Highet, N. J., Hickie, I. B., & Davenport, T. A. (2002). Exploring the perspectives of people whose lives have been affected by depression. *The Medical Journal of Australia, 176*(10), S69–S76.

Mental health Foundtion (2016). *Fundamental facts about mental health 2016*. Retrieved from https://www.mentalhealth.org.uk/publications/fundamental-facts-about-mental-health-2016

Meeusen, R., Duclos, M., Gleeson, M., Rietjens, G., Steinacker, J., & Urhausen, A. (2006). Prevention, diagnosis and treatment of the Overtraining Syndrome. *European Journal of Sport Science, 6*(1), 1–14. doi:10.1080/17461390600617717

Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science : IS, 6*, 42–42. doi:10.1186/1748-5908-6-42

Miller, P. S., & Kerr, G. A. (2002). Conceptualizing excellence: Past, present, and future. *Journal of Applied Sport Psychology, 14*(3), 140−153. doi:10.1080/10413200290103464

MOD. (2015). *UK Armed ForcesMental Health: Annual Summary & Trends Over Time, 2007/08 - 2014/15*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/619169/20170615_Annual_Report_14-15_Revised_O.pdf

Moesch, K., Kenttä, G., Kleinert, J., Quignon-Fleuret, C., Cecil, S., & Bertollo, M. (2018). FEPSAC position statement: Mental health disorders in elite athletes and models of service provision. *Psychology of Sport and Exercise, 38*, 61−71. doi:10.1016/j.psychsport.2018.05.013

Moore, Z. E. (2003). Ethical dilemmas in sport psychology: Discussion and recommendations for practice. *Professional Psychology: Research and Practice, 34*(6), 601–610. doi:10.1037/0735-7028.34.6.601

Morgan, A. J., Parker, A. G., Alvarez-Jimenez, M., & Jorm, A. F. (2013). Exercise and mental health: An exercise and sports science Australia commissioned review. *Journal of Exercise Physiology Online, 16*(4), 64–73.

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research, 1*(1), 48–76. doi:10.1177/2345678906292462

Mountjoy, M., Armstrong, N., Bizzini, L., Blimkie, C., Evans, J., Gerrard, D., . . . Van Mechelen, W. (2008). IOC consensus statement: "Training the elite child athlete". *British Journal of Sports Medicine, 42*(3), 163–164.

Muir, D. F., MacGregor, G. D., McCann, G. P., & Hillis, W. S. (1999). The prevalence of left ventricular hypertrophy in elite professional footballers. *International Journal of Cardiology, 71*(2), 129–134. doi:10.1016/S0167-5273(99)00133-3

Mulder, R. T. (2008). An epidemic of depression or the medicalization of distress? *Perspectives in Biology and Medicine*, *51*(2), 238−250. doi:10.1353/pbm.0.0009

Murphy, G. M., Petitpas, A. J., & Brewer, B. W. (1996). Identity foreclosure, athletic identity, and career maturity in intercollegiate athletes. *The Sport Psychologist, 10*(3), 239–246.

National Institute of Mental Health (2015). *Depression NIH Publication No. 15-3561* (U.S. Department of Health and Human Services, National Institute of Mental Health Ed.). Bethesda, MD: U.S. Government Printing Office.

Newman, H. J. H., Howells, K. L., & Fletcher, D. (2016). The dark side of top level sport: An autobiographic study of depressive experiences in elite sport performers. *Frontiers in Psychology, 7*(868), 1–12. doi:10.3389/fpsyg.2016.00868

NICE. (2011). Information for the public : Common mental health problems. Retrieved from https://www.nice.org.uk/guidance/cg123/ifp/chapter/Common-mental-health-problems

Nicholls, A. R., Holt, N. L., & Polman, R. C. J. (2005). A phenomenological analysis of coping effectiveness in golf. *Sport Psychologist, 19*(2), 111–130.

Nicholls, A. R., & Polman, R. C. J. (2007). Coping in sport: A systematic review. *Journal of Sports Sciences, 25*(1), 11–31. doi:10.1080/02640410600630654

Nicholls, A. R., Taylor, N. J., Carroll, S., & Perry, J. L. (2016). The development of a new sport-specific classification of coping and a meta-analysis of the relationship between different coping strategies and moderators on sporting outcomes. *Frontiers in Psychology, 7*(1674), 1–14. doi:10.3389/fpsyg.2016.01674

Nixdorf, I., Frank, R., & Beckmann, J. (2016). Comparison of athletes' proneness to depressive symptoms in individual and team sports: Research on psychological mediators in junior elite athletes. *Frontiers in Psychology, 7*(893), 1–8. doi:10.3389/fpsyg.2016.00893

Nordin-Bates, S. M. (2012). Performance psychology in the performing arts. In *The Oxford handbook of sport and performance psychology.* (pp. 81–114). New York, NY, US: Oxford University Press.

Norman, G. (2010). Likert scales, levels of measurement and the “laws” of statistics. *Advances in Health Sciences Education, 15*(5), 625–632. doi:10.1007/s10459-010-9222-y

Norris, L. A., Didymus, F. F., & Kaiseler, M. (2017). Stressors, coping, and well-being among sports coaches: A systematic review. *Psychology of Sport and Exercise, 33*, 93–112. doi:10.1016/j.psychsport.2017.08.005

Nowicka, P., Eli, K., Ng, J., Apitzsch, E., & Sundgot-Borgen, J. (2013). Moving from knowledge to action: A qualitative study of elite coaches' capacity for

early intervention in cases of eating disorders. *International Journal of Sports Science & Coaching, 8*(2), 343–356.

O'Dell, L., Crafter, S., de Abreu, G., & Cline, T. (2012). The problem of interpretation in vignette methodology in research with young people. *Qualitative Research, 12*(6), 702–714. doi:10.1177/1468794112439003

Onwuegbuzie, A. J., & Leech, N. L. (2005). On becoming a pragmatic researcher: The importance of combining quantitative and qualitative research methodologies. *International Journal of Social Research Methodology, 8*(5), 375–387. doi:10.1080/13645570500402447

Orlick, T., & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist, 2*, 105–130.

Page, P. (2014). Beyond statistical significance: clinical interpretation of rehabilitation research literature. *International Journal Of Sports Physical Therapy, 9*(5), 726–736.

Park, S., Lavallee, D., & Tod, D. (2013). Athletes' career transition out of sport: A systematic review. *International Review of Sport and Exercise Psychology, 6*(1), 22−53. doi:10.1080/1750984X.2012.687053

Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public-health challenge. *Lancet, 369*(9569), 1302–1313. doi:10.1016/S0140-6736(07)60368-7

Perseghin, G., De Cobelli, F., Esposito, A., Lattuada, G., Terruzzi, I., La Torre, A., . . . Alberti, G. (2007). Effect of the sporting discipline on the right and left ventricular morphology and function of elite male track runners: A magnetic resonance imaging and phosphorus 31 spectroscopy study. *American Heart Journal, 154*(5), 937–942. doi:10.1016/j.ahj.2007.06.039

Pickering, K. (2016). http://www.bbc.co.uk/iplayer/episode/b07qc6by/newsnight-23082016.

Pierre, J. M. (2012). Mental illness and mental health: is the glass half empty or half full? *The Canadian Journal of Psychiatry, 57*(11), 651−658. doi:10.1177/070674371205701102

Plateau, C. R., Arcelus, J., Leung, N., & Meyer, C. (2017). Female athlete experiences of seeking and receiving treatment for an eating disorder. *Eating Disorders, 25*(3), 273–277. doi:10.1080/10640266.2016.1269551

Powell, B., Proctor, E., & Glass, J. (2014). A systematic review of strategies for implementing empirically supported mental health interventions. *Research on Social Work Practice, 24*(2), 192−212. doi:10.1177/1049731513505778

Putukian, M. (2016). The psychological response to injury in student athletes: A narrative review with a focus on mental health. *British Journal of Sports Medicine, 50,* 145–148.

QSR International Pty Ltd. (2015). NVivo Qualitative Data Analysis Software, Version 11.

Quignon-Fleuret, C. (2016). *Devenir champion: La psychologie au service de la performance*. Lonrai (Orne): Solar editions.

Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport & Exercise Psychology, 23*(4), 281–306.

Reardon, C. L., & Factor, R. M. (2010). Sport psychiatry: A systematic review of diagnosis and medical treatment of mental illness in athletes. *Sports Medicine, 40*(11), 961–980. doi:10.2165/11536580-000000000-00000

Reardon, C. L., Hainline, B., Aron, C. M., Baron, D., Baum, A. L., Bindra, A., . . . Engebretsen, L. (2019). Mental health in elite athletes: International Olympic Committee consensus statement (2019). *British Journal of Sports Medicine, 53*(11), 667–699. doi:10.1136/bjsports-2019-100715

Reavley, N. J., & Jorm, A. F. (2011). Recognition of mental disorders and beliefs about treatment and outcome: Findings from an Australian national survey of mental health literacy and stigma. *Australian & New Zealand Journal of Psychiatry, 45*(11), 947–956. doi:10.3109/00048674.2011.621060

Reeves, C. W., Nicholls, A. R., & McKenna, J. (2009). Stressors and coping strategies among early and middle adolescent premier league academy soccer players: Differences according to age. *Journal of Applied Sport Psychology, 21*(1), 31–48. doi:10.1080/10413200802443768

Reid, H. (2017). Athletes as heroes and role models: An ancient model. *Sport, Ethics and Philosophy, 11*(1), 40–51. doi:10.1080/17511321.2016.1261931

Reijnen, A., Rademaker, A. R., Vermetten, E., & Geuze, E. (2015). Prevalence of mental health symptoms in Dutch military personnel returning from deployment to Afghanistan: A 2-year longitudinal analysis. *European Psychiatry, 30*(2), 341−346. doi:10.1016/j.eurpsy.2014.05.003

Rice, S. M., Parker, A. G., Mawren, D., Clifton, P., Harcourt, P., Lloyd, M., . . . Purcell, R. (2019). Preliminary psychometric validation of a brief screening tool for athlete mental health among male elite athletes: the Athlete Psychological Strain Questionnaire. *International Journal of Sport and Exercise Psychology*, 1–16. doi:10.1080/1612197X.2019.1611900

Rice, S. M., Purcell, R., De Silva, S., Mawren, D., McGorry, P. D., & Parker, A. G. (2016). The mental health of elite athletes: A narrative systematic review. *Sports Medicine, 46*(9), 1333–1353. doi:10.1007/s40279-016-0492-2

Richards, H. (2011). Chapter 20 - Coping and mental toughness. In D. Collins, A. Button, & H. Richards (Eds.), *Performance Psychology* (pp. 281–300). Edinburgh: Churchill Livingstone.

Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health, 4*(3), 218–251. doi:10.5172/jamh.4.3.218

Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management, 5*, 173–183. doi:10.2147/PRBM.S38707

Ringland, A. (2016). Commentary: The experience of depression during the careers of elite male athletes. *Frontiers in Psychology, 7*(1869), 1–2. doi:10.3389/fpsyg.2016.01869

Roberts, C.-M., Faull, A. L., & Tod, D. (2016). Blurred lines: Performance enhancement, common mental disorders and referral in the U.K. athletic population. *Frontiers in Psychology, 7*(1067), 1–13. doi:10.3389/fpsyg.2016.01067

Rodgers, S., & Tajet-Foxell, B. (2011). Chapter 21 - Emotional issues of peak performance : managing mood. In D. Collins, A. Button, & H. Richards (Eds.), *Performance Psychology* (pp. 301–318). Edinburgh: Churchill Livingstone.

Rona, R. J., Jones, M., French, C., Hooper, R., & Wessely, S. (2004). Screening for physical and psychological illness in the British Armed Forces: I: The

acceptability of the programme. *Journal of Medical Screening, 11*(3), 148–152. doi:10.1258/0969141041732193

Ross, A. M., Hart, L. M., Jorm, A. F., Kelly, C. M., & Kitchener, B. A. (2012). Development of key messages for adolescents on providing basic mental health first aid to peers: A Delphi consensus study. *Early Intervention In Psychiatry, 6*(3), 229–238. doi:10.1111/j.1751-7893.2011.00331.x

Sabato, T. M., Walch, T. J., & Caine, D. J. (2016). The elite young athlete: Strategies to ensure physical and emotional health. *Open Access Journal of Sports Medicine, 7*, 99–113. doi:10.2147/OAJSM.S96821

Sai, G., & Furnham, A. (2013). Identifying depression and schizophrenia using vignettes: A methodological note. *Psychiatry Research, 210*(1), 357–362. doi:10.1016/j.psychres.2013.05.004

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., . . . Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & quantity, 52*(4), 1893–1907. doi:10.1007/s11135-017-0574-8

Schaal, K., Tafflet, M., Nassif, H., Thibault, V., Pichard, C., Alcotte, M., . . . Toussaint, J.-F. (2011). Psychological balance in high level athletes: Gender-based differences and sport-specific patterns. *PLoS ONE, 6*(5), 1–9. doi:10.1371/journal.pone.0019007

Scharhag, J., Schneider, G., Urhausen, A., Rochette, V., Kramann, B., & Kindermann, W. (2002). Athlete's heart: Right and left ventricular mass and function in male endurance athletes and untrained individuals determined by magnetic resonance imaging. *Journal of the American College of Cardiology, 40*(10), 1856–1863. doi:10.1016/S0735-1097(02)02478-6

Schinke, R. J., Stambulova, N. B., Si, G., & Moore, Z. (2017). International society of sport psychology position stand: Athletes' mental health, performance, and development. *International Journal of Sport and Exercise Psychology, 16*(6), 622–639. doi:10.1080/1612197X.2017.1295557

Schwenk, T. L. (2000). The stigmatisation and denial of mental illness in athletes. *British Journal of Sports Medicine, 34*(1), 4–5.

Scott, C. L., Haycraft, E., & Plateau, C. R. (2019). Teammate influences on the eating attitudes and behaviours of athletes: A systematic review. *Psychology of Sport and Exercise, 43*, 183–194. doi:10.1016/j.psychsport.2019.02.006

Sebbens, J., Hassmén, P., Crisp, D., & Wensley, K. (2016). Mental health in sport (MHS): Improving the early intervention knowledge and confidence of elite sport staff. *Frontiers in Psychology, 7*(911), 1–9. doi:10.3389/fpsyg.2016.00911

Shannon, S., Hanna, D., Haughey, T., Leavey, G., McGeown, C., & Breslin, G. (2019). Effects of a mental health intervention in athletes: Applying self-determination theory. *Frontiers in Psychology, 10*(1875). doi:10.3389/fpsyg.2019.01875

Singh, H., Schiff, G. D., Graber, M. L., Onakpoya, I., & Thompson, M. J. (2017). The global burden of diagnostic errors in primary care. *BMJ quality & safety, 26*(6), 484–494. doi:10.1136/bmjqs-2016-005401

Smith, B., & Caddick, N. (2012). Qualitative methods in sport: A concise overview for guiding social scientific sport research. *Asia Pacific Journal of Sport and Social Science, 1*(1), 60−73. doi:10.1080/21640599.2012.701373

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology.

International Review of Sport and Exercise Psychology, 11(1), 101–121. doi:10.1080/1750984X.2017.1317357

Smith, J. A. (2011). Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review, 5*(1), 9–27. doi:10.1080/17437199.2010.510659

Smith, J. A., & Osborn, M. (2007). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods (2nd Edition)* (pp. 53–80). London: Sage.

Sofronoff, K., Silva, J., & Beaumont, R. (2015). The secret agent society social-emotional skills program for children with a high-functioning autism spectrum disorder: a parent-directed trial. *Focus on Autism and Other Developmental Disabilities, 32*(1), 55−70. doi:10.1177/1088357615583467

Souter, G., Lewis, R., & Serrant, L. (2018). Men, mental health and elite sport: a narrative review. *Sports Medicine Open, 4*(1), 57–64. doi:10.1186/s40798-018-0175-7

Sudi, K., Öttl, K., Payerl, D., Baumgartl, P., Tauschmann, K., & Müller, W. (2004). Anorexia athletica. *Nutrition, 20*(7–8), 657–661. doi:10.1016/j.nut.2004.04.019

Sundin, J., Forbes, H., Fear, N. T., Dandeker, C., & Wessely, S. (2011). The impact of the conflicts of Iraq and Afghanistan: a UK perspective. *International Review of Psychiatry, 23*(2), 153–159. doi:10.3109/09540261.2011.561303

Swann, C., Moran, A., & Piggott, D. (2015). Defining elite athletes: Issues in the study of expert performance in sport psychology. *Psychology of Sport and Exercise, 16*, 3–14. doi:10.1016/j.psychsport.2014.07.004

Swann, C., Telenta, J., Draper, G., Liddle, S., Fogarty, A., Hurley, D., & Vella, S. (2018). Youth sport as a context for supporting mental health: Adolescent male perspectives. *Psychology of Sport and Exercise, 35*, 55–64. doi:10.1016/j.psychsport.2017.11.008

Talebi, M., Matheson, K., & Anisman, H. (2016). The stigma of seeking help for mental health issues: Mediating roles of support and coping and the moderating role of symptom profile. *Journal of Applied Social Psychology, 46*(8), 470–482. doi:10.1111/jasp.12376

Tamminen, K. A., Holt, N. L., & Crocker, P. R. E. (2012). Adolescent athletes: Psychosocial challenges and clinical concerns. *Current opinion in psychiatry, 25*(4), 293–300. doi:10.1097/YCO.0b013e3283541248

Theberge, N. (2008). "Just a normal bad part of what I do": Elite athletes' accounts of the relationship between health and sport. *Sociology of Sport Journal, 25*(2), 206–222.

Thompson, R. A., & Sherman, R. (2014). Reflections on athletes and eating disorders. *Psychology of Sport & Exercise, 15*(6), 729–734.

UK Sport (2018). UK Sport and EIS enhance mental health support. Retrieved from https://www.uksport.gov.uk/news/2018/12/04/uk-sport-and-eis-enhance-mental-health-support

UK Sport (2019). Mental health education programme aims to support every athlete and promote positive mental health. Retrieved from https://www.uksport.gov.uk/news/2019/05/13/mental-health-education-programme-aims-to-support-every-athlete

Uphill, M., Sly, D., & Swain, J. (2016). From mental health to mental wealth in athletes: Looking back and moving forward. *Frontiers in Psychology, 7*(935), 1−6. doi:10.3389/fpsyg.2016.00935

van Ramele, S., Aoki, H., Kerkhoffs, G. M. M. J., & Gouttebarge, V. (2017). Mental health in retired professional football players: 12-month incidence, adverse life events and support. *Psychology of Sport and Exercise, 28,* 85–90. doi:10.1016/j.psychsport.2016.10.009

Vogel, D. L., Wade, N. G., Wester, S. R., Larson, L., & Hackler, A. H. (2007). Seeking help from a mental health professional: The influence of one's social network. *Journal of Clinical Psychology, 63*(3), 233–245. doi:10.1002/jclp.20345

Voltmer, E., Zander, M., Fischer, J. E., Kudielka, B. M., Richter, B., & Spahn, C. (2012). Physical and mental health of different types of orchestra musicians compared to other professions. *Medical Problems of Performing Artists, 27*(1), 9−14.

Wadman, R., Webster, L., Mawn, L., & Stain, H. J. (2019). Adult attachment, psychological distress and help-seeking in university students: Findings from a cross-sectional online survey in England. *Mental Health & Prevention, 13*, 7–13. doi:10.1016/j.mhp.2018.11.003

Watson, J. C. (2005). College student–athletes' attitudes toward help–seeking behavior and expectations of counseling. *Journal of College Student Development, 46*(4), 442–449

Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E., . . . Vos, T. (2013). Global burden of disease attributable to mental and substance use disorders: Findings from the Global Burden of Disease Study

2010. *The Lancet, 382*(9904), 1575–1586. doi:10.1016/S0140-6736(13)61611-6

WHO. (2014). Mental health: a state of well-being. Retrieved from https://www.who.int/features/factfiles/mental_health/en/

WHO. (2018a). Mental disorders. Key facts. Retrieved from https://www.who.int/en/news-room/fact-sheets/detail/mental-disorders

WHO. (2018b). Depression. Retrieved from http://www.who.int/en/news-room/fact-sheets/detail/depression

WHO. (2019a). 10 facts on patient safety. Retrieved from https://www.who.int/features/factfiles/patient_safety/patient-safety-fact-file.pdf?ua=1

WHO. (2019b). Depression and suicide. Retrieved from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/areas-of-work/depression-and-suicide

Williams, O. (2012). Eating for excellence: Eating disorders in elite sport - Inevitability and 'immunity'. *European Journal for Sport and Society, 9*(1-2), 33–55.

Wilson, G. T. (1999). Rapid response to Cognitive Behavior Therapy. *Clinical Psychology: Science and Practice, 6*(3), 289–292. doi:10.1093/clipsy.6.3.289

Wippert, P.-M., & Wippert, J. (2010). The effects of involuntary athletic career termination on psychological distress. *Journal of Clinical Sport Psychology, 4*(2), 133–149.

Wolanin, A., Gross, M., & Hong, E. (2015). Depression in athletes: Prevalence and risk factors. *Current Sports Medicine Reports, 14*(1), 56−60. doi:10.1249/jsr.0000000000000123

Wolanin, A., Hong, E., Marks, D., Panchoo, K., & Gross, M. (2016). Prevalence of clinically elevated depressive symptoms in college athletes and differences by gender and sport. *British Journal of Sports Medicine, 50*(3), 167−171.

Yap, M. B. H., Mackinnon, A., Reavley, N., & Jorm, A. F. (2014). The measurement properties of stigmatizing attitudes towards mental disorders: Results from two community surveys. *International Journal of Methods in Psychiatric Research, 23*(1), 49–61. doi:10.1002/mpr.1433

APPENDICES

Appendix A. Summary tables

Appendix A1. Characteristics and incidence rates of common mental health disorders in the general population and in elite sport.

Type	*Diagnostic criteria (DSM-5, APA, 2013)*	*Prevalence all (females and males)*	
		General population	***Elite sport***
Major depressive disorder (MDD) and depression symptoms	A. At least five of the following symptoms must be present for minimum 2 weeks and at least one of those symptoms is either depressed mood or loss of interest or pleasure. ➢ Depressed mood or irritable mood (in children and adolescents) most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). ➢ Diminished interest or pleasure in all, or almost all, activities. ➢ Significant weight change or change in appetite. ➢ Insomnia or hypersomnia. ➢ Psychomotor agitation or retardation (observable by others). ➢ Fatigue or loss of energy. ➢ Feelings of worthlessness or excessive or inappropriate guilt. ➢ Diminished ability to think or concentrate, or indecisiveness.	12-month prevalence of MDD reaches 4.3% in Europe (WHO, 2019b) and up to 7% in Europe and in the U.S (APA, 2013; WHO, 2018b)	Prevalence of depressive symptoms ranges from 4% to 68% (See Chapter 2, Reardon et al., 2019)

	➢ Recurrent thoughts of death, suicidal ideation (with or without a specific plan for committing suicide), or suicide attempt. B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. C. The episode is not attributable to the physiological effects of a substance or to another medical condition. D. The occurrence of the major depressive episode is not better explained by another mental disorder. E. There has never been a (hypo)manic episode.		
Generalised anxiety disorder (GAD)	A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance). B. The individual finds it difficult to control the worry. C. The anxiety and worry are associated with at least three of the following symptoms (only one item is required in children). 1. Restlessness or feeling keyed up or on edge. 2. Being easily fatigued. 3. Difficulty concentrating or mind going blank. 4. Irritability. 5. Muscle tension. 6. Sleep disturbance. D. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. E. The disturbance is not attributable to the physiological effects of a substance or another medical condition. F. The disturbance is not better explained by another mental disorder.	The 12-month prevalence of generalized anxiety disorder ranges from 0.4% to 3.6% (APA, 2013).	Prevalence ranges from 6.0% for a clinician confirmed diagnosis to 14.6% using self-report measures (Reardon et al., 2019, Schaal et al., 2011).

Social anxiety disorder	A. Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. B. The individual fears that they will act in a way or show anxiety symptoms that will be negatively evaluated. C. The social situations almost always provoke fear or anxiety. D. The social situations are avoided or endured with intense fear or anxiety. E. The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context. F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more. G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. H. The fear, anxiety, or avoidance is not attributable to the physiological effects of a substance or to another medical condition including another mental disorder.	12-month prevalence in Europe is about 2.3% (APA, 2013)	Self-reported estimates reach up to 14.7% (Reardon et al., 2019)
Panic disorder	A. Recurrent unexpected panic attacks. A panic attack is an abrupt surge of intense fear or intense discomfort that reaches a peak within minutes, and during which time at least four of the following symptoms occur. 1. Palpitations, pounding heart, or accelerated heart rate. 2. Sweating. 3. Trembling or shaking. 4. Sensations of shortness of breath or smothering. 5. Feelings of choking. 6. Chest pain or discomfort. 7. Nausea or abdominal distress. 8. Feeling dizzy, unsteady, light-headed, or faint. 9. Chills or heat sensations. 10. Paraesthesia (numbness or tingling sensations).	The 12-month prevalence estimate is about 2%-3% in European countries.	Self-reported estimates approach 4.5% (Reardon et al., 2019)

	11. Derealization or depersonalization. 12. Fear of losing control or "going crazy." 13. Fear of dying. B. At least one of the attacks has been followed by at least one month of one or both of the following: 1. Persistent concern or worry about additional panic attacks or their consequences. 2. A significant maladaptive change in behaviour related to the attacks. C. Symptoms are not attributable to the physiological effects of a substance or to another medical condition including another mental disorder.		
Obsessive compulsive disorder	A. Presence of obsessions, compulsions, or both: Obsessions are defined by (1) and (2): 1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress. 2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action. Compulsions are defined by (1) and (2): 1. Repetitive behaviours or mental acts that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly. 2. The behaviours or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviours or mental acts are not connected in a realistic way	The 12-month prevalence internationally is between 1.1% and 1.8%.	Self-reported estimates approach 5.2% (Reardon et al., 2019)

	with what they are designed to neutralize or prevent, or are clearly excessive. B. The obsessions or compulsions are time-consuming or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. C. The obsessive-compulsive symptoms are not attributable to the physiological effects of a substance or to another medical condition including another mental disorder.		
Eating disorders such as anorexia nervosa	A. Restriction of energy intake relative to requirements, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. B. Intense fear of gaining weight or of becoming fat, or persistent behaviour that interferes with weight gain, even though at a significantly low weight. C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight. ➢ Restricting type: During the last 3 months, the individual has not engaged in recurrent episodes of binge eating or purging behaviour. This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting, and/or excessive exercise. ➢ Binge-eating/purging type: During the last 3 months, the individual has engaged in recurrent episodes of binge eating or purging behaviour.	The 12-month prevalence of anorexia nervosa is 0.4% among females. Less is known regarding its prevalence among males.	The estimated prevalence of eating disorders and/or disordered eating ranges from 0% to 19% in men (Reardon et al., 2019), and reaches up to 60% in female athletes (Bär & Markser, 2013; Glick et al., 2012)

Appendix A2. Summary findings of studies used within this thesis regarding the prevalence of MHIs in elite sport (adapted from Moesch et al., 2018).

Studies	Sample demographics		N	Sport(s)	Data collection	Prevalence (males, females)
	Sample	**Age**				
Beable et al. (2017)	Members of the elite High Performance Sport New Zealand (HPSNZ) programme	18 years or older	187	Different individual and team sports	Cross-sectional survey included health history questions relating to family history of depression, previous history of depression, antidepressant usage, history of injury, surgery, concussion, eating disorders, alcohol and substance abuse.	Moderate depressive symptoms[f] 21% Major depressive episode[f] 8.6% History of being diagnosed with depression 6.42% Eating disorder history 10.16%
Byrne and McLean (2002)	Australian elite athletes competing at a national or international level and non-athletes	Between 15 and 36 years old	263 in each group	Different individual and team sports	Interviewed realised by a trained Clinical Psychologist using the Composite International Diagnostic Interview as well as self-reported measures	Anorexia nervosa or bulimia nervosa[a] : Thin-build athletes 20% (15% females, 5% males) Normal-build athletes 2% Non-athletes 1% EDNOS[a]: Thin-build athletes 17% (16% females, 1% males) Normal-build athletes 7% Non-athletes 5%

Foskett and Longstaff (2018)	U.K. elite athletes competing at professional, international or national level	M=24	143	Different individual and team sports	Online survey including demographic variables, variables assessing career satisfaction, signs of anxiety/depression and psychological distress.	Signs of anxiety/depression [c] 7.8% Signs of distress [c] 26.8%
Gouttebarge et al. (2015b)	Male professional players from Australia, Ireland, Netherlands, New Zealand, Scotland, USA	M=27	149	Football	Paper and electronic questionnaire including demographic variables and self-report questionnaires for distress, burnout, anxiety/depression, self-esteem, alcohol consumption, smoking and nutritional behaviour	Distress[c] 10% Burnout[d] 5% Anxiety/depression[c] 26% Low self-esteem[d] 3% Adverse alcohol behaviour[a] 19% Smoking[a] 7% Adverse nutrition behaviour[a] 26%
Gouttebarge et al. (2015a)	Male professional players from Finland, France, Norway, Spain and Sweden	M=27	540	Football	Online questionnaire including demographic variables and self-report questionnaires for distress, symptoms related to anxiety/depression in the previous four weeks, sleep disturbance, current level of alcohol consumption, eating habits, the occurrence of life events, and career dissatisfaction	Distress[c] from 11% (Spain) to 18% (Sweden), Anxiety/depression[c] from 25% (Spain) to 43% (Norway) Sleeping disturbance[c] from 19% (Finland) to 33% (Spain) Adverse alcohol behaviour[a] from 6% (Sweden) to 17% (Finland) Adverse nutrition behaviour[a] from 47% (France) to 74% (Norway)

Gouttebarge, Aoki, Ekstrand, Verhagen, and Kerkhoffs (2016)	Male professional players from Finland, France, Norway, Spain and Sweden	M=27	540	Football	Online questionnaire including demographic variables, variables regarding injuries and surgeries, and self-report questionnaires for distress, anxiety/depression, alcohol consumption, smoking, sleeping disturbance, and nutritional behaviour.	Distress [c] 15.1% Anxiety/depression [c] 37.3% Sleeping disturbance [c] 24% Adverse alcohol behaviour[a] 10.3% Smoking[a] 3.2% Adverse nutrition behaviour[a] 58.2%
Gouttebarge et al. (2016c)	Active senior county level Gaelic footballers or hurlers of the Gaelic Players' Association	M=25	108	Football or hurling	Online questionnaire including demographic variables, variables symptoms of distress, anxiety/depression, sleep disturbance, and adverse alcohol.	Distress[c] 38% Distress[d] 14.1% Anxiety/Depression[c] 47.8% Anxiety/Depression [d] 20.7 Sleep disturbance[c] 33 Sleep disturbance [d] 11.1 Adverse alcohol use[c] 23.2 Adverse alcohol use [d] 17.5
Gouttebarge, Aoki, and Kerkhoffs (2016a)	Retired professional male players from Belgium, Chile, Finland, France, Japan, Norway, Paraguay, Peru, Spain, Sweden and Switzerland	M=35	219	Football	Online questionnaire including demographic variables, variables symptoms of distress, anxiety/depression, sleep disturbance, adverse alcohol, as well as current smoking behaviour and current eating habits.	Distress [c] 18.4% Anxiety/depression [c] 35.3% Sleeping disturbance [c] 28.2% Adverse alcohol behaviour[a] 24.6% Smoking[a] 11.4% Adverse nutrition behaviour[a] 64.5%

Gouttebarge et al. (2016b)	Retired professional male Rugby Union players from France, Ireland and South Africa	M=38	295	Rugby	Online questionnaire including demographic variables, variables symptoms of distress, anxiety/depression, sleep disturbance as well as current and adverse alcohol behaviour, current smoking behaviour and current eating habits.	Distress [c] 24.8% Anxiety/depression [c] 28.4% Sleeping disturbance [c] 28.8% Adverse nutrition behaviour[a] 61.9% Smoking[a] 15% Adverse alcohol behaviour[a] 23.8%
Gouttebarge et al. (2017)	Current and retired male and female Dutch elite athletes	M=27.3 (current) M=50.7 (retired)	485	Different individual and team sports	Online questionnaire including demographic variables, variables regarding retirement, injury, surgeries, adverse life events, career dissatisfaction, social support, and self- report questionnaire for distress, anxiety/depression, sleep disturbance, eating disorders, and adverse alcohol use)	Current athletes: Distress[c] 26.6% Anxiety/depression[c] 44.7% Sleep disturbance[c] 22.3% Adverse alcohol use[c] 6.4% Eating disorders [c] 32.1% Retired athletes: Distress [c] 17.5% Anxiety/depression [c] 29.4% Sleep disturbance [c] 21.8% Adverse alcohol use [c] 23.2% Eating disorders [c] 27.4%

Gouttebarge et al. (2018)	Current male professional player in rugby from Australia, England, France, Ireland, Italy, New Zealand, Pacific Islands, South Africa and Wales	M=26	333	Rugby	Online questionnaire including demographic variables, variables symptoms of distress, anxiety/depression, sleep disturbance, eating disorders and adverse alcohol use.	Distress[g] 11% Anxiety/depression[g] 28% Sleep disturbance[g] 12% Eating disorders[g] 11% Adverse alcohol use[g] 22%
Gulliver et al. (2015)	Australian athletes competing at least at the national level or above	M=24,9	224	Different individual and team sports	A self-report internet-based survey containing of demographic variables and six questionnaires about different mental health problems	General psychological distress[f] 16.5% Depressive symptoms[f] 27.2% Anxiety symptoms[f] (GAD) 7.1% Social anxiety symptoms[f] 14.7% Panic disorder symptoms[f] 4.5% Eating disorder symptoms[f] 22.8% Any mental health problem[f] 46.4%
Junge and Feddermann-Demont (2016)	Male and female players of all first league (FL) and of four U-21 football teams in Switzerland	M=22.3	471	Football	The questionnaire included questions on playing, injuries and frequency of intake of medication, as well as self-report scales designed to measure symptoms of depression and anxiety	Depression[f] 9% in male and 13% in female players mild to moderate depression[f] 7.6% major depression[f] 3.0% moderate anxiety disorder[f] 1.4%

Hammond et al. (2013)	Canadian varsity athletes competing at a national level and qualified to compete at trial competitions for Olympic and World Championship teams	M= 20.5	50	Swimming	Assessment of current and 36-month history of depressive symptoms were conducted by trained psychologists. Diagnosed depression was assessed using a semi-structured interview, and the Beck Depression inventory II was used to assess symptoms of depression (self-reported measure of symptoms).	Before the swimming trials Diagnosed major depressive disorder[f] 68% After the swimming trials: Diagnosed major depressive episode[e] 34% mild symptoms of depression [e] 22% moderate symptoms of depression[e] 4%
Kilic et al. (2017)	Current and retired, male and female, Danish professional players	M=26 (current football) M= 34 (retired football) M=25 (current handball) M= 35 (retired handball)	1155	Football and handball	Questionnaire included questions on the presence of distress, symptoms of anxiety/depression, sleep disturbance, current level of alcohol consumption	Current football players: Adverse alcohol use[f] 3% Anxiety/depression [f] 18% Retired football players: Adverse alcohol[f] 8% Anxiety/depression[f] 19% Current handball players: Adverse alcohol use 3% Anxiety/depression 26% Retired handball players: Adverse alcohol[f] 7% Anxiety/depression[f] 16%

Schaal et al. (2011)	French junior and senior elite athletes	M=18.5	2067	Different individual and team sports	Clinical interviews, based on DSM-IV and CIM 10 criteria, executed during a yearly psychological consultation.	Anxiety disorders[e] 8.6% Anxiety disorders[b] 12.1% Depression[e] 3.6% Depression[b] 11.3% Eating disorders[e] 4.9% Eating disorder[b] 7.5% Sleep problems[e] 21.5% Sleep problems[b] 26.6% Abuse or dependency[b] 4.1%
van Ramele et al. (2017)	Retired professional players	35	194	Football	Questionnaires involving questions on symptoms of distress, sleep disturbance, symptoms of anxiety/depression and adverse alcohol use	Distress[g] 11% Sleep disturbance[g] 28% Anxety/depression[g] 29% Adverse alcohol[g] 15%

Note. [a] = point prevalence, [b] = lifetime prevalence, [c] = one-month prevalence, [d] = six months prevalence, [e] = current prevalence, defined as within the last 6 months; [f] = prevalence ranging from "during last four weeks" to "during past week", [g]= 12-month prevalence and more.

Appendix B. Ethics Approval – BAHSS 395

19 January 2017

David Collins / Florence Lebrun
School of Sport and Wellbeing
University of Central Lancashire

Dear David / Florence

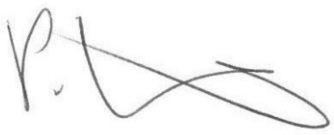
Re: BAHSS Ethics Committee Application
Unique Reference Number: BAHSS 395

The BAHSS ethics committee has granted approval of your proposal application 'Learning from elite athletes' mental health experiences'. Approval is granted up to the end of project date* or for 5 years from the date of this letter, whichever is the longer.

It is your responsibility to ensure that

- the project is carried out in line with the information provided in the forms you have submitted
- you regularly re-consider the ethical issues that may be raised in generating and analysing your data
- any proposed amendments/changes to the project are raised with, and approved, by Committee
- you notify roffice@uclan.ac.uk if the end date changes or the project does not start
- serious adverse events that occur from the project are reported to Committee
- a closure report is submitted to complete the ethics governance procedures (Existing paperwork can be used for this purposes e.g. funder's end of grant report; abstract for student award or NRES final report. If none of these are available use e-Ethics Closure Report Proforma).

Yours sincerely



Chair
BAHSS Ethics Committee

* for research degree students this will be the final lapse date

NB - Ethical approval is contingent on any health and safety checklists having been completed, and necessary approvals as a result of gained.

Appendix C. Information Sheet and Consent Form – BAHSS 395

Research project title: Learning from elite athletes' mental health experiences

You are being invited to take part in a research study. Before you decide whether or not to take part, please take time to read the following information carefully. Thank you for your time and consideration.

What is the purpose of the study?

The present study aims to broaden our understanding of elite athletes' experiences of mental health issues. Using semi-structured interviews, we would like to explore and generate an in-depth understanding of participants' 'at the time' perceptions *and* post hoc reflections on their experiences of mental health issues. The study will particularly focus on what kind of mental issues have been encountered, how it was diagnosed and how elite athletes, who have experienced mental issues of clinical severity during or immediately post their career, have dealt with it.

Why have I been invited to participate?

As a first step, an invitation email was sent out to our contacts in sport environments. This was likely forwarded to performers on their database. You are likely to be one of many who have received this invitation email.

Do I have to take part?

Your participation in this project is entirely voluntary and your contribution would be much appreciated. Furthermore, if you do not want to answer to a question, we can stop discussing the particular question and move on to the next one. You are also free to withdraw from the project at any time, without having to give a reason. Please note, however, that you will be unable to withdraw from the study once the data from the interview have been anonymised.

Can I take part in this study?

If you are interested in taking part in this study, you must be a current or retired elite athlete who has experienced mental health issues of clinical severity at some point during or immediately after your athletic career. By "clinical severity", we mean that

you have experienced a mental health issue (e.g., depression, eating disorder, anxiety disorder, OCD, addiction, etc.) for which you have been formally assessed and diagnosed. Mental health issues "*are generally characterized by some combination of abnormal thoughts, emotions, behaviour and relationships with others*." (WHO, 2016). Nevertheless, in order to take part in this study, you must (1) either be free of ongoing mental health issues or (2) have your condition safely under control

Whereas the definition of an elite athlete used within this study was based on Swann and colleagues' definition (2015): "*Successful-elite athletes not only compete at the highest level, but have experienced some success at that standard (e.g., winning an event or a medal)." (pg.11).* Success at elite level is therefore considered an essential criterion for participation.

What will happen to me if I take part?

If you decide to participate in this study, you will be asked to take part in an interview conducted by a clinical psychologist. This interview will last approximately 90 minutes and will be recorded for the purpose of transcription. Before starting the interview, you will be given this information sheet to keep and will be asked to sign two consent forms (one for you, and one for the researchers). This is to confirm that you have read and understood the information given in the information sheet and that you are willing to participate. Finally, and as part of the validation of the collected data, you will be asked after an initial data analysis phase to give a feedback on our understanding and interpretation of your experience.

What are the possible benefits of taking part?

There will be no direct benefit to you by taking part, but we intend that findings will inform research and better practice when offering psychological support to elite performers.

What are the possible risks of taking part?

There are no serious risks of taking part in this study, but as the questions will be related to mental health issues you have experienced during or immediately post you career, you may feel some discomfort. If this is the case, then we can stop discussing the particular question and move on to the next one or you can decide to stop the interview and withdraw from the study.

Will what I say in this study be kept confidential?

The information provided will be kept and analysed confidentially, and only the researchers (who are all qualified sport or clinical psychologists) will have access to the interview transcripts. All data will be kept securely on a password protected server at the University of Central Lancashire. No information enabling your identification will be revealed in order to protect participants' anonymity and confidentiality. Data

generated by the study will be retained in accordance with the University of Central Lancashire's policy on Academic Integrity. Therefore, the data generated in the course of this research will be kept securely in electronic, password protected and encrypted form for 5 years from the end of the project.

What should I do if I want to take part?

Please contact me via email (contact details are included at the end of this sheet). It would be helpful if you could include the times and locations that would be most convenient for you to meet. You can register interest and be interviewed until I stop collecting data. Please understand that you will be unable to withdraw from the study once the data from the interview have been anonymised. This means that you must withdraw your consent before the 30th April 2017.

What will happen to the results of the research study?

The results will be part of my PhD project and might also be published as articles in different journals. You should be aware that data collected during the course of this project might be used for additional research. If you would like to receive a summary of the results of this research, please email me at flebrun@uclan.ac.uk with the contact details you would like the results sent to.

Who has reviewed the study?

This project has been reviewed by the UCLan Research Ethics Committee for Business, Arts, Humanities, and Social Science (BAHSS No. 395). Should you have any concerns about the way in which the study has been conducted, you can contact our University Officer for Ethics at OfficerforEthics@uclan.ac.uk.

If you have any questions about this project, please feel free to contact me, *Florence Lebrun* (flebrun@uclan.ac.uk) or the project supervisor *Dave Collins* (DJCollins@uclan.ac.uk).

Thank you for your time and consideration.

Kind Regards

Florence Lebrun

Institute of Coaching and Performance,
School of Sport & Wellbeing,
University of Central Lancashire
flebrun@uclan.ac.uk
07526581499

Consent form

Full title of Project:

Learning from elite athletes' mental health experiences

Name, position and contact address of Researcher:

Florence Lebrun, School of Sport & Wellbeing, flebrun@uclan.ac.uk

Please read the following statements and tick the boxes to indicate agreement.

	Please initial box
I confirm that I have read and understand the information sheet, dated ……. for the above study and have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason.	☐
I agree to take part in the above study.	☐
I agree that my data gathered in this study may be stored (after it has been anonymised) in a specialist data centre and may be used for future research.	☐
I understand that it will not be possible to withdraw my data from the study after final analysis has been undertaken	☐
I agree to the interview being audio recorded	☐
I agree to the use of anonymised quotes in publications	☐

Name of Participant	Date	Signature
Name of Researcher	Date	Signature

Appendix D. Interview Questions – BAHSS 395 and Summary of Findings by Participant

Appendix D1. Interview Questions – BAHSS 395

Sections + estimated time	**Question** *What 'open' question do you need to ask to achieve this purpose?*	**Probes** *What 'open' question can I ask to get info on the things I want to know if they don't seem to understand the main question? Or if they don't provide enough detail in their answer?*	**Stimuli** *Only asked if they still don't give me the information that I'm most interested in then what can I ask them to directly comment on?*	**Purpose** *What do you want to know or find out?*
Descriptive information/warm up ***(5min)***	1. *To begin, I would like to know more about you and your sporting pathway. Could you briefly introduce yourself?*	Give me a brief overview of your sporting journey + graph).	• How old are you? • What sport did you perform? • For how long did you play that sport? • At which level(s) did you perform?	Demographic + background info
GRAPHIC TIMELINE (10 min)	In order to ease my understanding of your journey, I am going to ask you to draw a graph (showing performance (Low to High) vertically and ages horizontally) representing your progression as an athlete as well as the key incidents you have experienced as a part of this process. In another colour and in parallel to this blueprint, I am going to ask you to do the same but this time, the drawing represents your mental health. As per the briefing you received in advance of this interview, I will ask you about mental health issues you have experienced during or after your sporting career. Those graphs will help you through this interview to remember about specific times and together we will particularly focus on times of suffering and recovering. I will ask you a series of questions and would like you to provide answers for each of them. If at some point you feel some discomfort about answering one of those questions, we can stop and go to the next one			

DIAGNOSIS (15min)	2. *What kind of issues did you suffer from?*	• What kind of symptoms did you experience? • Did you receive a formal diagnosis regarding your mental health problems?	• For instance, common problems might include, anxiety disorders (e.g., GAD, phobia), major depression, bipolar disorders OCD(Obsessive compulsive disorder), ADHD(Attention Deficit Hyperactivity Disorder), eating disorders, … • How was it diagnosed? • By whom was the diagnosis made? • Family history? + Comparisons with different phases (and there?) → was it always the same symptoms? Disorder?	Establish an understanding of which symptoms participants have experienced, how the MHI was diagnosed.
GENESIS (10min)	3. *Now can you tell me when the symptoms started?*	• In your opinion, why did you develop those symptoms? • Did the problem exist only when you were in your sport environment	• When did you realise that something wasn't right? • If you had to give a reason? If you had to think about why? • What happened? • And after?	Participants' perceptions of the genesis of the issues have experienced and their impact on their lives and performance.

		or was it also present in your life outside?	+ Comparisons between phases/zones drawn by the participant (and here? What happened?)	
REACTION (10min)	4. *How did it affect you?*	• How did this MHI affect your life? • And on your performance?	+ Comparisons with different phases (and there?)	
HANDLED → SKILLS/SUPPORT (COPING) (15min)	5. *What was your reaction after getting the diagnosis?*	• What did you do? • Were any efforts made to overcome those issues*?* • Were some recovery/positive changes apparent? • What key characteristics/strategies	• What sorts of things did you consider and/or attempt? • Which were your strategies? For example, recognizing having a problem, asking for help, getting support from friends, family, coach, teammates, therapist, etc… • Did you seek/get/ask for help or support in order to overcome those issues? • If so, to whom did you go to seek for help first? • Which positive change did you notice? Due to? • Would you acknowledge those symptoms/warning signs quicker and more easily today?	Establish an understanding of the coping strategies implemented by the elite athletes in order to deal with their problems (→ their capacity to cope positively with it)

		would you say are necessary, as an elite performer, to deal with mental health issues?		
STIGMA (5 min)	6. *In general, did people treat you any differently when they learned about your mental health issue?*	• How did they react when they learned about it? • Do you think the way people perceive MHI is now different in your sport?	• Did you talk about it openly with teammates, coaches, significant others?	How are the culture of "*boys don't cry*" and the stigma associated to Mental health issues is perceived (The Times Magazine, 2016)?
COMMON (5 min)	7. *Based on your own experience but also on your current opinion of the situation, how common do you think mental health issues are in elite sport?*	• Would you say that this kind of problems are common in your sport? • What about in other sports?	• Do you know peers who have experienced similar issues? According to you, what percentage of elite athletes that you know suffered from mental health issues? • And how many fully recovered from it?	Establish an understanding of the perception of commonness of MHI in elite sport.
TO CONCLUDE (10min)	8. *So, to conclude, what does mean being mentally healthy to you?*	• When thinking about it retrospectively, what would you have needed to overcome those issues? • What would you do differently today?	• What kind of skills? • Or support? • Did you ever really fully recover?	

Appendix D2. Summary of Findings by Participant

Table D2.1 *Participant 1's summary of key findings*

	Diagnoses	Perceived Primary Triggers of Depression	Signs of Depression		MHIs in Sport Environments	Coping Strategies
Participant 1	• Depression (MDD = major depressive disorder) • Anxiety • ADHD	***Sport-related trigger:*** • Bullying and mistreatment within a sport organisation	***Diagnostic criteria (DSM-V):*** • Depressed mood (e.g., feels sad, empty, and hopeless). • Markedly diminished interest or pleasure in all, or almost all, activities. • Significant weight loss when not dieting or weight gain or decrease or increase in appetite. • Fatigue or loss of energy nearly every day. • Feelings of worthlessness or excessive or inappropriate guilt.	***Other warning signs:*** • Change of character. • Behavioural changes such as: o At-risk behaviour (e.g., drugs). o Aggressiveness o Increased impulsivity. o Disengaging/isolating themselves from others. o Withdrawing behaviour. o Increased anxiety. • Negative impact on performance	• MHIs are more common in sport than we think. • Many other athletes are/have suffered from MHIs. • Stigma surrounding MHIs in sport are mainly due to a lack of knowledge and understanding leading people to	***Problem-focused:*** • Seeking for professional help and appropriate treatment. ***Emotion-focused:*** • Seeking and receiving emotional support from different sources. • Use of stress decreasing tools or activities.

	• Recurrent thoughts of death recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide. • The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.	○ Performance drops. ○ Loss of passion and/or motivation.	fear to be seen as weak or to be rejected.	***Appraisal-focused:*** • Cognitive restructuring and/or reappraisal strategies. ***Avoidance:*** • Removing self from a stressful environment. • Engaging in new activities (out of sport). • Postponing help seeking. • Disengaging/isolating themselves from others.

Table D2.2 *Participant 2's summary of key findings*

	Diagnosis	Perceived Primary Triggers of Depression	Signs of Depression		MHIs in Sport Environments	Coping Strategies

Participant 2	• Depression (MDD = major depressive disorder)	***Sport-related trigger:***
		• End of career due to a life-changing injury
			Diagnostic criteria (DSM-V):
			• Depressed mood (e.g., feels sad, empty, and hopeless).
			• Markedly diminished interest or pleasure in all, or almost all, activities.
			• Fatigue or loss of energy nearly every day.
			• Feelings of worthlessness or excessive or inappropriate guilt.
			• Recurrent thoughts of death recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.
				Other warning signs:
				• Change of character
				• Behavioural changes such as:
				  ○ Aggressiveness
				  ○ Disengaging/ isolating themselves from others.
				  ○ Withdrawing behaviour.
				  ○ Increased anxiety.
				• Negative impact on performance
				  ○ Performance drops.
				  ○ Loss of passion and/or motivation.
					• MHIs are more common in sport than we think.
					• Many other athletes are/have suffered from MHIs.
					• Stigma is still present within sport environments despite the efforts made to decrease it.
					• Stigma surrounding MHIs in sport are mainly due to a lack of knowledge and understanding
						Problem-focused:
						• Seeking for professional help and appropriate treatment.
						Emotion-focused:
						• Seeking and receiving emotional support from different sources.
						• Becoming a spokesperson – an advocate for all.
						Avoidance:
						• Engaging in new activities (within or out of sport).
						• Postponing help seeking.

	• The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.	leading people to fear to be seen as weak or to be rejected.	• Disengaging/isolating themselves from others.

Table D2.3 *Participant 3's summary of key findings*

	Diagnoses	Perceived Primary Triggers of Depression	Signs of Depression		MHIs in Sport Environments	Coping Strategies

Participant 3	• Depression (MDD = major depressive disorder)
	• Anxiety
		Non-sport-related trigger:
		• Miscarriage
			Diagnostic criteria (DSM-V):
			• Depressed mood (e.g., feels sad, empty, and hopeless).
			• Markedly diminished interest or pleasure in all, or almost all, activities.
			• Fatigue or loss of energy nearly every day.
			• Feelings of worthlessness or excessive or inappropriate guilt.
			• Diminished ability to think or concentrate, or indecisiveness.
				Other warning signs:
				• Behavioural changes such as:
				  ○ At-risk behaviour (e.g., self-harm).
				  ○ Disengaging/ isolating themselves from others.
				  ○ Increased anxiety – worst case scenarios.
				• Negative impact on performance.
				  ○ Performance drops.
					• MHIs are more common in sport than we think.
					• Many other athletes are/have suffered from MHIs.
					• Stigma is still present within sport environments despite the efforts made to decrease it.
					• Stigma surrounding MHIs in sport are mainly due to a lack of knowledge and understanding leading
						Problem-focused:
						• Seeking for professional help and appropriate treatment.
						Emotion-focused:
						• Seeking and receiving emotional support from different sources.
						• Use of stress decreasing tools or activities.
						• Becoming a spokesperson – an advocate for all.
						Appraisal-focused:

	• The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.	people to fear to be seen as weak or to be rejected.	• Cognitive restructuring and/or reappraisal strategies. ***Avoidance:*** • Removing self from a stressful environment. • Training & competing– use of their sport as a catharsis. • Disengaging/isolating themselves from others.

Table D2.4. *Participant 4's summary of key findings*

	Diagnoses	Perceived Primary Triggers of Depression	Signs of Depression		MHIs in Sport Environments	Coping Strategies
Participant 4	• Depression (Persistent Depressive Disorder) • Anxiety (and more specifically OCD)	***Non-sport-related trigger:*** • Obsessive and Compulsive Disorder (OCD)	***Diagnostic criteria (DSM-V):*** • Depressed mood (e.g., feels sad, empty, and hopeless). • Markedly diminished interest or pleasure in all, or almost all, activities. • Significant weight loss when not dieting or weight gain or decrease or increase in appetite. • Feelings of worthlessness or excessive or inappropriate guilt. • Insomnia or hypersomnia (sleep disturbance). • Fatigue or loss of energy nearly every day.	***Other warning signs:*** • Behavioural changes such as: o At-risk behaviour (e.g., self-harm). o Aggressiveness. o Increased impulsivity. • Negative impact on performance.	• MHIs are more common in sport than we think. • Many other athletes are/have suffered from MHIs. • Stigma is still present within sport environments despite the efforts made to decrease it. • Stigma surrounding MHIs in sport are mainly due to a lack of knowledge and understanding leading people	***Problem-focused:*** • Seeking for professional help and appropriate treatment. ***Emotion-focused:*** • Seeking and receiving emotional support from different sources. • Emotional eating. • Becoming a spokesperson – an advocate for all. •

		• Recurrent thoughts of death recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.	to fear to be seen as weak or to be rejected.	***Appraisal-focused:*** • Cognitive restructuring and/or reappraisal strategies. ***Avoidance:*** • Engaging in new activities (within or out of sport). • Training & competing– use of their sport as a catharsis. • Postponing help seeking.

Appendix E. Ethics Approval – BAHSS 395 phase 2.

11 April 2017

Dave Collins / Florence Lebrun
School of Sport and Wellbeing
University of Central Lancashire

Dear Dave / Florence

Re: BAHSS Ethics Committee Application
Unique Reference Number: BAHSS 395 2nd Phase

The BAHSS ethics committee has granted approval of your proposal application 'Young athletes' mental health issues: coaches and managers' perspective'. Approval is granted up to the end of project date.

It is your responsibility to ensure that

- the project is carried out in line with the information provided in the forms you have submitted
- you regularly re-consider the ethical issues that may be raised in generating and analysing your data
- any proposed amendments/changes to the project are raised with, and approved, by Committee
- you notify roffice@uclan.ac.uk if the end date changes or the project does not start
- serious adverse events that occur from the project are reported to Committee
- a closure report is submitted to complete the ethics governance procedures (Existing paperwork can be used for this purposes e.g. funder's end of grant report; abstract for student award or NRES final report. If none of these are available use e-Ethics Closure Report Proforma).

Yours sincerely

Duncan Sayer
Vice-Chair
BAHSS Ethics Committee

* for research degree students this will be the final lapse date

NB - Ethical approval is contingent on any health and safety checklists having been completed, and necessary approvals as a result of gained.

Appendix F. Information Sheet and Consent Form – BAHSS 395 phase 2

University of Central Lancashire

Research project title: Young athletes' mental health issues: coaches and managers' perspective

You are being invited to take part in a research study. Before you decide whether or not to take part, please take time to read the following information carefully. Thank you for your time and consideration.

What is the purpose of the study?

The present study aims to examine TD coaches and managers' experiences of young athletes suffering from mental health issues (MHIs). Using semi-structured interviews, we would like to explore and generate an in-depth understanding of coaches and managers' attitudes and needs regarding MHIs. The study will particularly focus on what coaches and academy managers know about MHIs, what kind of mental issues their athletes have encountered and how they have managed this situation.

Why have I been invited to participate?

As a first step, an invitation email was sent out to our contacts in sport environments. This was likely forwarded to all the coaches or academy managers on their database. You are likely to be one of many who have received this invitation email.

Do I have to take part?

Your participation in this project is entirely voluntary and your contribution would be much appreciated. Furthermore, if you do not want to answer to a question, we can stop discussing the particular question and move on to the next one. You are also free to withdraw from the project at any time, without having to give a reason. Please note, however, that you will be unable to withdraw from the study once the data from the interview have been anonymised.

Can I take part in this study?

- If you are interested in taking part in this study, you must
- Be over 18
- Hold a coaching qualification
- Hold an accreditation in talent development if this accreditation exists in your sport (e.g., in football)

- Have at least 6 years of experience
- Have coached or managed athletes suffering from mental health issues (e.g., depression, eating disorder, anxiety disorder, OCD, etc.).
- Currently work with young athletes in a talent development environment (e.g., sport academies)

What will happen to me if I take part?

If you decide to participate in this study, you will be asked to take part in an interview conducted by a clinical psychologist. This interview will last approximately 90 minutes and will be recorded for transcription purpose. Before starting the interview, you will be given this information sheet to keep and will be asked to sign two consent forms (one for you, and one for the researchers). This is to confirm that you have read and understood the information given in the information sheet and that you are willing to participate. Finally, you will be asked later on to give a feedback on the outcomes resulting from your transcript in order to ensure that our understanding of your narrative is matching your lived experience.

What are the possible benefits of taking part?

There will be no direct benefit to you by taking part, but we intend that findings will inform research and better practice when offering psychological support to elite and aspiring elite performers.

What are the possible risks of taking part?

There are no serious risks of taking part in this study. As the questions will be related to mental health issues you might have encountered in others during your career, you may feel some discomfort to talk about this topic. If it is the case, you can stop discussing the particular question and move on to the next one or stop the interview and withdraw from the study.

Will what I say in this study be kept confidential?

The information provided will be kept and analysed confidentially, and only the researchers involved in this study (Florence Lebrun, Dave Collins, Aine MacNamara and Sheelagh Rodgers) will have access to the interview transcripts. No information enabling your identification will be revealed in order to protect your anonymity and confidentiality. Data will be retained in accordance with the University of Central Lancashire's policy on Academic Integrity and will be kept securely in electronic, password protected and encrypted form for 5 years from the end of the project.

What should I do if I want to take part?

Please contact me via email (contact details are included at the end of this information sheet). It would be helpful if you could include the times and locations that would be

most convenient for you to meet me. You can register interest and be interviewed until I stop collecting data. Please understand that you will be unable to withdraw from the study once the data from the interview have been anonymised. This means that you must withdraw your consent before the 30th June 2017.

What will happen to the results of the research study?

The results will be part of my PhD project and might also be published as articles in different journals. If you would like to receive a summary of the results of this research, please email me at flebrun@uclan.ac.uk with the contact details you would like the results sent to.

Who has reviewed the study?

This project has been reviewed by the UCLan Research Ethics Committee for Business, Arts, Humanities, and Social Science (BAHSS No. 395 2nd Phase). Should you have any concerns about the way in which the study has been conducted, you can contact our University Officer for Ethics at OfficerforEthics@uclan.ac.uk. Furthermore, should you have any concerns about the interview process or if you wish to withdraw from this project, do not hesitate to contact the project supervisor *Dave Collins* (DJCollins@uclan.ac.uk).

If you have any questions about this project, please feel free to contact me, *Florence Lebrun* (flebrun@uclan.ac.uk) or *Dave Collins* (DJCollins@uclan.ac.uk).

Thank you for your time and consideration.

Best Regards

Florence Lebrun
Institute of Coaching and Performance,
School of Sport & Wellbeing,
University of Central Lancashire
flebrun@uclan.ac.uk
07526581499

University of Central Lancashire

Consent Form

Full title of Project:

Young athletes' mental health issues: coaches and managers' perspective

Name, position and contact address of Researcher:

Florence Lebrun, School of Sport & Wellbeing, flebrun@uclan.ac.uk

Please read the following statements and tick the boxes to indicate agreement.

	Please initial box
I confirm that I have read and understand the information sheet, dated ……. for the above study and have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason.	☐
I agree to take part in the above study.	☐
I agree that my data gathered in this study may be stored (after it has been anonymised) in a specialist data centre and may be used for future research.	☐
I understand that it will not be possible to withdraw my data from the study after final analysis has been undertaken. This means that you must withdraw your consent before 30 days after the interview.	☐
I agree to the interview being audio recorded	☐
I agree to the use of anonymised quotes in publications	☐

Name of Participant	Date	Signature
Name of Researcher	Date	Signa

Appendix G. Interview Questions – BAHSS 395 phase 2

Sections + estimated time *(information for the researchers only)*	**Question** *What 'open' question do you need to ask to achieve this purpose?*	**Probes** *What 'open' question can I ask to get info on the things I want to know if they don't seem to understand the main question? Or if they don't provide enough detail in their answer?*	**Stimuli** *Only asked if they still don't give me the information that I'm most interested in then what can I ask them to directly comment on*	**Purpose** *What do you want to know or find out?*
Descriptive information/ warm up (5min)	1. To begin, I would like to know more about you. Could you briefly introduce yourself?	• Can you give me a brief overview of your coaching career so far (or journey as an academy manager)?	• How old are you? • What sport did you perform? • In which club or academy do you work? • For how long did you work there? • At which level(s) did you coach? • At which level do you currently coach/manage?	• Demographic + background info
Primary knowledge - What is MHI? (5min)	2. For you, what do MIHs refer to?	• What do you know about MHIs? • How do you feel regarding your knowledge about MHI?	• What does that term evoke to you? • Have you ever received any guidance on this?	Learning more about coaches and managers' knowledge of MHIs (see health promotion guidance activity of youth sport clubs Kokko et al., 2011)

MHIs encountered (15min)	3. Based on your experience, can you describe what kind of issues the athletes you coached/managed suffered from?	• Can you tell me more about your personal experience of athletes suffering from MHIs? • In which context was it? • Were the MHIs ever formally diagnosed? • Done by whom under which circumstances • Or informally recognised??	• Can you tell me more about those specific athletes? How old were they? • Were there many non-diagnosed but perceived MHIs?	• Learning more about the nature of MHIs encountered while continuing learning more about coaches and managers' knowledge and experience of MHIs
Awareness ***(15min)***	4. How did you learn about those issues?	• When did you know those athletes were suffering from MHI? • How did you become aware of the issue? • Have you perceived some signs of it on their performance? Or behaviour out of the pitch?	• After? Like a long time after? • When he/she was diagnosed? Or immediately after (see Nowicka et al., 2013; Sherman, Thompson, Dehass, & Wilfert, 2005) • Did the parents tell you about it? How have they told you this? • Did the child/athlete come to you and told you about his/her difficulties? • Had you perceived some warning signs? Which ones? • What observable behaviours might have given you cause for concern?	• Understanding how the information is spread If you were not aware of those issues at that time, when thinking about it retrospectively, were there some signs of it on their performance or behaviours out of the pitch that might have alert you?

Reaction and support ***(10min)***	5. What have you done in each of those situations?	• What was your reaction regarding this situation? What have you done?	• Have you tried to know more about that issues (e.g., reading, talking with colleagues, with a health professional)? • Have you tried to help them dealing with their issues and sport development? How? • Do you think it is in your role breadth to deal with it? • Have you referred them to a specialist (psychiatrist, psychologist…) or were they already followed by someone? • Have you asked some help from a professional to deal with those situations?	• Establish an understanding of the supportiveness of the environment. (Mazzer & Rickwood, 2015)
Coach-athlete relationship (5 min)	6. Did it affect your coach-athlete relationship?	• Positively? • Negatively? • How? And Why? • How difficult was it for you to talk about it with those athletes? • How difficult do you think it was for them to	• Not difficult? Reluctant? Why? • Not difficult? Reluctant? Why?	• Young performers often seek support and advice from people they trust and are familiar with (Gulliver et al., 20; Jowett and Cockerill, 2003; Pierce et al., 2010;

		talk about their issues with you?		
Common ***(5min)***	7. Overall, how often have you had to deal with athletes suffering from MHI?	• How many athletes suffering from MHIs have you coached/managed over the years? • How common would you say it is? • Would you see a difference between sport-related and non-sport related MHIs? • Have you yourself at some point experienced some MHIs?	• How common do you think mental health issues are in TD? • And in elite sport in general? • Is it more common now than before? Or just more recognised as a problem? • Can you tell me more about it?	• Establish an understanding of the perception of commonness of MHI in TDEs.
For the future ***(10min)***	8. What have you learned from those experiences?	• At that time what did you know about those MHIs? • Do you know more about it today? • When thinking about it retrospectively, would you have needed	• Today, would you feel comfortable to discuss this topic with your athletes? Compared to before?	• Future directions regarding the implementation and development of intervention

		something, or would you need something more today to deal effectively with those situations today? • How the sport environments could help those young athletes to prevent or deal with those issues in order to prevent any derailment from the talent development path	• How confident would you feel to help them with their MHIs? • Skills? • More knowledge about MHI? • Support (e.g., people having already faced the same situation, health professionals, etc.) • How could you acquire those skills or knowledge? • Are those structures sufficiently prepared to deal with it?	

Appendix H. Ethics Approval – BAHSS 439

14 August 2017

Dave Collins / Florence Lebrun
School of Sport and Wellbeing
University of Central Lancashire

Dear Dave / Florence

Re: BAHSS Ethics Committee Application
Unique Reference Number: BAHSS 439

The BAHSS ethics committee has granted approval of your proposal application 'Perceptions of depression in high-performance environments'. Approval is granted up to the end of project date.

It is your responsibility to ensure that

- the project is carried out in line with the information provided in the forms you have submitted
- you regularly re-consider the ethical issues that may be raised in generating and analysing your data
- any proposed amendments/changes to the project are raised with, and approved, by Committee
- you notify roffice@uclan.ac.uk if the end date changes or the project does not start
- serious adverse events that occur from the project are reported to Committee
- a closure report is submitted to complete the ethics governance procedures (Existing paperwork can be used for this purposes e.g. funder's end of grant report; abstract for student award or NRES final report. If none of these are available use e-Ethics Closure Report Proforma).

Yours sincerely

Douglas Martin
Deputy Vice-Chair
BAHSS Ethics Committee

* for research degree students this will be the final lapse date

NB - Ethical approval is contingent on any health and safety checklists having been completed, and necessary approvals as a result of gained.

Appendix I. Online Joined Information Sheet, Consent Form and Survey for participants between 18 and 21 years old – BAHSS 439

Perceptions of depression in high-performance environments in young adults

Information and Consent

You are being invited to take part in a research study. Before you decide whether or not to take part, please take time to read the following information carefully. Thank you for your time and consideration.

What is the purpose of the study?

The current study sought to examine the mental health literacy of young individuals in different high-performance settings.

Can I take part in this study?

If you are interested in taking part in this study, you must be:

- Aged between 18 and 21;
- An English speaker;
- Currently part of :

  - a sport academy (e.g. an aspiring elite athlete),
  - an artistic performing academy (e.g. aspiring elite musician or dancer),
  - or in full-time education.

Do I have to take part?

Your participation in this project is entirely voluntary and your contribution would be much appreciated. You are free to withdraw at any time during the survey without giving a reason. Incomplete surveys will not be included for data analysis and will therefore constitute a withdrawal.

What will happen to me if I take part?

You will be asked to complete a short questionnaire which should take approximately 30 minutes. The focus of these questions, along with collecting basic demographic details (none that will be able to identify you), will be on your perception of mental health issues and depression in particular. It is requested that you provide your answers in a quiet and private environment which allows you to think carefully when responding.

What are the possible benefits of taking part?

There will be no direct benefit to you by taking part, but we intend that findings will inform research and better practice in order to offer context-specific psychological support.

What are the possible risks of taking part?

Your only task is to complete a questionnaire. There are no risks associated with this task.

What will happen to the information collected as part of the study?

The information provided will be kept and analysed confidentially. Only the researchers involved in this study will have access to the data. The results will be part of my PhD project and might also be published as articles in different journals. If you would like to receive a summary of the results of this research, please email me at *flebrun@uclan.ac.uk* with the contact details you would like the results sent to.

Data will be retained in accordance with the University of Central Lancashire's policy on Academic Integrity and will be kept securely in electronic, password protected and encrypted form for 5 years from the end of the project.

What should I do if I want to take part?

Give your consent below and start the survey.

Who has reviewed the study?

This project has been reviewed by the UCLan Research Ethics Committee for Business, Arts, Humanities, and Social Science (BAHSS No. 439). Should you have any concerns, you can contact our University Officer for Ethics at *OfficerforEthics@uclan.ac.uk*.

If you have any questions about this project, please feel free to contact me, Florence Lebrun (*flebrun@uclan.ac.uk*) or the project supervisor Dave Collins (*DJCollins@uclan.ac.uk*).

1.

Consent

1. I confirm that I have read and understand the information detailed above.

2. I understand that my participation is voluntary and that I am free to withdraw from this study at any time, without giving any reason and without my legal rights being affected.

3. I accept that data I submit will be used as part of the results of this research study and may be included for publication purposes.

4. I agree that my data gathered in this study may be stored in a specialist data centre and may be used for future research.

5. I agree to take part in the study.

6. I understand that it will not be possible to withdraw my data from the study after completion of the survey. This means that you must withdraw your consent before the end of the survey.

I understand and consent to all of the above points

- ◯ Yes
- ◯ No

Perceptions of depression in high-performance environments in young adults

Thank you for your participation in this study. Before starting, please read carefully each instruction and description before answering to any question. You will then be asked to respond using your first impression/choice. There are no right or wrong answers. We are interested in your personal experience and perceptions of mental health issues in general and depression in particular.

2. What is your sex?

- ◯ Male
- ◯ Female
- ◯ Intersex
- ◯ I prefer not to say

3. How old are you?

4. What is the highest level of education completed so far?

- ◯ School to age 16
- ◯ A levels/BTEC or equivalent
- ◯ Further Education
- ◯ Degree
- ◯ Postgraduate Degree

5. Are you currently part of:

- ◯ a sport academy (e.g. aspiring elite athlete)
- ◯ an artistic performing academy (e.g. aspiring elite musician or dancer)
- ◯ in full-time education

6. If you are young elite athlete, which sport do you perform?

7. If you are a musician, which instrument do you play?

8. If you are in full-time education, what are you studying?

Perceptions of depression in high-performance environments in young adults

A. The next few questions ask about your experience with mental health issues in general

We would like to know a bit about your awareness and experience of Mental Health Issues (MHIs) in your everyday life. In this context, mental health issues are defined as "signs and symptoms that impact how a person thinks, feels, communicates or behaves. Some common symptoms of mental health issues include changes in a person's mood, changes in how a person interacts with others and changes in how a person deals with daily stressors. A person with a mental health issue may find it difficult to complete tasks that are part of daily life."

9. Have you ever had contact with anyone with a MHI?

- ◯ Yes
- ◯ No
- ◯ Don't know

10. If you have answered no or don't know at the previous question, please go directly to question 12. If you have answered yes, what kind of MHI(s) was it? (Feel free to select more than one answer).

- ☐ Depression
- ☐ Eating disorders (e.g. anorexia, bulimia)
- ☐ Anxiety disorders (e.g. specific phobia, social phobia, panic disorder, etc.)
- ☐ Obsessional and compulsive disorder
- ☐ Bipolar and Related Disorders
- ☐ Posttraumatic stress disorder
- ☐ Other (please specify)

11. Was the level of severity of this MHI considered as ...?

- ◯ Mild
- ◯ Moderate
- ◯ Severe

12. Have you yourself ever experienced a MHI?

- ◯ Yes
- ◯ No
- ◯ Don't know

13. If you have answered no or don't know at the previous question, please go directly to question 15. If you have answered yes, what kind of MHI(s) was it? (Feel free to select more than one answer).

- ☐ Depression
- ☐ Eating disorders (e.g. anorexia, bulimia)
- ☐ Anxiety disorders (e.g. specific phobia, social phobia, panic disorder, etc.)
- ☐ Obsessional and compulsive disorder
- ☐ Bipolar and Related Disorders
- ☐ Posttraumatic stress disorder
- ☐ Other (please specify)

14. Was the level of severity of this MHI considered as ...?

- ◯ Mild
- ◯ Moderate
- ◯ Severe

15. How confident would you feel in helping someone with a MHI?

- ◯ Not at all confident
- ◯ A little bit
- ◯ Moderately
- ◯ Quite a bit
- ◯ Extremely confident

16. What type of help or advice would you offer to someone experiencing a MHI?

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

Perceptions of depression in high-performance environments in young adults

B. The following section concerns four hypothetical cases

For the past month, Jo feels tired. To counter this fatigue, his/her attempted solution was to go to bed earlier and to sleep more. Yet no matter how much s/he sleeps, s/he does not feel at all reenergised in the morning. S/he sleeps for much of the day at weekends and tries to nap during the week, but it does not change anything. S/he remains so tired and empty that s/he has lost his/her interest in most of the activities s/he used to do. It is becoming difficult for him/her to get up and go to work/school. When thinking about him/herself, Jo compares him/herself to an old cat: sleeping all day and waking up just for eating. Besides Jo has gained some weight recently. The weight gain was sufficient for him/her to notice it, without, however, making him/her becoming over concerned about his/her weight.

17. If Jo was one of your colleague/teammate, how would you feel about Jo?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

18. From the information given, what, if anything, is wrong with Jo?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

19. Can you briefly explain why you have chosen that answer among those provided?

20. Would it be difficult for you to talk with Jo?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

21. Could you explain why in a few words?

22. Do you think Jo needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

23. If you have answered no or don't know at the previous question, please go directly to question 24. If you have answered yes, which person would be the most appropriate for Jo to seek help from? (Feel free to select more than one answer).

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

24. Do you know anyone who has had similar problems to Jo?

- ◯ Yes
- ◯ Don't know
- ◯ No

25. Have you ever had problems similar to Jo?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

For the last few months, Andy has experienced trouble getting to sleep then wakes up nearly 2 hours early every day. Even though s/he still feels tired, when s/he wakes up, Andy is so agitated that it is impossible for him/her to stay still and go back to sleep. Furthermore, compared to a few weeks ago, Andy, usually a cheerful and sociable person, is perpetually sad. Andy feels unhappy to the point that s/he cannot stand it anymore. S/he does not get any pleasure from the things s/he used to enjoy so why should s/he even bother to try? S/he has dropped out from all his/her activity and isolates his/herself from others. S/he has slowly cut ties with friends and family. More and more, Andy sees his/her future as hopeless. In his/her opinion, it can only get worse. Andy has come to the conclusion that the only way to end it would be to kill him/herself. After all, no one would miss him/her, so why not?

26. If Andy was one of your colleague/teammate, how would you feel about Andy?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

27. From the information given, what, if anything, is wrong with Andy?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

28. Can you briefly explain why you have chosen that answer among those provided?

29. Would it be difficult for you to talk with Andy?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

30. Could you explain why in a few words?

31. Do you think Andy needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

32. If you have answered no or don't know at the previous question, please go directly to question 33. If you have answered yes, which person would be the most appropriate for Andy to seek help from? (Feel free to select more than one answer).

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

33. Do you know anyone who has had similar problems to Andy?

- ◯ Yes
- ◯ Don't know
- ◯ No

34. Have you ever had problems similar to Andy?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

Alex is usually an optimistic individual full of energy, but for the last few days, s/he has been a wreck. S/he has noticed that his/her sleep pattern is disturbed and that s/he wakes up, sometimes hours before his/her usual time, without being able to get back to sleep. When this happens, s/he is so tired that, after some time, s/he finds it difficult to focus on anything for a long period. On those days, knowing that she won't be able to enjoy the activities s/he has planned, s/he prefers to cancel any activities s/he had scheduled and stay at home to rest. Thinking about it, Alex feels quite sad about this situation, but also guilty to cancel on his/her friends or the Gym. S/he hopes to feel better soon.

35. If Alex was one of your colleague/teammate, how would you feel about Alex?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

36. From the information given, what, if anything, is wrong with Alex?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

37. Can you briefly explain why you have chosen that answer among those provided?

38. Would it be difficult for you to talk with Alex?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

39. Could you explain why in a few words?

40. Do you think Alex needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

41. If you have answered no or don't know at the previous question, please go directly to question 42. If you have answered yes, which person would be the most appropriate for Alex to seek help from? (Feel free to select more than one answer)

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

42. Do you know anyone who has had similar problems to Alex?

- ◯ Yes
- ◯ Don't know
- ◯ No

43. Have you ever had problems similar to Alex?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

Perceptions of depression in high-performance environments in young adults

In the past few weeks, Chris has changed a lot. S/he seems discouraged like nothing matters anymore. S/he is feeling worthless and does not expect anything to work out for him/her in the future. S/he lost his/her interest in most of his/her usual activities and s/he gets very little pleasure from the things s/he still do. S/he has also started to stay alone more often, engaging less with others. Chris is feeling so empty for the moment that the only way s/he can handle it is to sleep all day. When s/he is sleeping, s/he does not have to deal with this sadness. It is as if s/he has lost any motivation to do anything. Chris has even lost his/her appetite. In the last few weeks, s/he has experienced a drastic weight loss. This situation has started to become difficult, not only for Chris but also for the people close to him/her.

44. If Chris was one of your colleague/teammate, how would you feel about Chris?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

45. From the information given, what, if anything, is wrong with Chris?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

46. Can you briefly explain why you have chosen that answer among those provided?

47. Would it be difficult for you to talk with Chris?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

48. Could you explain why in a few words?

49. Do you think Chris needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

50. If you have answered no or don't know at the previous question, please go directly to question 51. If you have answered yes, which person would be the most appropriate for Chris to seek help from? (Feel free to select more than one answer

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

51. Do you know anyone who has had similar problems to Chris?

- ◯ Yes
- ◯ Don't know
- ◯ No

52. Have you ever had problems similar to Chris?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

C. These final few questions ask for your views on depression

Please respond using your first impression/choice. There are no right or wrong answers. We are interested in your personal experience and perceptions of depression.

53. People with depression could snap out of it if they wanted

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

54. Depression is a sign of personal weakness

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

55. Depression is not a real medical illness

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

56. People with depression are dangerous

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

57. It is best to avoid people with depression so you don't become depressed yourself

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

58. People with depression are unpredictable

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

59. If I had depression I would not tell anyone

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

60. I would not employ someone if I knew they had been depressed

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

61. I would not vote for a politician if I knew they had been depressed

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

NB: Each of the 9 items of the Personal Depression Stigma Scale were rated on a five-point Likert scale (from 1 "strongly agree" to 5 "strongly disagree") with overall scores ranging from 9 to 45.

Perceptions of depression in high-performance environments in young adults

You have finished !

DEBRIEFING

Thank you for your participation

As you could have noticed, most questions you have just completed via this questionnaire/survey were related to depression. Depression is one of the most common mental health issues (MHIs) in today's society. The number of young people and adults suffering from depression keeps rising. However, despite growing research and concerns on mental health, suffering from a MHI like depression remains stigmatised, both in the general population but also in environments where people are expected to be "mentally tough" such as in highly-demanding environments. Yet, research investigating mental health literacy (the knowledge and beliefs about mental disorders which aid their recognition, management or prevention) towards depression in these kind of highly demanding contexts is lacking.

Therefore, this study's aim is to observe the ability to recognise and attitudes towards depression of individuals progressing in different high-performance settings. We have employed a vignette-(case study or imaginary story) method to examine your ability to discriminate between different levels of depression severity, together with your attitudes and behaviours towards depressed people. Our main objective was to highlight any differences that might exist in recognition and attitudes towards depression among performers in such sub-cultures − such as elite sport environments, professional music contexts, and military environments − in comparison to the general population.

Understanding your representation(s) of depression may help us in the future to design context-specific interventions suiting the needs of individuals like you progressing in high-performance environments as well as developing anti-stigma and mental health literacy programs.

It is possible that any issues covered in the questionnaire may have caused you some discomfort. If, unfortunately, this has been the case and you need some help to deal with those uncomfortable feelings, you can either seek help or professional psychological support from local and national support systems (e.g. GP, NHS 111, local NHS clinics, The Samaritans). Furthermore, our research team includes specialists qualified in psychological counselling who might you advise further.

Finally, if you would like to receive a summary of the results of this research, please email me at *flebrun@uclan.ac.uk* with the contact details you would like the results sent to.

Thank you again for your help with this study.

Have a nice day,

Florence Lebrun

flebrun@uclan.ac.uk
PhD student
Institute of Coaching and Performance
School of Sport and Wellbeing
University of Central Lancashire

Helplines and support groups

We know it can be difficult to pick up the phone, but reach out to somebody and let them know how you are feeling:

- NHS (111) NHS is the free NHS non-emergency number
- Samaritans (116 123) operates a 24-hour service available every day of the year. If you prefer to write down how you're feeling, or if you're worried about being overheard on the phone, you can email Samaritans at jo@samaritans.org.
- PAPYRUS (0800 068 41 41) is a voluntary organisation supporting teenagers and young adults who are feeling suicidal.
- Depression Alliance is a charity for people with depression. It doesn't have a helpline, but offers a wide range of useful resources and links to other relevant information.
- Students Against Depression is a website for students who are depressed, have a low mood or are having suicidal thoughts.

Seeing your GP

It would also help to see your GP. They can advise you about appropriate treatment if they think you have a depression.

Appendix J. Online Joined Information Sheet, Consent Form and Survey for participants over 21 years old – BAHSS 439

Perceptions of depression in high-performance environments

Information and Consent

You are being invited to take part in a research study. Before you decide whether or not to take part, please take time to read the following information carefully. Thank you for your time and consideration.

What is the purpose of the study?

The current study examines the mental health literacy of individuals in different high-performance settings.

Can I take part in this study?

If you are interested in taking part in this study, you must

- Be over 21
- Be an English speaker
- Be currently or have recently been employed as either
    - o a professional athlete (success at elite level is an essential criterion for participation),
    - o a professional artistic performer (e.g. music, dance),
    - o a high-level soldier
    - o or in a full-time job

Do I have to take part?

Your participation in this project is entirely voluntary and your contribution would be much appreciated. You are free to withdraw at any time during the survey without giving a reason. Incomplete surveys will not be included for data analysis and will therefore constitute a withdrawal.

What will happen to me if I take part?

You will be asked to complete a short questionnaire which should take approximately 30 minutes. The focus of these questions, along with collecting basic demographic details (none that will be able to identify you), will be on your perception of mental health issues and depression in particular. It is requested that you provide your answers in a quiet and private environment which allows you to think carefully when responding.

What are the possible risks of taking part?

Your only task is to complete a questionnaire. There are no risks associated with this task.

What will happen to the information collected as part of the study?

The information provided will be kept and analysed confidentially. Only the researchers involved in this study will have access to the data. The results will be part of my PhD project and might also be published as articles in different journals. If you would like to receive a summary of the results of this research, please email me at *flebrun@uclan.ac.uk* with the contact details you would like the results sent to.

Data will be retained in accordance with the University of Central Lancashire's policy on Academic Integrity and will be kept securely in electronic, password protected and encrypted form for 5 years from the end of the project.

What should I do if I want to take part?

Give your consent below and start the survey.

Who has reviewed the study?

This project has been reviewed by the UCLan Research Ethics Committee for Business, Arts, Humanities, and Social Science (BAHSS No. 439). Should you have any concerns, you can contact our University Officer for Ethics at *OfficerforEthics@uclan.ac.uk*.

If you have any questions about this project, please feel free to contact me, Florence Lebrun (*flebrun@uclan.ac.uk*) or the project supervisor Dave Collins (*DJCollins@uclan.ac.uk*).

1.

Consent

1. I confirm that I have read and understand the information detailed above.

2. I understand that my participation is voluntary and that I am free to withdraw from this study at any time, without giving any reason and without my legal rights being affected.

3. I accept that data I submit will be used as part of the results of this research study and may be included for publication purposes.

4. I agree that my data gathered in this study may be stored in a specialist data centre and may be used for future research.

5. I agree to take part in the study.

6. I understand that it will not be possible to withdraw my data from the study after completion of the survey. This means that you must withdraw your consent before the end of the survey.

I understand and consent to all of the above points

- ◯ Yes
- ◯ No

Perceptions of depression in high-performance environments

Thank you for your participation in this study. Before starting, please read carefully each instruction and description before answering to any question. You will then be asked to respond using your first impression/choice. There are no right or wrong answers. We are interested in your personal experience and perceptions of mental health issues in general and depression in particular.

2. What is your sex?

- ◯ Male
- ◯ Female
- ◯ Intersex
- ◯ I prefer not to say

3. How old are you?

4. What is the highest level of education completed so far?

- ◯ School to age 16
- ◯ A levels/BTEC or equivalent
- ◯ Further Education
- ◯ Degree
- ◯ Postgraduate Degree

5. Are you:

- ◯ An elite athlete
- ◯ A professional musician or dancer
- ◯ A member of the Military
- ◯ Other

6. If you are young elite or an elite athlete, which sport do you perform?

7. If you are a musician, which instrument do you play?

8. If you have replied other, can you specify what you do for a living?

Perceptions of depression in high-performance environments

A. The next few questions ask about your experience with mental health issues in general

We would like to know a bit about your awareness and experience of Mental Health Issues (MHIs) in your everyday life. In this context, mental health issues are defined as "signs and symptoms that impact how a person thinks, feels, communicates or behaves. Some common symptoms of mental health issues include changes in a person's mood, changes in how a person interacts with others and changes in how a person deals with daily stressors. A person with a mental health issue may find it difficult to complete tasks that are part of daily life."

9. Have you ever had contact with anyone with a MHI?

- ◯ Yes
- ◯ No
- ◯ Don't know

10. If you have answered no or don't know at the previous question, please go directly to question 12. If you have answered yes, what kind of MHI(s) was it? (Feel free to select more than one answer).

- ☐ Depression
- ☐ Eating disorders (e.g. anorexia, bulimia)
- ☐ Anxiety disorders (e.g. specific phobia, social phobia, panic disorder, etc.)
- ☐ Obsessional and compulsive disorder
- ☐ Bipolar and Related Disorders
- ☐ Posttraumatic stress disorder
- ☐ Other (please specify)

11. Was the level of severity of this MHI considered as ...?

- ◯ Mild
- ◯ Moderate
- ◯ Severe

12. Have you yourself ever experienced a MHI?

- ◯ Yes
- ◯ No
- ◯ Don't know

13. If you have answered no or don't know at the previous question, please go directly to question 15. If you have answered yes, what kind of MHI(s) was it? (Feel free to select more than one answer).

- ☐ Depression
- ☐ Eating disorders (e.g. anorexia, bulimia)
- ☐ Anxiety disorders (e.g. specific phobia, social phobia, panic disorder, etc.)
- ☐ Obsessional and compulsive disorder
- ☐ Bipolar and Related Disorders
- ☐ Posttraumatic stress disorder
- ☐ Other (please specify)

14. Was the level of severity of this MHI considered as ...?

- ◯ Mild
- ◯ Moderate
- ◯ Severe

15. How confident would you feel in helping someone with a MHI?

- ◯ Not at all confident
- ◯ A little bit
- ◯ Moderately
- ◯ Quite a bit
- ◯ Extremely confident

16. What type of help or advice would you offer to someone experiencing a MHI?

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

B. The following section concerns four hypothetical cases

For the past month, Jo feels tired. To counter this fatigue, his/her attempted solution was to go to bed earlier and to sleep more. Yet no matter how much s/he sleeps, s/he does not feel at all reenergised in the morning. S/he sleeps for much of the day at weekends and tries to nap during the week, but it does not change anything. S/he remains so tired and empty that s/he has lost his/her interest in most of the activities s/he used to do. It is becoming difficult for him/her to get up and go to work/school. When thinking about him/herself, Jo compares him/herself to an old cat: sleeping all day and waking up just for eating. Besides Jo has gained some weight recently. The weight gain was sufficient for him/her to notice it, without, however, making him/her becoming over concerned about his/her weight.

17. If Jo was one of your colleague/teammate, how would you feel about Jo?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

18. From the information given, what, if anything, is wrong with Jo?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

19. Can you briefly explain why you have chosen that answer among those provided?

20. Would it be difficult for you to talk with Jo?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

21. Could you explain why in a few words?

22. Do you think Jo needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

23. If you have answered no or don't know at the previous question, please go directly to question 24. If you have answered yes, which person would be the most appropriate for Jo to seek help from? (Feel free to select more than one answer).

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

24. Do you know anyone who has had similar problems to Jo?

- ◯ Yes
- ◯ Don't know
- ◯ No

25. Have you ever had problems similar to Jo?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

Perceptions of depression in high-performance environments

For the last few months, Andy has experienced trouble getting to sleep then wakes up nearly 2 hours early every day. Even though s/he still feels tired, when s/he wakes up, Andy is so agitated that it is impossible for him/her to stay still and go back to sleep. Furthermore, compared to a few weeks ago, Andy, usually a cheerful and sociable person, is perpetually sad. Andy feels unhappy to the point that s/he cannot stand it anymore. S/he does not get any pleasure from the things s/he used to enjoy so why should s/he even bother to try? S/he has dropped out from all his/her activity and isolates his/herself from others. S/he has slowly cut ties with friends and family. More and more, Andy sees his/her future as hopeless. In his/her opinion, it can only get worse. Andy has come to the conclusion that the only way to end it would be to kill him/herself. After all, no one would miss him/her, so why not?

26. If Andy was one of your colleague/teammate, how would you feel about Andy?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

27. From the information given, what, if anything, is wrong with Andy?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

28. Can you briefly explain why you have chosen that answer among those provided?

29. Would it be difficult for you to talk with Andy?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

30. Could you explain why in a few words?

31. Do you think Andy needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

32. If you have answered no or don't know at the previous question, please go directly to question 33. If you have answered yes, which person would be the most appropriate for Andy to seek help from? (Feel free to select more than one answer).

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

33. Do you know anyone who has had similar problems to Andy?

- ◯ Yes
- ◯ Don't know
- ◯ No

34. Have you ever had problems similar to Andy?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

Perceptions of depression in high-performance environments

Alex is usually an optimistic individual full of energy, but for the last few days, s/he has been a wreck. S/he has noticed that his/her sleep pattern is disturbed and that s/he wakes up, sometimes hours before his/her usual time, without being able to get back to sleep. When this happens, s/he is so tired that, after some time, s/he finds it difficult to focus on anything for a long period. On those days, knowing that she won't be able to enjoy the activities s/he has planned, s/he prefers to cancel any activities s/he had scheduled and stay at home to rest. Thinking about it, Alex feels quite sad about this situation, but also guilty to cancel on his/her friends or the Gym. S/he hopes to feel better soon.

35. If Alex was one of your colleague/teammate, how would you feel about Alex?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

36. From the information given, what, if anything, is wrong with Alex?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

37. Can you briefly explain why you have chosen that answer among those provided?

38. Would it be difficult for you to talk with Alex?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

39. Could you explain why in a few words?

40. Do you think Alex needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

41. If you have answered no or don't know at the previous question, please go directly to question 42. If you have answered yes, which person would be the most appropriate for Alex to seek help from? (Feel free to select more than one answer)

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

42. Do you know anyone who has had similar problems to Alex?

- ◯ Yes
- ◯ Don't know
- ◯ No

43. Have you ever had problems similar to Alex?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

Perceptions of depression in high-performance environments

In the past few weeks, Chris has changed a lot. S/he seems discouraged like nothing matters anymore. S/he is feeling worthless and does not expect anything to work out for him/her in the future. S/he lost his/her interest in most of his/her usual activities and s/he gets very little pleasure from the things s/he still do. S/he has also started to stay alone more often, engaging less with others. Chris is feeling so empty for the moment that the only way s/he can handle it is to sleep all day. When s/he is sleeping, s/he does not have to deal with this sadness. It is as if s/he has lost any motivation to do anything. Chris has even lost his/her appetite. In the last few weeks, s/he has experienced a drastic weight loss. This situation has started to become difficult, not only for Chris but also for the people close to him/her.

44. If Chris was one of your colleague/teammate, how would you feel about Chris?

- ◯ Not worried at all
- ◯ A little bit worried
- ◯ Worried
- ◯ Very worried
- ◯ Extremely worried

45. From the information given, what, if anything, is wrong with Chris?

- ◯ Nothing, those are normal ups and downs
- ◯ S/he sounds emotionally low
- ◯ S/he is suffering from depression
- ◯ S/he sounds suicidal

46. Can you briefly explain why you have chosen that answer among those provided?

47. Would it be difficult for you to talk with Chris?

- ◯ Extremely difficult
- ◯ Somewhat difficult
- ◯ 50/50
- ◯ Slightly awkward
- ◯ No problem at all

48. Could you explain why in a few words?

49. Do you think Chris needs professional help?

- ◯ Yes
- ◯ Don't know
- ◯ No, s/he should try to deal with the problems him/herself

50. If you have answered no or don't know at the previous question, please go directly to question 51. If you have answered yes, which person would be the most appropriate for Chris to seek help from? (Feel free to select more than one answer

- ☐ A typical GP or family doctor
- ☐ A clinical psychologist
- ☐ A chemist or pharmacist
- ☐ Help from his close family
- ☐ A counsellor
- ☐ Help from some close friends
- ☐ A social worker
- ☐ A naturopath or a herbalist
- ☐ Telephone counselling service, e.g. Lifeline
- ☐ The clergy, a minister or a priest
- ☐ A psychiatrist
- ☐ Other (please specify)

51. Do you know anyone who has had similar problems to Chris?

- ◯ Yes
- ◯ Don't know
- ◯ No

52. Have you ever had problems similar to Chris?

- ◯ Yes
- ◯ Don't know
- ◯ No

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

C. These final few questions ask for your views on depression

Please respond using your first impression/choice. There are no right or wrong answers. We are interested in your personal experience and perceptions of depression.

53. People with depression could snap out of it if they wanted

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

54. Depression is a sign of personal weakness

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

55. Depression is not a real medical illness

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

56. People with depression are dangerous

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

57. It is best to avoid people with depression so you don't become depressed yourself

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

58. People with depression are unpredictable

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

59. If I had depression I would not tell anyone

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

60. I would not employ someone if I knew they had been depressed

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

61. I would not vote for a politician if I knew they had been depressed

- ◯ Strongly agree
- ◯ Agree
- ◯ Don't know
- ◯ Disagree
- ◯ Strongly disagree

Attention: If you are feeling affected by issues such as suicidal thoughts, please contact Samaritans, NHS 111, your local NHS clinic, or your GP

NB: Each of the 9 items of the Personal Depression Stigma Scale were rated on a five-point Likert scale (from 1 "strongly agree" to 5 "strongly disagree") with overall scores ranging from 9 to 45.

Perceptions of depression in high-performance environments

You have finished !

DEBRIEFING

Thank you for your participation

As you could have noticed, most questions you have just completed via this questionnaire/survey were related to depression. Depression is one of the most common mental health issues (MHIs) in today's society. The number of young people and adults suffering from depression keeps rising. However, despite growing research and concerns on mental health, suffering from a MHI like depression remains stigmatised, both in the general population but also in environments where people are expected to be "mentally tough" such as in highly-demanding environments. Yet, research investigating mental health literacy (the knowledge and beliefs about mental disorders which aid their recognition, management or prevention) towards depression in these kind of highly demanding contexts is lacking.

Therefore, this study's aim is to observe the ability to recognise and attitudes towards depression of individuals progressing in different high-performance settings. We have employed a vignette-(case study or imaginary story) method to examine your ability to discriminate between different levels of depression severity, together with your attitudes and behaviours towards depressed people. Our main objective was to highlight any differences that might exist in recognition and attitudes towards depression among performers in such sub-cultures − such as elite sport environments, professional music contexts, and military environments − in comparison to the general population.

Understanding your representation(s) of depression may help us in the future to design context-specific interventions suiting the needs of individuals like you progressing in high-performance environments as well as developing anti-stigma and mental health literacy programs.

It is possible that any issues covered in the questionnaire may have caused you some discomfort. If, unfortunately, this has been the case and you need some help to deal with those uncomfortable feelings, you can either seek help or professional psychological support from local and national support systems (e.g. GP, NHS 111, local NHS clinics, The Samaritans). Furthermore, our research team includes specialists qualified in psychological counselling who might you advise further.

Finally, if you would like to receive a summary of the results of this research, please email me at *flebrun@uclan.ac.uk* with the contact details you would like the results sent to.

Thank you again for your help with this study.

Have a nice day,

Florence Lebrun

flebrun@uclan.ac.uk
PhD student
Institute of Coaching and Performance
School of Sport and Wellbeing
University of Central Lancashire

Helplines and support groups

We know it can be difficult to pick up the phone, but reach out to somebody and let them know how you are feeling:

- **NHS (111) NHS is the free NHS non-emergency number**
- **Samaritans (116 123) operates a 24-hour service available every day of the year. If you prefer to write down how you're feeling, or if you're worried about being overheard on the phone, you can email Samaritans at jo@samaritans.org.**
- **PAPYRUS (0800 068 41 41) is a voluntary organisation supporting teenagers and young adults who are feeling suicidal.**
- **Depression Alliance is a charity for people with depression. It doesn't have a helpline, but offers a wide range of useful resources and links to other relevant information.**

Seeing your GP

It would also help to see your GP. They can advise you about appropriate treatment if they think you have a depression.

Appendix K. Research Programme Outputs

Appendix K1. Peer Review Publications

Lebrun, F., & Collins, D. (2017). Is elite sport (really) bad for you? Can we answer the question? *Frontiers in Psychology, 8*(324), 1–8. doi:10.3389/fpsyg.2017.00324

Lebrun, F., MacNamara, Á., Rodgers, S., & Collins, D. (2018). Learning from elite athletes' experience of depression. *Frontiers in Psychology*, *9*(2062), 1−11. doi:10.3389/fpsyg.2018.02062

Lebrun, F., MacNamara, Á., Collins, D., & Rodgers, S. (2019). Elite athletes coping with depression: a qualitative study. *Journal of Clinical Sport Psychology, 13*(3), 351–373. doi: 10.1123/jcsp.2018-0072

Lebrun, F., MacNamara, Á., Collins, D., & Rodgers, S. (2020). Supporting young elite athletes with mental health issues: Coaches' experience and their perceived role. *The Sport Psychologist*. Advance online publication. doi: 10.1123/tsp.2019-0081

Lebrun, F., Collins, D., & MacNamara, Á. (in Review). Exploring Performers' Representations and Perceptions of Depression. *Manuscript submitted for publication*.

Appendix K2. Conference Presentation

Lebrun, F., & Collins, D. (2018, October). Mental health challenges in elite sport: Are athletes a special case? Invited Presentation at the Second National Conference: The Mental Health of Athletes, Leeds.