1 Scope of the Problem of Mental Health Symptoms and Disorders in Elite Athletes

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Mental health is identified as an integral dimension of elite athlete well-being. Entwined with other aspects of physical health and athletic performance, attention to mental health will reduce suffering and bolster quality of life in elite athletes [1], and assist in simultaneously normalising and destigmatising mental health concerns for broader society [2]. Up until recently, mental health has not been a major area of focus or training for sports medicine practitioners [3], with other health professionals (e.g. psychologists, mental health nurses) or sub-specialities of medicine (e.g. primary care physicians, psychiatrists) usually providing care for affected athletes. Consequently, as a broad population, elite athletes have been largely ignored in relation to mental health programming [3]. This has occurred in spite of the unique stressors associated with high-performing athletic careers [4]. Increasingly, the emergent fields of sports psychiatry and clinical sports psychology have catalysed greater attention to the identification and management of mental health symptoms and disorders among elite athletes [5, 6]. Together, with insights from the disciplines of sports and performance psychology, athlete mental health is now seen as an important field of multidisciplinary research and practice.

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This chapter provides a foundational perspective on the scope of the problem of elite athlete mental health symptoms and disorders, providing context and background information for the proceeding chapters. The chapter commences with an outline of why the developmental phase of emerging adulthood is a period of unique risk for mental health symptom incidence, and how this stage is relevant for elite athletes. The chapter then progresses to a summary of current elite athlete epidemiological data, highlights key risk and protective factors, and concludes with a rationale for why a focus on athlete mental health is essential in supporting integrated care for the well-being and performance of athletes.

Emerging Adulthood and Mental Health

The years of emerging adulthood span the age range of 18–25 years [7]. Emerging adulthood reflects five theorised developmental features that are most prominently experienced during these years. The five developmental features are characterised by: *identity exploration* leading to subsequent enduring identity choices, *instability* due to identity explorations and associated experiences, *self-focus* where knowledge, skills, and self-understanding are developed for later adult life, *feeling in-between* with neither fixed adolescent or proper adulthood identities and *possibilities/optimism* about entering adult life and a sense of positivity about what lies ahead [8].

The emerging adulthood concept is particularly relevant for elite athletes for two key reasons. Firstly, the years of 18–25 overlap with the peak competitive years for athletic achievement [9]. While there are of course exceptions to this—especially among endurance sports (where athletes are often older) and gymnastics (where athletes are often younger)—the vast majority of peak athletic achievement occurs in the 20s. Illustrating this, the mean age of world class swimmers is 22.7 and 23.2 years for females and males, respectively [10]. Secondly, the years of emerging adulthood and peak athletic competition also overlap with the peak

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incidence age range for the emergence of mental health problems. [11] Research demonstrates that over 50% of mental health disorders onset prior to age 15, with 63–75% presenting by 25 years [11, 12]. Mental health ranks among the most important concerns voiced by young people, across high-, middle-, and low-income countries [13]. Consequently, specific youth mental health models have been developed to address the specific psychosocial needs of emerging adults, with a focus on accessible, low-stigma, and timely early intervention [13, 14]. Drawing these lines of research together, recent empirical work indicates that relative to older cohorts, those aged 18–25 years do indeed report significantly higher ratings for features of emerging adulthood (e.g. identity exploration, self-focus, instability, possibilities/optimism), in addition to higher endorsement of symptoms of mental health disorders [8]. This age range also overlaps with key developmental considerations related to mental health including seeking of autonomy, enhanced awareness of pressure to conform with peers (and/or perceived gender or other cultural norms), exploration of sexual identity, increased access to information and technology, hormonal changes, increasing salience of emotional responses to social stimuli, and changes to motivation [15]. The following section defines key constructs within mental health and examines the prevalence and experiences of mental health symptoms and disorders among elite athletes.

High and Low Prevalence Disorders

The World Health Organisation (WHO) defines health as a state of physical, mental, and social well-being rather than merely the absence of disease [16]. More specifically, mental health is conceptualised as a state where individuals are able to realise their own abilities, cope, and respond to the expected stressors of life, productively work and achieve, and contribute meaningfully to their community [17]. As mental health disorders account for close to one-in-six deaths globally [18], they rank among the most substantial causes of death worldwide; however, there is inequitable access to treatment across the globe. The WHO estimates that 76–85% of people with severe mental health disorders who reside in low- and middle-income countries receive no treatment [19]. Resourcing and the level of access elite athletes have to evidence-based intervention are therefore important considerations outside of high-income countries or settings.

Mental health disorders are often delineated into high prevalence (or common) disorders and low prevalence disorders according to their occurrence in the general population. High prevalence disorders include mood, anxiety, somatoform, and substance use disorders, as these are relatively frequently observed in general primary care settings [20]. High prevalence disorders are usually responsive to psychotherapeutic intervention (e.g. talk-based therapy), although combination therapy (e.g. antidepressant or anxiolytic medication together with talk-based therapy) may be needed in some instances. A small proportion of the general population will experience severe or complex presentations necessitating multidisciplinary team-based care (e.g. medical/psychiatry, psychological/case management, psychosocial recovery support) [21].

Low prevalence disorders are less likely to be experienced in the general population, comprising psychotic disorders (including schizophrenia), bipolar disorder, and eating disorders [22]. In general, low prevalence disorders tend to be associated with higher levels of functional impairment and treatment/service usage [23]. While the prevalence of psychotic, bipolar, and eating disorders in elite athlete populations is unclear, symptoms of these disorders are not necessarily incompatible with athletic achievement [24], especially when these conditions are well managed, in remission, or if the athlete is in a euthymic state. Consequently, it is important for medical and other mental health practitioners working in the elite sport context to be familiar with high and low prevalence disorders and key management considerations. Practitioners are directed to subsequent chapters of this text, in addition to the International Olympic Committee (IOC) expert consensus statement on mental health in elite athletes [1] and the associated papers on specific disorders for further information.

While prevalence data for mental health symptoms and disorders among elite athletes continues to emerge, high-quality studies using structured clinical interviews are lacking. Current best estimates of prevalence are reported in the 2019 meta-analysis from Gouttebarge and colleagues [25] pooling athlete self-report data. This meta-analytic review concluded that approximately 19.6% of elite athletes experience symptoms of psychological distress, 26.4% experience sleep disturbance symptoms, 33.6% experience symptoms of anxiety and/or depression, and 18.8% of athletes report symptoms of alcohol misuse, with broadly comparable rates experienced among retired athletes. A subsequent meta-analysis by Rice and colleagues [26] examined predictors of symptomatic anxiety (excluding competitive anxiety) and found that career dissatisfaction, female gender, younger age, musculoskeletal injury, and recent adverse life events were all associated with higher athlete anxiety. While the epidemiology of athlete mental health problems is becoming stronger, important questions related to mental health symptom prevalence remain, including specific understandings of pathways of impairment and recovery among athletes experiencing threshold disorder and/or mental health crisis (e.g. suicide risk or attempt [27, 28]), although guidelines for managing acute mental health symptoms among athletes are available [29].

General and Athlete-Specific Risk Factors

Development of positive mental health among elite athletes requires attention to key risk and protective factors that may increase (or decrease) the likelihood of symptom onset, maintenance or recurrence. It is important to consider the multidimensional nature of contributors to mental health problems, commonly referred to within the biopsychosocial framework [30]. Biopsychosocial approaches are increasingly being applied to athletic settings [31–33] and conceptualise the multiple social, psychological, and biological determinants of an athlete's mental health functioning.

General biopsychosocial risk factors for the development of mental health problems during late adolescence and emerging adulthood range from biological and genetic factors including family history of mental health problems and problematic substance use, through to psychological and social factors including exposure to traumatic events (e.g. physical abuse, sexual abuse, family violence, bereavement), experiences of discrimination, on-going life stressors, relationship difficulties, and financial problems [34, 35]. Among elite athletes specifically, identified risk factors for experiencing mental health symptoms include current injury status, prior history of a mental health problem, experiences of adverse life events, forced or unplanned retirement, sport-specific stressors including travel and (social) media pressures, help-seeking stigma, ineffective coping, maladaptive personality traits (e.g. perfectionism), and lack of social support from family, teammates, and/or coaches [36, 37]. Some evidence also suggests gender differences in mental health problems for elite athletes, whereby women athletes report higher rates of mental health symptoms, lower rates of well-being, and more frequent exposures to interpersonal conflict, financial hardship, and discrimination relative to men athletes [38]. Recent evidence suggests little difference in mental health outcomes between athletes competing in para sports and non-para sport athletes [39]. Finally, managing performance disappointment is an essential aspect of elite athlete mental health, and there is a growing literature on acceptance, compassion-based, and cognitive treatments that may assist in supporting athletes in instances of perceived failure (as well as managing other mental health risks) [40–42].

Sports administrators, coaches, and support staff should be aware of mental health protective factors among elite athletes, creating opportunities to integrate and maximise these wherever possible. General mental health protective factors include protective and supportive peer and familial relationships, positive lifestyle factors (diet, exercise), perceived mastery and autonomy, and vocational and educational engagement [34, 43]. Among elite athletes, sports-specific factors include positive relationships and supports in the sporting environment, organisation-wide mental health literacy, an athletic environment characterised as mastery-oriented, use of active behavioural coping strategies, and where appropriate, successful adjustment to competitive retirement—which requires sufficient attention and planning during competitive years [36, 37]. In addition, athletes who hold positive attitudes towards mental health help seeking (often as a result of efforts to promote mental health literacy) are more likely to engage with effective supports and interventions relative to athletes experiencing mental health stigma. Understanding athlete help seeking barriers can ensure these obstacles are addressed.

Help Seeking and Help Seeking Barriers

Athletes have been shown to hold less positive attitudes towards mental health help seeking than the general community [44]. A recent systematic review examining cultural influences and barriers to athletes seeking treatment identified four major contributors preventing athlete mental health help seeking: stigma, low mental health literacy, negative past experience with mental health treatment-seeking, and busy schedules [45]. Additionally, hypermasculinity was identified as a barrier specific to males. As mentioned above, mental health literacy programmes are able to improve mental health literacy and shift attitudes in relation to stigma. Mental health literacy programmes have been discussed in the various position statements on athlete mental health that have been published in recent years [46], underscoring the importance of these initiatives. In addition, the dissemination of mental health awareness messaging should be provided to key support people linked to the athlete, including partners, friends, family, coaching and administration staff, as these people are often the first point of contact for athletes experiencing emerging mental health symptoms rather than mental health professionals. However, for this to occur successfully, collaborative efforts are required between sports medicine practitioners, psychiatrists, psychologists, and other mental health professionals who are mindful of the athletic context and associated opportunities and limitations for messaging. Organisational factors should be considered, and a growing area of research inquiry and practice relates to psychological safety.

Psychological Safety in Elite Sport Settings

In its broadest sense, psychological safety refers to an individual experiencing feelings of safety to take interpersonal risks or make mistakes without fear of negative consequences [47]. A recent systematic review of 67 sport-based studies

found that psychological safety in sport contexts was conceptualised as a group level construct that is perceived (and reported) at an individual level, defined as the perception that one is protected from, or unlikely to be at risk of, psychological harm in sport [48]. Since its original application in organisational settings, the concept of psychological safety has been applied to numerous contexts, including healthcare, education, manufacturing, and technology settings [49]. Evidence supports a range of positive outcomes associated with psychologically safe teams, including facilitated learning, task and team performance, engagement, and creativity [50]. These benefits are thought to occur because psychological safety allows teams to provide open feedback, discuss errors, collaborate, and experiment with new ideas [49]. Psychological safety may also act as an environmental protective factor against mental health symptoms or disorders [51, 52], possibly given the increased openness and vulnerability that the concept enables between team members.

The IOC Mental Health in Elite Athletes Toolkit, published in 2021, assists stakeholders to develop and implement initiatives that protect and promote the mental health and well-being of elite athletes [53]. A core component involved in the protection and promotion of elite athlete mental health outlined by the IOC Toolkit is the concept of psychological safety—defined in the Toolkit as the creation of athletic environments enabling athletes to be comfortable being themselves, feeling able to take necessary interpersonal risks, having the sufficient knowledge and understanding about mental health symptoms and disorders, and experiencing a sense of comfort in being able to seek mental health help if needed. The concept of psychological safety intuitively lends itself to safeguarding athlete mental health; however, the operationalisation of psychological safety occurs at the organisational level, influenced by organisational culture including policies, procedures, and behaviours that communicate a sense of safety (or otherwise) to the athlete. There are efforts underway to assess psychological safety in elite sport contexts using valid and reliable approaches, with promising early findings. Preliminary data from our research group has identified that domains of sport psychological safety, as assessed by a novel scale, were inversely related to general and athlete-specific psychological distress, and positively associated with psychological well-being among elite athletes [54].

While the concept of psychological safety is well established as foundational to underpinning the culture of high-performing teams across corporate and medical sectors [55], there has been comparatively less integration of the concept within the elite sports setting. It is likely that the IOC Toolkit and other efforts will help catalyse attention to the ways in which the sports sector can focus on enhancing psychological safety. Emerging evidence suggests that sport environments that are psychologically safe have the capacity to enhance teamwork and satisfaction with team performance and act as a buffer against athlete burnout [56]. Importantly, mental health literacy programmes have been shown to impact factors that contribute to creating and maintaining psychologically safe climates, including reducing stigma, normalising mental health symptoms, and increasing confidence and intentions to help others [57]. In summary, organisational-level variables such as psychological safety should be considered important in the broader ecology of athlete mental health and appreciated as an important cultural influence on athlete well-being outcomes [58].

Cultures of Care for Elite Athlete Mental Health

The established field of youth mental health is underpinned by an early intervention framework focussing on accessible and youth-friendly cultures of care. Box 1.1 outlines important concepts from the youth mental health field that can be applied to the elite athlete context to ensure best practice. While it is acknowledged that limited resourcing for mental health programmes in many elite sports settings will prohibit the development of specialised or bespoke services, similar to the developing cultures of psychological safety (which can be achieved through low-cost policy and practice changes), many aspects of youth-focussed practice can be provided within modifications or augmentation to existing service models for youth and young adults alike.

Box 1.1 Key Considerations for Sports Settings Regarding Youth and Young Adult Mental Health Interventions [59]

- Stakeholder (youth) consultation in service design and delivery
- Development of youth-friendly, stigma-free cultures of care
- Sensitivity to developmental factors and challenges experienced by emerging adults including integrating shared decision-making
- Provision of psychoeducation and mental health literacy support for caregivers (e.g. partners, families)
- Use of preventive and optimistic frameworks that emphasise evidence-based and evidence-informed early intervention
- Person-centred care, organised around the needs of the young person including flexibility with appointment hours as needed
- Flexible points of re-entry to care as needed, particularly around periods of transition, which may heighten mental health risks

There is a need for new, athlete-specific models of mental health care to capitalise on an early intervention framework for youth mental health [58]. Wherever possible, this should ensure early detection and prompt access to high-quality, evidence-based interventions. Growing momentum is developing around the implementation of mental health screening programmes alongside physical health checks for elite athletes [60], especially given athlete-specific screening tools and assessment procedures are now recommended [61, 62]. In a number of countries, specialised models of care have been developed and evaluated to support elite athlete mental health, with a focus on acceptability and engagement [63]. For example, the national Mental Health Referral Network developed by the Australian Institute of Sport (AIS) provides an example of a decentralised model of care where mental health clinicians experienced in evidence-based intervention and the elite sport environment provide confidential treatment to elite athletes, coordinated centrally and funded by the AIS [3, 64]. While similar models of care are provided in other sport settings internationally, high-quality athlete-specific mental health intervention is not universally available, especially in many low- and middle-income settings. Nonetheless, lower resource interventions and initiatives are becoming increasingly available globally, and impactful organisational approaches (e.g. psychological safety [65]) can be instituted at relatively low cost.

Conclusion

Athletes are susceptible to mental health problems by virtue of both being human and the additional risk factors experienced in sport. The broad range of health and sporting professionals working in elite sport will encounter athletes experiencing metal health symptoms and disorders. There is opportunity for practitioners to view interactions with athletes experiencing mental health symptoms as a standard part of their role, referring on to specialists as they would for the management of other physical health concerns. Important progress has been achieved in improving athlete mental health across the last decade. This momentum will continue to catalyse on-going efforts in stigma reduction and mental health-related attitudes, positively impacting broader tiers of competition (e.g. junior and community sport), and population health more generally.

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