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The role of high-performance sport environments in mental health: an international society of sport psychology consensus statement

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ABSTRACT

This consensus statement is the product of the Third International Society of Sport Psychology Think Tank on Mental Health. The purposes of the Think Tank were (1) to engage renowned international expert researchers and practitioners in a discussion about the role of high-performance sport environments in nourishing or malnourishing the mental health of athletes, coaches and staff; and (2) to develop recommendations for sport organisations, mental health researchers, and practitioners to more fully recognise the role of the sport environment in their work. Although most of the research on mental health in sport has focused on the individual, mental health is the result of intricate and dynamic relationships between people and their environments, and a range of stakeholder individuals and organisations play a key role in supporting wellbeing in high-performance sport. We conceptually divide the environment into three levels (the sport team, sport organisation and sport system) and two dimensions (the social and the physical environment). Based on the portraits of these environments, we conclude by providing recommendations that will help sport teams, organisations, and systems to create nourishing high-performance sport environments and effective mental health service provision environments, whilst helping researchers expand their focus from the individual athlete or coach to the sport environment.

KEYWORDS

Sport mental health; Sport environments; Responsible high-performance sport; Thriving

A consensus statement is a summary of the perspectives relating to a specific topic, derived from a well-informed panel of experts (De Boeck et al., 2014). The present consensus statement is the product of the Third International Think Tank on Athlete Mental Health, held on

the initiative of the International Society of Sport Psychology (ISSP). The Third ISSP Think Tank on Athlete Mental Health was hosted by Hubei University, China, during October 2024. The Think Tank was a non-political and non-profit entity. Recognising that the relationships between sport environments and mental health are too complex for any group of experts to grasp in their nuanced entirety during two days of discussions, the purposes of this ISSP Think Tank were to: (a) engage international experts in sport psychology and mental health in a discussion about how high-performance (HP) sport environments may nourish and/or malnourish not only the mental health of athletes, but also coaches and HP staff working alongside athletes in these environments, and (b) develop recommendations for sport organisations, mental health researchers and practitioners to more fully embrace an ecological systems approach (recognising the role of the sport environment) in their work. The current statement represents consensus views of the invited experts.

Historical context: the ISSP think tank initiative

The International Society of Sport Psychology is devoted to promoting research and practice in sport psychology throughout the world (ISSP, [n.d.](#)). Recognising that all good sport psychology is cultural in nature (Ryba et al. [2024](#)), the ISSP strives to promote worldwide collaboration and open sharing of ideas, and to globally advance topical issues. Taking inspiration from the Redondo Beach Think Tank in 2003 (Poczwadowski & Lauer, [2006](#)), the inaugural ISSP Think Tank aimed to solidify Athlete Mental Health as a key topic on the world agenda and was hosted by Team Denmark and the University of Southern Denmark in 2018. It resulted in the Society's first Consensus Statement on Improving the Mental Health of High-Performance Athletes (Henriksen et al., [2019](#)), in which the authors outlined six propositions and associated recommendations for sport organisations and researchers. Among these propositions, the authors noted that: we need more contextualised definitions of mental health in sport, that sport environments may nourish or malnourish mental health, that researchers should be dedicated to clarifying the ways in which environments do so, and that sport organisations should reflect on the ways in which their sport environments are a resource or a barrier in terms of athlete mental health, intimating the importance of sport environments on athlete and staff functioning. The second ISSP Think Tank was hosted by the United States Olympic & Paralympic Committee in Colorado Springs and focused on Athlete Mental Health in the Olympic Quadrennium. The resulting consensus statement (Henriksen et al., [2020](#)) emanated from discussions about challenges and opportunities to foster mental health during Olympic quadrennia. The resulting recommendations related to three distinct phases, namely, before, during and after the Olympic Games. Henriksen et al. also suggested that sport organisations should be cognizant of the influence that sport environments have on elite athletes' mental health, including how these athletes' environments dynamically evolve through the three stages. After a period in which international travel and exchange was severely restricted by COVID-19 and associated increased travel costs, in 2024 the ISSP Think Tank was continued, centralising a topic that both previous Think Tanks had identified, but not fully addressed: The role of HP sport environments in relation to the mental health of athletes, coaches and staff health.

Process and members of the think tank

The intention of the ISSP Think Tank is to be a small cooperative learning group where experienced practitioners and researchers can discuss the science and practical application of a topic (Henriksen et al., 2019). Before the event, a small working group of ISSP Managing Council members discussed potential topics and narrowed the focus to the specific context-driven issue of the role of sport environments in relation to performer mental health. Designating the small group of experts, it was deemed imperative that the experts represented significant expertise from multiple professional vantages including mental health research, sport environments research, mental health and sport psychology applied work in HP sport contexts, and experience with developing national and international guidelines and policies around mental health service provision. The group was further diversified to account for global representation, in accordance with ISSP's mission. This process led to the invitation of 11 experts. Eight experts were able to attend the Think Tank, listed alphabetically.¹

- Jessica Bartley, PsyD, is the Senior Director of Psychological Services at the United States Olympic & Paralympic Committee (USOPC), mental health provider in professional sport, and an adjunct professor at the University of Denver. She has nearly 20 years of experience providing mental performance and mental health services in collegiate, Olympic and Paralympic, and professional sport in the United States. She has supported American athletes and coaches during three Olympic and Paralympic Games, four continental Games, and more than a hundred national and world championships, and resides in the US.
- Yang Ge, PhD, is a lecturer at Beijing Sport University. Her research focus is on how the cultural aspects of local sport systems relate to athletes' performance and mental health. In her 12 years as a sport psychology practitioner, she has provided professional services for Team China in three Olympic Games and one Asian Games. She resides in China
- Kristoffer Henriksen, PhD, is a professor at the University of Southern Denmark. His research focus is on the role of the social environment in athlete development and performance. He has 25 years of experience as a sport psychology consultant, mostly for Team Denmark, during which he has attended countless championships including several Olympic Games. He is member of the ISSP Managing Council and resides in Denmark.
- Zhijian Huang, PhD, is a professor at Hubei University, a performance and mental health consultant for multiple Team China sport teams, and a member of the ISSP Managing Council. He resides in China.
- Göran Kenttä, PhD is a senior lecturer at the Swedish School of Sport and Health Sciences, an adjunct professor at University of Ottawa, and has been head of discipline for sport psychology for more than 10 years at the Swedish Sports Confederation. He has more than 25 years of experience from research and professional practice in elite sports with an emphasis on high-performance sports and mental health including attending a number of major competitive events. He resides in Sweden.
- Rosemary Purcell, PhD is a Professor at Melbourne University and a registered psychologist. Her research focus is on understanding mental health needs in elite sport and developing optimal strategies to improve mental health in high-performance sporting environments. She has over 10 years' experience working with a range of elite and professional sports and is a member of the IOC's Expert Consensus Group on Elite Athlete Mental Health. She resides in Australia.

- Gangyan Si, PhD, is a professional consultant at the sport psychology centre at Hong Kong Sport Institute. He has 30 years of experience as a sport psychology consultant for both Chinese Olympic teams and Hong Kong China's Olympic teams, during which he has attended six Olympic Games. He is a previous president of the ISSP, and resides in Hong Kong, China.
- Chris Wagstaff, PhD, is a professor of Applied Psychology. He leads a group at the University of Portsmouth researching organisational factors in high-performance sport and is the Editor-in-Chief of the Journal of Applied Sport Psychology. He has supported people at four Summer Olympiads and has held a range of senior leadership, consultancy, and advisory roles across the UK sport system. He resides in the UK.
- Thereafter, Robert Schinke, the ISSP President and former AASP President, a scientist practitioner, who resides in Canada, with vast major games and professional sport experiences, supported the group through the conceptualisation and post meeting phases to refine the forthcoming statement.

The ISSP Think Tank took place over two full days of work planned as a mix of small group and plenary discussions of both predefined and organically emerging themes. To elaborate, the expert group considered the following three questions: (1) How do we define and differentiate key terms? (2) What do environments more and less supportive of mental health look like in different arenas such as in daily training and at championships? (3) What levels of environment influence mental health in what ways? Yet notably, the programme was dynamic and evolved during the two-day meeting. For example, the discussions first focused on athlete mental health, but discussions quickly expanded to include coaches and HP staff who work in the same HP environments. As another example, discussions demonstrated a need to distinguish between the sport environment and what we termed the mental health service delivery environment. Consensus development continued through engagement and discussion related to the communal writing of the present statement.

Mental health is more than an individual matter

Mental health has received considerable, increasing attention over the last decade. This is true for the general population, where mental health problems seem to be a global concern (Patel et al., 2018), particularly among adolescents and young adults (McGorry et al., 2024). Similarly, within HP sport, spanning scientific research, sport organisation policy, and applied sport psychology practice, supporting mental health has become a prevalent discussion and mission. A recent review bears witness to this increase in attention by identifying no less than 13 position statements endorsed by a governing body and concerning mental health in sport in the last 10 years (Vella et al., 2021), all aiming to support sport organisations in developing mental health policies. The increase in national and international strategies and models for mental health service delivery in sport (e.g., IOC, 2023; Rice et al., 2020) alongside the development of mental health literacy interventions in sport (Purcell et al., 2023), and the recent IOC decision to accredit the role of mental welfare officers at the Paris Olympic and Paralympic Games, further underscores the increased attention devoted to mental health in sport.

It is far beyond the aim of the present paper to summarise the mental health research in the field. Yet, to the present day, most of the research about our topic has focused on the individual (most often athletes, and sometimes coaches) when examining prevalence rates (Schinke et al., 2024) and individual-level correlates of mental health symptoms or diagnoses, such as sex, coping attributes, resilience, adverse life events, or experience of injury. Mental health is rarely determined only by individual-level factors. Rather, ecological systems approaches recognise that mental health is the result of intricate and dynamic relationships between people and their environments, and that a range of stakeholder individuals and organisations within and outside of sport play a key role in supporting athlete wellbeing in HP sport. The participants of the first ISSP Think Tank formulated that “An elite sport organization or environment (e.g., structure, personnel, and culture) does not *cause* mental health problems per se. Individuals respond differently to different environments”, but that the sport environment can “nourish or malnourish athlete mental health” (Henriksen et al., 2019, p. 5). Today, we recognise that environments can be so toxic and abusive that they are likely to cause mental health problems for impacted athletes, coaches, and sport science staff. The participants in the second Think Tank stayed with this idea and described how the environment changes over an Olympic/Paralympic cycle and thus affects athlete mental health in different ways during different periods of each quadrennium. Describing the environment during the Olympic Games, for example, they noted that “From the outside, the Olympic/Paralympic village may seem like an idyllic oasis reserved for likeminded athletes. However, in reality, athletes often experience life in the village as stressful, and so, often not conducive to positive mental health” (Henriksen et al., 2020, p. 400).

In recent years, researchers and practitioners have further aimed to employ an ecological perspective (i.e., highlighting the role of the environment) to more comprehensively understand mental health in HP sport. As an example, in a conceptual paper, Purcell et al. (2019) warned that “Any mental health framework that ignores wider ecological factors runs the risk of focusing exclusively on, and potentially pathologizing the individual athlete” (p. 3). They proposed that prevention, indicated at-risk components, early intervention and specialist care should all be considered in light of key aspects of the environment, ranging from the micro system to the macro system. In their recent mental health action plan, the IOC (2023) emphasised that “the mental health of athletes exists within the context of the wider sports system” (p. 12) and highlight that this context includes teammates, coaches, support staff, family and the sporting organisation, a point also echoed by Schinke et al. (2022) in terms of fostering occupationally adaptive HP sport contexts. In a scoping review, Kuettel and Larsen (2020) further identified both personal and environmental risk and protective factors for athlete mental health. In a cross-sectional study among elite para and non-para-athletes in Australia, Olive and colleagues (2022) took this idea of expanding to contextual considerations further, and examined the relationship between specific environmental risk factors at different levels of the sport eco-system (e.g., lack of companionship, poor psychological safety, and lack of institutional support) and specific mental health outcomes such as general distress and eating disorder risk. Poucher et al. (2021) demonstrated that while available resources are important, a strong performance narrative, where athletes are willing and expected to toughen up and push through pain and suffering, can discourage engagement with such services, often confining mental health status to the individual level. As a final example, Henriksen

and colleagues (2023) published the Team Denmark applied model of mental health. The authors illustrated how mental health is linked to specific qualities across four layers of the sport environment – the training environment, leadership, everyday life, and cultural norms. The model provides stakeholders with a lens through which they can analyze and optimise how their sport environments support the mental health of their athletes.

These conceptual and empirical advances reveal an increase in recognition that mental health in HP sport is dependent on the developmental and performance contexts in which athletes, coaches, and staff operate. This understanding is further seen in research on specific aspects of the environment that may affect mental health including literature on psychological safety, where scholars have posited that when feeling safe to show their authentic selves, athletes are more likely to seek help, and in turn, promote mental health (Vella et al., 2024; Walton et al., 2024) and compassionate qualities of people in HP environments (Backman et al., 2024). Altogether, the creation of psychologically informed sport environments should be a priority for sport organisations (Wagstaff & Quartiroli, 2023). Despite these advances, a consensus stance on our understanding of the links between the sport environment and mental health is not available, the recognition of which led to the 2024 ISSP Think Tank and this consensus statement.

Key concepts

Several definitions of mental health have been offered – some more specific to sport than others. The first ISSP consensus statement group (see Henriksen et al., 2019) proposed that definitions of mental health in sport should be context specific. We concur with this view and suggest that athletes have protective factors *because* they are in HP sport (e.g., being active and in a team, and enjoying access to support) as well as risk factors *because* they are in HP sport, such as unique prevalent and pervasive stressors related to selection, performance expectations and finances. This is also true for coaches and other staff. The most recent ISSP Think Tank group adopted their starting point in Kuettel and Larsen's (2020) definition of athlete mental health:

Mental health is a dynamic state of well-being in which athletes can realize their potential, see a purpose and meaning in sport and life, experience trusting personal relationships, cope with common life stressors and the specific stressors in elite sport, and are able to act autonomously according to their values. (p. 23)

The definition above highlights the dynamic nature of athletes' mental health, and that mental health is contextualised and much more than the absence of mental illness, encompassing also mental well-being with its hedonic (e.g., feeling good about life) and eudaimonic (e.g., positive relationships, purposeful life) dimensions (Lundqvist & Andersson, 2021). While Kuettel and Larsen (2020) looked specifically at athlete mental health, in the present statement the working group targeted mental health in HP sport in general, and thus expanded the definition to include coaches and HP support staff (such as allied sports science, technology, and medicine professionals, and administrators). We recognise that everybody in the sport system experiences variations in mental health, and that the stressors, risks and protective factors for athletes, coaches and staff may both overlap and vary, the latter perhaps influenced by the duration of the HP

sport career (e.g., athletes may have 10 years in HP sport while coaches and staff may exceed 40 years of HP experience).

Another key concept in this statement is the *environment*. Again, several definitions can be found in the literature, most of which adopt Bronfenbrenner's ecological systems approach (Bronfenbrenner, 2005) as a starting point. Bronfenbrenner distinguished between four levels of the environment that are the micro (i.e., a person's immediate environment including training environment and family), meso (i.e., interactions between micro systems), exo (i.e., social contexts including policies and community resources), and macro (i.e., broader societal and cultural forces) levels. In their holistic definition of an athletic talent development environment, Henriksen et al. (2010) highlighted that such an environment is best understood as a dynamic system that includes micro and macro levels and athletic and non-athletic domains, as well as preconditions, processes, and an organisational culture.

Recognising that for any given individual, their experienced environment is the totality of the settings they are a part of, and embedded in (e.g., sport, school, family), for present purposes we focused on the sport environment. We considered the sport environment to comprise multiple levels and both physical (e.g., facilities, location, and logistics) and social dimensions (e.g., social norms and culture, expectations, responding to results, and respect for ethnic, religious and sexual identity) (Schinke et al., 2024). For a practical overview, participants in the Think Tank found it helpful in their discussions to divide the environment into two dimensions (psycho-social and physical) and three levels (the sport team, the sport organisation, and the sport system). The discussions further resulted in coining the term mental health service delivery environment (i.e., how service provision is organised and delivered) and distinguishing this from the sport environment (i.e., the daily training and competition environment that may or may not be supportive of mental health).

High-performance sport environments and mental health

To summarise the Think Tank discussions, we first describe a HP sport environment that nourishes or malnourishes mental health, followed by a description of a nourishing and a less nourishing HP service delivery environment.

High-performance sport environments that nourish mental health

In the following section, we present factors within a HP sport environment that nourish (Table 1) and malnourish (Table 2) mental health. We divided the environment into three levels and two conceptual dimensions. The three levels are the sport team (e.g., the daily training and competition environment including athletes, coaches and support staff, situated at the micro-level), the sport organisation (e.g., a club or federation that may have multiple teams, situated at the meso and exo-level), and the sport system (e.g., the national sport system, situated at the macro level). The two dimensions are the social environment (e.g., norms, values and culture) and the physical environment (e.g., training facilities and placement, quality and maintenance of equipment, and green spaces), all of which impact the mental health of the people in the environment. While we recognise that organisational culture is debated and difficult to define and operationalise (Fletcher & Wagstaff, 2009; Maitland et al., 2015), as sport psychology practitioners

Table 1. Key features of a high-performance sport environments that nourishes mental health.

A high-performance sport environment that nourishes mental health			
	Sport team	Sport organisation	Sport system
Psycho-social dimension	Trust High quality relationships Autonomy supportive and values-based leadership Fair and just and transparent team practices Social support Psychologically safe team culture Compassion	Transparency around rules, regulations and resource distribution Integrated efforts Organisational resources to cope with stressors Opportunities to form social relationships in other sports Psychologically safe organisational culture Opportunities to give back	National culture that prioritises and supports athletic pursuit Transparent safeguarding policies Protection from abuse Fair and transparent working relations with other agencies Commercial contracts in line with a healthy sport environment
Physical Dimension	Safe spaces for recovery Personal spaces to exercise cultural, religious and other rituals	Proximity of sport arena to other life arenas Proximity to other sports Proximity of athletes, coaches, staff and management	Access and proximity to nature Suitable climate Good transportations system Training centres in proximity to main international events

we also recognise culture as a distinct feature of an environment that is linked to thriving (Passaportis et al., 2014) and varies from one environment to the next; therefore, culture is included in all three levels. The factors are derived partly from research and partly from the Think Tank participants’ experiences working in HP sport. We recognise that all the nuanced relationships between sport environments and mental health are beyond the scope of a Think Tank and this consensus statement and invite readers to consider the factors as indicator examples and not an exhaustive list.

The sport team

In a HP sport environment conducive to mental health, the team environment is likely characterised by trust and high-quality relationships. Athletes experience friendships where their bonds with teammates transcend a mere transactional relationship, just as coaches experience rewarding relationships with other staff. Coaches and management engage in autonomy supportive and values-based leadership, and value diversity. People experience joy, play, and having fun together (Alexander-Urquhart et al., 2024). Although these features may vary in degree by organisation, all Think Tank participants agreed on these environmental characteristics. For example, while Chinese coaches may traditionally have been more regimented than western coaches, the Chinese and Hong Kong delegates highlighted that contemporary Chinese sports management advocates a shift from highly controlling coaching to the application of the rational components of paternalistic leadership (which consists of authoritarian, benevolent, and moral leadership; Liu et al., 2022). Team practices such as selection and planning are fair, just and transparent, allowing athletes to focus on development and long-term goals, rather than a single outcome focus and on trying to understand and please the system. All people experience social support, and the level of psychological safety is high (Gosai et al., 2023), which means that athletes can ask questions and appropriately challenge decisions without fear of ridicule, neglect, or other repercussions. Moreover, the athletes feel a sense of commitment and responsibility in contributing to their organisation’s positive climate. Compassion extends beyond self-compassion, to interpersonal compassion among peer athletes, coaches and staff (Backman et al., 2024). In the physical

environment there are safe spaces designated for recovery, and these are often in nature or are nature-inspired. Athletes who perform religious/spiritual or cultural/identity rituals find there are designated spaces to do so, where facilities are suited.

The sport organisation

The club or the federation will have transparent rules, regulations, and resource distribution. This means that if some teams enjoy special privileges, this is grounded in clearly formulated rules and policies that may not always be agreed upon by all, but are transparent, whereby people have voice to challenge existing processes. Support and management staff should have an ongoing dialogue about how to best coordinate and integrate their efforts to avoid athletes having to prioritise incompatible demands from different staff (Storm et al., 2021). A specific example where this is particularly relevant is when an athlete is injured and experiences that coaches and medical staff have ongoing dialogue about their role in the team. The work on organisational sport psychology (Wagstaff, 2019) and thriving (Brown et al., 2021) points to a range of contextual resources, or enablers, that can nourish the mental health of individuals and teams, while also supporting them to cope with stressors. Athletes, coaches, and staff have opportunities to form social relationships and friendships, and in some instances also do so with people from other sports. Supports at the organisational level foster a sense of belonging among individuals and teams (Dorsch et al., 2020). For athletes, relationships with other athletes and feeling part of a bigger national team community, is particularly important in times of team selections, where teammates feel more like rivals than friends. For coaches and other staff, opportunities to share knowledge and learn from their counterparts in other teams can be motivating. There is an organisational culture of psychological safety, in which athletes, coaches, and staff feel it is safe to take interpersonal risks, such as, by asking questions and challenging the status quo. Finally, athletes experience opportunities to give back in a broad sense (e.g., by coaching or mentoring younger athletes), contributing to their sense of meaningfulness (Oblinger-Peters et al., 2025).

The physical environment is designed to make daily life easy by physical closeness of the sport to other life arenas (school, workplace, dining facilities and living space), and closeness to other sports so that relationships are easy to build and nurture. Training facilities offer physical spaces that enable a balance of performance, growth, development, belongingness, and wellbeing. Training spaces are close to the offices of coaches, staff, service providers, and management, facilitating daily informal meetings and dialogue with athletes.

The sport system

The sport system refers to the national sports and sport specific cultures as well as policies. It is conducive to mental health when athletes experience that their national culture prioritises and supports healthy and sustainable athletic pursuits (see Dorsch et al., 2020). A good sport system has transparent policies (Willson et al., 2022) and implemented strategies in such areas as selection, de-selection, funding support, and safeguarding. Active measures are taken to protect athletes from physical and online social media abuse. Working relationships with other agencies, such as anti-doping agencies, are fair and transparent. Participants further highlighted that the sport

system would do well to ensure that commercial contracts are consistent with a healthy and ethical sport environment. For example, athletes should be safeguarded against contracts with unclear boundaries (athletes are asked to make social media posts daily during major championships) or which do not fit with team norms.

The physical environment at the sport system level is supportive of athlete mental health when sporting facilities are close to nature and allow easy access, because mental recovery is promoted by experiences in nature (i.e., green and blue experiences; White et al., 2021). A climate suitable for the sport (e.g., snow for winter sport and warm weather for cycling) reduces the strains of extensive travelling, just as good local transportation systems reduce the strains of daily commute. Finally, when training facilities are relatively close to main international events, there is less stress from travel and jetlag. As examples, the main professional events in cycling and several other sports are in Europe, and consequently, professional cyclists from other continents typically must relocate for eight months each year away from family and friends.

High-performance sport environments that malnourish mental health

Following the same structure, we now present features of a HP sport environment that mal-nourish mental health (see Table 2). During discussions, to arrive at these features, we put the map of the good environment aside, so these features resulted from a new round of discussion and are not merely opposites of those listed in Table 1.

Table 2. Key features of a high-performance sport environments that malnourishes mental health.

A high-performance sport environment that malnourishes mental health			
	Sport team	Sport organisation	Sport system
Psycho-social dimension	Toxic team climate	Poor leadership	Funding models based solely on results
	Damaging intra-team rivalries	Poor prioritisation of funding.	No media attention
	Stigma, “suck it up” mentality	Opaque or unfair resource allocation	Competition overload
	Fear, traditional masculinity norms	Regular and unplanned organisational change	Poor coordination between the different parts of the system.
	Wearing masks	Inter-team or inter-gender rivalries	Lack of funding
	Constant overtraining and unhealthy body images	Unrealistic goals and expectations	Invasive, controlling monitoring systems or athletes not owning their data
	Not sharing	Controlled, regulated life	Commoditization and dehumanization
	Single outcome focus	Fragmented organisational culture	
	Lack of connection/relatedness		
Physical Dimension	Poor training hours	Gender biased facilities	Inappropriate and dangerous venues
	Poor training facilities, equipment, etc.	Poor access or logistics	No access to nature
	No safe spaces for recovery	Unfavourable weather conditions and extensive travel schedules	Extensive, stressful transportation demands

The sport team

An environment that thwarts mental health is often characterised by a toxic team climate (Kerr & Battaglia, 2024) or, more commonly, conceptually described as a psychologically unsafe environment. Athletes, coaches, and staff may experience emotional abuse, neglect, and a lack of voice (Walton et al., 2024). They will also often experience damaging

intra-team rivalries or a malicious competition atmosphere, and sometimes even schadenfreude (people who take pleasure in other's mistakes or misfortune). In their practice, Think Tank participants had met athletes in despair, such as a deselected athlete waiting and hoping that a selected athlete would become sick, injured or underperform to get their spot, and at the same time feeling guilty to have those thoughts. Often, the team environment will have a high level of stigma and a "suck it up" culture, where everyone or maybe only the few are expected to accept unreasonable injustices. The atmosphere is one of fear of failure and making mistakes, and exaggerated masculinity. This results in people "wearing masks", spending energy to appear more mentally strong and healthier than they are, and lacking the safety to ask for help, show vulnerability and challenge the system. In such environments, we often see constant and excessive overtraining (Gustafsson et al., 2011) due to a fear of not being sufficient, and being exposed to unhealthy and unreachable body images. People in the environment protect themselves by not sharing knowledge, experiences, or resources. Success is measured solely in terms of results, and the culture is dominated by a winning-at-all-cost attitude (i.e., a performance narrative). Finally, people experience a lack of connection or relatedness within the team and being neglected.

In terms of the physical environments, it is often characterised by poor training hours or an unfair distribution of hours where some teams (e.g., the female team) is constantly asked to train very early in the morning or late in the evening. Poor training facilities is another feature, as is outdated or dangerous equipment and poor accommodation and food (De Bosscher et al., 2015). These features harm mental health when they contribute to athletes or coaches feeling unappreciated or second-rate. Finally, such environments will have no safe spaces for recovery.

The sport organisation

At the sport organisation level, an environment that thwarts mental health will, in the experience of the Think Tank participants, be characterised by prevalent and pervasive organisational stressors (Arnold & Fletcher, 2012). These include inter alia problematic leadership. Examples of problematic leadership could include leadership that is overly controlling, not aligned with the organisation's values, and/or does not recognise or understand the effort of the people in the environment (Simpson et al., 2024). Similarly, both problematic organisational leadership and regular, unplanned organisational change impact athlete, coach, and staff performance, mental health (Hings et al., 2018). While sufficient funding may be available to augment the performance environment and human conditions, this funding is poorly prioritised, such as when high level managers fly first class while athletes and coaches must take cheap and inconvenient flights. This is linked to an opaque and unfair resource allocation, where it is unclear why some people have much better access to resources than others. Examples include uneven distribution of resources between male and female teams that lead to inter-team and inter-gender rivalries. The sport organisation espouses conflicting and unrealistic goals and expectations resulting in strain for all stakeholders. Such environments may be conceived as overly controlling, regulating the life of athletes, coaches, and staff. Examples include Chinese athletes who are rarely able to visit their family even in times of sickness, and European athletes who are told that if they want a spot in a team, they must give up education or chose certain forms of education over others.

The organisational culture is fragmented in the sense that espoused and enacted values are not aligned (people say one thing but do another) and unresponsive.

The physical environment is characterised by a gender biased facility, poor access (e.g., access to experts and recovery facilities that may be located far away from the training facilities) and poor logistics (e.g., time consuming transportation). Weather conditions might also be unfavourable, or the training centre can be poorly suited to the weather conditions, often forcing teams to have extensive travel schedules.

The sport system

A sport system can easily jeopardise mental health. Think Tank participants' examples from their own experiences were abundant. Among the examples are systems where funding models are based solely on results, forcing athletes and coaches to compete despite injuries, push through difficult times, and not prioritise recovery, or where media pay no attention, making it difficult to secure sufficient funding. In countries where sport pursuits are not recognised or frowned upon, athletes may stress and ruminate over their choice and feel pressure to leave sport in favour of more recognised and accepted pursuits, such as formal education and a non-sport career. Funding plays a key role in mental health, and an example that resonated with many participants is when athletes due, to limited funding, are forced to live with their parents despite a strong wish to live independent lives, leading to conflicts, impeded social development, and a sense of identity threat. In some sports, athletes, coaches, and staff, experience significant competition overload and a distinct sensation that their programmes are designed not to suit athlete performance and health, but rather commercial interests. The sport system consists of several different parts, including the sport team, the expert staff, the club, the federation, and a national cross-sport confederation. When these parts are poorly coordinated, values are juxtaposed, and roles and responsibilities are unclear, it will negatively affect the mental health of everyone in the system. Another key example is invasive and controlling monitoring systems with poor feedback. When anti-doping agencies or sport organisation staff extensively monitor athletes and coaches, they may experience intrusion and a sense that they cannot fully be themselves. The Think Tank participants shared de-identified stories of athletes who experienced uncoordinated doping controls several times a day from national and international agencies or several days in a row at 5 am during an Olympic Games. A specific related issue is when athletes do not own their data, such as medical records, training data, mental health assessments, and fear that these may be used against their interests, such as when they are not selected for a competition if they are honest. A final example is the commoditization and dehumanising that athletes may experience (Larkin et al., 2020), when for example female beach volleyball players are forced to play in minimal clothes, when cyclists are forced to ride tires with poor grip because of sponsorships, and when schedules are adapted more to media companies' needs than athletes' performance needs.

Examples of the physical environment malnourishing mental health include inappropriate or even dangerous venues, such as biathletes forced to ride high-speed slopes on ice with a rifle on their back to start the season early, or soccer championships played in high degree weather to accommodate financial interests, a lack of access to nature or similar spaces for recovery, and extensive, stressful transportation or travel demands.

Effective – nourishing service delivery environments

During discussions it became clear not only that the sport environment can nourish or mal-nourish mental health, but it is possible to identify features of service delivery environments that are more or less nourishing (Van Slingerland et al., 2021). Like the sport environment, it proved meaningful to consider the service delivery environments as consisting of a social dimension (e.g., norms, values, stigma, transparency) and a physical dimension (e.g., spaces and access), as well as three levels: team, organisation, and sport system. We did, however, quickly realise that some features belonged to all three levels, resulting in Tables 3 and 4 being developed differently to Tables 1 and 2. We considered mental health service delivery to include prevention, monitoring, early detection, referral and treatment (Purcell et al., 2022). In some teams, mental health services are undertaken by only one person, but we believe that it is still important to address and give attention to environments for service delivery, which includes how providers are acknowledged, informed, and resourced.

Across all levels, nourishing and effective HP sport service delivery environments share several features. Science, technology, and medicine service providers collaborate and communicate and work competently from evidence-based methods (Van Slingerland et al., 2022). They understand, respect, and acknowledge each other’s roles. It is clear to all involved what is shared, including athletes, who must give consent, and privacy, confidentiality and ethics are respected. Access and allocations are fair and transparent, and athletes and coaches know their rights. There is a high level of mental health literacy among the performance staff and an equally high level of performance literacy among the mental health staff. Finally, there is an appropriate and dynamic prioritisation of mental health and performance needs, rather than a rigid understanding that either mental health or performance comes first. For example, in some instances it can be reasonable

Table 3. Key features of an effective and nourishing high-performance sport service delivery environment.

An effective and nourishing high-performance sport service delivery environment			
Psycho-social dimension	Interdisciplinary, collaborative, communicative and evidence-based service		
	Competent providers who understand each other’s roles		
	Clarity and consent of what is shared and respect for privacy, confidentiality and ethics		
	Fair and transparent access and allocation		
	High level of mental MH literacy in performance staff and performance literacy in MH staff		
	Appropriate and dynamic prioritisation of MH and performance needs		
	Sport team	Sport organisation	Sport system
	MH&P services integrated within the team. A part of but apart from the team	Mental health officer with psychology expertise and clear responsibility for MH	Clear and proactive MH strategy
	Cultural competence	Clinical governance frameworks	Ringfenced human and financial resources dedicated to MH
	Mutual understanding of and respect for all roles (athletes, coaches, experts etc.)	Clear separation of clinical and performance responsibility and collaboration	Strict oversight of providers
	Help-seeking is normalised	Ongoing professional development	Relevant monitoring and screening systems and appropriate use and follow-up
		Acknowledgement of the alliance (degree of choice of provider)	Whistleblower service
Physical Dimension	Physical proximity	Safe spaces for service delivery	Collaboration with research
	Following the team to events	Spaces that stimulate interdisciplinary collaboration	Easy and fast access to mental health support (physical / virtual)

to allow an athlete with disordered eating to compete, if the disorder is not too severe (e.g., neither physical or mental health would be compromised by competing), the competition is soon, and a clear treatment plan is in place to be started after the competition. In other instances, the opposite may be true.

The sport team

For a team environment to effectively support mental health of all involved, mental health and performance services should be integrated in the team. Particularly, the mental health service providers should be a part of, but apart from the team (McDougall et al., 2015), meaning that they are in ongoing dialogue with coaches and other staff, but at the same time, their confidentiality is respected, and they are not involved in team selection. Providers have cultural competence, including a solid understanding of HP sport, the specific sport, national culture, and the culture of subgroups and individual identities within the team. Help-seeking is easy, normalised and validated across all staff. As a final and very important example, athletes, coaches, and experts have mutual understanding of and respect for each other's roles.

In terms of a physical environment that supports effective service delivery, the participants agreed that ideally it should be characterised by physical proximity, such as when mental health service providers' offices are close to training facilities and that athletes naturally encounter these providers often, making it easier to reach out and establish connections. This is not always possible, and in such cases, other forms of easy availability must be established. At the same time, however, it should be possible to reach out in privacy and not be seen by athletes or staff. Also, ideally, service providers follow the team to major events and training camps, because it is more difficult for athletes to reach out when they are expected to be in a "performance bubble", and therefore, having service providers on-site facilitates a natural contact and access.

The sport organisation

A club or team that supports mental health service delivery has a designated person with psychology or related mental health expertise and clear responsibility for mental health. This person can be called a mental health officer (Henriksen et al., 2019) or a similar title. Related, there will be clinical governance frameworks that articulate the roles and responsibilities for different aspects of mental health, from board members to mental health experts and to athletes (e.g., AFL, 2020; and Wagstaff & Quartiroli, 2023). In this way, not only is the responsibility clear, but everybody knows who to talk to when support is beneficial (Schinke et al., 2021). There will be a clear understanding and separation of clinical and performance responsibility, but at the same time, people in charge of each purview will collaborate. Throughout the organisation, there is an acknowledgement that the therapeutic alliance is of utmost importance, and thus there is a degree of freedom for athletes to choose a service provider with whom they feel comfortable. Some federations or clubs may have providers dedicated to specific teams, and this is most often unproblematic, and when athletes voice a wish to work with another, options should be investigated. Finally, good service delivery environments are characterised by ongoing professional development, for example through self-evaluation (Myburgh et al., 2023), and they strive for knowledge retention by securing ongoing

professional dialogue between providers (peer learning) and knowledge transfer if an expert leaves. In terms of the physical environment, the sport organisation will have appropriate and safe spaces for service delivery, such as visual and sound-proofed meeting spaces that maintain the privacy of services user's interactions, as well and spaces that stimulate interdisciplinary collaboration and an abundance of viable solutions.

The sport system

In a nourishing mental health service delivery environment, the national sport system will have a clear and proactive mental health strategy. This includes ringfenced funding, which means that both human and financial resources dedicated to mental health services are protected, rather than mental health services competing for the same funds as performance support, training camps or equipment. Coaches and managers should never be forced to choose between supporting an athlete's mental health and buying new equipment. There is a strict oversight of providers to ensure they are appropriately educated and skilled, and their work is ethical and evidence based. A relevant sport specific system to monitor the athletes' mental health and their use of services is in place. Importantly, however, this system is used effectively, such as in the early detection and evaluation of the services, but not to inform team selection or athlete funding or scholarships. The sport system will have an independent and safe whistleblower service, where all stakeholders can report information that they reasonably believe evidence wrongdoing. Finally, the system will collaborate with researchers to ensure the quality of assessments and service provision, and that staff turnover does not lead to extensive knowledge drain. In terms of the physical environment, the most important feature is easy access to services whether this is physical or virtual.

Ineffective – malnourishing service delivery environments

Across all levels, a poorly designed environment for service delivery will have poor meeting spaces. Think Tank participants gave examples of providing mental health services in hotel lobbies during camps and competitions, and having offices without appropriate privacy, where coaches and managers would see athletes come and go, or hear conversations due to a lack of soundproofing. Another feature is experts working in silos. Physical separation, a high workload, lack of respect for other's roles, and no time to collaborate can be among the potential reasons for working in silos. Throughout the system, stigma is high, and members in the team environment lack mental health literacy, just as members in mental health support lack performance literacy. Finally, when services are evaluated, they may utilise inappropriate or irrelevant measures, which can lead to poor decisions. Think Tank participants gave as examples evaluations focusing on quantity over quality. Particularly, after an intense effort to reduce stigma, one participant experienced an increase in the number of athletes who used their services but had to fight to convince the overall management that this was a good sign, as the management wrongly considered few athletes using the system as an indicator that they were all well and that the environment was optimised.

Table 4. Key features of an ineffective and malnourishing high-performance sport service delivery environment.

An ineffective and malnourishing high-performance sport service delivery environment			
Poor spaces for service delivery Experts working in silos; high workload and no time or intention to collaborate. Stigma and lack of literacy Evaluations using inappropriate or irrelevant measures			
Psycho-social dimension	Sport team	Sport organisation	Sport system
	Lack of time for and prioritisation of MH initiatives Unclear roles Undermining of the MH service provider	Unclear responsibilities and boundary confusion Over-eager gatekeepers Knowledge drain Practitioner precarity	Virtue signalling Unclear and reactive MH strategy No credentials Unprotected funds for MH Non-trustworthy MH experts with no high-performance sport literacy Turf wars
Physical dimension	Distance Confined to the office	Lack of safe spaces for service delivery	Difficult access Pathologizing (e.g., services placed in hospitals)

The sport team

At the team level, an indicator of a malnourishing service deliver environment is a lack of time for mental health initiatives. Among other tasks, stakeholders in the team do not prioritise mental health. In the worst case, based on stigma and the performance narrative, they may even argue that the need for mental health support does not exist within elite sports. Roles within the team are unclear. Think Tank participants had even experienced that the mental health service provider was undermined by other stakeholders, such as through inappropriate jokes, the provider not being informed about important decisions around the team or an athlete, and stakeholders trying to threaten or force the provider to share confidential information. In terms of the physical environment, this could be characterised by big distances making it difficult to attend both training and treatment, and service providers being confined to individual sessions in their offices, not being supported to deliver team workshops or following the team to training camps or competitions.

The sport organisation

In a poor environment for service provision, the sport organisation is characterised by unclear responsibilities and boundary confusion. Often in HP sport, many people are involved in supporting the athletes, and many roles will have impact on mental health, including coaches, managers, nutritionists, performance psychology consultants, mental health service providers, dual career support providers, and performance lifestyle advisors (Wagstaff & Quartiroli, 2023). When these roles are not clearly defined and the boundaries are unclear, there is a risk of sending conflicting messages and experts getting in the way of each other’s work. Sometimes, coaches will see the confusion and want to protect their athletes, and they then become gatekeepers, hesitating to let service providers near their athletes. Further, such environments will be characterised by a significant degree of precarity, where practitioners do not feel their role is integrated or safe (see e.g., Gilmore et al., 2017), and there may be no system in place for knowledge transfer when an expert leaves for another job, resulting in knowledge drain and a feeling

of constantly starting over. Finally, and in terms of the physical environment, there is a lack of safe spaces for service delivery.

The sport system

At the level of the sport system, a key problematic feature is “virtue signaling”, in which leaders publicly state that they prioritise mental health to silence critical voices, but this is not matched by policies or actions that are supportive of mental health, such as travel schedules, financial and other resourcing prioritisation, and job listings. This is linked to the absence of, or an unclear mental health strategy, where sport responses to mental health are reactive rather than proactive, and with people failing to act until a crisis occurs. It can also be seen in the way credentials are distributed, where mental health personnel are not credentialled at key events. Funding for mental health services is unprotected, which means that coaches or managers may be placed in dilemmas when having to decide between using money for mental health or performance gains (e.g., training camps or equipment). Athletes may experience breaches of confidentiality and thus find the system un-trustworthy and be reluctant to use the providers. The Think Tank participants had also experienced mental health experts with no understanding of HP sport, resulting in heated discussions with performance staff around appropriate balancing of performance and mental health needs. Finally, participants mentioned “turf wars”, where performance psychology, mental welfare and lifestyle advisors would compete over tasks and time with the athletes. It is difficult to say what a physical environment not supportive of mental health service provision may look like at the sport system level, but examples include a lack of clear signposting and difficult access to services and athletes experiencing pathologizing, such as when services are in psychiatric departments in hospitals.

Recommendations

It was clear from the Think Tank discussions that a dichotomous distinction between environments supportive of mental health and environments supportive of performance is an artificial one. Recognising that the link between an environment and mental health is neither simple, nor direct or causal, participants agreed that athletes who experience being in good environments akin to those described above are likely to enjoy mental well-being and a good foundation for performance development, while athletes in the poor environments are likely to struggle with their mental health and their performance.

Mental health and performance are contextual (Schinke & Stambulova, 2017). The factors outlined in this consensus statement will have different weight in different national contexts, different sport specific contexts, and in different organisations and teams. Therefore, national sport governing bodies should engage in discussions to develop a version of the tables adapted to their context. We hope the general models will serve as a helpful starting point and provide inspiration to address these important topics.

Applied recommendations

Based on the Think Tank discussions, we find it relevant to provide two different sets of applied recommendations: (1) that will help sport teams, organisations and systems to

create HP sport environments that nourish mental health, and (2) that will help build effective and nourishing mental health service provision environments.

To develop *high-performance sport environments that nourish mental health*, sport teams, organisations and systems are advised to:

- Engage in ongoing discussions using the factors presented here about the nature of their environment and culture and how it supports mental well-being and use these discussions to further develop policies and actions.
- Evaluate their sport environments not only in terms of performance outcomes such as ranking and medals counts and financial gains but to include measures of the degree to which their environment supports the mental health of athletes, coaches and staff.
- Reflect on how their current funding models impact their sport environments whether their funding practices promote a “win at all costs” mentality or promote factors that support sustainable performance and well-being for all HP stakeholders.
- Promote awareness and a sense of psychological safety across teams, organisations and the sport system.
- Carefully consider how much they need to measure and control athletes, and how athletes can be given ownership of their data, especially with attention to mental health.
- Reserve safe spaces for personal rest, recovery and spiritual engagement and expression.
- Make knowledge sharing and friendships possible through spaces for athletes and coaches to interact with their counterparts in other sports.

To develop *effective nourishing mental health service delivery environments*, sport teams, organisations, system policymakers and service providers across levels are advised to:

- Acknowledge that there are environments for mental health service provision, including how providers collaborate, are invited to contribute, and are given a seat at the table, etc., and that this is an important and nowadays a normal part of the sport system.
- Develop a mental health strategy that reflects the mental health issues within the specific sport and supported by data.
- Have sufficient and ringfenced human and financial resources for mental health support.
- Ensure that it is specified who is responsible for proactively managing the environment to safeguard mental health support in the environment, and that this authority is clear to all in the organisation.
- Ensure that all service providers’ roles are clearly defined and that their collaboration is supported.
- Implement a fair, just, standardised, and transparent system that outlines who has access to what types of services.
- Ensure that services are easily accessible, whether physically or virtually, and aim to have service providers follow teams to camps and competitions when relevant to build relationships and understanding of the demands of high-performance sport.

- Use service providers who are competent in mental health service provision and understand the context of HP sport and ensure an appropriate and dynamic prioritisation of mental health and performance needs.

Recommendations for future research

A key recommendation is that researchers should look beyond the individual athlete, coach or expert and take an interest in investigating the role of sport environments in nourishing and malnourishing mental health and wellbeing (Henriksen et al., 2023; Kenttä et al., 2024; Purcell et al., 2022; Wagstaff, 2019). We acknowledge that the ideas put forward in this consensus statement and in the tables are based on a mix of research, practice experiences, and discussions, and therefore, need to be more clearly underpinned by further research and intervention. We hereby wish to issue an urgent call for research that will challenge, expand, and further develop the ideas and portraits of the nourishing and malnourishing environments characterised here. We recognise that doing research in this space is not easy. Although measures of mental health keep improving and becoming more contextually relevant to sport, surveys and measures of the qualities of HP sport environments that may support or diminish mental health are largely non-existent. Also, randomised controlled trials that could help understand which of the suggested features of environments truly support mental health are notoriously difficult in HP sport. To advance our understanding of the links between mental health and the environment, we suggest that researchers:

- Perform case studies of psychologically safe *HP sport environments* in which athletes are thriving, alongside case studies of toxic environments and cultures of silence (e.g., psychologically unsafe environments) with a high prevalence of mental health problems, and contrast these.
- Map risk and protective environmental factors, not only for athletes, but for different people in the HP context (coaches, administrators, service providers) and further consider not only which factors have the greatest impact, but also which features are most urgent, important and feasible to change in the perspectives of athletes and stakeholders.
- Recognising that the ideas put forward in this paper are based on experiences and discussions of researchers and practitioners, we suggest that researchers engage athletes and other stakeholders in similar discussions or interview them using ecologically safe approaches about their perceptions about what environments that support mental well-being look like. Linked to this, we recognise that this may vary between cultures and suggest that such research will take place in different regions of the world and in different sports with attention to diversity and minority and vulnerable groups.
- Develop a screening tool for environments that measure how well the environment supports the mental health of all involved, allowing for cross sectional and longitudinal studies on the relative influence of the different features, as well as evaluations of environments with the aim to help sport organisations improve these.
- Conduct intervention research that targets ways to improve environments and not only treat the athletes.

- Perform case studies of *service delivery environments* where mental health services work well and athletes feel taken seriously (e.g., validated and offered professional support), and of environments where this is less so the case. A comparison between the two will help understand if the suggested features can be empirically supported.
- Develop relevant measures to map service delivery environments and track the impact of mental health services. This requires good baseline measures and tracking impact over time, and requires developing ways to measure stigma, collaboration, knowledge retention, role clarity, dedicated funds etc.
- Provide descriptions of service delivery models and environments from different cultures in the interest of sharing and inspiring better systems.
- Study similar HP environments (e.g., military or performing arts) and their strategies, policies, and approaches to developing environments and services delivery models for supporting mental health.

Note

1. Robert Schinke (PhD), a professor at Laurentian University in Canada, Liwei Zhang (PhD), a professor at Beijing Sport University in China were unable to attend, and Yukai Chang, professor at National Taiwan Normal University attended the opening ceremony but was unable to attend the discussions.

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