Scientific symposium of the International Society for Sports Psychiatry (ISSP), online, May 21st, 2023

The International Society for Sports Psychiatry (ISSP) hosted its annual meeting on Saturday May 21, 2023. The ISSP was founded in 1994 to advance the specialty of sports psychiatry and aims to carry the science and practise of psychiatry to the athletic community, to develop the field of sports psychiatry and to advocate for mental health and wellness and sports.

The meeting was held online and included a keynote address by eminent psychiatrist Dr Harrison Pope. Dr Pope has a long and distinguished career and is the most widely cited investigator in the world in the area of anabolic steroids. His presentation was a fascinating overview of the use of these drugs in sport and their impact on athletes.

This was followed by a scientific symposium of short presentations covering a range of topics reflecting new and important developments in the field of sports psychiatry. Topics covered included transcranial magnetic stimulation to treat depressive disorders, obsessive compulsive disorder, autism and eating disorders. There were also important presentations on mental health literacy, recent sports psychiatry educational initiatives and some reflections on cultural changes in basketball and their implications for the sports psychiatrist. *In the following abstracts, the speakers are underlined.*

Abstracts

A1
Designing culturally competent demographic questionnaires for mental health literacy research in semi-elite women's rugby

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Introduction
Mental health literacy enhancing strategies require designers to be aware and understanding of diverse cultures to facilitate communication. The development of such interventions requires careful demographic data collection on protected characteristics to understand which individuals are most impacted by mental health symptoms and disorders and how information can be optimally delivered to them. This study examined a systematic approach to develop a demographic questionnaire for a study on mental health literacy amongst semi-elite women rugby players.

Methods
A three-pronged approach was taken to design a demographic questionnaire: 1) a review of demographic variables collected in elite sport mental health research; 2) a systematic review of studies that investigated prevalence of mental health symptoms and disorders amongst rugby players; and 3) a review of protected characteristics in the UK.

Results
A demographic questionnaire was designed to collect data on age, trans identity, sexual orientation, ethnicity, education, mental health history, and years of competition in rugby. Mental health literacy, general help-seeking intentions, distress, and wellbeing were also collected. 208 individuals participated in the study. Mental health literacy was significantly correlated with help-seeking intentions and was significantly higher amongst individuals with a previous diagnosis of a mental disorder.

Discussion
The collection of demographic information can be challenging and present ethically sensitive issues. Further strategies are necessary to understand how demographic

information should be collected. This may include the use of public involvement and pilot studies.

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A2
A Sports Medicine Update to American Basketball: Contributions and Changes from Abroad and Implications for Sports Medicine and Psychiatry

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Introduction

This talk updates our previous papers on psychiatric aspects of basketball, which had the aim of providing diagnostic and treatment implications for physicians doing Sports Medicine and Sports Psychiatry. Using articles from the sports media and from clinical experience, we update that broad overview from the European perspective. That is focusing on those athletes born in Europe or who have arrived in the U.S. born in Africa via Europe, who have in important and new ways changed the American game. As such, this is the first paper that details the European perspective for athletes, athletic teams, leagues, countries, and the sport itself. These athletes have changed the nature i.e., style, psychology, and medical-psychiatric aspects of this American game – changes which Sports Psychiatrists need to be aware of to improve treatment efficacy.

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A3
The role of physical activity and sport in children and adolescents with Autism Spectrum Disorder (ASD) – review

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Introduction

The multiple health-related benefits of physical activity (PA) in children and adolescents are reported in several publications. Nevertheless, engagement in PA in the majority of youths is still insufficient, while the barriers for children with autism spectrum disorder (ASD) are still harder to overcome. This work aims to review the interventions using PA in the last five years regarding frequency and type of PA and narratively discuss their effect on psychological health in children and adolescents with ASD.

Methods

The searches were performed in PubMed (database) from October to December 2022 using Mesh Terms: "adolescent" OR "children" AND "sport" OR "physical activity" "mental health" AND/OR "autism". The data were further critically appraised by PEDro and Cochrane's ROB-2 graded in five stage categories of bias.

Results

There were ten papers included, reviewing different types of PA such as martial arts, jogging, aerobic exercises, and team sports in children with ASD. The major benefits of physical activity in children and adolescents can include social skills development, reduction of autistic traits behaviour and emotion management and regulation, and some of the studies reported specific neuropsychological domains such as working memory (WM).

Discussion

Evidence from the review suggests that PA can be an effective treatment in ASD, regulating emotions helping to manage behaviour and improving social skills. The proximal factor is the management of metabolic conditions, which can improve the biological predominance of autism, but also social factors.

A4
Expanding Sports MH Literacy and trained providers in Egypt: A Model for LMIC's

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Introduction

The role of mental health in athletes has become an openly discussed and essential component of sports medicine. The care of athletes now includes assessment and treatment of behavioral health problems. High profile athletes from around the globe, representing many sports, have shared their personal mental health challenges, and the need to seek care. As a result, the field of sports psychiatry continues to grow, and the need for trained sport mental health professionals is expanding. This is particularly relevant in low and middle income countries (LMIC's), where there is a severe shortage of mental health professionals and very limited training opportunities in sport mental health. Adequately training a sports mental health provider requires more than an isolated lecture on depression and anxiety in athletes. The extant sports psychiatry textbooks highlight the broad MH topics, including those more unique to athletes, such as Doping and Eating Disorders in athletes. In addition, the need for collaboration between all stakeholders (athletes, parents/significant others, coaches, trainers, sport medicine providers, sports psychologists, league officials) is rarely discussed. Formal, well-organized training programs, like that developed by the ISSP, are needed to address this growing problem of limited capacity to provide mental health care to athletes in need.

Methods

Working with a local NGO in Cairo, a 16-hour course in mental health in sport was developed based on the book, *Clinical Sports Psychiatry: An International Perspective*. Content experts from ISSP were invited to give a 1 hour zoom presentation on their area of expertise, The course was 4 weeks, with a two 1-hour lectures given twice a week. The IT and logistics were developed and coordinated through Western Univ. of Health Sciences. The local NGO, WAAYS, advertised the course through word of month in Cairo, reaching out to universities and sports clubs. All students who completed the course were awarded a certificate of added training in sport mental health from WesternU and WAAYS. Feedback from all the students was obtained at the conclusion of the course.

Results/Discussion

32 students contacted the NGO expressing interest in taking the course. Students included Olympic athletes, Olympic coaches, psychiatrists, psychiatric residents, youth sport coordinators, parents of athletes, former athletes, and sports medicine providers. All 32 students completed the 16 hr zoom based course, earning their certificate. One week into the course, over 40 interested potential students contacted the NGO asking to join the course. Given the course was already 25% completed, they were told they would be put on a waiting list for future training programs. Students who completed the training have asked about developing a Masters in Sport Mental Health degree program, for added training and professional credentials. The post course feedback and evaluation was overwhelmingly positive, with the biggest complaint being a need for additional teaching sessions. One of the students, with no prior sports psych experienced was offered to be a team sports psychiatrist for an Egyptian national team. Although ratings of individual lectures varied, all were viewed as good, most very good or excellent. The students rated the cultural sensitivity as very good, even though virtual all of the lecturers were not Egyptian. All of the students expressed a strong interest in becoming sport mental health providers.

Discussion

The need, and desire for, training in sport MH has been clearly demonstrated. As advanced training programs continue to emerge, the need to focus on LMIC's has been demonstrated. This type of training is necessary to expand capacity of MH care delivery in athletes at all levels of competition. ISSP and the WPA Sports Section, working together, can guide the future of training for sport providers around the world at all levels of competition. To quote Sherlock Holmes, *The Game's A Foot*. This is our time to provide our expertise and continue to grow the field of sport psychiatry and sport mental health internationally.

A5
Preliminary results of a systematic scoping review of disordered eating and eating disorders in student athletes in higher education

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Introduction

Multiple risk factors are reported for eating disorders (EDs) and Disordered Eating (DE) in athletes (1), including athlete body ideals, societal pressures (2), and performance beliefs around leanness (3). Almost 4% of university students experience EDs (4); where the transition from home increases risks for ED and DE (5). Student Athletes face athletic and academic pressures in combination (6). A recent scoping review reported 29 citations covering EDs and DE but the current evidence appeared incomplete (7). The purpose of this review was to comprehensively examine the current literature about EDs and DE in student athletes, understand methodological characteristics, results and output trends, and current knowledge gaps.

Methods

Articles from SPORTDiscus, PsycInfo, MEDLINE; grey literature (through British Library), ProQuest, Web of Science, medRxiv, and Europe PMC were searched for primary research on ED or DE in student athletes (8).

Results

4309 citations were returned, following title and abstract screening, 550 underwent full text review and 250 met inclusion criteria for data extraction. Most studies were from the USA with a cross sectional design with limited control subjects. Majority were questionnaire surveys using multiple questionnaires with responses reported as mean and SD or individuals above threshold. Multiple different terminology was used in outcome reporting making comparison between studies difficult.

Discussion

Methodology and reporting standards are heterogenous with most studies in the USA and few studies looking into wider environmental pressures experienced by student athletes. A study is underway attempting to understand DE in UK student athletes from an academic university and one known for elite athletes is in early stages also looking at social media use, financial pressures, the food environment using quantitative and qualitative methods.

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A6
Obsessive Compulsive Disorder in Sports: Beyond Superstitions

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Introduction

The concepts of superstitions, routines, and peculiar behaviors in sports have been well characterized and sometimes associated with "obsessions" and "compulsions." These are distinctive from pre-performance routines, which are learned cognitive and behavioral strategies intentionally used to optimize and enhance sport performance. We see this behavior in fans, with routines and superstitions geared to help their team rally or win. Although these actions are often performed with the belief that they influence the outcome of the competition, there is no actual relationship to the outcome. There have been numerous studies characterizing the nature and frequency of superstitions, repetitive behavior, and obsessive and compulsive features in athletes, however few studies report on the impact of obsessive compulsive disorder in sport. Key differences between concepts that will be presented. This presentation will describe how obsessive compulsive disorder presents in athletes and its impact on the experience of the athlete and the sport environment. Comorbidities and management approaches will also be explored.

Methods

Extensive literature review, correlated with clinical experience.

Results and Discussion

OCD is distinctly different from superstitions, sport rituals, and preperformance routines in their definitions and functional impact. Obsessive compulsive disorder is a chronic illness that can significantly impact function and quality of life beginning in childhood. While most of the obsessions and compulsions are experienced privately, more severe forms can spill into professional and sport settings. When this happens, the athlete, training environment, team staff, and facility staff may be impacted by the symptoms. Specific sport-focused manifestations of the most common obsessions and compulsions can be anticipated, and the presence of symptoms should trigger assessment. Comorbidities are common and influence the course of treatment and outcomes. Untreated OCD can have a chronic and debilitating course. Safe and successful treatments are available for OCD and its comorbid conditions, and early identification of these symptoms may lead to earlier treatment and mitigate the development of more severe pathology. Future research is needed to explore epidemiology and treatment outcomes of OCD in the athlete population.

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A7
Sports-Related Concussions and Resistant Depression: Transcranial Magnetic Stimulation (TMS) as a Treatment Option

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Introduction

The lifetime prevalence of depression after a traumatic brain injury/concussion is 25–50% (1). Some athletes can be subject to one or more concussions throughout their careers, increasing their risk of depressive episodes. Kerr et al. 2012 studied 1044 members of the National Football League Retired Players Association between 2001 and 2010 and found that 10.2% of the respondents (106/1044) reported being clinically diagnosed with depression at some point over the nine years (2). Approximately 65% self-reported at least one concussion during their careers. Kerr et al. wrote, "the association between concussions and depression was independent of the relationship between decreased physical health and depression." Traumatic brain injury patients may be resistant to pharmacotherapy. In addition, athletes may have more limited medication options to treat depression and may have concerns about the potential impact of medication side effects on performance. Transcranial Magnetic Stimulation (TMS) is an FDA-approved treatment for depression and may be a beneficial alternative to pharmacotherapy in those with resistant depression.

Methods

This case is a 23-year-old male with a history of 4 sports-related concussions while participating in high school sports, resulting in two hospitalizations. He had resistant depression, had previously tried various psychotropic medications, and had participated in CBT. Due to the resistant nature of his depression, TMS was initiated.

Results

The patient received 34 transcranial magnetic stimulation treatments with the H-1 dTMS coil at 120% MT to the left DLPFC while following the Beck Depression inventory and the PHQ-9. The patient demonstrated an improvement in his Beck Depression Score from 33 to 21. His PHQ-9 score decreased from 15 to 10. He tolerated the treatment well, without a seizure.

Discussion

TMS is an approved treatment for depression and may be an attractive alternative for some athletes. In particular, it can be considered for those resistant to other treatments and those who have experienced significant side effects with medication especially where these could interfere with athletic performance.

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A8
Integrative Eating Disorder Theory of Etiology

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Introduction
There have been several breakthroughs in understanding etiology of eating disorders (ED) in recent years. This information has not translated into improved treatments. In an effort to usher in a new age of research this article aims to integrate concepts from different specialties and provide a cohesive etiology of EDs as a plate form for future collaborative research to springboard from.

Methods
Search Emory and Georgia Institute of Technology virtual library.

Results
180 studies were reviewed 104 were not included because the date of the search parameters were narrowed down to 2009 to present. Another 20 were excluded because the articles did not focus contribute to the understanding of EDs. We included 56 studies across different specialist in this article.

Discussion
In the ancient Indian medicine called Ayurveda the concept of the gut-brain axis has long been delineated. As is true in all of mental health illnesses, balance and lifestyle modifications (physical exercise, self-care, quality balanced diet, good sleep, and work-life balance) are protective against EDs, can help in treatment of EDs, and maintenance of recovery from EDs. Many of the techniques discussed here are designed to help restore balance. However, balance means different things in different individuals based on their characteristics and the characteristics of their ED. This creates limitations in the ways in which ED treatments are studied and verified. EDs are very complex which have lead us to have multidisciplinary treatment teams with minimal success outside treating the family (which in children is equivalent to treating lifestyle). I recommend multidisciplinary research ideas to tackle this complex diagnosis.