Return-to-Play in Sports & Exercise Medicine across Upper-, Low- and Middle-Income Countries: A Scoping Review of Athlete Outcomes

By

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Duke University

Defense Date: March 23rd, 2026

Approved:

Charles Muiruri, Advisor
Blake Boggess
Ernesto Ortiz

Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in the Duke Global Health Institute in The Graduate School of
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ABSTRACT

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Abstract:

Introduction: Organized sport is expanding across low- and middle-income countries (LMICs), but structures for safe, well-governed return-to-play (RTP) remain poorly described. RTP underpins the entire process of care across Sports and Exercise Medicine (SEM) phases of intervention and return to competition.

Objectives: To examine how RTP is practiced within elite and sub-elite athletes engaged in organised sport among OECD classified UMICs (Upper Middle Income), LMICs (Lower Middle Income) and LICs (Lower Income Countries) the structures and content of RTP processes, criteria and timelines, the use and documentation of shared decision-making (SDM), integration of mental-health assessment and referral, and record-keeping, alongside athlete outcomes and process indicators where available.

Methods: A scoping review of publications from six databases identified studies reporting RTP processes for athletes in LMICs; two reviewers independently screened and extracted data.

Results: Searches yielded 4,396 publications. 117 studies were included, mostly from upper-middle-income countries and focused on musculoskeletal injury (N= 65%), especially ACL (N= 28.2%). Few studies reported formal, phase-based RTP protocols (N= 34.2%), graded progression, or systematic psychological assessment, and many decisions relied on clinician judgment without clear documentation.

Conclusion: RTP in LMICs is often clearance-focused, and rarely phase-based or biopsychosocial. Comprehensive yet simple, context-adapted RTP frameworks, better documentation, and integration of mental-health assessment across the entire RTP continuum are needed to support safer, more consistent returns to sport.

Dedication:

To my family for their unwavering belief and support. To my late grandfather, for his infectious enthusiasm for the world, his belief in the responsibility we have for others and for introducing me to sport and the power it has to bring people together.

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1. Introduction

Organized sport is increasingly positioned as both a driver and a beneficiary of population health. The rapidly growing role of sport in public health is largely attributed to the benefit's regular participation in sport and physical activity has in reducing the burden of non-communicable diseases (1). Furthermore, safe and sustainable sport systems depend on the quality of medical care delivered to athletes, including how injuries and illnesses are managed and how athletes return to play (RTP) (2). For many low- and middle-income countries (LMICs), rapid growth in domestic professional leagues, women's sport, and international hosting ambitions creates new opportunities for social progress and economic development. This growth also sharpens a longstanding challenge of implementing context-appropriate Sports and Exercise Medicine (SEM) systems. SEM systems span injury/illness surveillance, prevention, rehabilitation and decision-making for RTP. It is these systems within SEM that protect athlete health, sustain participation from grassroots to elite levels, and translates the benefits of sport into wider public-health benefits (3–6).

RTP processes fall in a continuum of care that allows athletes to sustain sports participation safely. It is important to understand RTP as a process that involves injury prevention, diagnosis, intervention, rehabilitation as well as sports specific return to activity, play and competition phases as defined by Herring et al,. (7). The schematic below from Rebelo-Marques highlights the high-level phases that are involved in maintaining athlete availability (8).

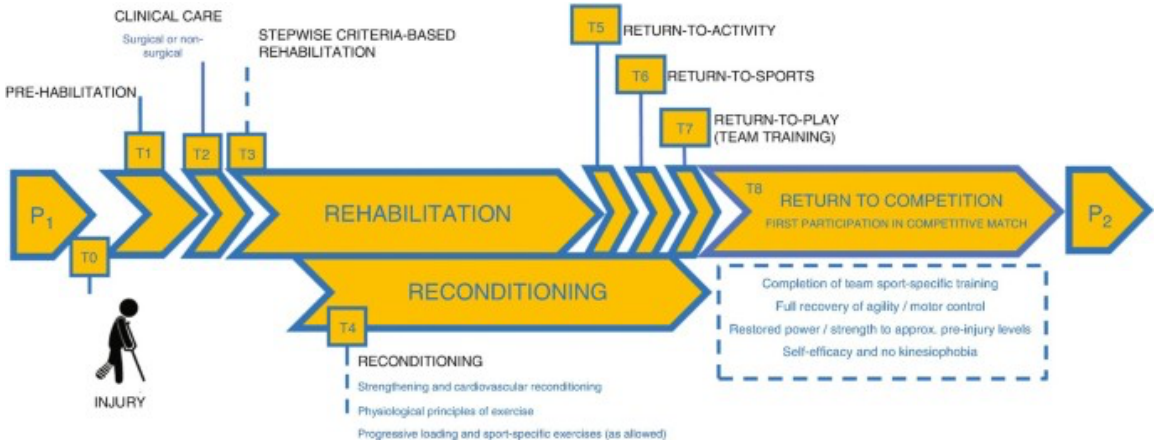

Figure 1: RTP Step process (Rebelo-Marques, 2019).

Understanding each of these phases as part of the overall RTP infrastructure that is available for athletes is critical for developing context specific SEM systems.

This paper addresses a pivotal but under-described component of SEM systems in LMIC sport; how RTP decisions are made across middle income countries, and how those processes relate to athlete outcomes. In these settings some federations and clubs have embraced surveillance and prevention programs such as the FIFA 11+ warm up protocol (9), while others face workforce shortages, limited referral pathways, and variable clinical governance (7,10–13). Mapping RTP frameworks in LMIC sports systems is therefore a priority to enhance SEM care delivery.

The global health case for better SEM is clear. The World Health Organization (WHO) recommends at least 150 minutes of moderate-to-vigorous physical activity weekly for adults, and 60 minutes daily for children and adolescents, with systematic reductions in sedentary behavior across the life course being associated with improved health outcomes (1). Despite this, the prevalence of insufficient physical activity rose to an estimated 31% of adults worldwide by 2022, with the WHO warning that, on current trajectories, many regions will miss the 2030 targets (2). Participation is not only a function of opportunity and motivation; it is also shaped by real and perceived injury risk, the availability of competent care, and confidence that return to sport will be safe. Inadequate RTP processes are reflected in unclear criteria, rushed timelines,

low documentation, or limited shared decision-making. This increases reinjury and time-loss, fuels dropout from sport, and ultimately erodes the population-health gains of participation (14–16).

The WHO 2020 Guidelines underline the breadth of benefits accruing from regular activity relating to cardiometabolic health, musculoskeletal function, and mental well-being. These guidelines also highlighting that “some is better than none” and more is generally better (1). Conversely, when injuries are common, poorly managed, or recur following ill-timed RTP, participants disengage. Recent evidence shows that injuries are a leading reason for dropout, with the “first injury” a notable inflection point in the decline of sustainable participation (17). For youth and adolescents, qualitative syntheses echo this pathway, identifying injury and pain as primary drivers of premature sport withdrawal (14). In elite team sport, injury burden and reduced player availability are linked not only to individual welfare but also to team performance, revenues, and community interest closing the loop between athlete health and the growth of sport itself (16).

Evidence from European professional football illustrates the magnitude of the issue: teams with lower injury burden and higher match availability achieve better league placements and accumulate more points compared to teams with higher injury rates where injury incidence remains a major determinant of performance (16). An 18-year follow-up of elite football clubs documented persistent burdens for time-loss diagnoses central to RTP decisions (e.g., hamstring strain, ankle sprain) (7) which underscores the principle that the quality of injury management and RTP processes is vital for both performance and health outcomes for athletes. Reducing the reinjury risk preserves participation and models safer sport for the broader public.

Over the last decade, the international SEM community has converged on several consensus anchors relevant to RTP. The 2016 “Bern” consensus reframed return-to-sport as a continuum rather than a discrete event, emphasising a biopsychosocial lens and risk-management approach (15). The International Olympic Committee (IOC) updated methods for recording and

reporting injury and illness in 2020 (including STROBE-SIIS), standardising surveillance constructs needed to link processes to outcomes (4). In parallel, specific consensus statements have provided guardrails for high-risk scenarios. A prime example is the Amsterdam 2022 concussion statement which updates multidisciplinary RTP guidance and formalizes the shared decision-making (SDM) and emergency action planning for athletes with concussion (11). Periodic Team Physician consensus updates clarify roles, documentation, and ethical responsibilities in RTP decisions, stressing athlete welfare and transparent governance (12). Taken together, these documents articulate what "appropriate" looks like, with clear criteria, documented timelines and tests, explicit SDM, and context-aware risk modification.

However, consensus is not implementation. Studies report wide heterogeneity in how teams operationalise RTP criteria following common injuries such as hamstring strain; passing test batteries does not always correlate with lower reinjury risk, reflecting the complexity of recovery and the influence of contextual pressure (18).

Shared decision making (SDM) utilize deliberative process in RTP processes where the athlete's values and preferences are weighed alongside evidence and team needs. This encompasses athlete, coach, club, owner, agent, parent, medical staff involved in decision making and is often situation dependent as to task sharing decision making in RTP (15). In the use of SDM as part of RTP protocols, team physician statements reinforce that protecting athlete welfare and documenting the rationale are core duties (15). Recent critiques remind us that SDM can be aspirational if organisational culture, selection pressures, or employment relationships constrain genuine choice, an especially salient risk in emerging professional markets (17). Surveys in professional football suggest that SDM is commonly adopted, but its depth and documentation vary; recent work also cautions that SDM in elite contexts can be constrained by power dynamics and performance imperatives, unless governance explicitly protects athlete voice (16). These implementation gaps are poorly reported in LMIC environments where clinical staffing, diagnostics, rehabilitation infrastructure, and medical record systems are rudimentary.

Understanding current RTP workflows in these settings is therefore a necessary first step toward pragmatic quality improvement in global SEM.

A prime example of the development opportunity in sports is demonstrated on the African continent. Consultancy and development sector analyses estimate the continent's sports market at >US$12 billion in 2026, potentially exceeding US$20 billion by 2035 if investments materialise across infrastructure, broadcast, and talent pathways (19). Football anchors this growth, with rising visibility of women's competitions and expanded youth pathways. Despite these growth projections, many federations and clubs operate with constrained medical staffing and referral networks; athlete care can hinge on individual practitioners rather than integrated SEM teams, and documentation of decisions may be inconsistent (20). Recent case studies from LMICs in Africa highlight both progress and gaps. For example, LMIC-appropriate task-sharing models, such as the "FIFA Football Nurse", seek to extend basic SEM competencies at scale, across low resource settings (21) .

Football-specific prevention evidence is particularly relevant. The FIFA 11+ warm-up program has repeatedly reduced injury risk across settings (9), however, prevention effects vary by adherence, coach buy-in, and contextual factors, reminding us that surveillance, prevention, rehabilitation, and RTP are interdependent system components. Where prevention reduces incidence, high-quality RTP still matters to avoid reinjury and persistent symptoms; where prevention is inconsistently implemented, robust RTP becomes even more critical as a safety net.

Mental health integration is essential to athlete-centred RTP. The International Olympic Committee's (IOC) 2019 mental-health consensus synthesised evidence that mental-health symptoms are common in elite athletes and can both increase injury risk and delay recovery; the IOC Sport Mental Health Assessment Tool (SMHAT-1) and Recognition Tool (SMHRT-1) aims to standardise screening and referral (22). Studies evaluating SMHAT-1 highlight both feasibility and areas for refinement, reinforcing a practical message: where mental-health screening and referral are embedded in medical processes (including RTP), both welfare and performance may

benefit. In LMIC settings, integrating brief, validated mental-health tools into RTP pathways may be a low-cost, high-yield quality lever where specialist access is scarce.

For common injuries, clinicians increasingly adopt criteria-based RTP frameworks (e.g., strength symmetry, functional testing, sport-specific drills). However, evidence is mixed regarding the predictive value of passing test batteries for reinjury reduction. In anterior cruciate ligament (ACL) reconstruction cohorts, extended timelines (≥9 months) and higher quadriceps symmetry have been associated with lower second-injury risk, but "test-pass" status alone has not consistently predicted safer outcomes (13). Hamstring strain RTP shows similar complexity. Criteria-based, progressive rehabilitation is standard, yet reinjury rates near 15–20% persist in elite environments, reflecting biological, behavioral, and calendar pressures (18). This demonstrates that criteria are necessary for RTP but not sufficient; understanding criteria based RTP frameworks with cultural and context specificity will be vital to build robust and appropriate SEM systems in LMICs.

Three converging trends motivate this study. First, athlete availability is a performance and welfare metric: in leagues where broadcasting, sponsorship, and community engagement are growing, reinjury and prolonged time-loss have outsized effects on teams and competitions, magnifying the value of safer RTP (15). Second, international consensus statements spanning surveillance methods, concussion, cardiology, and team physician governance, now provide adaptable guardrails against which local practice can be compared. Third, the public-health case is urgent: injuries drive dropout, and safer RTP protects participation. Translating these elements into LMIC sport systems aligns directly with WHO's Rehabilitation 2030 initiative and the World Health Assembly's 2023 resolution (WHA76.6) to integrate rehabilitation within universal health coverage (UHC), including referral pathways, workforce development, and quality improvement. All the motivations of this study are encompassed in the vision that safe sport across developing nations poses a unique opportunity to leverage investment, community engagement and population health to drive improved public and global health outcomes.

This review pursues three integrated objectives. Firstly, it maps how RTP processes are characterised and implemented across different sports, injury and illness contexts, and levels of care within LMIC settings. Framing RTP as an organizational as well as a clinical process foregrounds measurable athlete- and system-level consequences (e.g., re-injury rates, days lost, documented shared decision-making, and referral patterns). Second, it describes reported RTP policies, criteria, and decision-making workflows within LMIC sporting contexts, including the extent of shared decision-making (SDM), the nature and quality of documentation, and the integration of mental health assessment tools (e.g., SMHAT-1) across the RTP continuum. Third, it identifies contextually significant factors influencing RTP in LMICs, highlighting system-, resource-, and governance-level considerations relevant to sports and exercise medicine (SEM) practice. While international statements and consensus documents provide important context for what "good" can look like, the present work does not undertake a formal comparison; rather, it maps the current landscape of RTP across LMIC settings to surface practical opportunities for alignment and improvement where appropriate.

2. Methods

The search was developed and conducted by a professional medical librarian in consultation with the author team and included a mix of keywords and subject headings representing return-to-play and low- and middle-income countries (LMIC). The LMIC country list was based on the 2024-2025 World Bank country classifications, though modified to include historical data. The searches were independently peer reviewed by another librarian using a modified PRESS Checklist (23).

Searches were conducted in MEDLINE via Ovid (1,173), Embase via Elsevier (1,558), Web of Science via Clarivate (1,701), SPORTDiscus via EBSCO (1,153), Global Health via EBSCO (507), and Global Index Medicus via the World Health Organization (34). Complete reproducible search strategies, including search filters, for all databases and a list of countries included in the search strategy as per world Bank classification are detailed in the Supplementary Materials (Appendix A). All citations were imported into Covidence, a systematic review screening software, which also de-duplicated the citations.

Studies were eligible for inclusion if they addressed return-to-play (RTP), return-to-sport (RTS), or rehabilitation-to-performance processes within low- and middle-income country (LMIC) contexts, focusing on athletes, coaches, or sports and exercise medicine (SEM) practitioners involved in RTP decision-making. Eligible designs included observational, qualitative, mixed-methods, case reports, policy analyses, and conceptual or framework papers, as well as relevant grey literature (e.g., WHO, IOC, FIFA, or national SEM guidance) where these described RTP processes, governance structures, implementation models, or barriers and facilitators to safe and equitable RTP. LMIC status was defined according to World Bank classifications or explicit contextual descriptors (e.g., “resource-limited,” “developing country”). Upper-middle-income countries were also considered where recent economic reclassification, persistent subnational resource constraints, or structural inequities indicated continued relevance to LMIC sport and health system contexts (See Appendix B for country classification). Studies

conducted solely in high-income settings without clear LMIC applicability were excluded, as were editorials or commentaries without empirical or framework content, conference abstracts without full text, animal or laboratory-only studies, research outside sport settings, and studies focused exclusively on injury epidemiology without explicit reference to RTP processes or system-level considerations.

Data extraction was conducted using a form developed and refined iteratively by the author team. The form captured bibliographic details (e.g. study design, year, country, sport, level of play, and population characteristics), along with RTP-specific variables, including primary and secondary RTP domains, type of injury or illness, RTP criteria and approaches (time-based, function-based, or combined), and the presence and nature of any formal RTP protocols or graded progressions. It also included fields for decision-making structures (e.g. personnel involved, governance level, and any indication of shared decision-making), mental health or psychological assessment tools (e.g. readiness or fear-of-re-injury scales), and documented system- or resource-level constraints. Technology supported RTP was also documented, this refers to the use of embedded technology to support monitoring and testing prior to returning an athlete to play. Two reviewers independently extracted data, with discrepancies resolved through discussion or consultation with a third reviewer, ensuring consistency and transparency in how RTP processes were characterized.

3. Results

3.1 Prisma Flow Diagram

3.2 Geographic Distribution

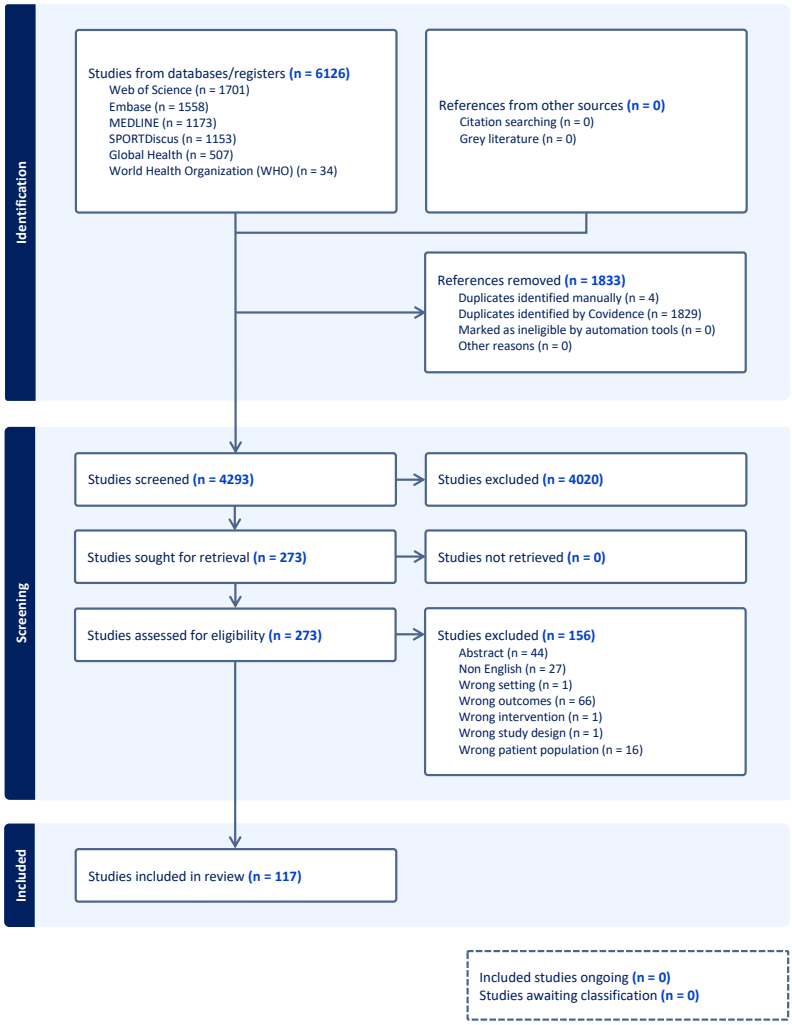

Figure 2: Prisma flow diagram

Across the 117 included studies, most were conducted in upper-middle–income LMICs, particularly Brazil (17.1%) (24–44), South Africa (11.1%) (45,46,46–54), Turkey (10.3%) (55–64) and India (10.3%) (65–77), with additional contributions from Russia (6.0%) (75,78–81) and Iran (4.3%) (82–86) (Appendix C). The remaining studies were distributed across a wider group of LMICs (e.g. Thailand, Indonesia, Pakistan, Argentina, Bangladesh, Nepal, Malawi, Cameroon and Uganda) (87–98) and a small number of multi-nation or international analyses (99–101), resulting in a geographically diverse but uneven evidence base.

Table 1: Country of Study.

Country	n	% of studies
Brazil	20	17.1%
South Africa	13	11.1%
Turkey	12	10.3%
India	12	10.3%
Russia	7	6.0%
Iran	5	4.3%
Thailand	4	3.4%
Indonesia	3	2.6%
Pakistan	3	2.6%
Argentina	3	2.6%
All other countries and multi-national studies combined	35	29.9%

3.3 Characteristics of sporting contexts and RTP domains

The studies encompassed a wide range of competitive levels, including elite/professional, semi-professional, university/collegiate, youth/school and mixed-level populations. Multi-sport samples were most common (45.3%) (24,26,27,29,39,50,55,57,63–66,69,72,74,76,82,83,89,91,95,96,98,99,102–120), reflecting clinician, rehabilitation-service or general athlete cohorts, while football also known as soccer was the single most frequently specified sport (20.5% of studies) (37,56,58,68,71,78,80,85,93,101,121–128), followed by rugby (6.0%) (45,46,49,51,54). Athletics/track and field, cricket and volleyball each contributed 1.7% of records (75,79), and a small number of studies focused on specific codes such as combat sports, gymnastics or kabaddi (62,70,129); 12.0% of studies did not specify a primary sport (41,55,59,61,88,94,97,130–133).

Table 2: Sports represented.

Sport	n	% of studies
Multi-sport	53	45.3%
Football / Soccer	24	20.5%
Not Specified	14	12.0%
Rugby	7	6.0%
Athletics / Track & Field	2	1.7%
Cricket	2	1.7%
Volleyball	2	1.7%
Combat sports	1	0.9%
Professional group (e.g. physiotherapists)	1	0.9%
Other single sports / categories (each)	11	9.4%

3.4 RTP domains

Return-to-play was most frequently framed within musculoskeletal domains. Musculoskeletal (MSK) injury was coded as the primary RTP domain in 65.0% (27,37,39,41,54,56–64,66–72,74–76,78–80,83,88–91,93,94,96–98,103,106,107,109,116,122,131,132,134–148) of studies, followed by mental health/psychology (12.8%) (24,55,65,82,85,86,95,105,112,120,149), infectious disease or post-illness (7.7%) (46,50,73,99,150–153), concussion/neurological conditions (6.0%) (45,49,51,101) and cardiovascular/medical risk (3.4%) (29,154,155). Technology-supported RTP and system-level/policy-governance domains each accounted for 1.7% of records (26,156), and 1.7% of studies did not specify a primary RTP domain (157) (Appendix C).

Table 3: Primary RTP domains.

RTP Domain	n	% of studies
Musculoskeletal (MSK) injury	76	65.0%
Mental Health / Psychology	15	12.8%
Infectious disease / post-illness	9	7.7%
Neurological / concussion	7	6.0%
Cardiovascular / medical risk	4	3.4%
Technology-supported RTP	2	1.7%
System-level / policy / governance	2	1.7%
Not specified	2	1.7%

3.5 Injury and Illness contexts

Within MSK-focused studies, isolated ligament injury (most commonly ACL injury and reconstruction) remained the most frequently specified MSK injury type, appearing alone in 28.2% of records (27,37,39,41,57,59,63,67,68,71,74,78,83,88,91,94,96–98,103,106,107,131,132,158–162). However, a large proportion recorded no specific MSK subtype in the MSK-injury field (34.2%) (24,26,29,45,46,49–51,54,55,62,65,66,73,80,82,85,86,90,95,99,101,105,109,112,116,120,122,163–174), reflecting descriptive epidemiology, general rehabilitation practice, or domain-level work that did not narrow to a single structure. Muscle injury alone appeared in 5.1% of studies (61,175–177) and tendon injury alone in 2.6% (76,178); a further 12.0% of studies reported combined patterns involving muscles, ligaments, tendons, fractures and/or overuse injury (56,60,69,70,179).

Table 4: Types of MSK injury reported.

Injury Category	n	% of studies
Non recorded	40	34.2%
Ligament injury	33	12.8%
Mixed / Not specified	13	7.7%
Muscle injury only	6	6.0%
Muscle, ligament, tendon	4	3.4%
Muscle, ligament, tendon, fracture (or other combinations)	10	1.7%
Tendon injury only	3	1.7%
Muscle injury, overuse injury	22	1.7%

Outside MSK injury, infectious-disease studies predominantly addressed COVID-19 or other acute respiratory illnesses, and cardiovascular-risk work focused on sports cardiology guidelines and RTP following cardiac events. Concussion-related studies examined concussion knowledge, education and RTP attitudes, particularly in rugby and university sport, while mental-health-focused studies examined psychological readiness, resilience, stress, commitment and broader sociocultural dimensions of injury and rehabilitation.

3.6 Reported RTP policies, criteria and decision-making

Reporting of RTP policies and criteria remained heterogeneous in the dataset. A formal RTP protocol was indicated in 40 of 117 studies (34.2%) (39,49,51,55,56,62–64,66,68,71,73,76,79,89,97–99,101,106,107,131,162,180–186), while the remainder either described informal or ad-hoc practices or did not provide sufficient detail to classify their procedures as protocol-driven. Only one study (0.9%) explicitly stated that graded RTP progression was recommended (187), although several others described phased or progressive rehabilitation that was not labelled as a graded RTP protocol.

When the primary RTP approach was coded, 28.2% of studies used a combined time-and-function approach (27,62,76,188,189), 6.8% reported a purely function-based approach (88,97,190), and 0.9% used a purely time-based approach (191); in 64.1% of studies, the primary RTP approach was not specified.

Table 5: RTP protocol presence and approach.

Feature	n	% of studies
Formal RTP protocol present	40	34.2%
Graded RTP progression explicitly recommended	1	0.9%
Combined time + function approach	33	28.2%
Function-based only approach	8	6.8%
Time-based only approach	1	0.9%

Where criteria were described, they remained largely centred on physical and performance-based measures, including strength testing, functional performance and hop tests, range-of-motion thresholds, pain or symptom resolution and clinician judgement. In some contexts, imaging (MRI or ultrasound), cardiopulmonary exercise testing and GPS-based or other monitoring technologies were included among clearance criteria, particularly in professional football and rugby, while community, school and lower-resource settings more often relied on symptom reporting and basic functional assessments. Decision-making roles continued to emphasise physiotherapists and sports physicians, sometimes in combination with coaches or other stakeholders, though these processes were typically not labelled in formal shared-decision-making terms.

3.7 Mental health assessment within RTP

Across all studies, 9 explicitly recorded that psychological testing was included in the RTP process (7.7%) (55,65,82,85,86,95,112,192). These studies used a range of tools, including ACL-RSI (full and short versions), PRIA-RS, SI-RSI, fear-of-re-injury scales, kinesiophobia scales and other readiness and resilience questionnaires, with psychological constructs typically assessed alongside physical criteria rather than as stand-alone clearance thresholds.

In addition to these explicitly coded studies, psychological readiness, anxiety, fear, stress and commitment were discussed qualitatively or quantitatively in multiple MSK and infectious-disease studies, especially in ACL-related work, COVID-19 RTP reviews and sociocultural analyses of rehabilitation. However, there remained few explicit mentions of formal

sport-specific mental health assessment frameworks (e.g. SMHAT-1) within RTP procedures, even in settings where psychological constructs were recognised as important.

Full collection of extracted texts is available in Appendix C.

4. Discussion

This scoping review aims to develop a landscape understanding of current RTP practices across upper-, low- and middle-income settings. This relates to the representation of RTP research geographically, the domain specific focus and the extent to which RTP is embedded across the entire continuum of care. The scoping review revealed a large geographical disparity of the representation of RTP studies with specific focus on UMICs. The presence of MSK focused research was large compared to other domains and research focused on specific RTP clearance events rather than embedding contextually relevant support across the entire RTP continuum especially regarding psychological support where consistent monitoring, and support is required to optimize athlete health.

4.1 RTP in select geographic regions and groups

Across the 117 included studies, RTP practice were most visible in a concentrated group of Upper-middle-income nations, with other Lower-middle-income and Low-income countries less represented. Whilst the large representation of UMICs in this dataset highlights an uneven geographic distribution in RTP literature, it is important to note that where some nations are classified as UMIC there is still large disparity in income settings across domestic regions which impacts access and delivery of RTP protocols.

This uneven geographic distribution across non-high-income countries combined with the large presence of multi-sport studies creates a partial map of RTP across the full continuum, with evidence clustering around specific phase decisions such as clearance after ACL reconstruction or RTP post COVID-19 infection (Figure 3) (193). Indonesian ACLR studies highlighted risk factors such as concomitant meniscus injuries and early post-operative symptoms for predicting re-injury risk following return to play <2 years in duration. These factors focus on post-rehabilitation clearance rather than phased progression from treatment to functional based training (132). Similarly, the Brazilian Guidelines for Sports Cardiology recommended clearance

criteria post-myocarditis utilising ECG testing periods up to 3 months even whilst asymptomatic (194). These testing recommendations are described as end-stage decisions rather than full processes that have exposure across the RTP continuum, especially when looking at underrepresented sports and nations in global SEM.

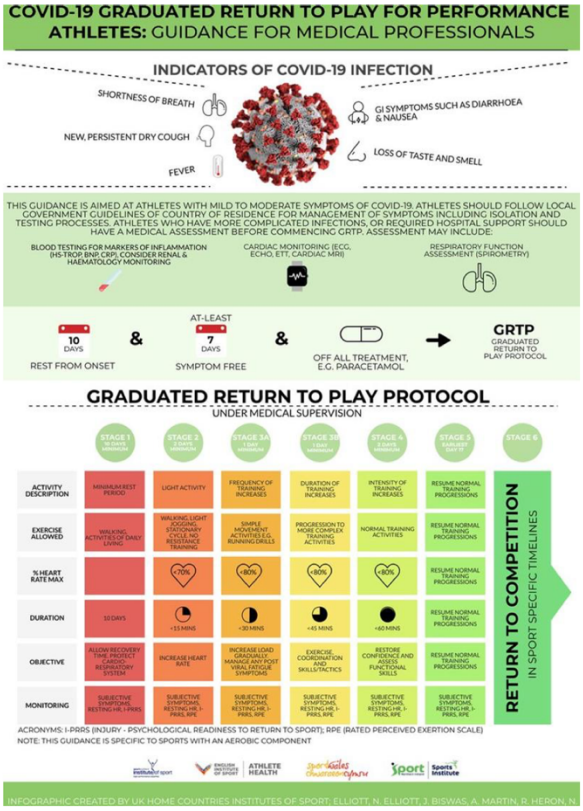

Figure 3: Graduated RTP framework post COVID-19 infection. Focused on immediate symptoms, time based and testing clearance criteria (28).

The scarcity of evidence from lower-income countries, para-sport, women's or community settings in our dataset further limits visibility into early and intermediate RTP phases, where decisions on load progression and handovers between clinicians and coaches are rarely detailed. South African high school rugby studies, for example, underscore coaches' variable knowledge of stepwise RTP protocols and emotional symptom recognition, noting that smaller schools face resource constraints in monitoring return, which likely affects phased implementation from removal to graded return (49). In Ugandan professional multi-sport cohorts, emergency phase management was inadequate across injury types, with nearly half of athletes not

receiving sideline treatment despite the need for structured progression to rehabilitation (20). This concentration of reporting in certain hubs and phases creates a case for broader surveillance and documentation utilising phase-based RTP frameworks.

4.2 Specific RTP domains evidenced in specific RTP phases

Musculoskeletal injury dominates the evidence base (65.0%), with ACL/ligament studies most frequently describing mid-to-late rehabilitation using strength testing, hop tests, range of motion and pain resolution as clearance criteria (195). Brazilian physiotherapist surveys show these functional tests are standard near return-to-sport, though psychological tools like ACL-RSI are used less consistently across phases (195). Indonesian ACLR cohorts emphasise time-since-surgery plus functional symmetry for clearance, highlighting the need for clear transition criteria between rehab phases to reduce reinjury risk (132).

Although less represented in the evidence base, non-MSK domains similarly prioritise clearance endpoints. South African rugby concussion studies document stepwise protocols using Maddocks questions, though coach knowledge gaps suggest inconsistencies in early recognition (49). Iranian football psychological readiness assessments occur pre-return rather than longitudinally (85).

These patterns across MSK and non-MSK studies show LMIC RTP literature maps functional criteria and late-phase protocols well, but early-to-mid phase transitions, where load progression, handovers and monitoring criteria matter most, require more detailed documentation to complete the continuum.

4.3 Clinician dependence in RTP protocols

Formal RTP protocols were present in only one-third of studies (34.2%), with graded progression explicitly recommended in 0.9% and most (64.1%) not specifying any approach. This high proportion of undocumented protocols indicates that RTP phase structure remains largely implicit and clinician-dependent across LMIC contexts.

Specific areas illustrate this gap; Brazilian physiotherapists with sports certification more consistently apply comprehensive post-ACLR criteria than other care providers (195); South African rugby coaches show stepwise protocol knowledge varying by experience (49); Turkish wrestlers followed post-COVID retraining without formal phase documentation (62); Iranian soccer clinicians used CPET models for clearance risk prediction (196). Standardized clinician training has therefore emerged as critical for consistent phase progression documentation and implementation across LMIC contexts.

4.4 Mental health and psychological readiness across domains

Mental health was identified as a broad but not fully integrated area of research within the return to play literature. While around 13% of studies had psychology as a main theme, direct psychological assessment was only noted in a small number of studies. Within the areas of musculoskeletal injury, concussion, and infectious diseases including COVID-19 (197), the use of assessment tools such as ACL RSI or kinesiophobia scales was usually conducted close to the time of return to play clearance rather than being used throughout the rehabilitation process (197). This indicates that mental health issues are often considered as late-phase challenges to competition readiness, when it is known that these have a significant impact on motivation and rehabilitation progress in earlier phases of rehabilitation (198).

The lack of overt testing and the lack of structured frameworks spanning phases suggests that while mental health is acknowledged, it is not yet fully integrated as a continuous aspect of RTP in the observed settings (198). The results above indicate that psychological readiness should be considered as a threshold, in addition to strength and functional criteria, as a mandatory aspect spanning all phases of development. The transition from protocols that simply release an athlete to protocols that prepare them requires a shift from isolated late-stage assessments to longitudinal mental health integration (199).

Future research needs to focus on the development of low-cost digital injury surveillance systems that can be used by non-specialist staff to collect context-specific data (200). There also needs to be a focus on the implementation of psychological readiness tools throughout all stages of rehabilitation to enable the early recognition of red flags such as kinesiophobia (201). There will also need to be a focus on the development of task-sharing programs where nurses, trainers, and coaches are provided with basic mental health and injury management training to enable athletes to be supported throughout the recovery process (21).

4.5 Feasible RTP Phase models in LMICs

Despite resource constraints like limited imaging and rehabilitation facilities, LMICs demonstrate feasible RTP continuum care through innovative task-sharing and local adaptation.

The FIFA Football Nurse initiative represents a flagship model, training Malawian nurses as pitch-side first responders within grassroots women's football leagues (21). This task-sharing approach establishes club-level injury surveillance databases and structured monitoring protocols that maintain continuity from acute care through rehabilitation phases, directly addressing the profound treatment gaps characteristic of underserved communities (21). Such scalable systems demonstrate how non-specialist healthcare workers can operationalize RTP continuum principles without advanced technology.

Nepal's tiered ACL rehabilitation framework exemplifies systematic continuum care adapted to infrastructure realities, progressing athletes from hospital in-patient management (first 1-2 weeks post-op), through clinic-based outpatient follow-up, to home exercise programs coordinated by surgeons and general physiotherapists (88). This phased structure enables sports-specific functional recovery despite the scarcity of dedicated sports medicine centers, demonstrating how hybrid delivery models can span RTP phases effectively.

These examples challenge assumptions that comprehensive RTP protocols require high-income infrastructure, instead highlighting task-sharing, local adaptation, and functional criteria as viable pathways forward.

4.6 The orientation of SEM research and its limitations

This scoping review mapped 100+ LMIC studies across RTP domains, revealing heavy methodological orientation toward descriptive characterization rather than comprehensive framework evaluation. This research distribution heavily favors discrete RTP junctions, particularly clearance criteria post-surgery, infection recovery protocols, and psychological readiness surveys. Cross-sectional designs capture practitioner behaviors ("which criteria do physiotherapists use?"), injury patterns, and stakeholder attitudes toward specific decisions (concussion RTP, post-COVID clearance), but rarely track athletes through complete RTP workflows from acute management to performance reintegration. This methodological orientation substantially limits comprehensive RTP system mapping and highlights areas for development for SEM in these settings where research documents decision points clearly but the evidence for scalable systems and continuum frameworks is restricted.

4.7 Implications and next steps: towards embedded, phase-based RTP in LMICs

The mapped evidence points to pragmatic, system-level steps rather than high-cost technological expansion. Task-sharing models such as the FIFA Football Nurse program show that structured surveillance and pitch-side governance can be embedded in community settings (21). Movement from simple injury counts to basic tracking of phase progression at club level is feasible within Ugandan professional contexts wider adoption would make rehabilitation transitions more visible across LMICs (20). Embedding clear phase definitions within physiotherapy and SEM training pathways, as seen in Brazilian cardiology and rehabilitation structures, would further strengthen consistency (194,202).

Crucially, examples from Cameroon, Nepal, and Bangladesh show that structured functional testing and phased documentation can operate within constrained infrastructure (88,90,203). The delivery of RTP protocols within LMICs is less about capacity and more about explicit system design that has cultural and contextual specificity.

Despite this, it is important to note the absence of implemented tech supported surveillance and early intervention within RTP protocols. Examples from HIC settings demonstrated the use of wearable technology to support RTP post COVID-19 infection (204). In this example technology support early detection of symptoms and allowed enhanced surveillance during the RTP process. The presence of technological implementation across LMIC setting may enhance the delivery of embedded RTP protocols.

The literature in this review documents clearance decisions but under-reports integrated early- and mid-phase workflows. Advancing RTP in LMICs therefore requires clearer reporting of phase transitions, defined leadership across phases, and longitudinal linkage to athlete outcomes with particular focus on building infrastructure beyond upper-middle income hubs.

Reframing RTP as a systems indicator rather than a single clearance moment offers a practical route toward safer return, reduced reinjury, and sustained athlete participation across LMIC sport systems, vital for the increasing presence and importance of organised sport across developing contexts.

5. Conclusion

This scoping review has built a landscape of RTP protocols and implementation across a range of LMICs. It is vital to build contextually relevant and culturally specific RTP protocols which view RTP as a continuum of care rather than discrete clearance points. Psychological, functional and transition support should be embedded by stakeholders involved in athlete care delivery and across the entire RTP process to ensure safer sports participation within LMIC contexts. Enhancing RTP pathways as part of WHO 2030 rehabilitation aspirations can allow for health system strengthening within sport and beyond.

Appendix A

A.1 Search strategies

Librarian Searcher: Beth Blackwood, MSLS; Duke University Medical Center Library & Archives, Duke University School of Medicine

MEDLINE (via Ovid)
Search date: 10/31/2025

Concept	Strategy	Results
1 Return-to-play	Exp "Sports Medicine"/ or exp "Return to Sport"/ or ((return* or resume* or restart* or recommenc* or medicine or rehab*) adj4 (sport* or play* or game* or compete* or competition*)).ti,ab. or ((RTS or RTP) and (sport*)).ti,ab.	37,819
2 LMIC Filter	exp "developing countries"/ or exp afghanistan/ or exp bangladesh/ or exp benin/ or exp "burkina faso"/ or exp burundi/ or exp cambodia/ or exp "central african republic"/ or exp chad/ or exp comoros/ or exp "democratic republic of the congo"/ or exp eritrea/ or exp ethiopia/ or exp gambia/ or exp guinea/ or exp guinea-bissau/ or exp haiti/ or exp kenya/ or exp "democratic people's republic of korea"/ or exp liberia/ or exp madagascar/ or exp malawi/ or exp mali/ or exp mozambique/ or exp myanmar/ or exp nepal/ or exp niger/ or exp rwanda/ or exp "sierra leone"/ or exp somalia/ or exp tajikistan/ or exp tanzania/ or exp togo/ or exp uganda/ or exp zimbabwe/ or exp armenia/ or exp bhutan/ or exp bolivia/ or exp cameroon/ or exp "cabo verde"/ or exp congo/ or exp "cote d'ivoire"/ or exp djibouti/ or exp egypt/ or exp "el salvador"/ or exp "georgia (republic)"/ or exp ghana/ or exp guatemala/ or exp guyana/ or exp honduras/ or exp indonesia/ or exp india/ or exp kosovo/ or exp kyrgyzstan/ or exp laos/ or exp lesotho/ or exp mauritania/ or exp micronesia/ or exp moldova/ or exp mongolia/ or exp morocco/ or exp nicaragua/ or exp nigeria/ or exp pakistan/ or exp "papua new guinea"/ or exp paraguay/ or exp philippines/ or exp "independent state of samoa"/ or exp "atlantic islands"/ or exp senegal/ or exp melanesia/ or exp "sri lanka"/ or exp sudan/ or exp "south sudan"/ or exp eswatini/ or exp syria/ or exp timor-leste/ or exp ukraine/ or exp uzbekistan/ or exp vanuatu/ or exp vietnam/ or exp "middle east"/ or exp yemen/ or exp zambia/ or exp angola/ or exp albania/ or exp algeria/ or exp "american samoa"/ or exp argentina/ or exp azerbaijan/ or exp "republic of belarus"/ or exp belize/ or exp "bosnia and herzegovina"/ or exp botswana/ or exp brazil/ or exp bulgaria/ or exp colombia/ or exp "costa rica"/ or exp cuba/ or exp dominica/ or exp "dominican republic"/ or exp ecuador/ or exp "equatorial guinea"/ or exp fiji/ or exp gabon/ or exp grenada/ or exp iran/ or exp iraq/ or exp jamaica/ or exp jordan/ or exp kazakhstan/ or exp lebanon/ or exp libya/ or exp "republic of north macedonia"/ or exp malaysia/ or exp "indian ocean islands"/ or exp mexico/ or exp montenegro/ or exp namibia/ or exp palau/ or exp panama/ or exp peru/ or exp romania/ or exp russia/ or exp serbia/ or exp seychelles/ or exp "south africa"/ or exp "saint lucia"/ or exp "saint vincent and the grenadines"/ or exp suriname/ or exp thailand/ or exp tonga/ or exp tunisia/ or exp turkey/ or exp turkmenistan/ or exp venezuela/ or (afghanistan or afghan* or afghanistani* or afghani* or afghanese or bangladesh or bangladeshi* or benin or "edo people" or "edo person" or bini or "burkina faso" or burkinabe* or burundi or burundian* or cambodia or cambodian* or "cabo verde" or "cape verdean" or "cape verdeans" or "cabo verdean" or "cabo	2,209,708

	verdeans" or "central african republic" or "central african" or "central africans" or chad or chadian* or comoros or comorian* or "democratic republic of the congo" or congolese* or eritrea or eritrean* or ethiopia or ethiopian* or gambia or gambian* or guinea or guinean* or guinea-bissau or "bissau guinean" or "bissau guineans" or bissau-guinean* or haiti or haitian* or kenya or kenyan* or "democratic people's republic of korea" or "north korean" or "north korenas" or liberia or liberian* or madagascar or malagasy* or madagascan* or malawi or malawian* or mali or malian* or mozambique or mozambican* or myanmar or burmese*or myanma* or nepal or nepali* or nepalese or niger or nigerien* or rwanda or rwandan* or rwandese or "sierra leone" or "sierra leonean" or "sierra leoneans" or somalia or somali* or tajikistan or tajikstani* or tajik* or tanzania or tanzanian* or togo or togolese* or uganda or ugandan* or zimbabwe or zimbabwean* or zimbo* or armenia or armenian* or bhutan or bhutanese or bolivia or bolivian* or cameroon or cameroonian* or "cape verde" or congo or "cote d'ivoire" or ivorian* or djibouti or djiboutian* or egypt or egyptian* or "el salvador" or salvadoran* or (georgia adj2 republic) or georgian* or ghana or ghanaian* or guatemala or guatemalan* or guatemalteco* or guatemalense* or guyana or guyanese or honduras or honduran* or indonesia or indonesian* or india or indian* or kiribati or gilbertese* or kosovo or kosovar* or kosovan* or kyrgyzstan or kyrgyzstani* or kirgiz or kirghiz or kyrgyz or laos or laotian* or lao or lesotho or mosotho* or basotho* or mauritania or mauritanian* or micronesia or micronesian* or moldova or moldovan* or mongolia or mongolian* or morocco or moroccan* or nicaragua or nicaraguan* or nigeria or nigerian* or pakistan or pakistani* or "papua new guinea" or "papua new guinean" or "papua new guineans" or paraguay or paraguayan* or philippines or filipin* or pinoy* or pinay* or "independent state of samoa" or samoan* or "atlantic islands" or "sao tome" or "sao tomean" or "sao tomeans" or santomean* or principe or senegal or senegalese* or melanesia or melanesian* or "solomon islands" or "solomon islander" or "solomon islanders" or "sri lanka" or "sri lankan" or "sri lankans" or sinhalese or sudan or sudanese or swaziland or swazi* or liswati* or eswatini or syria or syrian* or "east timor" or "east timorese" or "timor leste" or timorese or ukraine or ukrainian* or uzbekistan or uzbekistani* or vanuatu or vanuatuan* or vietnam or vietnamese* or "middle east" or "middle eastern" or "west bank" or gaza or palestinian* or gazan* or yemen or yemeni* or zambia or zambian* or angola or angolan* or albania or albanian* or algeria or algerian* or argentina or argentine* or argentinean* or argentinian* or samoa or samoan* or azerbaijan or azerbaijani* or azeri* or "republic of belarus" or belarus or belarusian* or belize or belizean* or bosnia-herzegovina or bosnian* or botswana or batswana* or motswana* or brazil or brazilian* or bulgaria or bulgarian* or colombia or colombian* or "costa rica" or "costa rican" or "costa ricans" or cuba or cuban* or dominica or dominican* or "dominican republic" or ecuador or ecuadorian* or "equatorial guinea" or equatoguinean* or "equatorial guinean" or "equatorial guineans" or fiji or fijian* or gabon or gabonese or gabonaise or grenada or grenadian* or iran or iranian* or iraq or iraqi* or jamaica or jamaican* or jordan or jordanian* or kazakhstan or kazakhstani* or lebanon or lebanese or libya or libyan* or macedonia or macedonian* or malaysia or malaysian* or "indian ocean islands" or maldives or maldivian* or "marshall islands" or marshallese or mauritius or mauritian* or mexico or mexican* or montenegro or montenegrin* or namibia or namibian* or palau or palauan* or panama or panamanian* or peru or peruvian* or romania or romanian* or russia or russian* or serbia or serbian* or seychelles or seychellois* or seselwa* or "south africa" or	

	"south african" or "south africans" or "saint lucia" or "saint lucian" or "saint lucians" or "saint vincent and the grenadines"or "st vincent" or "saint vincent" or "grenadines" or "west indies" or vincentian* or grenadinian* or vincy or suriname or surinamese* or thailand or thai or tonga or tongan* or tunisia or tunisian* or turkey or turkish or turk or turkmenistan or turkmenistani* or turkmen* or turkmenian* or tuvalu or tuvaluan* or venezuela or venezuelan* or "low resource" or "under-resourced" or underresourced or "resource poor" or "resource limited" or "under-developed" or underdeveloped or "developing country" or "developing countries" or "developing world" or "third world" or lmic or lmics or "central america" or "central american" or "south America" or "south american" or "southeast asia" or "southeast asian" or "pacific islands" or "pacific islander" or "pacific islanders" or "sub-saharan" or "sub Saharan" or caribbean or "latin America" or "latin American" or oceania).ti,ab,kf,kw. or (low adj2 income).ti,ab,kf,kw. or (middle adj2 income).ti,ab,kf,kw.	
3 Combined	1 and 2	1,173

Embase (via Elsevier)
Search date: 10/31/2025

Concept	Strategy	Results
#1 Return-to-play	'return to sport'/exp or ((return* or resume* or restart* or recommenc* or medicine or rehab*) NEAR/4 (sport* or play* or game* or compete* or competition*)):ti,ab or ((RTS or RTP) and (sport*)):ti,ab	44,861
#2 LMIC Filter	'developing country'/exp OR 'Afghanistan'/exp OR 'Bangladesh'/exp OR 'Benin'/exp OR 'Burkina Faso'/exp OR 'Burundi'/exp OR 'Cambodia'/exp OR 'Central African Republic'/exp OR 'Chad'/exp OR 'Comoros'/exp OR 'Democratic Republic Congo'/exp OR 'Eritrea'/exp OR 'Ethiopia'/exp OR 'Gambia'/exp OR 'Guinea'/exp OR 'Guinea-Bissau'/exp OR 'Haiti'/exp OR 'Kenya'/exp OR 'North Korea'/exp OR 'Liberia'/exp OR 'Madagascar'/exp OR 'Malawi'/exp OR 'Mali'/exp OR 'Mozambique'/exp OR 'Myanmar'/exp OR 'Nepal'/exp OR 'Niger'/exp OR 'Rwanda'/exp OR 'Sierra Leone'/exp OR 'Somalia'/exp OR 'Tajikistan'/exp OR 'Tanzania'/exp OR 'Togo'/exp OR 'Uganda'/exp OR 'Zimbabwe'/exp OR 'Armenia'/exp OR 'Bhutan'/exp OR 'Bolivia'/exp OR 'Cameroon'/exp OR 'Cape Verde'/exp OR 'Congo'/exp OR 'Cote d`Ivoire'/exp OR 'Djibouti'/exp OR 'Egypt'/exp OR 'El Salvador'/exp OR 'Georgia (republic)'/exp OR 'Ghana'/exp OR 'Guatemala'/exp OR 'Guyana'/exp OR 'Honduras'/exp OR 'Indonesia'/exp OR 'India'/exp OR 'Kosovo'/exp OR 'Kyrgyzstan'/exp OR 'Laos'/exp OR 'Lesotho'/exp OR 'Mauritania'/exp OR 'Federated States of Micronesia'/exp OR 'Moldova'/exp OR 'Mongolia'/exp OR 'Morocco'/exp OR 'Nicaragua'/exp OR 'Nigeria'/exp OR 'Pakistan'/exp OR 'Papua New Guinea'/exp OR 'Paraguay'/exp OR 'Philippines'/exp OR 'Samoa'/exp OR 'Atlantic islands'/exp OR 'Senegal'/exp OR 'Melanesia'/exp OR 'Sri Lanka'/exp OR 'Sudan'/exp OR 'South Sudan'/exp OR 'Eswatini'/exp OR 'Syrian Arab Republic'/exp OR 'Timor-Leste'/exp OR 'Ukraine'/exp OR 'Uzbekistan'/exp OR 'Vanuatu'/exp OR 'Viet Nam'/exp OR 'Middle East'/exp OR 'Yemen'/exp OR 'Zambia'/exp OR 'Angola'/exp OR 'Albania'/exp OR 'Algeria'/exp OR 'American Samoa'/exp OR 'Argentina'/exp OR 'Azerbaijan'/exp OR 'Belarus'/exp OR 'Belize'/exp OR 'Bolivia'/exp OR 'Bosnia and Herzegovina'/exp OR 'Botswana'/exp OR 'Brazil'/exp OR 'Bulgaria'/exp OR 'Colombia'/exp OR 'Costa Rica'/exp OR 'Cuba'/exp OR 'Dominica'/exp OR 'Dominican Republic'/exp OR 'Ecuador'/exp OR 'Equatorial Guinea'/exp OR 'Fiji'/exp OR 'Gabon'/exp OR 'Grenada'/exp OR	2,839,575

	'Iran'/exp OR 'Iraq'/exp OR 'Jamaica'/exp OR 'Jordan'/exp OR 'Kazakhstan'/exp OR 'Lebanon'/exp OR 'Libyan Arab Jamahiriya'/exp OR 'Republic of North Macedonia'/exp OR 'Malaysia'/exp OR 'Indian Ocean'/exp OR 'Mexico'/exp OR 'Montenegro (republic)'/exp OR 'Namibia'/exp OR 'Palau'/exp OR 'Panama'/exp OR 'Peru'/exp OR 'Romania'/exp OR 'Serbia'/exp OR 'Seychelles'/exp OR 'South Africa'/exp OR 'Saint Lucia'/exp OR 'Saint Vincent and the Grenadines'/exp OR 'Suriname'/exp OR 'Thailand'/exp OR 'Tonga'/exp OR 'Tunisia'/exp OR 'Turkey (republic)'/exp OR 'Turkmenistan'/exp OR 'Venezuela'/exp OR (afghanistan or afghan* or afghanistani* or afghani* or afghanese or Kabul or bangladesh or bangladeshi* or Dhaka or benin or 'edo people' or 'edo person' or bini or Cotonou or 'burkina faso' or burkinabe* or Ouagadougou or burundi or burundian* or Gitega or cambodia or cambodian* or 'Phnom Penh' or 'cabo verde' or 'cape verdean' or 'cape verdeans' or 'cabo verdean' or 'cabo verdeans' or Praia or 'central african republic' or 'central african' or 'central africans' or Bangui or chad or chadian* or 'N Djamena' or comoros or comorian* or moroni or 'democratic republic of the congo' or congolese* or Brazzaville or eritrea or eritrean* or Asmara or ethiopia or ethiopian* or 'Addis Ababa' or gambia or gambian* or Banjul or guinea or guinean* or Conakry or guinea-bissau or 'bissau guinean' or 'bissau guineans' or bissau-guinean* or Bissau or haiti or haitian* or 'Port-au-Prince' or kenya or kenyan* or Nairobi or 'democratic people / s republic of korea' or 'north korean' or 'north Koreans' or Pyongyang or liberia or liberian* or Monrovia or madagascar or malagasy* or madagascan* or Antananarivo or malawi or malawian* or Lilongwe or mali or malian* or Bamako or mozambique or mozambican* or Maputo or myanmar or burmese*or myanma* or Naypyidaw or nepal or nepali* or nepalese or Kathmandu or niger or nigerien* or Niamey or rwanda or rwandan* or rwandese or Kigali or 'sierra leone' or 'sierra leonean' or 'sierra leoneans' or Freetown or somalia or somali* or Mogadishu or tajikistan or tajikstani* or tajik* or Dushanbe or tanzania or tanzanian* or Dodoma or togo or togolese* or Lome or uganda or ugandan* or Kampala or zimbabwe or zimbabwean* or zimbo* Harare or armenia or armenian* or Yerevan or bhutan or bhutanese or Thimphu or bolivia or bolivian* or 'La Paz' or Sucre or cameroon or cameroonian* or Yaounde or 'cape verde' or Praia or congo or 'cote d / ivoire' or ivorian* or Yamoussoukro or Abidjan or djibouti or djiboutian* or egypt or egyptian* or Cairo or 'el salvador' or salvadoran* or 'San Salvador' or (georgia NEAR/2 republic) or georgian* or Tbilisi or ghana or ghanaian* or Accra or guatemala or guatemalan* or guatemalteco* or guatemalense* or 'Guatemala City' or guyana or guyanese or Georgetown or honduras or honduran* or Tegucigalpa or indonesia or Bengkulu or indonesian* or india or indian* or 'New Delhi' or kiribati or 'South Tarawa' or gilbertese* or kosovo or kosovar* or kosovan* or Pristina or kyrgyzstan or kyrgyzstani* or kirgiz or kirghiz or kyrgyz or Bishkek or laos or laotian* or lao or Vientiane or lesotho or mosotho* or basotho* or Maseru or mauritania or mauritanian* or Nouakchott or micronesia or micronesian* or Palikir or moldova or moldovan* or Chisinau or mongolia or mongolian* or Ulaanbaatar or morocco or moroccan* or Rabat or nicaragua or nicaraguan* or Managua or nigeria or nigerian* or Abuja or pakistan or pakistani* or Islamabad or 'papua new guinea' or 'papua new guinean' or 'papua new guineans' or 'Port Moresby' or paraguay or paraguayan* or Asuncion or philippines or filipin* or Manila or pinoy* or pinay* or 'independent state of samoa' or samoan* or Apia or 'atlantic islands' or 'sao tome' or 'sao tomean' or 'sao tomeans' or santomean* or principe or senegal or senegalese* or Dakar or melanesia or melanesian* or 'solomon islands' or 'solomon islander' or 'solomon islanders' or Honiara or	

	'sri lanka' or 'sri lankan' or 'sri lankans' or Sinhalese or Colombo or 'Sri Jayewardenepura Kotte' or sudan or sudanese or Khartoum or swaziland or swazi* or liswati* or eswatini or syria or syrian* or Damascus or 'east timor' or 'east timorese' or Dili or 'timor leste' or timorese or ukraine or ukrainian* or Kyiv or uzbekistan or uzbekistani* or Tashkent or vanuatu or vanuatuan* or 'Port Vila' or vietnam or vietnamese* or Hanoi or 'middle east' or 'middle eastern' or 'west bank' or gaza or palestinian* or gazan* or Ramallah or yemen or yemeni* or Aden or zambia or zambian* or Lusaka or angola or angolan* or Luanda or albania or albanian* or Tirana or algeria or algerian* or Algiers or argentina or argentine* or argentinean* or argentinian* or 'Buenos Aires' or samoa or samoan* or azerbaijan or azerbaijani* or azeri* or Baku or 'republic of belarus' or belarus or belarusian* or Minsk or belize or belizean* or Belmopan or bosnia-herzegovina or bosnian* or Sarajevo or botswana or batswana* or motswana* or Gaborone or brazil or brazilian* or Brasilia or bulgaria or bulgarian* or Sofia or colombia or colombian* or Bogota or 'costa rica' or 'costa rican' or 'san jose' or 'costa ricans' or cuba or cuban* or Havana or dominica or dominican* or 'dominican republic' or 'Santo Domingo' or ecuador or ecuadorian* or 'Quito' or 'equatorial guinea' or equatoguinean* or 'equatorial guinean' or 'equatorial guineans' or Malabo or fiji or fijian* or Suva or gabon or gabonese or gabonaise or grenada or grenadian* or 'St George' or iran or iranian* or tehran or iraq or iraqi* or baghdad or jamaica or jamaican* or jordan or jordanian* or Amman or kazakhstan or kazakhstani* or Astana or lebanon or lebanese or Beirut or libya or libyan* or Libreville or macedonia or macedonian* or Skopje or malaysia or malaysian* or 'Kuala Lumpur' or 'Putrajaya' or 'indian ocean islands' or maldives or maldivian* or 'marshall islands' or marshallese or Maijuro or mauritius or mauritian* or mexico or mexican* or 'Mexico City' or montenegro or montenegrin* or Podgorica or namibia or namibian* or Windhoek or palau or palauan* or Ngerulmud or panama or panamanian* or peru or peruvian* or Lima or romania or romanian* or Bucharest or russia or russian* or Moscow or serbia or serbian* or Belgrade or seychelles or seychellois* or Victoria or seselwa* or 'south africa' or 'south african' or 'south africans' or Bloemfontein or 'Cape Town' or Pretoria or 'saint lucia' or 'saint lucian' or 'saint lucians' or Castries or 'saint vincent and the grenadines' or 'st vincent' or 'saint vincent' or 'grenadines' or Kingstown or 'west indies' or vincentian* or grenadinian* or vincy or suriname or surinamese* or Paramaribo or thailand or thai or Bangkok or tonga or tongan* or 'Nuku alofa' or tunisia or tunisian* or turkey or turkish or turk or Ankara or turkmenistan or turkmenistani* or turkmen* or turkmenian* or Ashgabat or tuvalu or tuvaluan* or Funafuti or venezuela or venezuelan* or 'low resource' or 'under-resourced' or underresourced or 'resource poor' or 'resource limited' or 'under-developed' or underdeveloped or 'developing country' or 'developing countries' or 'developing world' or 'third world' or lmic or lmics or 'central america' or 'central american' or 'south America' or 'south american' or 'southeast asia' or 'southeast asian' or 'pacific islands' or 'pacific islander' or 'pacific islanders' or 'sub-saharan' or 'sub Saharan' or caribbean or 'latin America' or 'latin American' or oceania):ti,ab,kw or (low NEAR/2 income):ti,ab,kw or (middle NEAR/2 income):ti,ab,kw	
#3 Combined	#1 and #2	1,558

Web of Science (via Clarivate)
Search date: 10/31/2025

Concept	Strategy	Results
#1 Return-to-play	TS=(((return* or resume* or restart* or recommenc* or medicine or rehab*) NEAR/4 (sport* or play* or game* or compete* or competition*)) or ((RTS or RTP) and (sport*)))	40,223
#2 LMIC Filter	TS=((afghanistan or afghan* or afghanistani* or afghani* or afghanese or Kabul or bangladesh or bangladeshi* or Dhaka or benin or "edo people" or "edo person" or bini or Cotonou or "burkina faso" or burkinabe* or Ouagadougou or burundi or burundian* or Gitega or cambodia or cambodian* or “Phnom Penh” or "cabo verde" or "cape verdean" or "cape verdeans" or "cabo verdean" or "cabo verdeans" or Praia or "central african republic" or "central african" or "central africans" or Bangui or chad or chadian* or “N Djamena” or comoros or comorian* or moroni or "democratic republic of the congo" or congolese* or Brazzaville or eritrea or eritrean* or Asmara or ethiopia or ethiopian* or “Addis Ababa” or gambia or gambian* or Banjul or guinea or guinean* or Conakry or guinea-bissau or "bissau guinean" or "bissau guineans" or bissau-guinean* or Bissau or haiti or haitian* or “Port-au-Prince” or kenya or kenyan* or Nairobi or "democratic people's republic of korea" or "north korean" or "north Koreans" or Pyongyang or liberia or liberian* or Monrovia or madagascar or malagasy* or madagascan* or Antananarivo or malawi or malawian* or Lilongwe or mali or malian* or Bamako or mozambique or mozambican* or Maputo or myanmar or burmese*or myanma* or Naypyidaw or nepal or nepali* or nepalese or Kathmandu or niger or nigerien* or Niamey or rwanda or rwandan* or rwandese or Kigali or "sierra leone" or "sierra leonean" or "sierra leoneans" or Freetown or somalia or somali* or Mogadishu or tajikistan or tajikstani* or tajik* or Dushanbe or tanzania or tanzanian* or Dodoma or togo or togolese* or Lome or uganda or ugandan* or Kampala or zimbabwe or zimbabwean* or zimbo* Harare or armenia or armenian* or Yerevan or bhutan or bhutanese or Thimphu or bolivia or bolivian* or “La Paz” or Sucre or cameroon or cameroonian* or Yaounde or "cape verde" or Praia or congo or "cote d'ivoire" or ivorian* or Yamoussoukro or Abidjan or djibouti or djiboutian* or egypt or egyptian* or Cairo or "el salvador" or salvadoran* or “San Salvador” or (georgia adj2 republic) or georgian* or Tbilisi or ghana or ghanaian* or Accra or guatemala or guatemalan* or guatemalteco* or guatemalense* or “Guatemala City” or guyana or guyanese or Georgetown or honduras or honduran* or Tegucigalpa or indonesia or Bengkulu or indonesian* or india or indian* or “New Delhi” or kiribati or “South Tarawa” or gilbertese* or kosovo or kosovar* or kosovan* or Pristina or kyrgyzstan or kyrgyzstani* or kirgiz or kirghiz or kyrgyz or Bishkek or laos or laotian* or lao or Vientiane or lesotho or mosotho* or basotho* or Maseru or mauritania or mauritanian* or Nouakchott or micronesia or micronesian* or Palikir or moldova or moldovan* or Chisinau or mongolia or mongolian* or Ulaanbaatar or morocco or moroccan* or Rabat or nicaragua or nicaraguan* or Managua or nigeria or nigerian* or Abuja or pakistan or pakistani* or Islamabad or "papua new guinea" or "papua new guinean" or "papua new guineans" or “Port Moresby” or paraguay or paraguayan* or Asuncion or philippines or filipin* or Manila or pinoy* or pinay* or "independent state of samoa" or samoan* or Apia or "atlantic islands" or "sao tome" or "sao tomean" or "sao tomeans" or santomean* or principe or senegal or senegalese* or Dakar or melanesia or melanesian* or "solomon islands" or "solomon islander" or "solomon islanders" or Honiara	5,185,848

	or "sri lanka" or "sri lankan" or "sri lankans" or Sinhalese or Colombo or "Sri Jayewardenepura Kotte" or sudan or sudanese or Khartoum or swaziland or swazi* or liswati* or eswatini or syria or syrian* or Damascus or "east timor" or "east timorese" or Dili or "timor leste" or timorese or ukraine or ukrainian* or Kyiv or uzbekistan or uzbekistani* or Tashkent or vanuatu or vanuatuan* or "Port Vila" or vietnam or vietnamese* or Hanoi or "middle east" or "middle eastern" or "west bank" or gaza or palestinian* or gazan* or Ramallah or yemen or yemeni* or Aden or zambia or zambian* or Lusaka or angola or angolan* or Luanda or albania or albanian* or Tirana or algeria or algerian* or Algiers or argentina or argentine* or argentinean* or argentinian* or "Buenos Aires" or samoa or samoan* or azerbaijan or azerbaijani* or azeri* or Baku or "republic of belarus" or belarus or belarusian* or Minsk or belize or belizean* or Belmopan or bosnia-herzegovina or bosnian* or Sarajevo or botswana or batswana* or motswana* or Gaborone or brazil or brazilian* or Brasilia or bulgaria or bulgarian* or Sofia or colombia or colombian* or Bogota or "costa rica" or "costa rican" or "san jose" or "costa ricans" or cuba or cuban* or Havana or dominica or dominican* or "dominican republic" or "Santo Domingo" or ecuador or ecuadorian* or "Quito" or "equatorial guinea" or equatoguinean* or "equatorial guinean" or "equatorial guineans" or Malabo or fiji or fijian* or Suva or gabon or gabonese or gabonaise or grenada or grenadian* or "St George" or iran or iranian* or tehran or iraq or iraqi* or baghdad or jamaica or jamaican* or jordan or jordanian* or Amman or kazakhstan or kazakhstani* or Astana or lebanon or lebanese or Beirut or libya or libyan* or Libreville or macedonia or macedonian* or Skopje or malaysia or malaysian* or "Kuala Lumpur" or "Putrajaya" or "indian ocean islands" or maldives or maldivian* or "marshall islands" or marshallese or Maijuro or mauritius or mauritian* or mexico or mexican* or "Mexico City" or montenegro or montenegrin* or Podgorica or namibia or namibian* or Windhoek or palau or palauan* or Ngerulmud or panama or panamanian* or peru or peruvian* or Lima or romania or romanian* or Bucharest or russia or russian* or Moscow or serbia or serbian* or Belgrade or seychelles or seychellois* or Victoria or seselwa* or "south africa" or "south african" or "south africans" or Bloemfontein or "Cape Town" or Pretoria or "saint lucia" or "saint lucian" or "saint lucians" or Castries or "saint vincent and the grenadines"or "st vincent" or "saint vincent" or "grenadines" or Kingstown or "west indies" or vincentian* or grenadinian* or vincy or suriname or surinamese* or Paramaribo or thailand or thai or Bangkok or tonga or tongan* or "Nuku alofa" or tunisia or tunisian* or turkey or turkish or turk or Ankara or turkmenistan or turkmenistani* or turkmen* or turkmenian* or Ashgabat or tuvalu or tuvaluan* or Funafuti or venezuela or venezuelan* or "low resource" or "under-resourced" or underresourced or "resource poor" or "resource limited" or "under-developed" or underdeveloped or "developing country" or "developing countries" or "developing world" or "third world" or lmic or lmics or "central america" or "central american" or "south America" or "south american" or "southeast asia" or "southeast asian" or "pacific islands" or "pacific islander" or "pacific islanders" or "sub-saharan" or "sub Saharan" or caribbean or "latin America" or "latin American" or oceania) or (low NEAR/2 income) or (middle NEAR/2 income))	
#3 Combined	#1 and #2	1,701

SPORTDiscus (via Ebsco)
Search date: 10/31/2025

Concept	Strategy	Results
S1 Return-to-play	DE "SPORTS medicine" or DE "SPORTS re-entry" or TI ((return* or resume* or restart* or recommenc* or medicine or rehab*) N4 (sport* or play* or game* or compete* or competition*)) or ((RTS or RTP) and (sport*)) or AB ((return* or resume* or restart* or recommenc* or medicine or rehab*) N4 (sport* or play* or game* or compete* or competition*)) or ((RTS or RTP) and (sport*))	38,117
S2 LMIC Filter	TI afghanistan OR TI afghan* OR TI afghanistani* OR TI afghani* OR TI afghanese OR TI Kabul OR TI bangladesh OR TI bangladeshi* OR TI Dhaka OR TI benin OR TI "edo people" OR TI "edo person" OR TI bini OR TI Cotonou OR TI "burkina faso" OR TI burkinabe* OR TI Ouagadougou OR TI burundi OR TI burundian* OR TI Gitega OR TI cambodia OR TI cambodian* OR TI “Phnom Penh” OR TI "cabo verde" OR TI "cape verdean" OR TI "cape verdeans" OR TI "cabo verdean" OR TI "cabo verdeans" OR TI Praia OR TI "central african republic" OR TI "central african" OR TI "central africans" OR TI Bangui OR TI chad OR TI chadian* OR TI “N Djamena” OR TI comoros OR TI comorian* OR TI moroni OR TI "democratic republic of the congo" OR TI congolese* OR TI Brazzaville OR TI eritrea OR TI eritrean* OR TI Asmara OR TI ethiopia OR TI ethiopian* OR TI “Addis Ababa” OR TI gambia OR TI gambian* OR TI Banjul OR TI guinea OR TI guinean* OR TI Conakry OR TI guinea-bissau OR TI "bissau guinean" OR TI "bissau guineans" OR TI bissau-guinean* OR TI Bissau OR TI haiti OR TI haitian* OR TI “Port-au-Prince” OR TI kenya OR TI kenyan* OR TI Nairobi OR TI "democratic people's republic of korea" OR TI "north korean" OR TI "north Koreans" OR TI Pyongyang OR TI liberia OR TI liberian* OR TI Monrovia OR TI madagascar OR TI malagasy* OR TI madagascan* OR TI Antananarivo OR TI malawi OR TI malawian* OR TI Lilongwe OR TI mali OR TI malian* OR TI Bamako OR TI mozambique OR TI mozambican* OR TI Maputo OR TI myanmar OR TI burmese*or myanma* OR TI Naypyidaw OR TI nepal OR TI nepali* OR TI nepalese OR TI Kathmandu OR TI niger OR TI nigerien* OR TI Niamey OR TI rwanda OR TI rwandan* OR TI rwandese OR TI Kigali OR TI "sierra leone" OR TI "sierra leonean" OR TI "sierra leoneans" OR TI Freetown OR TI somalia OR TI somali* OR TI Mogadishu OR TI tajikistan OR TI tajikstani* OR TI tajik* OR TI Dushanbe OR TI tanzania OR TI tanzanian* OR TI Dodoma OR TI togo OR TI togolese* OR TI Lome OR TI uganda OR TI ugandan* OR TI Kampala OR TI zimbabwe OR TI zimbabwean* OR TI zimbo* Harare OR TI armenia OR TI armenian* OR TI Yerevan OR TI bhutan OR TI bhutanese OR TI Thimphu OR TI bolivia OR TI bolivian* OR TI “La Paz” OR TI Sucre OR TI cameroon OR TI cameroonian* OR TI Yaounde OR TI "cape verde" OR TI Praia OR TI congo OR TI "cote d'ivoire" OR TI ivorian* OR TI Yamoussoukro OR TI Abidjan OR TI djibouti OR TI djiboutian* OR TI egypt OR TI egyptian* OR TI Cairo OR TI "el salvador" OR TI salvadoran* OR TI “San Salvador” OR (TI georgia N2 TI republic) OR TI georgian* OR TI Tbilisi OR TI ghana OR TI ghanaian* OR TI Accra OR TI guatemala OR TI guatemalan* OR TI guatemalteco* OR TI guatemalense* OR TI “Guatemala City” OR TI guyana OR TI guyanese OR TI Georgetown OR TI honduras OR TI honduran* OR TI Tegucigalpa OR TI indonesia OR TI Bengkulu OR TI indonesian* OR TI india OR TI indian* OR TI “New Delhi” OR TI kiribati OR TI “South Tarawa” OR TI gilbertese* OR TI kosovo OR TI kosovar* OR TI kosovan* OR TI Pristina	137,071

	OR TI kyrgyzstan OR TI kyrgyzstani* OR TI kirgiz OR TI kirghiz OR TI kyrgyz OR TI Bishkek OR TI laos OR TI laotian* OR TI lao OR TI Vientiane OR TI lesotho OR TI mosotho* OR TI basotho* OR TI Maseru OR TI mauritania OR TI mauritanian* OR TI Nouakchott OR TI micronesia OR TI micronesian* OR TI Palikir OR TI moldova OR TI moldovan* OR TI Chisinau OR TI mongolia OR TI mongolian* OR TI Ulaanbaatar OR TI morocco OR TI moroccan* OR TI Rabat OR TI nicaragua OR TI nicaraguan* OR TI Managua OR TI nigeria OR TI nigerian* OR TI Abuja OR TI pakistan OR TI pakistani* OR TI Islamabad OR TI "papua new guinea" OR TI "papua new guinean" OR TI "papua new guineans" OR TI “Port Moresby” OR TI paraguay OR TI paraguayan* OR TI Asuncion OR TI philippines OR TI filipin* OR TI Manila OR TI pinoy* OR TI pinay* OR TI "independent state of samoa" OR TI samoan* OR TI Apia OR TI "atlantic islands" OR TI "sao tome" OR TI "sao tomean" OR TI "sao tomeans" OR TI santomean* OR TI principe OR TI senegal OR TI senegalese* OR TI Dakar OR TI melanesia OR TI melanesian* OR TI "solomon islands" OR TI "solomon islander" OR TI "solomon islanders" OR TI Honiara OR TI "sri lanka" OR TI "sri lankan" OR TI "sri lankans" OR TI Sinhalese OR TI Colombo OR TI “Sri Jayewardenepura Kotte” OR TI sudan OR TI sudanese OR TI Khartoum OR TI swaziland OR TI swazi* OR TI liswati* OR TI eswatini OR TI syria OR TI syrian* OR TI Damascus OR TI "east timor" OR TI "east timorese" OR TI Dili OR TI "timor leste" OR TI timorese OR TI ukraine OR TI ukrainian* OR TI Kyiv OR TI uzbekistan OR TI uzbekistani* OR TI Tashkent OR TI vanuatu OR TI vanuatuan* OR TI “Port Vila” OR TI vietnam OR TI vietnamese* OR TI Hanoi OR TI "middle east" OR TI "middle eastern" OR TI "west bank" OR TI gaza OR TI palestinian* OR TI gazan* OR TI Ramallah OR TI yemen OR TI yemeni* OR TI Aden OR TI zambia OR TI zambian* OR TI Lusaka OR TI angola OR TI angolan* OR TI Luanda OR TI albania OR TI albanian* OR TI Tirana OR TI algeria OR TI algerian* OR TI Algiers OR TI argentina OR TI argentine* OR TI argentinean* OR TI argentinian* OR TI “Buenos Aires” OR TI samoa OR TI samoan* OR TI azerbaijan OR TI azerbaijani* OR TI azeri* OR TI Baku OR TI "republic of belarus" OR TI belarus OR TI belarusian* OR TI Minsk OR TI belize OR TI belizean* OR TI Belmopan OR TI bosnia-herzegovina OR TI bosnian* OR TI Sarajevo OR TI botswana OR TI batswana* OR TI motswana* OR TI Gaborone OR TI brazil OR TI brazilian* OR TI Brasilia OR TI bulgaria OR TI bulgarian* OR TI Sofia OR TI colombia OR TI colombian* OR TI Bogota OR TI "costa rica" OR TI "costa rican" OR TI “san jose” OR TI "costa ricans" OR TI cuba OR TI cuban* OR TI Havana OR TI dominica OR TI dominican* OR TI "dominican republic" OR TI “Santo Domingo” OR TI ecuador OR TI ecuadorian* OR TI “Quito” OR TI "equatorial guinea" OR TI equatoguinean* OR TI "equatorial guinean" OR TI "equatorial guineans" OR TI Malabo OR TI fiji OR TI fijian* OR TI Suva OR TI gabon OR TI gabonese OR TI gabonaise OR TI grenada OR TI grenadian* OR TI “St George” OR TI iran OR TI iranian* OR TI tehran OR TI iraq OR TI iraqi* OR TI baghdad OR TI jamaica OR TI jamaican* OR TI jordan OR TI jordanian* OR TI Amman OR TI kazakhstan OR TI kazakhstani* OR TI Astana OR TI lebanon OR TI lebanese OR TI Beirut OR TI libya OR TI libyan* OR TI Libreville OR TI macedonia OR TI macedonian* OR TI Skopje OR TI malaysia OR TI malaysian* OR TI “Kuala Lumpur” OR TI “Putrajaya” OR TI "indian ocean islands" OR TI maldives OR TI maldivian* OR TI "marshall islands" OR TI marshallese OR TI Maijuro OR TI mauritius OR TI mauritian* OR TI mexico OR TI mexican* OR TI “Mexico City” OR TI montenegro OR TI montenegrin* OR TI Podgorica OR TI namibia OR TI namibian* OR TI Windhoek OR	

	TI palau OR TI palauan* OR TI Ngerulmud OR TI panama OR TI panamanian* OR TI peru OR TI peruvian* OR TI Lima OR TI romania OR TI romanian* OR TI Bucharest OR TI russia OR TI russian* OR TI Moscow OR TI serbia OR TI serbian* OR TI Belgrade OR TI seychelles OR TI seychellois* OR TI Victoria OR TI seselwa* OR TI "south africa" OR TI "south african" OR TI "south africans" OR TI Bloemfontein OR TI “Cape Town” OR TI Pretoria OR TI "saint lucia" OR TI "saint lucian" OR TI "saint lucians" OR TI Castries OR TI "saint vincent and the grenadines"or "st vincent" OR TI "saint vincent" OR TI "grenadines" OR TI Kingstown OR TI "west indies" OR TI vincentian* OR TI grenadinian* OR TI vincy OR TI suriname OR TI surinamese* OR TI Paramaribo OR TI thailand OR TI thai OR TI Bangkok OR TI tonga OR TI tongan* OR TI “Nuku alofa” OR TI tunisia OR TI tunisian* OR TI turkey OR TI turkish OR TI turk OR TI Ankara OR TI turkmenistan OR TI turkmenistani* OR TI turkmen* OR TI turkmenian* OR TI Ashgabat OR TI tuvalu OR TI tuvaluan* OR TI Funafuti OR TI venezuela OR TI venezuelan* OR TI "low resource" OR TI "under-resourced" OR TI underresourced OR TI "resource poor" OR TI "resource limited" OR TI "under-developed" OR TI underdeveloped OR TI "developing country" OR TI "developing countries" OR TI "developing world" OR TI "third world" OR TI lmic OR TI lmics OR TI "central america" OR TI "central american" OR TI "south America" OR TI "south american" OR TI "southeast asia" OR TI "southeast asian" OR TI "pacific islands" OR TI "pacific islander" OR TI "pacific islanders" OR TI "sub-saharan" OR TI "sub Saharan" OR TI caribbean OR TI "latin America" OR TI "latin American" OR TI oceania OR (TI low N2 TI income) OR (TI middle N2 TI income) or TI afghanistan OR AB afghan* OR AB afghanistani* OR AB afghani* OR AB afghanese OR AB Kabul OR AB bangladesh OR AB bangladeshi* OR AB Dhaka OR AB benin OR AB "edo people" OR AB "edo person" OR AB bini OR AB Cotonou OR AB "burkina faso" OR AB burkinabe* OR AB Ouagadougou OR AB burundi OR AB burundian* OR AB Gitega OR AB cambodia OR AB cambodian* OR AB “Phnom Penh” OR AB "cabo verde" OR AB "cape verdean" OR AB "cape verdeans" OR AB "cabo verdean" OR AB "cabo verdeans" OR AB Praia OR AB "central african republic" OR AB "central african" OR AB "central africans" OR AB Bangui OR AB chad OR AB chadian* OR AB “N Djamena” OR AB comoros OR AB comorian* OR AB moroni OR AB "democratic republic of the congo" OR AB congolese* OR AB Brazzaville OR AB eritrea OR AB eritrean* OR AB Asmara OR AB ethiopia OR AB ethiopian* OR AB “Addis Ababa” OR AB gambia OR AB gambian* OR AB Banjul OR AB guinea OR AB guinean* OR AB Conakry OR AB guinea-bissau OR AB "bissau guinean" OR AB "bissau guineans" OR AB bissau-guinean* OR AB Bissau OR AB haiti OR AB haitian* OR AB “Port-au-Prince” OR AB kenya OR AB kenyan* OR AB Nairobi OR AB "democratic people's republic of korea" OR AB "north korean" OR AB "north Koreans" OR AB Pyongyang OR AB liberia OR AB liberian* OR AB Monrovia OR AB madagascar OR AB malagasy* OR AB madagascan* OR AB Antananarivo OR AB malawi OR AB malawian* OR AB Lilongwe OR AB mali OR AB malian* OR AB Bamako OR AB mozambique OR AB mozambican* OR AB Maputo OR AB myanmar OR AB burmese*or myanma* OR AB Naypyidaw OR AB nepal OR AB nepali* OR AB nepalese OR AB Kathmandu OR AB niger OR AB nigerien* OR AB Niamey OR AB rwanda OR AB rwandan* OR AB rwandese OR AB Kigali OR AB "sierra leone" OR AB "sierra leonean" OR AB "sierra leoneans" OR AB Freetown OR AB somalia OR AB somali* OR AB Mogadishu OR AB tajikistan OR AB tajikstani* OR AB tajik* OR AB Dushanbe OR AB tanzania OR AB tanzanian* OR AB Dodoma OR	

	AB togo OR AB togolese* OR AB Lome OR AB uganda OR AB ugandan* OR AB Kampala OR AB zimbabwe OR AB zimbabwean* OR AB zimbo* Harare OR AB armenia OR AB armenian* OR AB Yerevan OR AB bhutan OR AB bhutanese OR AB Thimphu OR AB bolivia OR AB bolivian* OR AB “La Paz” OR AB Sucre OR AB cameroon OR AB cameroonian* OR AB Yaounde OR AB "cape verde" OR AB Praia OR AB congo OR AB "cote d'ivoire" OR AB ivorian* OR AB Yamoussoukro OR AB Abidjan OR AB djibouti OR AB djiboutian* OR AB egypt OR AB egyptian* OR AB Cairo OR AB "el salvador" OR AB salvadoran* OR AB “San Salvador” OR (TI georgia N2 AB republic) OR AB georgian* OR AB Tbilisi OR AB ghana OR AB ghanaian* OR AB Accra OR AB guatemala OR AB guatemalan* OR AB guatemalteco* OR AB guatemalense* OR AB “Guatemala City” OR AB guyana OR AB guyanese OR AB Georgetown OR AB honduras OR AB honduran* OR AB Tegucigalpa OR AB indonesia OR AB Bengkulu OR AB indonesian* OR AB india OR AB indian* OR AB “New Delhi” OR AB kiribati OR AB “South Tarawa” OR AB gilbertese* OR AB kosovo OR AB kosovar* OR AB kosovan* OR AB Pristina OR AB kyrgyzstan OR AB kyrgyzstani* OR AB kirgiz OR AB kirghiz OR AB kyrgyz OR AB Bishkek OR AB laos OR AB laotian* OR AB lao OR AB Vientiane OR AB lesotho OR AB mosotho* OR AB basotho* OR AB Maseru OR AB mauritania OR AB mauritanian* OR AB Nouakchott OR AB micronesia OR AB micronesian* OR AB Palikir OR AB moldova OR AB moldovan* OR AB Chisinau OR AB mongolia OR AB mongolian* OR AB Ulaanbaatar OR AB morocco OR AB moroccan* OR AB Rabat OR AB nicaragua OR AB nicaraguan* OR AB Managua OR AB nigeria OR AB nigerian* OR AB Abuja OR AB pakistan OR AB pakistani* OR AB Islamabad OR AB "papua new guinea" OR AB "papua new guinean" OR AB "papua new guineans" OR AB “Port Moresby” OR AB paraguay OR AB paraguayan* OR AB Asuncion OR AB philippines OR AB filipin* OR AB Manila OR AB pinoy* OR AB pinay* OR AB "independent state of samoa" OR AB samoan* OR AB Apia OR AB "atlantic islands" OR AB "sao tome" OR AB "sao tomean" OR AB "sao tomeans" OR AB santomean* OR AB principe OR AB senegal OR AB senegalese* OR AB Dakar OR AB melanesia OR AB melanesian* OR AB "solomon islands" OR AB "solomon islander" OR AB "solomon islanders" OR AB Honiara OR AB "sri lanka" OR AB "sri lankan" OR AB "sri lankans" OR AB Sinhalese OR AB Colombo OR AB “Sri Jayewardenepura Kotte” OR AB sudan OR AB sudanese OR AB Khartoum OR AB swaziland OR AB swazi* OR AB liswati* OR AB eswatini OR AB syria OR AB syrian* OR AB Damascus OR AB "east timor" OR AB "east timorese" OR AB Dili OR AB "timor leste" OR AB timorese OR AB ukraine OR AB ukrainian* OR AB Kyiv OR AB uzbekistan OR AB uzbekistani* OR AB Tashkent OR AB vanuatu OR AB vanuatuan* OR AB “Port Vila” OR AB vietnam OR AB vietnamese* OR AB Hanoi OR AB "middle east" OR AB "middle eastern" OR AB "west bank" OR AB gaza OR AB palestinian* OR AB gazan* OR AB Ramallah OR AB yemen OR AB yemeni* OR AB Aden OR AB zambia OR AB zambian* OR AB Lusaka OR AB angola OR AB angolan* OR AB Luanda OR AB albania OR AB albanian* OR AB Tirana OR AB algeria OR AB algerian* OR AB Algiers OR AB argentina OR AB argentine* OR AB argentinean* OR AB argentinian* OR AB “Buenos Aires” OR AB samoa OR AB samoan* OR AB azerbaijan OR AB azerbaijani* OR AB azeri* OR AB Baku OR AB "republic of belarus" OR AB belarus OR AB belarusian* OR AB Minsk OR AB belize OR AB belizean* OR AB Belmopan OR AB bosnia-herzegovina OR AB bosnian* OR AB Sarajevo OR AB botswana OR AB batswana* OR AB motswana* OR AB Gaborone OR AB brazil OR AB	

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S3 Combined	S1 and S2	1,153

CABI Global Health
Search date: 10/31/2025

Concept	Strategy	Results
S1 Return-to-play	DE "SPORTS medicine" or TI ((return* or resume* or restart* or recommenc* or medicine or rehab*) N4 (sport* or play* or game* or compete* or competition*)) or ((RTS or RTP) and (sport*)) or AB ((return* or resume* or restart* or recommenc* or medicine or rehab*) N4 (sport* or play* or game* or compete* or competition*)) or ((RTS or RTP) and (sport*))	3,030
S2 LMIC Filter	TI afghanistan OR TI afghan* OR TI afghanistani* OR TI afghani* OR TI afghanese OR TI Kabul OR TI bangladesh OR TI bangladeshi* OR TI Dhaka OR TI benin OR TI "edo people" OR TI "edo person" OR TI bini OR TI Cotonou OR TI "burkina faso" OR TI burkinabe* OR TI Ouagadougou OR TI burundi OR TI burundian* OR TI Gitega OR TI cambodia OR TI cambodian* OR TI “Phnom Penh” OR TI "cabo verde" OR TI "cape verdean" OR TI "cape verdeans" OR TI "cabo verdean" OR TI "cabo verdeans" OR TI Praia OR TI "central african republic" OR TI "central african" OR TI "central africans" OR TI Bangui OR TI chad OR TI chadian* OR TI “N Djamena” OR TI comoros OR TI comorian* OR TI moroni OR TI "democratic republic of the congo" OR TI congolese* OR TI Brazzaville OR TI eritrea OR TI eritrean* OR TI Asmara OR TI ethiopia OR TI ethiopian* OR TI “Addis Ababa” OR TI gambia OR TI gambian* OR TI Banjul OR TI guinea OR TI guinean* OR TI Conakry OR TI guinea-bissau OR TI "bissau guinean" OR TI "bissau guineans" OR TI bissau-guinean* OR TI Bissau OR TI haiti OR TI haitian* OR TI “Port-au-Prince” OR TI kenya OR TI kenyan* OR TI Nairobi OR TI "democratic people's republic of korea" OR TI "north korean" OR TI "north Koreans" OR TI Pyongyang OR TI liberia OR TI liberian* OR TI Monrovia OR TI madagascar OR TI malagasy* OR TI madagascan* OR TI Antananarivo OR TI malawi OR TI malawian* OR TI Lilongwe OR TI mali OR TI malian* OR TI Bamako OR TI mozambique OR TI mozambican* OR TI Maputo OR TI myanmar OR TI burmese*or myanma* OR TI Naypyidaw OR TI nepal OR TI nepali* OR TI nepalese OR TI Kathmandu OR TI niger OR TI nigerien* OR TI Niamey OR TI rwanda OR TI rwandan* OR TI rwandese OR TI Kigali OR TI "sierra leone" OR TI "sierra leonean" OR TI "sierra leoneans" OR TI Freetown OR TI somalia OR TI somali* OR TI Mogadishu OR TI tajikistan OR TI tajikstani* OR TI tajik* OR TI Dushanbe OR TI tanzania OR TI tanzanian* OR TI Dodoma OR TI togo OR TI togolese* OR TI Lome OR TI uganda OR TI ugandan* OR TI Kampala OR TI zimbabwe OR TI zimbabwean* OR TI zimbo* Harare OR TI armenia OR TI armenian* OR TI Yerevan OR TI bhutan OR TI bhutanese OR TI Thimphu OR TI bolivia OR TI bolivian* OR TI “La Paz” OR TI Sucre OR TI cameroon OR TI cameroonian* OR TI Yaounde OR TI "cape verde" OR TI Praia OR TI congo OR TI "cote d'ivoire" OR TI ivorian* OR TI Yamoussoukro OR TI Abidjan OR TI djibouti OR TI djiboutian* OR TI egypt OR TI egyptian* OR TI Cairo OR TI "el salvador" OR TI salvadoran* OR TI “San Salvador” OR (TI georgia N2 TI republic) OR TI georgian* OR TI Tbilisi OR TI ghana OR TI ghanaian* OR TI Accra OR TI guatemala OR TI guatemalan* OR TI guatemalteco* OR TI guatemalense* OR TI “Guatemala City” OR TI guyana OR TI guyanese OR TI Georgetown OR TI honduras OR TI honduran* OR TI Tegucigalpa OR TI indonesia OR TI Bengkulu OR TI indonesian* OR TI india OR TI indian* OR TI “New Delhi” OR TI kiribati OR TI “South Tarawa” OR TI gilbertese* OR TI kosovo OR TI kosovar* OR TI kosovan* OR TI Pristina	927,267

	OR TI kyrgyzstan OR TI kyrgyzstani* OR TI kirgiz OR TI kirghiz OR TI kyrgyz OR TI Bishkek OR TI laos OR TI laotian* OR TI lao OR TI Vientiane OR TI lesotho OR TI mosotho* OR TI basotho* OR TI Maseru OR TI mauritania OR TI mauritanian* OR TI Nouakchott OR TI micronesia OR TI micronesian* OR TI Palikir OR TI moldova OR TI moldovan* OR TI Chisinau OR TI mongolia OR TI mongolian* OR TI Ulaanbaatar OR TI morocco OR TI moroccan* OR TI Rabat OR TI nicaragua OR TI nicaraguan* OR TI Managua OR TI nigeria OR TI nigerian* OR TI Abuja OR TI pakistan OR TI pakistani* OR TI Islamabad OR TI "papua new guinea" OR TI "papua new guinean" OR TI "papua new guineans" OR TI “Port Moresby” OR TI paraguay OR TI paraguayan* OR TI Asuncion OR TI philippines OR TI filipin* OR TI Manila OR TI pinoy* OR TI pinay* OR TI "independent state of samoa" OR TI samoan* OR TI Apia OR TI "atlantic islands" OR TI "sao tome" OR TI "sao tomean" OR TI "sao tomeans" OR TI santomean* OR TI principe OR TI senegal OR TI senegalese* OR TI Dakar OR TI melanesia OR TI melanesian* OR TI "solomon islands" OR TI "solomon islander" OR TI "solomon islanders" OR TI Honiara OR TI "sri lanka" OR TI "sri lankan" OR TI "sri lankans" OR TI Sinhalese OR TI Colombo OR TI “Sri Jayewardenepura Kotte” OR TI sudan OR TI sudanese OR TI Khartoum OR TI swaziland OR TI swazi* OR TI liswati* OR TI eswatini OR TI syria OR TI syrian* OR TI Damascus OR TI "east timor" OR TI "east timorese" OR TI Dili OR TI "timor leste" OR TI timorese OR TI ukraine OR TI ukrainian* OR TI Kyiv OR TI uzbekistan OR TI uzbekistani* OR TI Tashkent OR TI vanuatu OR TI vanuatuan* OR TI “Port Vila” OR TI vietnam OR TI vietnamese* OR TI Hanoi OR TI "middle east" OR TI "middle eastern" OR TI "west bank" OR TI gaza OR TI palestinian* OR TI gazan* OR TI Ramallah OR TI yemen OR TI yemeni* OR TI Aden OR TI zambia OR TI zambian* OR TI Lusaka OR TI angola OR TI angolan* OR TI Luanda OR TI albania OR TI albanian* OR TI Tirana OR TI algeria OR TI algerian* OR TI Algiers OR TI argentina OR TI argentine* OR TI argentinean* OR TI argentinian* OR TI “Buenos Aires” OR TI samoa OR TI samoan* OR TI azerbaijan OR TI azerbaijani* OR TI azeri* OR TI Baku OR TI "republic of belarus" OR TI belarus OR TI belarusian* OR TI Minsk OR TI belize OR TI belizean* OR TI Belmopan OR TI bosnia-herzegovina OR TI bosnian* OR TI Sarajevo OR TI botswana OR TI batswana* OR TI motswana* OR TI Gaborone OR TI brazil OR TI brazilian* OR TI Brasilia OR TI bulgaria OR TI bulgarian* OR TI Sofia OR TI colombia OR TI colombian* OR TI Bogota OR TI "costa rica" OR TI "costa rican" OR TI “san jose” OR TI "costa ricans" OR TI cuba OR TI cuban* OR TI Havana OR TI dominica OR TI dominican* OR TI "dominican republic" OR TI “Santo Domingo” OR TI ecuador OR TI ecuadorian* OR TI “Quito” OR TI "equatorial guinea" OR TI equatoguinean* OR TI "equatorial guinean" OR TI "equatorial guineans" OR TI Malabo OR TI fiji OR TI fijian* OR TI Suva OR TI gabon OR TI gabonese OR TI gabonaise OR TI grenada OR TI grenadian* OR TI “St George” OR TI iran OR TI iranian* OR TI tehran OR TI iraq OR TI iraqi* OR TI baghdad OR TI jamaica OR TI jamaican* OR TI jordan OR TI jordanian* OR TI Amman OR TI kazakhstan OR TI kazakhstani* OR TI Astana OR TI lebanon OR TI lebanese OR TI Beirut OR TI libya OR TI libyan* OR TI Libreville OR TI macedonia OR TI macedonian* OR TI Skopje OR TI malaysia OR TI malaysian* OR TI “Kuala Lumpur” OR TI “Putrajaya” OR TI "indian ocean islands" OR TI maldives OR TI maldivian* OR TI "marshall islands" OR TI marshallese OR TI Maijuro OR TI mauritius OR TI mauritian* OR TI mexico OR TI mexican* OR TI “Mexico City” OR TI montenegro OR TI montenegrin* OR TI Podgorica OR TI namibia OR TI namibian* OR TI Windhoek OR	

	TI palau OR TI palauan* OR TI Ngerulmud OR TI panama OR TI panamanian* OR TI peru OR TI peruvian* OR TI Lima OR TI romania OR TI romanian* OR TI Bucharest OR TI russia OR TI russian* OR TI Moscow OR TI serbia OR TI serbian* OR TI Belgrade OR TI seychelles OR TI seychellois* OR TI Victoria OR TI seselwa* OR TI "south africa" OR TI "south african" OR TI "south africans" OR TI Bloemfontein OR TI “Cape Town” OR TI Pretoria OR TI "saint lucia" OR TI "saint lucian" OR TI "saint lucians" OR TI Castries OR TI "saint vincent and the grenadines"or "st vincent" OR TI "saint vincent" OR TI "grenadines" OR TI Kingstown OR TI "west indies" OR TI vincentian* OR TI grenadinian* OR TI vincy OR TI suriname OR TI surinamese* OR TI Paramaribo OR TI thailand OR TI thai OR TI Bangkok OR TI tonga OR TI tongan* OR TI “Nuku alofa” OR TI tunisia OR TI tunisian* OR TI turkey OR TI turkish OR TI turk OR TI Ankara OR TI turkmenistan OR TI turkmenistani* OR TI turkmen* OR TI turkmenian* OR TI Ashgabat OR TI tuvalu OR TI tuvaluan* OR TI Funafuti OR TI venezuela OR TI venezuelan* OR TI "low resource" OR TI "under-resourced" OR TI underresourced OR TI "resource poor" OR TI "resource limited" OR TI "under-developed" OR TI underdeveloped OR TI "developing country" OR TI "developing countries" OR TI "developing world" OR TI "third world" OR TI lmic OR TI lmics OR TI "central america" OR TI "central american" OR TI "south America" OR TI "south american" OR TI "southeast asia" OR TI "southeast asian" OR TI "pacific islands" OR TI "pacific islander" OR TI "pacific islanders" OR TI "sub-saharan" OR TI "sub Saharan" OR TI caribbean OR TI "latin America" OR TI "latin American" OR TI oceania OR (TI low N2 TI income) OR (TI middle N2 TI income) or TI afghanistan OR AB afghan* OR AB afghanistani* OR AB afghani* OR AB afghanese OR AB Kabul OR AB bangladesh OR AB bangladeshi* OR AB Dhaka OR AB benin OR AB "edo people" OR AB "edo person" OR AB bini OR AB Cotonou OR AB "burkina faso" OR AB burkinabe* OR AB Ouagadougou OR AB burundi OR AB burundian* OR AB Gitega OR AB cambodia OR AB cambodian* OR AB “Phnom Penh” OR AB "cabo verde" OR AB "cape verdean" OR AB "cape verdeans" OR AB "cabo verdean" OR AB "cabo verdeans" OR AB Praia OR AB "central african republic" OR AB "central african" OR AB "central africans" OR AB Bangui OR AB chad OR AB chadian* OR AB “N Djamena” OR AB comoros OR AB comorian* OR AB moroni OR AB "democratic republic of the congo" OR AB congolese* OR AB Brazzaville OR AB eritrea OR AB eritrean* OR AB Asmara OR AB ethiopia OR AB ethiopian* OR AB “Addis Ababa” OR AB gambia OR AB gambian* OR AB Banjul OR AB guinea OR AB guinean* OR AB Conakry OR AB guinea-bissau OR AB "bissau guinean" OR AB "bissau guineans" OR AB bissau-guinean* OR AB Bissau OR AB haiti OR AB haitian* OR AB “Port-au-Prince” OR AB kenya OR AB kenyan* OR AB Nairobi OR AB "democratic people's republic of korea" OR AB "north korean" OR AB "north Koreans" OR AB Pyongyang OR AB liberia OR AB liberian* OR AB Monrovia OR AB madagascar OR AB malagasy* OR AB madagascan* OR AB Antananarivo OR AB malawi OR AB malawian* OR AB Lilongwe OR AB mali OR AB malian* OR AB Bamako OR AB mozambique OR AB mozambican* OR AB Maputo OR AB myanmar OR AB burmese*or myanma* OR AB Naypyidaw OR AB nepal OR AB nepali* OR AB nepalese OR AB Kathmandu OR AB niger OR AB nigerien* OR AB Niamey OR AB rwanda OR AB rwandan* OR AB rwandese OR AB Kigali OR AB "sierra leone" OR AB "sierra leonean" OR AB "sierra leoneans" OR AB Freetown OR AB somalia OR AB somali* OR AB Mogadishu OR AB tajikistan OR AB tajikstani* OR AB tajik* OR AB Dushanbe OR AB tanzania OR AB tanzanian* OR AB Dodoma OR	

	AB togo OR AB togolese* OR AB Lome OR AB uganda OR AB ugandan* OR AB Kampala OR AB zimbabwe OR AB zimbabwean* OR AB zimbo* Harare OR AB armenia OR AB armenian* OR AB Yerevan OR AB bhutan OR AB bhutanese OR AB Thimphu OR AB bolivia OR AB bolivian* OR AB “La Paz” OR AB Sucre OR AB cameroon OR AB cameroonian* OR AB Yaounde OR AB "cape verde" OR AB Praia OR AB congo OR AB "cote d'ivoire" OR AB ivorian* OR AB Yamoussoukro OR AB Abidjan OR AB djibouti OR AB djiboutian* OR AB egypt OR AB egyptian* OR AB Cairo OR AB "el salvador" OR AB salvadoran* OR AB “San Salvador” OR (TI georgia N2 AB republic) OR AB georgian* OR AB Tbilisi OR AB ghana OR AB ghanaian* OR AB Accra OR AB guatemala OR AB guatemalan* OR AB guatemalteco* OR AB guatemalense* OR AB “Guatemala City” OR AB guyana OR AB guyanese OR AB Georgetown OR AB honduras OR AB honduran* OR AB Tegucigalpa OR AB indonesia OR AB Bengkulu OR AB indonesian* OR AB india OR AB indian* OR AB “New Delhi” OR AB kiribati OR AB “South Tarawa” OR AB gilbertese* OR AB kosovo OR AB kosovar* OR AB kosovan* OR AB Pristina OR AB kyrgyzstan OR AB kyrgyzstani* OR AB kirgiz OR AB kirghiz OR AB kyrgyz OR AB Bishkek OR AB laos OR AB laotian* OR AB lao OR AB Vientiane OR AB lesotho OR AB mosotho* OR AB basotho* OR AB Maseru OR AB mauritania OR AB mauritanian* OR AB Nouakchott OR AB micronesia OR AB micronesian* OR AB Palikir OR AB moldova OR AB moldovan* OR AB Chisinau OR AB mongolia OR AB mongolian* OR AB Ulaanbaatar OR AB morocco OR AB moroccan* OR AB Rabat OR AB nicaragua OR AB nicaraguan* OR AB Managua OR AB nigeria OR AB nigerian* OR AB Abuja OR AB pakistan OR AB pakistani* OR AB Islamabad OR AB "papua new guinea" OR AB "papua new guinean" OR AB "papua new guineans" OR AB “Port Moresby” OR AB paraguay OR AB paraguayan* OR AB Asuncion OR AB philippines OR AB filipin* OR AB Manila OR AB pinoy* OR AB pinay* OR AB "independent state of samoa" OR AB samoan* OR AB Apia OR AB "atlantic islands" OR AB "sao tome" OR AB "sao tomean" OR AB "sao tomeans" OR AB santomean* OR AB principe OR AB senegal OR AB senegalese* OR AB Dakar OR AB melanesia OR AB melanesian* OR AB "solomon islands" OR AB "solomon islander" OR AB "solomon islanders" OR AB Honiara OR AB "sri lanka" OR AB "sri lankan" OR AB "sri lankans" OR AB Sinhalese OR AB Colombo OR AB “Sri Jayewardenepura Kotte” OR AB sudan OR AB sudanese OR AB Khartoum OR AB swaziland OR AB swazi* OR AB liswati* OR AB eswatini OR AB syria OR AB syrian* OR AB Damascus OR AB "east timor" OR AB "east timorese" OR AB Dili OR AB "timor leste" OR AB timorese OR AB ukraine OR AB ukrainian* OR AB Kyiv OR AB uzbekistan OR AB uzbekistani* OR AB Tashkent OR AB vanuatu OR AB vanuatuan* OR AB “Port Vila” OR AB vietnam OR AB vietnamese* OR AB Hanoi OR AB "middle east" OR AB "middle eastern" OR AB "west bank" OR AB gaza OR AB palestinian* OR AB gazan* OR AB Ramallah OR AB yemen OR AB yemeni* OR AB Aden OR AB zambia OR AB zambian* OR AB Lusaka OR AB angola OR AB angolan* OR AB Luanda OR AB albania OR AB albanian* OR AB Tirana OR AB algeria OR AB algerian* OR AB Algiers OR AB argentina OR AB argentine* OR AB argentinean* OR AB argentinian* OR AB “Buenos Aires” OR AB samoa OR AB samoan* OR AB azerbaijan OR AB azerbaijani* OR AB azeri* OR AB Baku OR AB "republic of belarus" OR AB belarus OR AB belarusian* OR AB Minsk OR AB belize OR AB belizean* OR AB Belmopan OR AB bosnia-herzegovina OR AB bosnian* OR AB Sarajevo OR AB botswana OR AB batswana* OR AB motswana* OR AB Gaborone OR AB brazil OR AB	

	brazilian* OR AB Brasilia OR AB bulgaria OR AB bulgarian* OR AB Sofia OR AB colombia OR AB colombian* OR AB Bogota OR AB "costa rica" OR AB "costa rican" OR AB “san jose” OR AB "costa ricans" OR AB cuba OR AB cuban* OR AB Havana OR AB dominica OR AB dominican* OR AB "dominican republic" OR AB “Santo Domingo” OR AB ecuador OR AB ecuadorian* OR AB “Quito” OR AB "equatorial guinea" OR AB equatoguinean* OR AB "equatorial guinean" OR AB "equatorial guineans" OR AB Malabo OR AB fiji OR AB fijian* OR AB Suva OR AB gabon OR AB gabonese OR AB gabonaise OR AB grenada OR AB grenadian* OR AB “St George” OR AB iran OR AB iranian* OR AB tehran OR AB iraq OR AB iraqi* OR AB baghdad OR AB jamaica OR AB jamaican* OR AB jordan OR AB jordanian* OR AB Amman OR AB kazakhstan OR AB kazakhstani* OR AB Astana OR AB lebanon OR AB lebanese OR AB Beirut OR AB libya OR AB libyan* OR AB Libreville OR AB macedonia OR AB macedonian* OR AB Skopje OR AB malaysia OR AB malaysian* OR AB “Kuala Lumpur” OR AB “Putrajaya” OR AB "indian ocean islands" OR AB maldives OR AB maldivian* OR AB "marshall islands" OR AB marshallese OR AB Maijuro OR AB mauritius OR AB mauritian* OR AB mexico OR AB mexican* OR AB “Mexico City” OR AB montenegro OR AB montenegrin* OR AB Podgorica OR AB namibia OR AB namibian* OR AB Windhoek OR AB palau OR AB palauan* OR AB Ngerulmud OR AB panama OR AB panamanian* OR AB peru OR AB peruvian* OR AB Lima OR AB romania OR AB romanian* OR AB Bucharest OR AB russia OR AB russian* OR AB Moscow OR AB serbia OR AB serbian* OR AB Belgrade OR AB seychelles OR AB seychellois* OR AB Victoria OR AB seselwa* OR AB "south africa" OR AB "south african" OR AB "south africans" OR AB Bloemfontein OR AB “Cape Town” OR AB Pretoria OR AB "saint lucia" OR AB "saint lucian" OR AB "saint lucians" OR AB Castries OR AB "saint vincent and the grenadines"or "st vincent" OR AB "saint vincent" OR AB "grenadines" OR AB Kingstown OR AB "west indies" OR AB vincentian* OR AB grenadinian* OR AB vincy OR AB suriname OR AB surinamese* OR AB Paramaribo OR AB thailand OR AB thai OR AB Bangkok OR AB tonga OR AB tongan* OR AB “Nuku alofa” OR AB tunisia OR AB tunisian* OR AB turkey OR AB turkish OR AB turk OR AB Ankara OR AB turkmenistan OR AB turkmenistani* OR AB turkmen* OR AB turkmenian* OR AB Ashgabat OR AB tuvalu OR AB tuvaluan* OR AB Funafuti OR AB venezuela OR AB venezuelan* OR AB "low resource" OR AB "under-resourced" OR AB underresourced OR AB "resource poor" OR AB "resource limited" OR AB "under-developed" OR AB underdeveloped OR AB "developing country" OR AB "developing countries" OR AB "developing world" OR AB "third world" OR AB lmic OR AB lmics OR AB "central america" OR AB "central american" OR AB "south America" OR AB "south american" OR AB "southeast asia" OR AB "southeast asian" OR AB "pacific islands" OR AB "pacific islander" OR AB "pacific islanders" OR AB "sub-saharan" OR AB "sub Saharan" OR AB caribbean OR AB "latin America" OR AB "latin American" OR AB oceania OR (TI low N2 AB income) OR (TI middle N2 AB income)	
S3 Combined	S1 and S2	507

Global Index Medicus (via World Health Organization)
Search date: 10/31/2025

Concept	Strategy	Results
1 Return-to-play	((return* or resume* or restart* or recommenc* or medicine or rehab*) NEAR4 (sport* or play* or game* or compete* or competition*)) or ((RTS or RTP) and (sport*))	34

Appendix B

B.1 Country Classification

World Bank Low- income, Low-middle income and Upper-middle income classified countries.

Country	World Bank Classification
Afghanistan	Low Income
Bangladesh	Lower-Middle Income
Benin	Lower-Middle Income
Burkina Faso	Low Income
Burundi	Low Income
Cambodia	Lower-Middle Income
Central African Republic	Low Income
Chad	Low Income
Comoros	Lower-Middle Income
Democratic Republic of the Congo	Low Income
Eritrea	Low Income
Ethiopia	Low Income
Gambia	Low Income
Guinea	Low Income
Guinea-Bissau	Low Income
Haiti	Lower-Middle Income
Kenya	Lower-Middle Income
Democratic People's Republic of Korea	Low Income*
Liberia	Low Income
Madagascar	Low Income
Malawi	Low Income
Mali	Low Income

Country	World Bank Classification
Mozambique	Low Income
Myanmar	Lower-Middle Income
Nepal	Lower-Middle Income
Niger	Low Income
Rwanda	Low Income
Sierra Leone	Low Income
Somalia	Low Income
Tajikistan	Lower-Middle Income
Tanzania	Lower-Middle Income
Togo	Low Income
Uganda	Low Income
Zimbabwe	Lower-Middle Income
Armenia	Upper-Middle Income
Bhutan	Lower-Middle Income
Bolivia	Lower-Middle Income
Cameroon	Lower-Middle Income
Cabo Verde	Lower-Middle Income
Congo (Republic of the Congo)	Lower-Middle Income
Côte d'Ivoire	Lower-Middle Income
Djibouti	Lower-Middle Income
Egypt	Lower-Middle Income
El Salvador	Lower-Middle Income
Georgia	Upper-Middle Income
Ghana	Lower-Middle Income
Guatemala	Upper-Middle Income
Guyana	Upper-Middle Income

Country	World Bank Classification
Honduras	Lower-Middle Income
Indonesia	Lower-Middle Income
India	Lower-Middle Income
Kosovo	Upper-Middle Income
Kyrgyzstan	Lower-Middle Income
Laos	Lower-Middle Income
Lesotho	Lower-Middle Income
Mauritania	Lower-Middle Income
Micronesia	Lower-Middle Income
Moldova	Lower-Middle Income
Mongolia	Lower-Middle Income
Morocco	Lower-Middle Income
Nicaragua	Lower-Middle Income
Nigeria	Lower-Middle Income
Pakistan	Lower-Middle Income
Papua New Guinea	Lower-Middle Income
Paraguay	Upper-Middle Income
Philippines	Lower-Middle Income
Samoa	Upper-Middle Income
Senegal	Lower-Middle Income
Sri Lanka	Lower-Middle Income
Sudan	Low Income
South Sudan	Low Income
Eswatini	Lower-Middle Income
Syria	Low Income
Timor-Leste	Lower-Middle Income

Country	World Bank Classification
Ukraine	Lower-Middle Income
Uzbekistan	Lower-Middle Income
Vanuatu	Lower-Middle Income
Vietnam	Lower-Middle Income
Yemen	Low Income
Zambia	Lower-Middle Income
Angola	Lower-Middle Income
Albania	Upper-Middle Income
Algeria	Upper-Middle Income
Argentina	Upper-Middle Income
Azerbaijan	Upper-Middle Income
Belarus	Upper-Middle Income
Belize	Upper-Middle Income
Bosnia and Herzegovina	Upper-Middle Income
Botswana	Upper-Middle Income
Brazil	Upper-Middle Income
Bulgaria	Upper-Middle Income
Colombia	Upper-Middle Income
Costa Rica	Upper-Middle Income
Cuba	Upper-Middle Income
Dominica	Upper-Middle Income
Dominican Republic	Upper-Middle Income
Ecuador	Upper-Middle Income
Equatorial Guinea	Upper-Middle Income
Fiji	Upper-Middle Income
Gabon	Upper-Middle Income

Country	World Bank Classification
Grenada	Upper-Middle Income
Iran	Lower-Middle Income
Iraq	Upper-Middle Income
Jamaica	Upper-Middle Income
Jordan	Upper-Middle Income
Kazakhstan	Upper-Middle Income
Lebanon	Lower-Middle Income
Libya	Upper-Middle Income
Malaysia	Upper-Middle Income
Maldives	Upper-Middle Income
Marshall Islands	Upper-Middle Income
Mauritius	Upper-Middle Income
Mexico	Upper-Middle Income
Montenegro	Upper-Middle Income
Namibia	Upper-Middle Income
Palau	Upper-Middle Income
Panama	Upper-Middle Income
Peru	Upper-Middle Income
Romania	Upper-Middle Income
Russia	Upper-Middle Income
Serbia	Upper-Middle Income
Seychelles	Upper-Middle Income
South Africa	Upper-Middle Income
Saint Lucia	Upper-Middle Income
Saint Vincent and the Grenadines	Upper-Middle Income
Suriname	Upper-Middle Income

Country	World Bank Classification
Thailand	Upper-Middle Income
Tonga	Upper-Middle Income
Tunisia	Lower-Middle Income
Turkey	Upper-Middle Income
Turkmenistan	Upper-Middle Income
Tuvalu	Upper-Middle Income
Venezuela	Upper-Middle Income

Appendix C

Table 6 C.1: Overall findings and limitations

Study title	Study Aim	Country of study	Notable gaps or limitations	Key RTP insights from this study	DOI/ URL
The impact of 8-week re-training following a 14-week period of training cessation on Greco-Roman Wrestlers	This study aimed to examine the changes in physical and physiological conditions in elite wrestlers from the Turkish National Wrestling Team, who experienced 14 weeks of restricted physical activity during the COVID-19 lockdown, followed by an 8-week period of retraining and competition.	Turkey	Lack of baseline measurements.	As a result of eight-week retraining period, a clear and progressive decrease in body fat percentage and an increase in muscle mass were observed. Following this training period, the Specific Wrestling Fitness Test (SWFT), which is used to assess wrestlers' physical fitness capacity, showed significant improvements in performance scores.	https://doi.org/10.1371/journal.pone.0326731
The Brazilian Society of Cardiology and Brazilian Society of Exercise and Sports Medicine Updated Guidelines for Sports and Exercise Cardiology – 2019	Brazilian Guidelines for Sports and Exercise Cardiology	Brazil	Understanding of ECG interpretation in Athletes is still limited,	Provides guidelines for athletes RTS following cardiac incidents. Pre-screening prior to RTS is advised. ECG screening protocols following Myocarditis is outlined. Recommends asymptomatic for 3 months in athletes recovering from Long QT syndrome. Requires screening with ECG.	10.5935/abc.20190048
Machine learning models for reinjury risk prediction using cardiopulmonary exercise testing (CPET) data: optimizing athlete recovery	This study aimed to develop machine learning models to predict reinjury risk among elite soccer players using CPET data. Specifically, we sought to identify key physiological and performance variables that	Iran	Lack of comparative studies, limited labelled data, limited application across all sports.	Machine learning models, particularly CatBoost and SVM, provide promising tools for predicting reinjury risk using CPET data. These models offer clinicians more precise, data-driven insights into athlete recovery and risk management. Future	https://doi.org/10.1186/s13040-025-00431-2

	correlate with reinjury and to evaluate the performance of various ML algorithms in generating accurate predictions.			research should explore the integration of external factors such as training load and psychological readiness to further refine these predictions and enhance injury prevention protocols.	
Investigation of the knowledge of South African high school rugby coaches on concussion and the return-to-play protocol	To investigate the knowledge of South African high school rugby coaches on concussion symptom recognition, knowledge and stepwise return-to-play (RTP) protocols.	South Africa	Younger coaches lacked knowledge of concussion protocol.	This present research undertaking has shown that the participants (high school rugby coaches in South Africa) have high general, symptom-specific, and overall concussion knowledge that is comparable to other similar international studies. However, coaches' knowledge of emotional symptoms, cognitive rest and RTP strategies/management, need to be improved and updated. The age of the coach (mostly in terms of experience), the size of the school and their BokSmart accreditation status were significant predictors of superior knowledge related to concussion.	10.17159/2078-516X/2022/v34i1a12255
Risk factors of knee reinjury after anterior cruciate ligament reconstruction	This study aimed to investigate whether the return to level I sports, concomitant injuries, foot-related problems, and other factors would increase the risk of knee reinjury after anterior cruciate	Indonesia	Differences in the intensity of the partici-pants' sports activities could confound the results; for exam-ple, a substantial proportion of participants who returned to sports were not	This study demonstrated that for post-ACLR patients, return-ing to level I sports, concomitant meniscus injuries, and more knee symptoms during the first month after surgery predicted the risk of knee	https://doi.org/10.1007/s00264-023-06084-2

	ligament reconstruction (ACLR).		restricted in terms of duration and frequency of training per week, and excessive training by these partici-pants may have affected knee reinjury.	reinjury over a two year period, and con-comitant PCL injuries increased the risk during the first year only. Clinicians should consider the presence of concomitant injuries and early knee symptoms and provide appropriate rehabilitation to facilitate the healing of the structures.	
Measurement properties of the Brazilian Portuguese anterior cruciate ligament - return to sport after injury (ACL-RSI) scale short version after anterior cruciate ligament reconstruction	To verify the validity and reliability of the ACL-RSI-short version (ACL-RSI-SV) in Bra-zilian Portuguese in individuals who underwent ACLR.		Cultural translation of ACL RSI SV due to extraction from the full version.	The ACL-RSI-SV in Brazilian Portuguese is a consistent, valid, and reliable instrument to assess patients who have undergone ACLR, with good ability to identify those who return to sport to a lower level, those who return at the pre-injury level, and those who do not return to sport.	https://doi.org/10.1016/j.bjpt.2022.100421
Clinical Decision Algorithm Associated With Return to Sport After Anterior Cruciate Ligament Reconstructio n	To develop a clinical decision algorithm that could predict RTS and non-RTS based on the differences in the variables after anterior cruciate ligament reconstruction.	Brazil	performance on functional tests, rehab protocols were not controlled.	The ACL-RSI score was the predictor of RTS at the preinjury level,The classification algorithm provided by CART, especially at the preinjury level, helps in clinical decision making about the appropriate treatment and the best time to release these athletes. The association of other factors, such as hop-test performance, with RTS should be verified in future studies.	10.4085/1062-6050-82-19
Combining return to sport,	To investigate the combinations of variables that	Brazil	Performance based functional tests are vital to include in	The combination of hamstring strength symmetry, ham-	https://doi.org/10.1007/s001

psychological readiness, body mass, hamstring strength symmetry, and hamstring/quadriceps ratio increases the risk of a second anterior cruciate ligament injury	comprise the biopsychosocial model domains to identify clinical proiles of risk and protection of second anterior cruciate ligament injury.		understanding readiness to return to play.	string/quadriceps ratio (body functions); RTS (activity and participation); psychological readiness and BMI (personal factors) were able to identify three clinical risk proiles and four protective proiles for a second ACL injury with good accuracy.	67-023-07559-w
Psychological Readiness after Injury and Its Impact on Fear of Return and Re-injury in Young Football Players	Given the importance of psychological factors following injury, this study aimed to examine the impact of psychological readiness on the fear of returning to training and competition, as well as the fear of re-injury, among young football players.	Iran	Sampling bias due to the positive reporting seen in atheltes who volunteer for this type of study.	According to the findings, it is suggested that coaches of sports teams, especially in high-contact sports like football, acquire the necessary knowledge and awareness about the psychological readiness of their athletes, and by using the appropriate instruments, assess and examine the mental states of their athletes, thereby helping to reduce and eliminate their fears and negative emotions about injury and re-injury. Also, sports psychologists who are working with sports teams should comprehensively examine the psychological readiness of injured athletes who have completed the recovery process and want to return to training and competition, and	http://dx.doi.org/10.61838/kman.intjssh.8.3.7

				provide these individuals with the necessary guidance if there are problems, such as fear of re-injury. Finally, families of athletes who have suffered severe physical injuries should communicate with team coaches, regularly check on the mental and emotional state of their children, and provide them with the necessary support if needed.	
Current clinical practice and return-to-sport criteria after anterior cruciate ligament reconstruction: a survey of Brazilian physical therapists	The purpose of this study was to describe the current clinical practice of Brazilian physical therapists that treat patients after anterior cruciate ligament reconstruction, including the measures/criteria used to support the decision-making process regarding return to sport. The secondary aim was to investigate factors associated with the use of the most recommended measures/criteria for return to sport.	Brazil	Lack of adherence to current RTS protocol.	Less than 10% of Brazilian physical therapists use all of the primary measures/criteria recommended in the scien-tific literature to determine readiness to RTS after ACLR. Although most practitioners use measures related to phys-ical factors in this decision-making process (e.g., muscle strength and knee range of motion), only a small number of physical therapists use validated self-report functional and psychological questionnaires. The use of recommended measurements to determine RTS was associated with cer-tification in Sports Physical Therapy, but not years of experience or academic degree.	https://doi.org/10.1016/j.bjpt.2020.05.014

Suprapectoral Biceps Tenodesis for Isolated SLAP Tears in Competitive Athletes Yields High Return to Sport Rates: Prospective Cohort Study of 50 Athletes	The purpose of the present study was to assess the functional outcomes and return to sport for athletes undergoing suprapectoral biceps tenodesis.	India	Lack of comparison studies to develop rigorous RTP protocol.	Biceps tenodesis is a safe and reproducible procedure for the treatment of isolated SLAP tears in athletes. The present study, the first of its kind for Indian athletes, shows that biceps tenodesis has excellent functional outcomes and a high rate of return to sport.	https://doi.org/10.1007/s43465-025-01387-5
Muscle injury: current perspectives and trends in Brazil	To evaluate the management, procedures and perspectives of sports physicians and orthopedists in Brazil with regard to diagnosing and treating muscle injuries.	Brazil		The number of muscle injury cases treated every year was greater than 30, independent of whether this was in the public or private sector. The injuries occurred mainly at the muscle–tendon junction, in the lower limbs and during the eccentric phase of muscle contraction. Ultrasound was the examination most used, while magnetic resonance imaging was considered to be ideal. The preferred treatment involved rest, medication and physiotherapy, for the majority of the interviewees. Moreover, 52% of the physicians believed that PRP was efficient and 42% said that they had used it. For the return to sports practice, the main criteria used by the participants were comparison of muscle strength with the contralateral side, comparison of the combined results	http://dx.doi.org/10.1016/j.rboe.2013.10.003

				from the visual analog pain scale and muscle strength with the contralateral side and the patient's confidence. The great challenge in treating muscle injuries probably relates to the exact time at which injured patients can return to their sports activities at a high performance level. Today, many criteria are used to measure this capacity to return, but in most cases these methods are still subjective, with little scientific evidence.	
Anterior cruciate ligament and meniscal injuries in sports: incidence, time of practice until injury, and limitations caused after trauma	To analyze the incidence of ACL and meniscal injuries in a population of recre- ational and elite athletes from Brazil and the relation of these injuries with their sports activities.	Brazil	The collection of multipart studies limits contextual understanding of injury risk and RTS pathway in sport specific contexts.	Soccer was the sport that caused the majority of lesions, regardless the group. Besides that, patients from group 1 and 2 had less time of practice (17.81 and 17.3 years) than the patients of group 3 (26.91 years) until suffer the injuries. Women displayed higher risk to develop ACL and menisci injury by 1000 h of game/practice. Running, volleyball and gym are in ascending order of risk for ACL and/or meniscal injury. When evaluated the return to sport practice, the efficiency of all athletes was impaired because of the injury.	http://dx.doi.org/10.1016/j.rboe.2016.04.008
Investigating the Present Procedure in	The aim of this study is to investigate the	iran	No fixed standard RTP procedure, poor levels of	Overall findings of this research indicate that in the Iranian	https://regroup-production.s3.

Return to Play After Injury in Athletes of Football Primary League in Iran	present procedure in return to play after injury in athletes of football primary league in Iran.		agreement within team as to who is responsible for decision making process, coaches tend to have less control, evaluation completed by physicians.	Premier League football teams there is no a fixed and standard procedure for return to play and the teams do not use fitness tests for evaluation of players health. Similarly, in the process of injured athlete's returning to competition, the opinions of medical board are considered crucial and, thus, incomplete recovery and quick return to the exercises play an important role in being reinjured in football.	amazonaws.com/documents/ReviewReference/1543966122/1466-1470.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260203%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260203T170413Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=0b4d2184550a2d44351568f5e334282f02dfb211f5ba122868d802b5558240f1
ollegiate Athletes' Concussion Awareness, Understanding, and -Reporting Behaviors in Different Countries With Varying Concussion Publicity	To determine if differences were present in the concussion awareness, understanding, and -reporting behaviors of collegiate athletes' in 3 countries with varied degrees of concussion publicity.	USA, Ireland, Jordan	Jordanian athletes predominantly reported never having received concussion information from any source.	We identified significant cross-cultural differences in C-AUB among countries with various levels of concussion publicity, which may be used to help inform global concussion initiatives.The public health messages used to address C- AUB in the United States may not be culturally appropriate in other	https://regroup-production.s3.amazonaws.com/documents/doi/10.4085/1062-6050-0575.19/i1062-6050-56-1-77.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-

				regions of the world. Sports medicine professionals and researchers within each cultural context should seek out stakeholders in diverse sport communities to obtain a deeper understanding of the current resources and barriers to help inform concussion messaging to address the specific needs of that population. Efforts must be made to ensure that all athletes, across all levels of competition and all borders, are provided with consistent, evidence-based concussion education and management; yet that will likely look different in each country, depending on specific cultural needs.	Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260203%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260203T171517Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=ad23455bd1d23098e84b82893506977ed9d3e198c4685a468c117659a8948d84
The incidence and severity of COVID-19 in adult professional soccer players in Russia	This research aims to investigate the clinical course of COVID-19 infection and its impact on the performance of adult professional soccer players as one of the most significant practical importance in sports medicine at the moment.	Russia	The importance of continuous monitoring even after RTP was highlighted following OCVID-19 infection due to adverse effect of organ function following infection.	COVID-19 infection was commonly diagnosed among adult professional soccer players in Russia. However, most infections had a mild course and did not impair return to regular exercise.	https://doi.org/10.1371/journal.pone.0265019
Sport-Specific Rehabilitation, but Not PRP Injections, Might Reduce the Re-Injury Rate of	We examined the efficacy of various PRP protocols in the management of muscle injuries in professional soccer players in	Russia	Access to MRI supported RTP.	Soccer-specific rehabilitation significantly reduced the injury recurrence rate when compared to the administration of PRP	https://doi.org/10.3390/jfmk7040072

Muscle Injuries in Professional Soccer Players: A Retrospective Cohort Study	respect to treatment duration and injury recurrence.			injections. MRI/US imaging before returning to play also was associated with a lower injury recurrence rate. There was no significant difference between the PRP injection protocol applied to any muscle and the treatment duration in treatment of type 2A–2B muscle injuries.	
Anterior Cruciate Ligament Ruptures in Russian Premier League Soccer Players During the 2010 to 2021/2022 Competitive Seasons	To study the epidemiology of ACL ruptures and determine the patterns associated with their occurrence in RPL soccer players.	Russia	Almost all Russian players included in this study did not receive surgery in Russia. Large limitation of care delivery.	Almost all players were able to return to competitive activity after ACL reconstruction. The estimated duration of RTP after primary ACL reconstruction in RPL players was longer than in previous studies in players of other top leagues; however, this difference may be due to a variation in the RTP definition.	10.1177/232596712412619157
HLA B27-positive ankylosing spondylitis professional soccer player with a successful return to sports	To present a case with AS that successfully returned to professionally playing sports after treatment.	Russia	Lack of protocol for rare diseases and specifically rheumatic disease. Ongoing therapy was vital for full return to professional football.	The case study states the return to play for a young professional soccer player with AS returning to his professional activity. Further monitoring is warranted and the creation of an athlete database with similar diseases in order to standardize patient treatment protocols with initially very high levels of physical activity is essential.	https://doi.org/10.1016/j.ejr.2023.06.001
Anterior Cruciate	Highlight context specific ACL	Nepal	Players are not getting aids or	Rehabilitation in Nepal depends upon	10.31729/jnma.6884

Ligament Injury and its Rehabilitation in Nepal	rehabilitation in Nepal.		supports from clubs or country for 6-9 months of continuous rehabilitation. There are very few sports rehabilitation center having regular contact with surgeons and physiotherapist working together under one project.	physiotherapy settings present, such as: 1. Hospital based setting provides In-patient service for 0-1 week post-op, followed by 2-3 weeks OPD basis or else weekly follow-up basis 2. Clinic based settings- long term rehabilitation is adhered to focusing on pain, range of motion and strength but lacks adequate tools and methods for sports specific rehabilitation. 3. Rehabilitation centre based setting- long term rehabilitation provider with adequate tools to return to sports, but rare in a single province. 4. Home based rehabilitation as many players also return to home after surgery and they are prescribed with home based exercise protocol with regular follow-ups. Pros: Specific orthopaedic surgeons as Arthroscopic surgeons are performing sports injury surgeries in large numbers which itself is another scope of rehabilitation. One of the major things to rectify is establishment of sports specific rehabilitation	

				centres that can provide evidence based, protocol-based approach in rehabilitation and return to sports.	
Epidemiology of injuries and illnesses among female cricketers in Bangladesh's first-class cricket: a retrospective analysis (2015–2021)	This retrospective study aimed to examine the incidence, types, and patterns of injuries and illnesses among female cricketers in the first-class cricket of Bangladesh between 2015 and 2021.	Bangladesh	Lack of full understanding of nutrition, specific protocols and medical care that can effect the injury and RTP for these players.	Physiotherapy emerged as the primary treatment method, though only a small percentage of athletes were able to fully regain their pre-injury performance levels. a lack of injury prevention knowledge further increased the risk of injuries, emphasizing the need for enhanced education and tailored injury prevention and rehabilitation programmes to support player health and long-term performance.	https://doi.org/10.1080/15438627.2024.2440066
Improving sports rehabilitation for athletes: addressing gaps in current practices to improve recovery outcomes	This study aims to enhance sports rehabilitation practices in the Philippines by evaluating the profiles of injured athletes, assessing the effectiveness of current rehabilitation strategies, and identifying areas for improvement.	Philippines	Future research should focus on evaluating the long-term effectiveness of various rehabilitation protocols, including those integrating psychological and social dimensions. Investigating sport-specific rehabilitation pathways, comparing outcomes between standard and tailored protocols, and assessing the impact of emerging technologies—such	Practical applications of these findings include the development of more nuanced and personalized rehabilitation programs that address the specific needs of different athlete demographics and injury types. Enhancing the training and resources available to rehabilitation centers, as well as implementing targeted preventive measures, can significantly improve recovery outcomes. Additionally, fostering strong support systems	https://doi.org/10.17979/sportis.2025.11.3.11643

			as wearable sensors, virtual reality, or AI-assisted rehab—could contribute substantially to advancing this field. Additionally, researchers should explore how rehabilitation culture, access, and athlete perceptions vary across different regions and levels of competition (Tranaeus et al., 2024).	within rehabilitation programs can further enhance athletes' recovery experiences and overall effectiveness.	
Return to play of young and adult professional athletes after COVID-19: A scoping review	Given the persistence of COVID-19 under various facets and mutations, there is an urgent need to understand the debate on a safe return to play for professional athletes (young and adults) recovering from the infection. This work offers a scoping and comprehensive review on the topic during the first two years of the pandemic event by providing an identification of main clusters of research, relevant gaps and significant insights for future investigation.		The investigation highlights the need towards further studies considering physical or mental rehabilitation after COVID particularly relevant for female athletes. Similarly, cognitive rehabilita-tion helps athletes to regain cognitive functions and adapt to any long-term change from the infection.	Two relevant gaps should be filled in the incoming years. First, a better understating of COVID-19 impacts (and the effects of rehabilitation practices) on female athletes. Understanding athletes across sports disciplines; as well as testing the differences be-tween and across the above groups of ad-hoc rehabilitation practices for the recovery of the illness. Finally, an investigation based on a detailed recovery management of the athlete including ad-hoc sport and training techniques other than phyco-cognitive therapies is advised for a future debate. Screening is vital for appropriate timing of RTP.	https://doi.org/10.1016/j.jesf.2024.03.005

Knowledge and awareness of anterior cruciate ligament injury among Turkish professional athletes: an online survey	The purpose of this study was to assess the awareness and knowledge of professional team sport athletes about ACL injuries, injury prevention programs, and the return to sports after ACL injuries.	Turkey	Understanding of RTP timelines is shorter than literature suggests, more trust put in physiotherapists than other professionals suggests reliance during the RTP process.	Our study revealed that professional team sport athletes have limited awareness of ACL prevention training programs. Furthermore, the athletes' knowledge regarding the optimal timing for returning to sports after ACL injury and the feasibility of participating in sports without an ACL is inadequate.	https://doi.org/10.1080/15438627.2023.2252128
Return to sport and knee functional scores after anterior cruciate ligament reconstruction : 2 to 10 years' follow-up	This study aimed to assess the percentage of ACL reconstruction patients who successfully returned to sport activities. Factors associated with being able to return to sport were also determined.	Thailand	Lack of understanding of functional tests in practice, specific imaging (MRI) etc., Differences in defining the RTP threshold, some athletes reporting return to cycling and jogging but not sports involving cutting and changing directions.	In conclusion, this study demonstrated that 36.4% of partici-pants attempted to return to sport after ACL reconstruction which was inconsistent with the return to pre-injury activity level per-centages reported in other recent studies. The main reasons for not returning to sport were fear of pain, repeated injury and long-term effects. Younger participants with lower income were more likely to return to sports participation than older subjects, and this may re ect their lifestyle factors. IKDC score was a factor associated with return to sport.	https://doi.org/10.1016/j.asmart.2018.01.003
Resilience, stress and injuries in the context of the Brazilian elite rhythmic gymnastics	The study had the goal to study the relationship between resilience, stress and injuries in the sport context.	Brazil	Lack of knowledge of non elite individuals, and other sports to modern appropriate interventions for	We conclude that psychological resilience can play a significant role in the process of injury rehabilitation, but not on injury occurrence.	https://doi.org/10.1371/journal.pone.0210174

			psychological readiness to return to sport.	Resilient athletes will overcome the unpleasant feelings and emotions following an injury and better deal with the negative psychological aspects of it; these athletes can then engage more actively and positively toward rehabilitation, possibly speeding up their return to practice.	
Performance in field-tests and dynamic knee valgus in soccer players psychologically ready and not ready to return to sports after ACL reconstruction	The objective was to compare the performance in field tests, dynamic knee valgus, knee function, and kinesiophobia of soccer players who were psychologically ready and not ready to return to unrestricted training or competitions after ACL reconstruction.	Brazil	Lack of female soccer players and different team recruitment with different training protocols could impact RTP.	Players who reported themselves as unprepared to return to sports at the time of medical release had lower performance in field tests that involved planned and unplanned reactive direction changes and increased dynamic knee valgus during the single-leg squat. The limb symmetry in hop test was not different between groups. In addition, they had lower knee function, and higher fear of movement-related pain. The results of the present study suggest that the field tests could be included in the evaluation of soccer player after ACL reconstruction before clearance to return to sport. In addition, our results indicate that some individuals remain with deficits after rehabilitation such as greater knee valgus, lower self-reported function, and	https://doi.org/10.1016/j.knee.2023.04.011

				greater fear of movement-related pain. This is especially worrying in the case of increased knee valgus, which can pre- dispose the athlete to a new injury after return to unrestricted training and competitions.	
Current trends in reconstruction surgery and rehabilitation of anterior cruciate ligament in Turkey	This study aims to determine the current approaches to surgical techniques and reha- bilitation protocols used in anterior cruciate ligament (ACL) reconstruction performed by Turkish orthopedic surgeons and to compare their results with the data of “ACL Study Group”.	Turkey		The present study is of vital importance as it is the first study conducted in our country to introduce the surgical and rehabilitation approaches of knee surgeons who intensively perform ACL reconstruction. The results obtained from the study were simi- lar to those of the current approaches used in “ACL Study Group”.	10.3944/AOTT.2010.2388
Cross-cultural adaptation, validation, and reliability testing of the psychological readiness of injured athlete to return to sport (PRIA-RS) questionnaire in Turkish athletes	This study aimed to adapt the Psychological Readiness of Injured Athlete to Return to Sport (PRIA-RS) questionnaire into Turkish and to evaluate its validity and reliability.	Turkey	Emphasis on the importance of context specific RTP protocols and readiness assessment due to the context specific nature of this study. The wide range of sports that the PRIA-RS was used on limits the homogeneity of the data. Limits true understanding of RTP for sport specific contexts.	It was concluded that the PRIA-RS-TR has good internal consistency, reliability, and construct validity. It can be used as an outcome measure to assess Turkish athletes’ psychological readiness for return to sport after injury.	https://doi.org/10.1016/j.jbmt.2025.05.034
Epidemiology of Upper Limb Injuries in two major Brazilian Soccer	To evaluate epidemiological data of upper limb injuries in professional athletes who	Brazil	No consensus on the definition of injury in literature, making cross study comparison difficult.	Shoulder injuries were the most frequent upper limb injury during two major Brazilian soccer	https://doi.org/10.1186/s40634-022-00560-1

Championships from 2016 to 2019	participated in two major Brazilian soccer championships between 2016 and 2019			championships. Dislocations were the most common type of injury and were associated with episodes of recurrence. Gleno-humeral dislocations were the most prevalent diagnosis, primarily affecting the defenders. Forward players suf-fered the most upper limb injuries, and the goalkeep-ers were the ones who had the most lost time. Injuries requiring surgical treatment were associated with addi-tional lost time.	
Responsiveness of the Indonesian Versions of the Anterior Cruciate Ligament-Return to Sport After Injury Score, the International Knee Documentation Committee Subjective Knee Form, and the Lysholm Score in Patients With ACL Injury	The purpose of this study was to determine the responsiveness of the ACL-RSI, IKDC, and Lysholm scores in an Indonesian-speaking population with ACL injury. It was hypothesized that they would have good responsiveness.	Indonesia	In addition, this study was conducted using the Indonesian version of those scales in an Indonesian population with ACL injury. These findings are not trans-ferable either to the other-language versions or to other populations.	The Indonesian ACL-RSI, IKDC, and Lysholm scores indi-cated good responsiveness and can be used in the follow-up of patients after ACL injury, especially at the group level. In individual patients, IKDC seems more efficient than the other 2 scales in detecting clinically important changes over time after ACL treatment.	10.1177/2325967123119182 7
Effectiveness of Ultrasound-guided Platelet-rich Plasma Injection vs Pulsed Ultrasound Therapy on	To determine the effectiveness of Ultrasound (USG)-guided PRP injection in comparison with pulsed ultrasound therapy in improving pain and function in	India	Lack fo sample size to create consensus in Indian population.	Using low-intensity pulsed ultrasound post-ligament injury may expedite athletes' return to activity after MCL injury, highlights importance of access to RTP aids, Ultrasound-guided PRP injection, being a	10.7860/JCDR/2024/70054.19622

Improving Pain and Function in Athletes with Medial Collateral Ligament Injury of Knee: A Randomised Controlled Trial	athletes with MCL injury.			minimally invasive procedure, is not a first-line therapy for the management of partial MCL tear. However, as it is highly effective, it may be considered as an adjunct to the standard functional rehabilitation program for patients with partial MCL tear, enabling them to return to their sports activities as earliest as possible. combined protocols is important to optimize RTP timeline	
Current Concepts in Sports Injury Rehabilitation	The current review is an attempt to clarify some of the issues that are important and routinely used world over, with the aim to improving rehabilitation after sports even in the underdeveloped world.	India (Primary Author)	Differing criteria per type of injury. Requires specialist training. Constant functional monitoring is vital for timely RTP.	Modern rehabilitation methods have surpassed traditional management protocols and are based on an active rehabilitation framework that demands equal participation from the athlete and the entire rehabilitation team. Attempts are made to ensure the earliest RTP, and even though the sports clinicians are responsible for a safe transition back to competition, it is important to remember that the athlete has the final say. The role of surgical interventions, as well as pharmaceutical requirements, is need based and beyond the scope of this manuscript, but	10.4103/ortho.IJOrtho_226_17

				the major work on a sportsperson after injury is done by the rehabilitation team. In addition, one must not ignore nutritional supplementation and psychological intervention, which have a major role in getting the athlete back to full fitness, along with injury-free return to sports at the same level when he was injured.	
Epidemiology of Knee Injuries in Indian Kabaddi Players	To study knee injuries in kabaddi players.	India	This was the first assessment of RTP in Kibaddi.	Return to play was significantly higher in those who were treated surgical compared to those who were treated conservatively. Knee joint is most commonly injured region in Kibaddi.	10.5812/asjsm.31670.
Enhancing stability and outcomes in young Indian footballers: The synergistic effect of anterior cruciate ligament reconstruction with lateral extra-articular tenodesis – A prospective observational cohort study	Anterior cruciate ligament (ACL) tears are frequently seen injuries in young footballers that can contribute to chronic knee instability, meniscal injuries, and increased risk of early-onset osteoarthritis if not properly treated.	India	Lack of stated RTP protocol following surgical intervention.	ACL reconstruction, along with LET, is a safe and effective treatment for tears of the ACL in young footballers, resulting in excellent clinical findings, higher rates of return to sports and low rates of graft failure at 1-year follow-up. The addition of LET helps address rotational knee laxity and may protect the ACL graft from excessive forces during the ligamentization process and reduce the chances of graft failure or retear in athletes participating in pivoting sports.	10.25259/JASSM_38_2024
SUPER rehabilitation	This study aimed to create a	Turkey	Preferences for approaches such	As a result, this Delphi study revealed	https://doi.org/10.1080/095

of hamstring strain injuries in soccer players: Delphi consensus study	consensus on physiotherapy and rehabilitation approaches used in HSI by physiotherapists with super league experience in Turkey.		as instrument-assisted soft tissue mobilization technique may have changed because of the different possibilities of clinics or clubs where physiotherapists work.	new, systematic, comprehensive, and practical information on the rehabilitation of HSI with SUPER categorization. SUPER rehabilitation is a simple yet comprehensive and powerful tool that demonstrates clinical approaches to HSI. It offers clues for new research on the rehabilitation of these injuries.	93985.2023.2226732
Translation, cross-cultural adaptation, and validation of the Turkish version of the shoulder instability-return to sport (SI-RSI) after injury scale	To translate and culturally adapt the shoulder instability-return to sport after injury (SI-RSI) scale into Turkish (SI-RSI-Tr) and examine the psychometric properties of the Turkish version of athletes following a traumatic shoulder instability.	Turkey	First, we only included patients who had undergone shoulder stabilization surgery. Therefore, the generalizability of the SI-RSI-Tr in patients with conservatively treated shoulder instability is unknown.	The Turkish version of SI-RSI Scale was found to be valid, reliable, discriminant, and consistent in patients with shoulder instability. The SI-RSI-Tr is likely to prove very useful in examining the effects of psychological factors upon return to sports following an episode of shoulder instability.	https://doi.org/10.1080/15438627.2022.2113881
Pain and Psychological Readiness to Return to Sport in Elite Volleyball Players: A Cross-Sectional Study	To determine the correlation between the PRRS and pain intensity in elite volleyball players during their participation in a continental sporting event.	Mixed	The severity of the injury or pain treatments can also be a confounding factor when examining the return to the sport. Regarding the first, the athletes with more serious injuries can show more prolonged negative psychological responses of greater magnitude [16]. This information could not be compiled given the limited access	In male elite volleyball players who participate in a Continental Championship in South America, there is an inverse and moderate correlation between the PRRS and pain intensity, that is, higher levels of PRRS was correlated to lower pain intensity. Our results show an aspect to be taken into account in the management of athletes with pain who return to competition.	https://doi.org/10.3390/ijerph20032492

			time to the athletes.		
Early physiotherapy rehabilitation of the distal tibia and fibula fractures after fixation – a case report	Regardless of age, gender, profession, or physical activity level, if possible, the preferred procedure should be an open reduction internal fixation (ORIF) surgery because this method has been proven to shorten the treatment period while being harmless to the overall health.	Kosovo	Other studies have already emphasized the importance of other factors such as the psychological and emotional states on the predicting process for returning to sports after an injury (Ardern et al., 2013). We suggest that it is of great importance to first and foremost follow strictly the international guidelines on dealing with injuries in athletic populations	In this context, we propose a novel treatment protocol which we used for our subject (30-year-old female professional football player) which emerges to be promising for future applicability in clinical practice. Our case demonstrated that after the chirurgical fixation, the cooperation of the patient, her motivation, and the application of physiotherapy has been primary and contributory factor in her return to sports.	10.7752/jpes.2023.05156
Return to rugby following musculoskeletal injuries: A survey of views, practices and barriers among health and sport practitioners	The views, current practices and barriers encountered by health and sport practitioners during return to rugby were investigated using a self-developed online survey.	South Africa	Practitioners was hard to access - some recall bias.	Health and sport practitioners value the importance of RTS protocols, however, there is a need to develop and publish frame- works to better guide return to rugby following musculoskeletal injuries. A comprehensive range of RTS criteria related to time frames, clinical, functional, psychological and sport-speci c factors were considered to be both important and practical to evaluate among practitioners. Common barriers encountered during return to rugby involved time-constraints and lack of access (to	https://doi.org/10.1016/j.ptsp.2022.11.009

				funding, equipment and/or health and sport practitioners). Future research should therefore focus on developing return to rugby protocols with consideration of the comprehensive range of criteria, along with awareness of the common barriers encountered during the process. The return to contact phase may be the most important component as it sets rugby apart from most other sports.	
Ankle Sprain Recurrence and Rehabilitation Among Athletes: A Case Study in the West Region of Cameroon 1	To investigate the prevalence, risk factors, and impact of physiotherapy on ankle sprain recurrence among professional and amateur athletes in the West region of Cameroon.	Cameroon	Lack long term insight to outcomes following RTP.	The high recurrence rate is evidence that this condition is neglected in Cameroon. Being a professional athlete and practicing hand-on-ball sports were the main factors associated with ankle sprain recurrence. However, joint functional recovery before restarting sports, performing physiotherapy after the first ankle sprain, and a frequency of sports between three to five times per week were associated with a reduction in the risk of ankle sprain recurrence. As a result, athletes with an ankle sprain should be systematically followed up by a physiotherapist and, above all, fully recover their	10.7759/cureus.73065

				functional capacities before returning to physical activity. The proportion of participants who did not undergo physiotherapy after their first sprain shows that there is a great need to educate athletes in low- and middle-income countries about the benefits of physiotherapy.	
The Brazilian Society of Cardiology and Brazilian Society of Exercise and Sports Medicine Updated Guidelines for Sports and Exercise Cardiology – 2019	Brazilain Guidelines for Sports Cardiology (2019)	Brazil	Interpretation of ECG is limited, technically limitations are prevalent.	Exercise testing, ECG testing required for pre-screening, symptom utilized for participation clearance. Access to diagnostic tools is vital.	10.5935/abc.20190048
Guideline in Sports and Physical Exercise Cardiology of Brazilian Society of Cardiology and Brazilian Society of Sports Medicine	Brazilian sports cardiology guidelines	Brazil		Access to ECG testing vital for screening. Training of medical professionals is vital for screening.	10.5935/abc.2013S002
RETURN TO PLAY AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION	This review investigates the pre-, peri- and post-ACLR factors established in the literature, and shares our clinical practice, which we consider to be best practice for RTP.	Brazil	Psychology is often overlooked in the RTP decision,	After reviewing the literature, together with the experience of our group, we concluded: the choice of graft must take into account the sport practiced; whenever possible, reconstruction of the ALL and suturing of the meniscus should be encouraged; the	http://dx.doi.org/10.1590/1517-8692202026062019_0056

				rehabilitation program must be structured in phases with objective progression criteria so that the athlete is treated/trained at the appropriate intensity, respecting the principle of overload. Subjective questionnaires should be incorporated, not just those established for functionality (eg, Lysholm and IKDC), as well as those for assessing psychological and trust aspects. Hop test and muscle strength measures are mandatory for understanding muscle function and dynamic joint stability. We believe these are the safest practices for the RTP.	
Effects of Aircast brace and elastic bandage on physical performance of athletes after ankle injuries	The aim of this study was to evaluate the effect of using Aircast® orthosis and elastic ban- dage application on the physical performance of athletes with ankle injuries.	Turkey	Limited evaluations techniques available for functional tests limited this study.	In conclusion, elastic bandage and Aircast® bracing did not affect the functional performance and functions of the athlete and can both be used as support and pro- tection after injury. However, in terms of maintaining stability, restricting movement in the inversion-eversion direction and not restricting dorsi/plantarflexion dur- ing its use, Aircast® orthosis is more effective than elastic bandage.	10.3944/AOTT.2014.2981

Cultural narratives in movement: a sociocultural perspective on sports rehabilitation and physical therapy	The study aims to explore the sociocultural dimensions of sports rehabilitation and physical therapy through a multidisciplinary lens. Its core objectives are as follows: • To examine how cultural narratives and symbolic meanings shape the experience of injury, recovery, and physical rehabilitation • To investigate the role of power, identity, and representation within therapeutic and rehabilitative contexts • To identify sociocultural and systemic factors influencing disparities in access to and outcomes of physical therapy services	India	Lack on understanding on longitudinal relationships.	Identity disruption, especially among athletes, highlighted the emotional toll of injury and the challenges of redefining the self about a changed body. Cultural scripts—such as masculinity norms, family obligations, and language expectations—were shown to shape participants' engagement with therapy. The nature of therapeutic relationships further influenced recovery, where empowering, empathetic care fostered greater agency, while hierarchical models often led to emotional detachment and withdrawal. Clinical settings must prioritize cultural responsiveness through language access, shared decision-making, and training programs that embed sociocultural awareness into therapeutic education. Rehabilitation protocols should be flexible enough to accommodate diverse cultural expectations and emotional expressions of recovery.	https://doi.org/10.47197/re-tos.v67.114425
Predictors for Anterior Cruciate Ligament (ACL) Re-injury after Successful	Few authors have addressed risk factors related to an ipsilateral graft rupture and contralateral anterior cruciate	India	we propose large multicentric studies are required to further validate this study.	Risk factors identified in the current study which contribute towards both ipsilateral graft rupture and contralateral ACL	https://doi.org/10.5704/MOJ.2011.009

Primary ACL Reconstruction (ACLR)	ligament (ACL) injury after return to sports (RTS) following primary ACL reconstruction.			injury include posterior tibial slope of ≥ 10º , KT difference of ≥ 3.0mm at 12 months follow-up after primary ACLR, thigh atrophy of ≥ 2.50cm 12 months follow-up after primary ACLR, return to sports before 9.5 months after primary ACLR.	
Translation and cross-cultural adaptation of the anterior cruciate ligament-return to sport after injury (ACL-RSI) scale into Turkish	To translate and culturally adapt the anterior cru- ciate ligament-return to sport after injury (ACL-RSI) scale into Turkish (ACL-RSI-Tr) and examine and evaluate the psychometric properties of the Turkish version in individu- als who have undergone anterior cruciate ligament (ACL) reconstruction.	Turkey	However, there is no evidence in the literature to show that females exhibit different psychological responses in terms of return to sport following ACL injury. In addition, only patients with ACL reconstruction were included in the present study. Further studies are now required in order to test for the generalisability of the ACL-RSI-Tr scale in patients with ACL deficiency.	The Turkish version of the ACL-RSI scale was found to be valid, consistent and reliable in patients who had under- gone ACL reconstruction. This score is likely to prove very useful in evaluating the effect of psychological factors upon return to sport following ACL reconstruction.	10.1007/s00167-016-4288-6
Ligament augmentation repair is broadly applied across different orthopaedic subspecialities: an ISAKOS international survey of orthopaedic surgeons	To evaluate how ligament augmentation repair (LAR) techniques are currently used in different anatomic regions in orthopaedic sports medicine, and to identify the most common indications and limitations of LAR.	International	LAR has a high cost with high barrier to access. Lack of perceived barrier is a large barrier for access. Cost may also play a larger role in speci c regions. For example, while 23% of all non-LAR users report cost as a limitation, 41% of non-LAR	Heat map shows the globe distribution of LAR. Augmented ligament repair techniques are a growing component of the orthopaedic sports medicine landscape. This survey suggests that LAR is a part of orthopaedic practice broadly around the world in all major	https://doi.org/10.1016/j.jisako.2023.04.004

			users from Oceania and Africa report cost as a barrier.	joints and extremities. Although there is a comparable level of literature outcomes for some regions where LAR is reportedly used, other ligament-speci c repairs would bene t from greater representation in clinical literature. Augmented stabilisation and more rapid rehabilitation and return-to-play suggest that LAR techniques hold tremendous potential in the care of athletes at all levels. LAR is more commonly used in elite sports people when compared to recreational athletes.	
Why Do Athletes Remain Committed to Sport After Severe Injury? An Examination of the Sport Commitment Model	The purpose of this study was to examine athletes' sources of commitment to return to sport following a severe injury using the Sport Commitment Model	Phillipines	The expectation of parents was also a prominent source of social constraint driving participants' return to sport.	It was apparent that sport enjoyment, valuable opportunities, personal investments, social constraints, and social support were salient sources of commitment, while other priorities had either a neutral or positive effect on commitment. Furthermore, addi-tional constructs were identified, in particular, wanting to be the best, self-affirmation, and contractual obligations. These merit further investigation and possible inclusion in the SCM.	http://dx.doi.org/10.1123/tsp.2014-0086
Post-concussion return-to-play:	The aim of this study was to compare stakeholders'	South Africa	Limitations to the current study included a low response rate from	lack of consistency in stakeholder responses of post-concussion RTP. Wide range of	DOI: 10.1177/1747954121996677

Perceptions of roles, responsibilities and guideline implementation among community club rugby stakeholders in South Africa	perceptions regarding their roles and responsibilities in terms of the implementation of post-concussion RTP in community club rugby in the Western Cape, South Africa.		the stakeholders, which makes generalising to the community rugby population problematic. A further limitation could be that the questionnaire failed to provide context of the current struggles in community club rugby. Majority of the community rugby clubs within the Western Province struggle financially thus making it difficult to appoint medical staff with a higher qualification, and rather choosing an entry first aider with a level 1 qualification. Consequently, these financial difficulties which prevent these community club players to access private General Practitioners and private hospitals when sustaining a concussion. Limitations also include the sample size of the medical staff, as well as the variance in the type of medical staff,	questions to gain understanding of current protocols, and ability to see gaps and create a more regular and dependable RTP protocol following concussions.	
Days until return-to-play differ for sub-	To document incidence rate and severity of specific	South Africa	Additional limitations are that time-loss was	Prevention strategies are most important in supporting time to	https://doi.org/10.1016/j.jsa

categories of acute respiratory tract illness in Super Rugby players: A cross-sectional study over 5 seasons (102,738 player-days)	sub-categories of respiratory tract illness (RTill) in rugby players during the Super Rugby tournament.		estimated by team physicians at the time of diagnosis, and not the final actual return-to-play. Reporting the actual time-loss days or the specific day of return-to-play, is not always feasi-ble, and therefore disclosed as an estimate. Days until return-to-play are estimated in the majority of published papers on illness. Pre-season medical screening data on the individual player's illness risk profile was not available. Finally, the generalizability of our data to other sport-ing codes may be limited since only Rugby Union players participating in a unique tournament involving substantial intercontinental travel were studied.	return to play. Specific interventions relevant to illness are important to support timely and effective RTP without risk of symptoms becoming worse again.	ms.2021.06.010
Epidemiological profile of sports-related knee injuries in northern India: An observational study at a tertiary care centre	The purpose of this study was to identify common injuries sustained by Indian athletes participating in different sports and to study various associated demographic features. A secondary	India	BMI highly related to the chances of RTP.	Professional athletes more likely to RTS. Prevention helps reduce the severity of sports injury and reduces time to RTP.	http://dx.doi.org/10.1016/j.jcot.2016.02.003

	objective was to investigate different factors, which may affect return to sport by the athlete.				
High training/competition ratio, less incidence of injury? Professional football calendar exploration	his study theorizes that a high training/competition ratio predisposes to fewer injuries in professional footballers. This has not been studied in elite professional players. The objective of this study was to investigate the incidence of injuries in professional players who had a frequency of one competition per week for twelve seasons. Furthermore, it highlights the importance of recovery-training cycles lasting from five to eight days between competitions.	Argentina	The application of protocols for the prevention of injuries in high performance sports is regarded as fundamental3,5,10,27 and this study could show that, within these protocols, a ratio of 8.4 training/competence could be a preventive fac- tor for injuries in professional football. Future research is needed to find the right amount of competitions and proper training sessions in relation to the annual schedule. The data from this research provide useful information to proactively work on the development and planning of sports calendars in relation to injury prevention.	As a relevant fact, this study highlights that, of 65% of all diagnosed injuries, players returned to the play (RTP) within seven days with medical and kinesiological treatment customized to each athlete. According to UEFA severity classification, these injuries are minimal (1---3 days) and mild (4---7 days).	https://doi.org/10.1016/j.apunsm.2020.100338
A descriptive prospective study of sports medicine practices for athletes in Uganda	Many international sporting organizations have recommended practices to reduce the risk of injury. These practices include screening for injury, having	Uganda	It may suggest gaps in maintenance of athletes' health, re- habilitation and return-to-sports knowledge among the	Results of our current study highlight the risk of adverse injury, among professional Ugandan athletes that participate in sports programs, that are not well	https://dx.doi.org/10.4314/ahs.v21i2.43

	appropriate emergency medical care, and protocols for managing injury before return-to-play. The extent of the uptake of these practices in a developing country such as Uganda, is unknown.		sports resource provders. However, there is a grow-ing body of literature that suggests the need to equip athletes with knowledge that is vital in understanding their bodies, and to become active key stakeholders in return-to-play decisions,43Our study is among the few 25 that have involved only a trivial proportion of Ugandan national professional athletes participating in 4 of the 48 national sports as-sociations in Uganda. Furthermore, being an observa-tional study, makes it susceptible to biases, confounding and reliability challenges.	equipped with sports health care pro-viders. More so, athlete injury management during the emergency phase was inadequate across all the nine in-jury conditions. For example, nearly half of the athletes did not receive side-line treatment, yet this is vital for all sports-related injury conditions.33, 34 Furthermore, findings of our study reveal the inadequacies in medical services during the emergency phase of sports-related injuries among Ugandan athletes. Such inadequacies, may suggest knowledge gaps on emergency manage-ment of sports-related injuries amongst service pro-viders,35 and the lack of adequately trained or skilled medical staff in sports injuries 36, 37 to effect adherence to vital practices in sports.	
Effectiveness of physical rehabilitation in young volleyball players following meniscus suture repair via knee arthroscopy for enhancing	Considering the high incidence of knee injuries in young volleyball players and the critical role of effective rehabilitation in their recovery, this study aimed to evaluate the effectiveness of a combined	Russia	First, the relatively small sample size (n = 20) limited 14 E. ESMAEILI NEMATABADI AND N. SVYGINA the statistical power and generalizability of the findings. A larger cohort would be	The present exploratory study revealed initial evidence that supplementing standard physiotherapy with massage therapy may enhance early recovery of knee function and reduce pain following meniscus suture repair	https://doi.org/10.1080/15438627.2025.2577331

return- to-sport (RTS)	physiotherapy and massage therapy approach compared to standard physiotherapy alone in restoring knee joint function and facilitating a timely return to sport for young volleyball players aged 15 to 20 years following internal meniscus suture repair.		necessary to confirm these preliminary results and to allow for more robust subgroup analyses, such as the influence of gender, type of meniscus tear, or level of competition on rehabilitation outcomes. Second, the follow-up period was limited to 3–4 weeks post-surgery, which primarily captures early recovery dynamics but does not provide information on longer-term functional outcomes, return-to-sport readiness, or the durability of the rehabilitation effects. Meniscus healing and full functional recovery often extend beyond this timeframe, suggesting that longer follow-up would be essential to assess sustained improvements, potential late complications, and the ultimate impact on athletic performance.	in young volleyball players. The participants receiving combined treatment demonstrated greater improvements in knee flexion and extension and reported lower immediate postoperative pain compared to those receiving physiotherapy alone.	
Translation and Psychometric Evaluation of the Thai Version of the Short Anterior Cruciate	To translate the short ACL-RSI scale into Thai and assess its psychometric properties via the COSMIN (COnsensus-	Thailand	First, most participants were male, which could influence the findings. Previous studies have reported higher	demonstrated that the short ACL-RSI-TH scale has good validity and reliability for assessing psychological	DOI: 10.1177/2325967125132836

Ligament–Return to Sport After Injury Scale	based Standards for the selection of health Measurement INstruments) checklist.		ACL-RSI scale scores in male athletes after ACLR,21,27 although Cronstro ¨ m. et al13 found no differences between the sexes. Second, the study did not include athletes who had undergone revi- sion ACLR. A matched case-control study demonstrated that patients with revision ACLR scored lower on the ACL-RSI scale than those with primary ACLR.14 Finally, a responsiveness analysis was not performed. Webster and Feller36 showed comparable responsiveness between the short and full versions of the original ACL-RSI scale.	readiness to return to sport after ACLR.	
RETURN TO PLAY AND PERFORMANCE GUIDELINES IN RUGBY UNION	Taking into consideration the evolving role of RTPerf decision-making in sport, the purpose of this article was to integrate literature and practice to develop a framework for guidelines to assist medical personnel and coaches in rugby union in the RTP and RTPerf	South Africa	A limitation of the research was that the second part of the study was only based on one rugbyunion. Furthermore, it would be beneficial to expand and identify the RTPerf criteria to more unions and other sport codes. This study is one of a few that has	This research is of important value as it presents a unique and collated perspective of a professional rugby management team regarding RTP and RTPerf guidelines in rugby union. The outcomes of this research suggest that the measurement of RTPerf in rugby has subcomponents classified under	coetzee-et-al-2023-return-to-play-and-performance-guidelines-in-rugby-union.pdf

	decision-making process.		been conducted on RTPerf criteria in sport, and it can therefore be used as a starting point for future research. A further limitation of the study was that KPIs were assessed in the context of competitive play only .	psychological state, functional testing and training load. The findings revealed that rugby-specific KPIs must be used to measure whether a player has reached their pre-injury performance level.	
Sports injuries in male goalball athletes: frequency, types, affected body parts, and return to sport in competition and training	This study was aimed to determine the frequency and injury types of male goalball athletes in competition and training, as well as regarding the affected body parts, treatment, and time for return to sports.	Turkey	One limitation of this study was that it did not investigate how the participants were treated after injury or what factors influenced the return to sports process following the treatment. Another potential deficiency was that it did not differentiate between medication and physical therapy received after injury. Another shortcoming was that the frequency of physical training, conditioning training, and stretching exercises was not questioned in this study.	Over 50% male athletes do not receive treatment after injury. The periods are kept very short for those receiving treatment and mainly consist of medication and physical therapy. Most male goalball athletes do not receive medical support after injury, and are at increased risk of re-injury because of short return to sports. The injury rates among male goalball ath-letes may thus be high. The absence of multidisciplinary team to enhance the performance of male goalball athletes may increase susceptibility of injuries. To prevent injuries in athletes, it is important to consider factors that affect physical condition such as conditioning training, stretching exercises, postural status, warm-up and cool-down periods, etc., and to put them in practice	DOI:10.22514/jomh.2024.133

				under the guidance of multidisciplinary team.	
Thai version of ACL return to sports after injury scale translated with cross-cultural adaptation provided good validation in Thai patients who received ACL reconstruction	This study aimed to evaluate the reliability and validity of the Thai ACL-RSI for athletes recovering from ACL reconstruction.	Thailand	40 participants may limit generalizability. Future research should include larger cohorts for better statistical power. Second, ACL-RSI scores may not change signi cantly beyond 12 months post-ACLR [15], affecting internal validity. Future studies should assess score trends over time. Third, using only the Thai TSK limits psychological assessment. Additional tools like the Injury-Psychological Readiness to Return to Sport Questionnaire or IKDC Subjective Knee Form could improve validation. Fourth, while the Thai TSK is validated in ACL studies, it was designed for chronic pain, so alternative psycho-logical measures should be considered. Finally, the male-dominated sample may limit applicability to female athletes.	The Thai ACL-RSI scale exhibited great validity, reliability, and consistency among individuals who had undergone ACL reconstruction. The utility of this instrument is gauging the impact of psychological variables on sports activities post-ACLR that may affect the clinical treatment outcomes and be useful in individual rehabilitation for each patient. Specically, while emotions and risk appraisal showed strong and moderate signi cant correlations with the Thai-TSK, con dence displayed a weak and statistically non-signi cant correlation. These variations suggest that the self-con dence domain might be in uenced by additional factors not captured by the Thai-TSK, such as external social and envi-ronmental in uences.	https://doi.org/10.1051/sicotj/2025009
Cross-cultural adaptation and validation	The purpose of this study was to analyze the short	Iran	This study had several limitations. In particular, the	Therefore, the ACL-RSI offers a more comprehen-	https://doi.org/10.1186/s130

of the short version of anterior cruciate ligament return to sport after injury scale to Persian Language	Anterior Cruciate Ligament-Return to Sport after Injury scale (ACL-RSI) version's cultural adaptation and validity to Persian language.		responsiveness, discriminative validity, and criterion validity were not evaluated. Therefore, future research should prioritize the assessment of these aspects. Also, the imbalance in male and female participation could have influenced the results, as psychological readiness to RTS may vary by gender. Because, previous studies have shown that men tend to have higher psychological readi-ness compared to women following ACL-R [58]. There-fore, the higher proportion of women in our sample may have impacted the results related to psychological readi-ness to RTS. Accordingly, it is recommended that future studies consider gender.	sive evaluation of psychological readiness for athletes planning ACL-R. In summary, while other instruments that assess psychological factors in sports may share some items with the short version of the ACL-RSI, none evaluate the psychological readiness of an athlete to RTS after ACL-R as thoroughly as the ACL-RSI does. Mak-ing informed clinical decisions regarding an athlete's RTS after ACL-R requires a scale that is reliable, valid, and specific to the sport. A key factor influencing successful reintegration into sports is psychological readiness. Spe-cifically designed for this purpose, the short version of the ACL-RSI scale serves this need.	18-025-05920-y
Rehabilitation Approach Postarthroscopic Partial Meniscectomy of Medial Meniscus in an Elite Track and Field	In this case report, we aim to integrate the approach of pre-operative rehabilitation, early postoperative rehabilitation, neuromuscular and	Indonesia	Before becoming an elite athlete, he used to live in a remote area of Indonesia, where specialized medical services, such as orthopedic,	The rehabilitation guidelines, functional progression, and functional outcomes post-APM of medial meniscus described in this case report demonstrated a safe return to competitive	https://regroup-production.s3.amazonaws.com/documents/ReviewReference/1543957597/Rehabilitation%20Ap

Sprinter: A Case Report	proprioceptive training, and functional progression into recommended guidelines for rehabilitation status postarthroscopic surgery of medial meniscus.		rehabilitation, and sports medicine were difficult to find.	athletics. The patient, a 20-year-old professional track and field sprinter, met the criteria to progress earlier than predicted and achieved an optimal outcome, returning to sports without restrictions in 214 d (30 wk). This aggressive rehabilitation protocol can serve as a reference for other professional ath-letes with similar cases. Although rehabilitation should be prescribed on a case-to-case basis, further studies are re-quired to precisely evaluate functional progression and out-comes after APM.	proach%20Postarthroscopic%20Partial%20Meniscectomy%20of%20Medial%20Meniscus%20in%20an%20Elite%20Track%20and%20Field%20Sprinter_%20A%20Case%20Report.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260211%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260211T161123Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=34e2a128244a9eaae80482e89261a601170e075071f4fe8c8be1d274f9b9aeb4
Posterior ankle impingement syndrome in football players: Case series of 26 elite athletes	To describe a clinical treatment algorithm for posterior ankle impingement (PAI) syndrome in professional football players.	Turkey	none indicated	In conclusion, correct diagnosis and treatment are essential in professional athletes with posterior impingement syndrome. It should be stated that	http://dx.doi.org/10.1016/j.aott.2016.03.008

				conservative treatment often resolves the problem. The complaints of eighteen patients in present case series (69.2%) were subsided without any surgical intervention that was in accordance with the previous literature.14 After failing at appropriate non-operative treatment, surgical excision of the bony involvement can relieve symptoms and allow a return to full pre-injury activities. Arthroscopic treatment for posterior ankle bony impingement syndrome is minimally invasive and suitable for athletes who desire an early return to sports activity.4,5,27	
Translation and Adaptation of the Reinjury Anxiety Inventory, the Sport Injury Rehabilitation Adherence Scale, and the Athletic Injury Self-Efficacy Questionnaire Into Turkish	The purpose of this study is to translate and culturally adapt the Reinjury Anxiety Inventory (RIAI), the Sport Injury Rehabilitation Adherence Scale (SIRAS), and the Athletic Injury Self-Efficacy Questionnaire (AISEQ) into Turkish and evaluate the psychometric properties of the Turkish versions.	Turkey	Majority of the athletes were male, heterogeneity of results of sample with respect to injury, and with exception to SIRAS, exclusive use of self-report to validate the instruments.	Turkish versions are valid, consistent, and reliable in athletes with serious injuries. Scores on the tests could be useful when evaluating the psychological factors of return to play. Could be helpful in decision making about treatment, rehabilitation plans and ultimately a favorable outcome clinically. Physicans and psychologists should work together when determining return to play protocol for best results.	https://doi.org/10.1123/jsr.2023-·0273

Effect of Platelet-Rich Plasma Treatment on Antioxidant Enzymes' Activity following Hamstring Injury among Malaysian Athletes	The objective of the present preliminary study was to investigate the effect of platelet-rich plasma (PRP) treatment alongside rehabilitation programme compared with rehabilitation programme alone on antioxidant enzymes' (superoxide dismutase, SOD; catalase, CAT) activity and time to return to play (RTP) following hamstring injury among Malaysian athletes.	Malaysia	non-listed	The use of PRP treatment following grade-2 hamstring injury could potentially reduce the degree of secondary tissue damage and facilitated muscle recovery through regulation of antioxidant enzymes (i.e. CAT). It was suggested that PRP may serve as an auxiliary treatment for injury management in hasten time to RTP.	https://regroup-production.s3.amazonaws.com/documents/ReviewReference/1543960191/EffectofPlatelet-RichPlasmaTreatmentonAntioxidantEnzymesActivity.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260212%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260212T020440Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=1faaa8ab1bb195f563e318fa20aa5c6d7e675624e6bf685b8bd55a19b968658b
Telemedicine-Rehabilitation and Virtual Reality in Orthopaedics and Sports Medicine	This review aims to bring into perspective the importance of telemedicine and telerehabilitation in orthopaedics and sports medicine with a	India	Limitations of Tele-Rehabilitation include: difficulty in performing a comprehensive physical examination,	Tele-Integrative Medicine for Athletes: Complementary and various integrative health techniques like yoga, tai chi, self-massage,	https://doi.org/10.1007/s43465-022-00766-6

	focus on virtual reality.		technical difficulties, patient confidentiality problems, patients consider- ing online interactions as impersonal and dangerous, decreased satisfaction in asynchronous telerehabilitation; increased chances of misdiagnosis, and potential medico- legal risks [68]. Limitations of virtual reality- based rehabilitation include: high cost of establishing a setup, cybersickness/sim ulation sickness (headache, eye strain, nausea, vomiting, dizziness, ataxia, etc.), perceptuomotor after-effects, sleepiness, fatigue, etc. [61, 69].	mindfulness meditation have been used for managing chronic pain and can be easily incorporated into telemedicine as supportive rehabilitative care for athletes [64]. Tele-Psychology for Athletes: The mental health of elite athletes impacts their physical performance [65] and we need to address this issue through telepsychiatry while we address their physical symptoms through telerehabilitation. Various studies have shown that in-person treatment is com- parable to telehealth services for mental health conditions like PTS, anxiety and depression [66]. Tele-Nutrition for Athletes: Nutrition also plays an impor- tant role in the rehabilitation and general well being of the ath- lete. Need for education about nutrition is essential to improve performance by promoting healthy weight gain or loss and adequate energy intake The authors suggest and propose that the versatility of telemedicine and telerehab can only be exploited fully if we	

				start early, that is incorporate it in school/colleges physical education curriculum, connect schools/colleges to remote telemedicine centres. This will help in catching the youth interested in sports (talent identification) and giving proper, adequate injury care and rehabilitation when necessary. Even the existing Primary Health Centre network in India estab- lished as part of the National Health Mission could help in setting up a common telerehabilitation consultation office for the rural population that the PHC caters to. Health workers in the 23,391 PHCs all over India could be trained to perform the various physical examination tests that need to be performed to reach a particular diagnosis. Coaches should also be involved in the rehabilitation of these athletes to ensure compliance with telerehabilitation.	
Early Return to Play After Anterior Cruciate Ligament Reconstructio n: Is It Worth the Risk?	The present study shares our experience with a 6-month-long accelerated rehabilitation after ACLR sur- gery with a patellar tendon autograft.	Hungary	Our study had some limitations, most importantly, was the lack of random allocation. Since ACLR puts the future career of athletes	In conclusion, early RTP after accelerated rehabilita- tion entails an increased risk of graft elongation without rupture. Knee laxity ≥3 mm measured 6 months after	https://doi.org /10.5535/arm. 22010

	We hypothesized that RTP at 6 months postoperatively is associated with an increased risk of graft elongation without rupture. To test our hypothesis, we compared the functional results of athletes completing either accelerated (6 months), or conventional (12 months) rehabilitation after ACLR at our institute. Additionally, we aimed to identify addition- al risk factors for graft failure within the first year after surgery.		on the line, we considered it more ethi- cal to involve patients in decision-making. The success of rehabilitation also depends on the psy- chological state of patients, which were not assessed comprehensively in this study. Although major compli- ance problems did not occur, personal differences in motivation levels and pain tolerance could potentially influence outcomes. The ability to continue competitive sports after ACLR surgery is a success in itself. However, a more detailed survey, assessing finer changes in athletic performance has not been completed. Our patient population displayed relative homogeneity in certain characteristics. Besides the low rate of comor- bidities, GJL (Beighton score ≥5) did not occur, and there were only a few cases of mild hypermobility (Beighton score=4).	ACLR should be accompanied by RTP time frame re- evaluation. Switching to a longer rehabilitation program or closer follow-up, with or without routine MRI, may be considered in such cases.	

			Consequently, an adequate assessment of these parameters could not be performed.		
Influence of quarantine during the coronavirus disease 2019 (COVID-19) pandemic on physical and psychosocial aspects: perceptions of 214 Brazilian athletes	Thisstudytherefore aimedtocharacterize theperceptionofBrazilianathletesabouttheirphysicaland psychosocialaspects,sleepqualityandcopingstrategiesduringthequarantineofthecoronavirusdisease 2019 (COVID-19) pandemic.	Brazil	This study had some limitations that should be addressed. First of all, our sample size was relatively small, considering the number of sports confederations, national sports clubs, coaches and athletes that werecontacted.This may demonstrate the lack of interest of Brazilian athletes in participating in this type of research. Besides that, data acquisition depended on proper registration in the forms performed by the athletes,which means that we have to rely on their answers and suppose they have understood the questions properly. Considering that the answers for a non-validated online questionnaire are subjective, the results should be interpreted with caution.	Athletes reported reduction in training hours, perceived training intensity and moderate to extreme difficulty to maintain the level of training during the quarantine. The majority of the athletes indicated that training during the quarantine was considered different to very different from the usual one before the quarantine. Most of the athletes were oriented by medical staff during training, but did not keep a training diary.Regarding psychosocial aspects, the majority of athletes reported anxiety and concerns about future as an athlete and return to sport. Although limited, the information gathered in our study may help future studies to better understand and address actions regarding athlete's training, sleep quality and psychosocial aspects after a quarantine period.	https://doi.org/10.1016/j.glohj.2023.01.001
Sports-related concussion history,	To assess student-athletes' knowledge and	Pakistan	The current study, however, has some limitations. First,	Pakistani university student-athletes were found to have	https://regroup-production.s3.

reporting behaviours, knowledge, and attitudes in Pakistani university student-athletes	attitudes towards sport-related concussions and to investigate concussion history and reporting behaviours.		in Islamic countries, like Pakistan, sports participation among females is generally lower than among males; thus, 60.7% of the study participants were males, skewing the data. Second, previous concussion incidents, symptoms and reporting history were self-reported by the participants based on memory recall. As such, the accuracy of the data cannot be validated. Future studies could triangulate memory recall and injury surveillance to address this limitation.	received no formal SRC education and, as such, lacked adequate concussion knowledge. They held poor attitudes towards SRCs. The tendency to play while symptomatic and failure to report symptoms are of considerable concern. There is an urgent need for targetted programmes to enhance SRC knowledge and improve reporting behaviours. Evidence-based concussion awareness interventions grounded in behavioural change theories should be initiated to promote understanding, reporting, and appropriate management of SRCs.	amazonaws.com/documents/doi/10.47391/JPMA.9343/2986.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260212%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260212T025224Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=4deedad452a28652a2842bbdf86cb959e9acb6bd05172558e7bbf07d5c2c5d0d
Pattern of muscle injuries and predictors of return-to- play duration among Malaysian athletes	he purpose of this study was to investigate the pattern of muscle injuries and the factors that predict the return-to-play duration among Malaysian athletes	Malaysia	A prospective study with a larger sample size could better show the associations between clinical assessments and outcomes, including potential variables with small to moderate effects.	In conclusion, grade 2 lower limb muscle injury was the most common type of injury diagnosed among the national-level athletes in our study. The athletes with muscle injuries were conservatively treated, with a median DRP of 7.4 weeks. This study has identified several predictors of DRP of more than six weeks post	doi:10.11622/smedj.2013204

				muscle injury – time to first consultation of more than one week, recurrent muscle injury and female gender. These factors are important and should therefore be considered during early assessments of muscle injuries. Strategic steps need to be taken to ensure early consultation and treatment as soon as an injury occurs. It is important to increase awareness of the factors associated with extended DRP among athletes, coaches and practitioners involved in the care of athletes.	
FIFA Football Nurse – A task sharing approach in Sports and Exercise Medicine practice in grassroots women's football in low- and middle-income settings. A study protocol for a parallel randomised controlled trial	The objectives of this study will be to develop a task sharing approach to actively recruit and train nurses as pitch side responders in grassroots women's football in Malawi's Women's Football League.	Zimbabwe, Uganda, Malawi, Australia	Despite all players playing in the same league and at the same level, primary confounders for injury risk include physical/ anthropometric characteristics; existing mental health or psychiatric conditions and home environment, which may influence the SMHAT- 1 values, for example. Secondary confounders include playing experience, playing position, and playing level as well as socio-economic status,	We expect to develop a low cost, sustainable and context relevant solution to manage the treatment gap of football injuries/illnesses in underserved communities such as women's football. Through the study, we also anticipate the development and maintenance of player health, injury and illness monitoring databases for Malawian women football players in club football, which can be replicated in grassroots women's football leagues in LMICs. This will allow the monitoring of trends and development of relevant preventive or	https://www.medrxiv.org/content/10.1101/2022.11.17.22282465v1

			which will affect nutrition, menstrual hygiene management and private management of injuries. Where possible, these will be considered in the analyses. Some of them will also be explored further in the qualitative interviews at closure of the protocol.	management strategies in these settings. Additionally, we expect this study to lead to the development of a flagship model which can inform implementation of similar task sharing approaches to SEM practice in other LMICs in Africa and globally.	
Interventions used for Rehabilitation and Prevention of Patellar Tendinopathy in athletes: a survey of Brazilian Sports Physical Therapists	(1) To identify the type and frequency of interventions used by Brazilian physi- cal therapists to treat and prevent the occurrence of patellar tendinopathy in athletes and the criteria used to return to sport; (2) to compare the interventions used to the grade of recommendation of current evidence.	Brazil	Although all of the participants had experience with PT, it is not clear that their main expertise was athletes with PT. We instructed the physical therapists to consider their clinical experi- ence with professional and amateur athletes. Therefore, the athletes' training level and dedication may have influenced the results. Moreover, the questionnaire was self-administered and filled by Brazilians physical thera- pists. Thus, we were not able to solve possible doubts of the participants to answer the questionnaire and our	Our results indicated that the physical therapists chosen a combination of pain, function and functional tests to decide about return to sport. Considering prevention of PT, the most used interventions were quadriceps strengthening, education, lower limb joint and lumbo-pelvic stabilization and hamstring stretching. In relation to return to sport, combined criteria (pain, function and functional tests) were used. Finally, there was inconsistency between interventions used in clinical practice and interventions rec- ommended by the literature.	https://doi.org/10.1016/j.bjpt.2018.12.001

			results may not be applied to physical therapists from other countries.		
Resistance training with linear periodization is superior to the ‘3x10 reps protocol’ after anterior cruciate ligament reconstruction : a randomized controlled trial	To investigate the effects of linear periodization (LP) resistance training after anterior cruciate ligament reconstruction (ACLR).	Brazil	Firstly, logistical constraints restricting access to the university campus laboratory prevented the inclusion of isokinetic dynamometry and ultrasound assessments, as originally outlined in the trial registration. The assessment of isokinetic torque was replaced by isometric strength testing using a handheld dynamometer. Although more examiner-dependent than isokinetic dynamometry, isometric testing with a handheld dynamometer is reliable (Goossens et al. 2015; Almeida et al. 2019) and has been widely used in both research and clinical settings. Specifically in patients who have undergone ACLR, handheld dynamometer testing has shown to be a valid measure when compared to the gold standard of isokinetic	In male recreational athletes who underwent ACLR, a 12-week program of supervised resistance training using a block-structured linear periodization proved to be more effective than the traditional ‘3x10 reps protocol’ in enhancing knee extensor strength, as well as psychological readiness to return to sport. These findings suggest that linear periodization should be encouraged in rehabilitation protocols for patients recovering from ACLR.	https://regroup-production.s3.amazonaws.com/documents/ReviewReference/1543960375/1-s2.0-S1466853X25000859.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260212%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260212T030024Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=9cf05916192e40b07b687e96f8eb893b47aaedc321cdf08869ba11ef36f2115d

			dynamometry (Almeida et al. 2019). Due to the absence of ultrasound, the present study did not examine the effects of resistance training programs on muscle architecture. While not a clinically adopted outcome to assess recovery status after ACLR, the analysis of muscle architecture adaptations could have provided additional insights into the mechanisms underlying strength gains. As a second limitation, the study included only adult male recreational athletes. Consequently, caution should be exercised when generalizing the findings to ACLR populations with different profiles. Lastly, the study followed participants only during the first six months of ACLR rehabilitation. The lack of a longer follow-up prevented the assessment of potential effects of the resistance training programs on outcomes of interest for this population,		

			such as return-to-sport rates, time to meet all discharge criteria, and the incidence of re-injuries.		
Posterior Ankle Impingement in Fast Bowlers in Cricket	Objective: To determine common features of posterior ankle impingement in fast bowlers in the West Indies and to compare modes of treatment with respect to return to play without pain.	West Indies	lack of consistency between individuals extreme variability in responses/ procedures very limited information about participants	low workloads but surgical excision is recommended in bowlers with heavy workloads. Further investigation is required in the biomechanics of bowling to determine the cause for the increase in this condition.	https://regroup-production.s3.amazonaws.com/documents/ReviewReference/1543954057/v60n1a16.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260212%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260212T030024Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=4874a73156057ad8cbb3f41c01a83cdfd13a7228ecfa7902659f28dd342f8a5f
Rehabilitation practices of Turkish physiotherapists following anterior cruciate ligament	We aimed to investigate the anterior cruciate ligament reconstruction (ACL-R) rehabilitation and return-to-sport	Turkey	Lacks understanding of specialty understanding for Physiotherapists	In conclusion, our findings reveal that Turkish physiotherapists' practices following ACL-R vary considerably and often diverge from	https://doi.org/10.1080/15438627.2025.2462906

reconstruction : an online survey	(RTS) practices of Turkish physiotherapists.			current evidence-based guidelines. Although many clinicians employ beneficial strategies, the late beginning of open-kinetic-chain exercises, infrequent use of patient-reported outcome measures and psychological assessments, and premature return-to-sport clearances indicate potential gaps in rehabilitation.	
Comparison of Outcomes Between All-Inside Single-Bundle and Double-Bundle Anterior Cruciate Ligament Reconstruction: A Retrospective Study	We aimed to compare the outcomes between the All-inside Single-bundle and the Double-bundle ACL reconstruction techniques.	Indonesia	However, our study has several limitations. Firstly, the relatively small sample size. However, we calculated the sample size using Cochran's formula with the accuracy rate of 80% which was adequate for this study. Secondly, we did not randomise the subjects and blinding the researcher during the study due to our limited resource. Lastly, our follow-up duration was relatively short. Nevertheless, our study was the first study aimed to compare the outcomes between the All-inside Single-bundle and the Double-bundle ACL reconstruction techniques.	In terms of return to sport level, our results showed no significant difference between the All-inside single-bundle and Double-bundle techniques. Most of the subjects (33.33 to 41.67%) in our study were able to return to non-contact sport (jogging, passing, etc.) during the 6-month follow-up. Some of the subjects (25%) were able to return to competitive level. However, during the 12-month follow-up, more subjects achieved to return to competitive levels (75% in the All-inside single-bundle group, and 83.33% in the Double-bundle group). Our study showed no significant differences in the patient-reported and the clinical outcomes between the All-	doi: https://doi.org/10.5704/MOJ.2303.003

				inside Single-bundle and the Double-bundle ACL reconstruction techniques at 6- and 12-month follow-ups.	
Fabella syndrome in a professional football player: A case report and literature review	Therefore, we report a case of a 19-year-old male patient, a Vietnamese professional football player with fabella syndrome, he failed conservative treatment after 6 months and underwent surgery to remove the fabella. 12 weeks post-operation, he was able to return to training and competition.	Vietnam	Through this research, we have realized some limitations. First, failing to perform arthroscopy to examine and rule out the internal structures of the knee, especially the lateral meniscus may be one of the reasons for posterolateral knee pain. Second, the follow up period was short and lack of control group in our reports and previous reports and reviews.	Fabella syndrome is a rare cause of posterolateral knee pain. Definitive diagnosis of Clinical examination combined with appropriate imaging to rule out all other causes of posterolateral knee pain. We reported a good result of the patient underwent surgical after failure of conservative therapy. Our report contributes experience in the diagnosis and the treatment strategy for Fabella syndrome.	https://doi.org/10.1016/j.ijscr.2022.106919
Cross-cultural adaptation and validation of the Injury-Psychological Readiness to Return to Sport scale to Persian language	Therefore, the aim of the present study was to translate and cross- culturally adapt the I-PRRS scale into Persian language and determine the reliability and validity in a sample of injured athletes.	Iran	The other psychometric properties, in particular responsiveness and criterion validity, were not exam- ined. Responsiveness of a health status outcome mea- sure is important to demonstrate the effectiveness of interventions and the change score over time. Another limitation to the study was the participants. A broader group including more professional athletes to	The present study conducted the cross-cultural adapta- tion and validation of the I-PRRS to Persian language and demonstrated excellent reliability and validity of the Persian I-PRRS in injured athletes in line with the original English version. The Persian I-PRRS is there- fore a valuable instrument for assessing psychological readiness of injured athletes to play for use with Persian-speaking populations. The concurrent validity	http://dx.doi.org/10.1080/09593985.2016.1221486

			examine would help.	and responsiveness of the Persian I-PRRS are worthy of future research.	
Injury patterns and treatment outcomes in sports-related knee and shoulder injuries in athletes from India's Olympic state, Haryana	Our study aims to investigate injury patterns and treatment results in sports-related knee and shoulder injuries among athletes from Haryana, the most prominent state in the contribution of Olympic medals for India.	India	Since bias in the study population cannot be ruled out, there are certain unavoidable inherent flaws in the study's design. Furthermore, a gender bias resulted from the clear gender distribution discrepancy. Given the significant disparity in women's sports involvement, particularly outside of metropolitan areas, this was to be expected. To attract more women, future research should attempt to mitigate this bias by incorporating a more multicentric approach. This study was unable to determine the precise on-site incidence rates of distinct injuries in different sports because it was based in a tertiary care hospital, and only athletes who sought out hospital-based treatment were recruited in the study.	Athlete injuries, particularly ACL tears, are a major problem since they may result in a player losing a significant amount of time throughout their career and placing a financial burden on both the athlete's family and the healthcare system. According to the study, injury prevention techniques and the availability of professional assistance are crucial, and they inevitably influence recovery and return to sports. Return to sports was significantly affected by the athletes' gender, BMI, level of competitiveness, and management modality (p-value <0.01 each).	https://doi.org/10.1016/j.jcot.2025.102958
Nowhere to hide: The	To describe the perceptions of	South Africa	The majority of our study	COVID-19 has significant physical	https://doi.org/10.1016/j.jsa

significant impact of coronavirus disease 2019 (COVID-19) measures on elite and semi-elite South African athletes	South African elite and semi-elite athletes on return to sport (RTS); maintenance of physical conditioning and other activities; sleep; nutrition; mental health; health- care access; and knowledge of coronavirus disease 2019 (COVID-19).		participants were males, with the sex distribution of our participants being representative of the current South African athlete population.44 Convenience sampling was used and team sports were overrepresented, thus the findings may not be generalisable to individual sports. We did not require athletes to report pre-lockdown sleep patterns, mental status or supplement use thus findings cannot be comparable to pre-lockdown habits. We did not specifically differentiate between guided or unguided training programmes, even though there was an option to indicate guidance by professionals. The study was open for only 72 h and may have limited the response rate. This short access period was necessary to allow timely data analyses and planning of implementation measures and advice before RTS.	and mental effects on athletes including physical deconditioning, altered sleep patterns, worsening nutrition, uncertainty on RTS and feelings of depression. Athletes are well informed on the COVID-19 disease, however, the need remains to provide them with easy access to reliable evidence-based resources. Closer medical, nutritional and psychological support during and after the lockdown is recommended. Further, lost opportunities and uncertain financial and sporting futures may have long-lasting effects on both athletes and the sports industry. Re-adjustment to normal life and RTS will undoubtedly be challenging. Even though the international focus seems to be on RTS, this study shows that there are many other lifestyle challenges needing to be overcome prior to returning to a pre-COVID-19 normality. Governments and sporting federations should develop and implement regional and sport-specific evidence-based guidelines for	ms.2020.05.016

			Additionally owing to availability of resources, we were unable to verify the level of evidence of websites, social media platforms or other sources of information used by athletes. We also did not specifically ask why athletes opted for advice from non-medical experts or how finances were affected	safe RTS in a COVID-19 environment to minimise risk of community transmission and preserve public health.	
Re-adaptation of junior athletes to competitive activity after a forced break	This study aims to perform a theoretical and empirical analysis to identify psychological factors, establish key correlations, and determine the differences in junior athletes' re-adaptation to competitive activity after a forced break.	Ukraine		It was found that the researched parameters of re-adaptive capacity do not have statistically significant correlations with other samples which are partially or fully related to our research sample. The study proposes an algorithm for creating a profile of juniors' capacity for re-adaptation which considerably simplifies management of the process of recovery and increases accuracy in planning the events of competitive activity. It was found that the most dependent parameters of re-adaptation (three correlations for each) are as follows: "adaptability", "acceptance of others" and "internality". "Problem-solving	10.7752/jpes.2024.09231

				planning" and "escape–avoidance" are the most dependent coping strategies (five correlations for each). It was explained that the strongest direct correlation between "internality" and the coping strategy "problem-solving planning" (rs = .549; p <.001) testifies that the efforts made by the re-adapting individual have the greatest re-adaptive effect	
Athletes' expectations about physiotherapy in sports injury rehabilitation in greater Accra region	The aim of this study was to determine athletes' expectations about physiotherapy in sports injury rehabilitation.	Ghana	The ¯ndings of the study showed no signi¯cant di®erence in the various athletes' competition levels except responsibility. Athletes who played at the national level had moderate expectations for all the factors except openness and outcome for which they had high expectations. This could be attributed to the fact that national teams usually have physiotherapists in their medical teams. The athletes get access to these services and this contributed to their moderate–high expectations as compared to athletes competing	The fndings of this study indicate that athletes in Greater Accra Region have high expectations of physiotherapy for sport injury rehabilitation. Competition level had a signi¯cant association with athletes' expectations about physiotherapy in sport injury rehabilitation. There was also underutilization of physiotherapy services among the sports teams. Based on the ¯ndings of this study, it is recommended that sports physiotherapists in Accra involve their injured athletes in the rehabilitation programs by giving them all the information about their injuries and how the rehabilitation will help.	10.1142/S1013702519500094

			at other levels. These ¯ndings were however contrary to those of Lee10 that professional athletes have higher expectations for nurturance than recreational or national-level athletes.		
Exploring the efficacy of isometric strength exercises in knee rehabilitation among football players	The specific objective of this research is to investigate the effective- ness of isometric strength exercises in rehabilitating the knee injuries among football players, assessing their impact on recovery and performance.	India	Patients who underwent consistent physical therapy before and after surgery have superior functional outcomes than those who just had PT post op.These results suggest that incorporating the ARP trainer protocol can effectively combat disuse atrophy and enhance thigh girth restoration after ACL reconstruction. This discussion underscores the potential benefits of advanced ES techniques in isometric strength exercises for knee rehabilitation, particularly among football players [24].	The findings of the study shows that the 12-week isometric strength exercise significantly improved the active and passive flexion range of motion (ROM) of male football players compared to control group. Football players may benefit from knee stability and function through isometric strength exercises after the ACL knee injury that may help both rehabilitation and performance.	https://doi.org/10.15391/snsv.2024-3.002
Implications of COVID-19 for resumption of sport in South Africa: A South African Sports Medicine Association	An update on clinical manifestations and multi-organ involvement, testing for Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2),	South Africa	Utilizes exercise prescription, heart rate prescription, and duration to monitor GRTP.	As athletes prepare to return to sport, this must be done cautiously with collaboration between medical and coaching staff. Athletes must be cleared to participate after an infection and be gradually	10.17159/2078-516X/2020/v32i1a8986

(SASMA) position statement – Part 2	prolonged positive real time polymerase chain reaction (RT-PCR) and the role of quantitative real time polymerase chain reaction (RT-qPCR) in informing return to sports, grading of disease severity, individualised management of infected athletes and graduated return to play guidelines (GRTP) is provided.			assisted to good health and performance. SASMA reminds all stakeholders to continue with hand hygiene, respiratory etiquette, physical distancing and importantly, all South Africans are encouraged to keep active and healthy during this period.	
Implications of COVID-19 for resumption of sport in South Africa: A South African Sports Medicine Association (SASMA) position statement – Part 1	With this Position Statement, the South African Sports Medicine Association (SASMA) aims to guide return-to-sport as safely as possible, in an evidence-based manner, given that COVID-19 is a new illness and new information from experts in various fields continues to emerge. Clinical considerations are briefly described, focusing on a return-to-sport strategy, including education, preparation of the environment, risk stratification of sports and participants, and the practical implementation of these guidelines. The management of the potentially exposed or infected athlete is	South Africa		In conclusion, it is important that persons charged with managing athletes' return-to-sport in any environment must be up-to-date with local and international trends, transmission rates, regulations and sport-specific rule changes that might develop as sport resumes. Additionally, such information should be applied in a sports-specific manner, considering individual athlete's and team needs and be consistent with national legislation.	http://dx.doi.org/10.17159/2078-516X/2020/v32i1a8454

	further highlighted.				
Resumption to Swimming Post COVID-19 Lockdown	Understanding the course of disease is important to lay down guidelines for resumption of training specific to swimming athletes in India.	India	An ongoing education program on the preventive measures of COVID-19 for the coaches, athletes and support staff is vital. This allows for the reinforcement of importance of hand hygiene, cough etiquette, physical distancing, wearing masks and staying home if sick. This helps in continued risk reduction of the pandemic. The coach can be a role model by wearing a face cloth/mask and encouraging athletes, parents, officials and sports staff to do the same during practices and games.	This study is one of the major attempts to have shed focus on the resumption of sport guidelines for Indian swimming athletes. In our study, we have adhered to the recommendations given by the CDC, WHO to formulate resumption of swimming guidelines. The evidence-based knowledge about the course of COVID-19 and guidelines for resumption of swimming reported here can be a key support for the coaches, athletes, support staff, aquatic facility managers/owners and medical professionals to reduce the risk of COVID-19 while safely resuming swimming.	10.7860/JCDR/2021/46392.14448
Postoperative anterior cruciate ligament rehabilitation: A survey in Gauteng, South Africa	This study determined the frequency of accelerated and non-accelerated protocols, identified rehabilitation objectives, commonly used physiotherapy modalities and exercise recommendations within the first 6 weeks of post-operative ACL rehabilitation.	South Africa	Other factors to consider include surgical factors, graft placement, healing processes, as well as psychological factors, such as patients' beliefs and attitudes towards returning to sport. Other considerations that are important to consider include exploring the impact of surgical factors on	Despite most participants (70%, 39) implementing an accelerated protocol for post-operative ACL rehabilitation, only a small percentage (20%, 9) strictly adhered to the defined parameters of the accelerated protocol. Exercise prescription differed greatly, with some agreement with literature recommendations for isometric and eccentric	https://doi.org/10.4102/sajp.v81i1.2144

			the outcome of rehabilitation and the psychological impact of pre-operative education on rehabilitation.	exercises, but no general agreement on when OCK and CKC exercises should be started.	
Increased number of electrocardiogram findings requiring additional cardiac examination in young athletes during the coronavirus disease 2019 pandemic: a case series	We aimed to compare the results of electrocardiogram (ECG) examinations in young athletes from 2017 to 2020, which includes a period during the coronavirus disease 2019 (COVID-19) pandemic, with special attention to T-wave inversion that might be a sign of myocarditis.	Serbia		High risk of myocarditis in young athletes who have had covid. Asymptomatic myocarditis can result in permanent heart damage and even sudden cardiac death. Require screening prior to RTP.	10.1177/030006052110532 80
International Olympic Committee (IOC) consensus statement on acute respiratory illness in athletes part 1: acute respiratory infections	This consensus document (part 1) focusses on ARinf, which accounts for the majority of ARill in athletes. The first section of this consensus proposes a set of definitions and classifications of ARinf in athletes to standardise future data collection and reporting.	International Consensus		In this consensus, we suggest a practical stepwise clinical approach for this RTS process. Two novel and important contributions to this process are: (1) the recommendation that an exercise challenge test (self-administered or laboratory based) is performed before starting moderate- to high-intensity exercise training following an ARinf and (2) a recommendation for ongoing monitoring of symptoms and signs or abnormal training adaptation during the progressive RTS process. A further novel	http://dx.doi.org/10.1136/bjsports-2022-105759

				approach that we strongly advise is that athletes, coaches and medical staff be educated to (1) safely self- implement an exercise challenge test for asymptomatic or mild ARinf and (2) conduct ongoing self-monitoring during the RTS process, irrespective of the severity of ARinf.	
Sports and Exercise Medicine in South Africa	FORMS PART OF A SERIES PUBLISHED IN SPORT HEALTH TO LOOK AT THE STRENGTHS AND WEAKNESSES OF THE SPORT AND EXERCISE MEDICINE (SEM) SYSTEMS IN VARIOUS COUNTRIES, PROVIDING IDEAS AND INSPIRATION FOR ALL COUNTRIES ON HOW TO IMPROVE INFRASTRUCTURE IN THIS EMERGING SPECIALTY.	South Africa	SA known for pioneering Concussion protocols. Our unique challenge as African SEM practitioners is producing world-class athletes in the face of significant resource constraints, other third world and life threatening medical conditions such as HIV and TB, and environmental challenges such as extreme heat, high altitude, travel illnesses and infectious diseases. Our circumstances inspire creativity as one constantly juggles different treatment options, their relative costs, and their comparative efficacies. We pride ourselves in our ability to find simple	In general, athletes seen at multidisciplinary "sports clinics" are more likely to receive a multidisciplinary approach to rehabilitation compared to those seen by practitioners who practice in isolation. For example, at tertiary institutions such at the University of Pretoria in Gauteng and Stellenbosch University in the Western Cape, athletes are treated in a multidisciplinary injury clinic that compromises of general practitioners, sports physicians, physiotherapists, massage therapists and biokineticists. Both these institutions also have a High Performance Unit that includes sports scientists, nutritionists, physiologists and psychologists whose primary focus is the	

			solutions to complex challenges. We pride ourselves in the sports facilities in Potchefstroom, Pretoria, Stellenbosch and Durban, which attract a multitude of international athletes capitalizing on our climate during their winter seasons. We pride ourselves in our progress as an industry and the significant strides we have taken to establish ourselves in the international fraternity.	high performance athletes, and secondary focus is recreational athletes.	
Factors influencing return to sports after anterior cruciate ligament reconstruction	T o assess the frequency of return to sports (RTS) after anterior cruciate ligament reconstruction (ACLR) and to identify factors influencing RTS in individuals from Karachi, Pakistan.	Pakistan	Lack of female representation, small center design.	This study reveals that while approximately half of the individuals return to some level of sports following ACLR, the frequency of returning to pre-injury performance levels is significantly lower, despite achieving relatively favorable post-operative knee functional outcomes. Those who did not return to sports exhibited higher kinesiophobia scores, which were associated with poorer knee function and reduced activity levels. These findings underscore the critical role psychosocial factors	https://doi.org/10.35845/kmuj.2024.23483

				play in influencing the decision of young individuals not to return to sports after ACLR. Therefore, implementing a multidisciplinary approach that addresses both physical and psychological aspects of recovery is recommended to support athletes in successfully returning to sports following ACLR.	
Concussion knowledge and return-to-play attitudes among subelite rugby union players	To determine the concussion knowledge and concussion-related RTP attitudes of subelite rugby union players in South Africa.	South Africa	The concussion knowledge of the participants in this study seemingly failed to translate into appropriately cautious RTP attitudes. It is of particular concern that almost three-quarters of the participants indicated that they would, to some extent, be inclined to participate in a practice despite not having fully recovered from a concussion. This finding, along with less than half of the participants indicating that they would not participate in important matches or trials before having fully recovered from concussion, might at least partially result from the relatively low levels of knowledge	Rugby players exhibited less adequate knowledge on the field-side management of players suspected of having a concussion and a low level of knowledge with respect to concussion-related RTP guidelines. In addition, concussion knowledge did not appear to be related to RTP attitudes. While current concussion education initiatives appear to have been partially successful, additional methods of facilitating attitudinal and behavioural changes need to be considered.	10.7196/SAJSM.536

			regarding RTP guidelines reported earlier.		
Injury prevention in Brazilian women's football: Perceptions of physiotherapists and practices within elite clubs	To describe the perceptions of physiotherapists and the injury prevention practices implemented within elite women's football clubs in Brazil.	Brazil	Firstly, the perspectives of the physiotherapists may not necessarily reflect the viewpoints of other healthcare practitioners within the club. Secondly, it is probable that the injury prevention practices employed may be influenced by factors associated with the club's infrastructure	Physiotherapists from elite women's football clubs identified ACL rupture as the primary target for prevention programs. Alongside a history of injuries, they highlighted modifiable factors like premature return to sport after injury, excessive workload, inadequate rest, and low muscle strength among the top-five injury risk factors. Nearly unanimous consensus existed on the critical role of adhering to return to sport criteria as a preventive strategy. Physiotherapists perceived the poor infrastructure of clubs as a major barrier to implementing prevention programs. From a practical standpoint, the majority of clubs have adopted multi-component exercise interventions as a proactive measure to prevent injuries. These preventive exercises were generally administered both as a standardized regimen for the collective team and customized to address individual needs, often overseen by a physiotherapist. Clubs commonly	https://doi.org/10.1016/j.ptsp.2024.04.001

				employed other prevention strategies, including adoption of return to sport criteria, internal workload monitoring, post-exercise recovery modalities, preseason risk factor screening, and application of rigid strapping tapes.	
Concussion knowledge and attitudes amongst community club rugby stakeholders	The aim of the study was to determine the concussion knowledge and attitudes among different community club rugby stakeholders. The study gathered quantitative information by utilizing the Rosenbaum Concussion Knowledge and Attitude Survey-Student Version (RoCKAS-ST).	South Africa	More specific research for decision makers required. For future studies, the focus should be placed on all levels of competition, as con-cussion occurs at all levels of participation.	In conclusion, the results of the study indicated that half of the stakeholders at club level in WPRU had sufficient knowledge regarding concussion with players and administrative staff demonstrating the lowest levels of concussion knowledge. Understanding the knowl-edge and attitudes towards concussion at community club rugby level might assist in identifying which areas are to be further targeted by the South African Rugby Union.32 Comparing the CKI of players to that of English football25 and Canadian hockey29 players, it is evident that WPRU club rugby yielded noticeably lower scores. CAI indicated an overall score of 76% for all stakeholders; however, within specific questions, a proportion of players demonstrated	http://dx.doi.org/10.1177/1747954120913175

				unsafe attitude towards concussion.	
How are hamstring strain injuries managed in elite men's football clubs? A survey with 62 Brazilian physical therapists	To describe perceptions and practices of physical therapists from elite men's football clubs on the management of athletes with hamstring strain injury (HSI).	Brazil	First, considering that only Brazilian physical therapists participated in this research, the results do not necessarily re ect the management provided to high-level men's football athletes with HSI in other countries. Aspects related to the professional training of physical therapists in Brazil may affect the respondents' choices, as well as social, psychological, and cultural aspects of Brazilian football.	The present study allowed the sports physical therapy community to become aware of the approaches usually adopted for management of athletes with HSI who play in the highest level of Brazilian men's football. Despite the heterogeneity of choices regarding assessment practices, all respondents use imaging exams, adopt injury classi cation scales, and evaluate aspects related to pain, range of motion, muscle strength, and functional status of athletes with HSI. Rehabilitation programs are usually divided into 3 to 4 phases. Electrophysical agents, manual therapy, stretching, strengthening exercises (including eccentrics), lumbo-pelvic stabilization exercises and exercises that mimic the func-tional demands of football are used by vast majority of respondents. Muscle strength was the most reported RTP criterion.	https://doi.org/10.1016/j.ptsp.2023.03.001
Injuries among female Rwandan soccer	The aim of this study was to examine the factors influencing	Rwanda	The lack of programmes aimed at re-integrating the	It is clear that the return-to play is a decision made by either the coach or the	https://regroup-production.s3.amazonaws.c

players: Return-to-play decisions	coaches' decision-making regarding the return-to-play after injury of female soccer players in Rwanda.		injured player into sports and the pressure on key players to regain level of fitness in a limited amount of time was evident in this study. This could partly be due to the fact that none of the teams had the assistance of health professionals and hence limited knowledge with regards to the rehabilitation process injured players must adhere to. It would thus be recommended that coaches in collaboration with health professionals plan specific gradual training programs for returning players which will allow easy re-integration and the minimization of recurrent injury rates.	player with little evidence of collaborative decision-making. In addition the increased pressure on key players and their premature return-to-play might influence not only the individual's performance but the team's too.	om/documents/ReviewReference/1543963650/EBSCO-FullText-01_30_2026-5.pdf?response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAYSFKCAWYQ4D5IUHG%2F20260213%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20260213T004613Z&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=da94c615dd8dc212835ba6112836063e24ead7b53a432ee78be1a882c99ae325
Optimised return to play: high treatment success rate in core muscle injury with surgical release of the anterior tendon of the rectus abdominis muscle and proximal tenotomy of	he aim of this study was to assess the results of surgical intervention for core muscle injury using the technique employed by the Sports Medicine Group of (Institute of Orthopedics and Traumatology of Hospital das Clínicas– Universidade de	Brazil	Regarding complications, our study identi ed a 6.7% rate, encom-passing various issues such as infection, scar tissue formation, bleeding, delayed healing, recurrence of symptoms, and adductor muscle weak-ness. Notably, all the cases that	The average time for athletes to return to sport after surgery was 135 days, with a majority of participants being soccer and futsal players. The surgical intervention yielded promising results, with a positive correlation between unilateral injuries and the time taken to return to sport. The	https://doi.org/10.1016/j.jisako.2023.10.013

the adductor longus muscle	S~ ao Paulo). The procedure involves releasing the anterior portion of the tendon of the rectus abdominis muscle near the pubic symphysis, along with proximal tenotomy of the adductor longus muscle tendon.		required revision were related to the need to redo the long adductor tenotomy. This nding underscores the importance of early mobilisation in the immediate postoperative period, which might help mitigate such complications. Additionally, all reoper- ated cases were from the initial phase of the treatments performed, suggesting a potential learning-curve effect related to the technique used.	complication rate was low, at 6.7%. Notably, the rate of symptom resolution was high, at 93.3%. Furthermore, the analysis indicated that the player's position on the eld signi cantly in uenced the discharge period, suggesting that the game position plays a role in the recovery process.The combined surgical procedure involving the release of the anterior portion of the tendon of the rectus abdominis muscle near the pubic symphysis, along with proximal tenotomy of the adductor longus muscle tendon, has demonstrated promising outcomes for athletes diagnosed with core muscle injury. These ndings strongly support the ef cacy of this treatment option as an effective intervention for managing core muscle injury in athletes, providing them with a viable path to recovery and a potential return to their sporting activities	
Return to Sports in Stress Reaction and Stress Fractures in Indian	The paper aims to give a clear discussion about the management with rehabilitation guidelines for metabolic causes of stress fractures.	India	Determining the cause of the fracture can support in appropriately reducing the risk of re-injury during RTP.	An imbalance in the bone' s ability to adapt results in a stress fracture. Recurrence can be avoided by determining the cause of stress fractures and	https://doi.org/10.13107/jocr.2024.v14.i07.4616

Athletes: A Case Series				treating them appropriately. A return to pre-injury functional levels in sports requires evidence-based and structured rehabilitation. Clinical Messa	
Return to Sports and Functional Outcome after Primary Anterior Cruciate Ligament Reconstruction in Jamaica	The aim of this study was to assess the function and number of patients who returned to sports after undergoing primary anterior cruciate ligament reconstruction.	Jamacia	This study had some significant limitations. The retrospective nature of a portion of this study could have led to recall bias. The lack of power due to the small patients' numbers likely impacted on the lack of statistical significance when comparing outcome variables between patients who returned and did no return to sports. For this same reason further analysis was not done to assess the impact of patient age, gender, the presence of other concomitant intra-articular injuries with their anterior cruciate ligament tear and chronicity of the injury. The use of the Tegner activity scale also had its specific limitations as it lacked sports such as cricket, and not all sports included had slots for both recreational and	Reconstruction of ACL is the management of choice for patients who sustain an ACL tear and wish to return to sports. Good short and long-term knee outcome scores were noted in this study, but only 78% returned to any sport with 63% returning to their pre-injury level. This trend, which reflects the international literature results, points to the fact that other factors such as kinesiophobia need to be addressed in order to achieve our goal of returning players to their respective sports.	http://dx.doi.org/10.4172/snp.1000109

			competitive participation. This may have led to misinterpretation of the patient's true participation level.		
Re-injury Anxiety in Elite Iranian Handball Players: A Cross-Sectional Study	T his study aimed to investigate the prevalence and related factors of fear of re-injury among elite Iranian male and female handball players.	Iran	The findings emphasize the importance of a holistic approach to rehabilitation for athletes and sports medicine professionals.	Re-injury anxiety is a significant issue among elite Iranian handball players, particularly men and those with a history of past injuries. The study suggests that addressing this anxiety is crucial for effective rehabilitation and return to sport.	https://doi.org/10.5812/asjsm-153552
Assessment of Outcomes of Spine Surgery in Indian Athletes Involved in High-End Contact Sports	This study aimed to analyze the functional outcome following spinal surgery in elite athletes using return-to-play criteria.	India	Although this study was a retrospective analysis, the findings shed light on the outcome of spinal surgeries in athletes and also highlight the importance of the need of the objective "return-to-sport" criteria for this different subset of population. The study also describes the struc-tured rehabilitation program following spinal surgery in athletes. However, a prospective study with a larger num-ber of participants is required to understand the effective-ness of the described	Currently, there are no standardized guidelines for return to sports after spine injuries. An athlete needs to be symptom-free, with full range of motion and full strength before returning to sports.	Asian Spine J 2021;15(2):192-199

			rehabilitation program.		
PATELLAR TENDINOPATHY: AN INTERNATIONAL E-DELPHI PERSPECTIVE	The purpose of the study was the formulation of a rehabilitation framework for patellar tendinopathy based on data from South African and international experts in the medical field.	South Africa	Difficult to get consensus from international expert viewpoint.	Consensus focus was function, load tolerance and individualized strength and rehab. Load tolerance is deemed most critical and forms the foundation of the patellar tendinopathy framework.	ISBN: 0379-9069
COMPARATIVE ANALYSIS OF FEAR OF REINJURY BETWEEN ACUTE AND OVERUSE INJURIES DURING THE RETURN TO SPORTS PHASE OF REHABILITATION: GENDER DIFFERENCES	This study aimed to evaluate athletes with acute and overuse injuries' fear of reinjury, measured as kindesophobia, during the return to sports phase of rehabilitation. Additionally, gender differences within these injury categories were investigated.	India	Potential confounding factors that can affect kinesiophobia levels were not taken into consideration in this study. An athlete's fear of reinjury may be influenced by a variety of factors, including psychological toughness, social support, and they underwent. It is challenging to ascertain if the observed variations in kinesiophobia are exclusively attributable to the kind of injury without accounting for these factors.	In the phase of recovery known as return to sport, this study offers important new insights into the variations in kinesiophobia that exist between athletes with acute and overuse injuries. The results demonstrate the necessity for injury-specific psychological support in rehabilitation programs, as athletes with acute injuries show considerably greater levels of kinesiophobia than athletes with overuse injuries. The lack of discernible gender differences in kinesiophobia within both injury groups raises the possibility that the kind and severity of the injury, rather than the gender of the athlete, may have a greater psychological influence.	10.53555/3jm7rz57
Translation, cross-adaptation and measurement	To cross-culturally adapt and determine the validity of the Brazilian versions	Brazil		The Brazilian versions of ACL-RSI and ACL-QoL were shown to be consistent,	https://doi.org/10.1016/j.bjpt.2017.09.006

properties of the Brazilian version of the ACL-RSI Scale and ACL-QoL Questionnaire in patients with anterior cruciate ligament reconstruction	of the Anterior Cruciate Ligament Return to Sport after Injury (ACL-RSI) and the Quality of Life Questionnaire (ACL-QoL).			reliable, and valid. These tools can be used on a large scale to assess the psychological impact and QoL of Brazilians who have undergone surgical reconstruction of the ACL upon their return to sport.	
Translation and Adaptation of the Reinjury Anxiety Inventory, the Sport Injury Rehabilitation Adherence Scale, and the Athletic Injury Self-Efficacy Questionnaire Into Turkish	The purpose of this study is to translate and culturally adapt the Reinjury Anxiety Inventory (RIAI), the Sport Injury Rehabilitation Adherence Scale (SIRAS), and the Athletic Injury Self-Efficacy Questionnaire (AISEQ) into Turkish and evaluate the psychometric properties of the Turkish versions.	Turkey	Suggested that PTs and psychologists work collaboratively to enhance rehabilitation delivery.	Suggested that Turkish versions were reliable and valid.	https://doi.org/10.1123/jsr.2023-·0273
Efficacy of Dextrose Prolotherapy in Elite Male Kicking-Sport Athletes With Chronic Groin Pain	To determine the efficacy of simple dextrose prolotherapy in elite kicking-sport athletes with chronic groin pain from osteitis pubis and/or adductor tendinopathy.	Argentina		Dextrose injection prolotherapy at 1-month intervals was highly clinically effective in the treatment of chronic groin pain in these rugby and soccer athletes. Correct diagnosis and proper treatment is of paramount importance in musculoskel-etal medicine. The treatment method we describe offers the potential advantage of simultaneous treatment of many poten-tial nociceptive	doi:10.1016/j.apmr.2004.10.007

				contributors to chronic groin pain. This pilot study suggests a new clinical frontier for physiatrists and other musculoskeletal physicians; however, larger controlled trials are needed to confirm our findings.	
Rehabilitation and return-to-sport after anterior cruciate ligament injury and reconstruction: Exploring physical therapists' approaches in Argentina	To investigate the current clinical practice regarding pre- and post-surgical rehabilitation and return to sport (RTS) criteria following anterior cruciate ligament reconstruction (ACLR).	Argentina	Firstly, the survey duration could have been a barrier to answering it. Another limitation was that the survey design and the way it was disseminated may have created a potential for response bias, with many factors not considered that could have contributed to variation in treatment approaches. Selection bias may be present, which may overestimate the quality of rehabilitation practices or underestimate the true variability of respondents in Argentina. Only physical therapists who demonstrated interest in the subject and voluntarily participated in the survey were included. Consequently, there exists the possibility that the survey results may	This study reported substantial variability in clinical practice of PTs regarding pre- and post-surgical rehabilitation and RTS criteria following ACLR. Current rehabilitation practices following ACLR in Argentina are largely not aligned with contemporary evidence and scientific guidelines. Particularly, in the use of preoperative physical therapy, ROM and strength assessment, and the criteria used for RTR and RTS. Future research should be directed at understanding the barriers faced by Argentinian PTs in implementing the findings of this research into their practice, improving the dissemination of scientific knowledge and their implementation in clinical practice.	https://doi.org/10.1016/j.ptsp.2024.04.007

			represent an overestimation of rehabilitation quality. In addtion, the response rate was not possible to calculate due to the dissemination method. Finally, an important limitation to consider in this study is that the survey doesn't allow PTs to response specific important options such as flexion and extension ROM measurement or if this measure was conducted actively or passively.		
The Thai version of the injury–psychological readiness to return to sport scale (I-PRRS): Translation and evaluation of measurement properties	This study aimed to translate and culturally adapt the Injury–Psychological Readiness to Return to Sport scale (I-PRRS) into Thai and evaluate the measurement properties of the Thai version (TH-I-PRRS).	Thailand	This study had several limitations. First, the measurement properties of the TH-I-PRRS were derived from post-ACLR athletes, a group known to experience psychological challenges during treatment [20,31,32]. While this facilitated our use of knee- and ACL-related PROMs during the validation process, it may limit generalizability to other sports injuries. Second, the study population was predominantly male. Milewski et	The TH-I-PRRS is a valid and reliable tool for evaluating the psy-chological readiness of athletes to return to sport after ACLR. Psychological assessment tools are crucial for evaluating injured athletes during the rehabilitation process. This study successfully developed a Thai version of the I-PRRS following international cross-cultural adaptation guidelines. The measurement properties of the TH-I-PRRS were rigorously evaluated via the COSMIN checklist, and the tool demonstrated good validity and	https://doi.org/10.1016/j.jisako.2024.100352

			al. [33] reported higher ACL-RSI scores, but similar IKDC-SKF scores in male athletes compared with females at 6 months post-ACLR. Conversely, Webster et al. [32] found no sex difference in the rate of return to pre-injury performance following ACLR. Finally, this study did not evaluate the responsiveness of the TH-I-PRRS to detect changes in athletes' psychological readiness over time.	reliability for assessing psychological readiness in athletes who have undergone ACLR. The I-PRRS is a generic scale that assesses psychological readiness to return to sport following any type of injury [5]. Its development involved input from athletic injury experts, sports psychologists, and athletes from various sports, establishing its content validity [5]. The questionnaire is user-friendly, requires only a few minutes to complete, and employs a straightforward scoring method, making it practical for both clinical and research settings.	
Intermediary role of mental toughness beliefs on the relationship between pain self-efficacy and fear avoidance in Elite injured athletes	To examine the relationship between Fear Avoidance, Pain Self-Efficacy and Mental Toughness in injured elite and competitive athletes in Lebanon.	Lebanon	Despite being the first study in the Middle East to assess the relationship between fear, pain and mental toughness among Elite or competitive athletes, some limitations are to be mentioned. First, a small, non-random sample of athletes was selected because it was challenging to find a sufficient number of eligible elite or competitive athletes due to their	In conclusion, the current data on fear avoidance, pain self-efficacy, and mental toughness validates their importance as psychological variables in the sporting field. Incorporating MT and PSE training yields benefits that outweigh any associated risk. In essence, this study could enlighten sports professionals on the significance of these three variables (FA, PSE and MT) in sports activity. Educating individuals about these concepts'	https://doi.org/10.1186/s13102-025-01171-w

			limited availability. To add, this study was performed only on Elite or competitive athletes. Consequently, generalizing the results should be done cautiously. In this regard, it is recommended to conduct similar studies other comparative groups using random sampling method so that the obtained samples will be more evenly distributed, which is conducive to improving sample representativeness, reducing sampling error, and improving the accuracy of sample results. Moreover, due to study time constraints and difficulty in engaging willing respondents, the surveys yielded incomplete or partial responses which might implicate recall bias. Respondents may have also provided inaccurate or overestimated information denoted as social desirability bias. A major limitation of the present	benefits athletes, coaches, and physical therapists alike by enhancing mental health, improving performance, aiding rehabilitation, bolstering injury coping mechanisms, and reducing medical costs.	

			study was its cross-sectional nature. Such an approach does not allow establishing future actions or decisions of athletes with different levels of mental toughness, pain self-efficacy and fear avoidance. A longitudinal approach is best employed to assess the direct impact of significant life events on mental toughness, and how athletes cope in such situations.		
The Relationship of Knee-related Quality of Life With Function, Psychological Factors, Strength, Performance, and Postural Stability After ACL Reconstruction: A Cross-Sectional Study	herefore, this study was conducted to verify the relationship of knee functional status, muscle strength, performance in hop tests, postural stability, psychological readiness and kinesiophobia with QoL in patients after ACLR.	Brazil	Our study had major limitations: (1) the patients' postoperative rehabilitation process was not controlled, (2) it was not possible to determine the impact of the analyzed variables on long-term QoL as the study was a cross-sectional one, and (3) the follow-up in some patients was only 6 months, far too short to make QOL assessments.	Knee functional status, psychological readiness, and kinesiophobia were the predictors of knee-related QoL in patients after ACLR, explaining 56% of its variation. IKDC was the major predictor of the ACL-QoL score variation. These results can assist clinicians in the therapeutic monitoring of the factors that may interfere with QoL in patients after ACLR.	DOI: 10.1177/194173812112351 7
Return to Sport of Male Judokas who have Various Surgical Treatments of Lumbar Disk Herniation	he present paper aimed to search for objective data on the period return to sport of elite male judokas with various surgical treatment	Russia	Possibly a longer research period and a greater number of participants are required to obtain robust and objective data.	The objective data on the recovery period duration and return to sport of judokas after various LDH removal surgical treatments are presented in	DOI 10.26773/smj.210601

	modalities of lumbar disk herniation. Participants: elite male judokas (n=8).			our study. We found that Group 1 (TDR) showed much better recovery rates, as reflected in VAS, RODI, and daily training time, six months after surgery. A similar trend nine months after surgery was determined. The small number of participants does not allow making a general conclusion about a higher level of effectiveness of surgical treatment (TDR) of male judokas with LDH. However, it was found that male judokas (TDR) have fewer pain symptoms and have more daily training time in practice during the period of returning to sport in comparison judokas (Fusion).	
Video review of the frequency and assessment of head impacts during the FIFA Arab Cup 2021T	The aim of this study is to review the frequency of head impacts, their characteristics, and the subsequent medical assessment during the FIFA Arab Cup 2021	International	The generalisability of these findings is limited due to the relatively small sample size of one regional men's senior tournament only. It has previously been shown that women have a higher risk of sports-related concussions (Van Pelt et al. 2021), but also that their management may be more thorough than in men (Tarzi et al.	Head impacts were common during the FIFA Arab Cup. In general, two head impacts per match occurred with one resulting in an on-pitch medical assessment. The most common head impact mechanism was head-to-head contact. Only 8% of the head impacts had a video sign of potential concussion, and only 3% resulted in a concussion substitution. In general, the on-pitch medical	https://doi.org/10.1080/24733938.2022.2120629

			2020). Further studies should focus on both men and women and extend across age groups, regions, and levels of play. In this study, we did not have any medical information related to the head impacts, including diagnosis and subsequent management. Therefore, the severity of the head impacts is only indicated by the occurrence of medical assessment and presence of video signs. The presence of video signs does not necessarily indicate a concussion (Davis et al. 2019). More detailed medical information would be required to improve the understanding of the appropriateness of the assessments.	assessments appeared too short (most <1 min) to allow an appropriate assessment of all head impacts, indicating a need for further evaluation of this important aspect of player safety. Further standardisation of the injury spotter's role in football is recommended.	
Cross-cultural adaptation, validation, and reliability testing of the psychological readiness of injured athlete to return to sport (PRIA-RS) questionnaire in Turkish athletes	This study aimed to adapt the Psychological Readiness of Injured Athlete to Return to Sport (PRIA-RS) questionnaire into Turkish and to evaluate its validity and reliability.	Turkey	Due to the wide variety of sports branches, injured body parts, and injury types, the return processes of the athletes in our study were also quite different. Therefore, a responsiveness analysis could not be performed. Further studies are	Psychological readiness is as important as treatment in the return to sports. PRIA-RS provides a comprehensive screening of psychological readiness. PRIA-RS-TR has good internal consistency, reliability, and	https://doi.org/10.1016/j.jbmt.2025.05.034

			needed to investigate the responsiveness, clinical sensitivity, and specificity of PRIA-RS-TR with more homogeneous groups.	construct validity. The PRIA-RS-TR is a reliable and valid tool for assessing Turkish athletes.	
A survey of the participation in competitive sports despite musculoskeletal complaints: A cross-sectional study	The main objectives were to evaluate the degree of confidence exhibited by injured athletes with regards to their participation in a major competition, and to profile the musculoskeletal injuries in a group of elite athletes prior to the start of an official competition.	Brazil	The authors believe that the number of athletes participating despite musculoskeletal complaints could be higher than that found in their study, given that some athletes might be fearful of seeking medical care, sometimes because they are worried about losing their place in the team, or annoying the coach.	The authors observed that some athletes participating in a major competition even with existing musculoskeletal complaints were worried about their injuries affecting their well-being and performance. The majority of these athletes had been injured for longer than two months. Approximately half of them reported that the injury was recurrent. The most frequently occurring lesion was tendinopathy, and the most frequent location of injury was the knee.	http://www.ismj.com
CLINICAL OUTCOME OF ARTHROSCOPIC REPAIR FOR ISOLATED MENISCUS TEAR IN SPORTS STUDENTS	The main objective of the study is to find the clinical outcome of arthroscopic repair for isolated meniscus tear in sports students.	Pakistan	While the overall complication rate was low, a small number of participants experienced re-tears and infections postoperatively. These complications underscore the importance of meticulous surgical technique, appropriate patient selection, and	It is concluded that arthroscopic repair demonstrates high clinical success rates and favorable outcomes in sports students with isolated meniscus tears. Tear location and repair technique did not significantly impact treatment efficacy, highlighting the versatility of arthroscopic repair in this population. With careful consideration of patient-specific	DOI: 10.53555/jptcp.v31i5.6108

			vigilant postoperative care to minimize adverse events and optimize treatment outcomes [17].	factors and meticulous surgical techniques, arthroscopic repair offers a reliable approach to restoring knee function and facilitating timely returns to sports activities for sports students with meniscal injuries.	
Anterior Cruciate Ligament Ruptures in Russian Premier League Soccer Players During the 2010 to 2021/2022 Competitive Seasons	To study the epidemiology of ACL ruptures and determine the patterns associated with their occurrence in RPL soccer players.	Russia	The lack of information about weather conditions and playing surface is another limitation. In addition, the study did not assess the sporting success of soccer players several years after surgery, which could be a subject for future research.	Almost all players were able to return to compet- itive activity after ACL reconstruction. The estimated duration of RTP after primary ACL reconstruction in RPL players was longer than in previous studies in players of other top leagues; however, this difference may be due to a variation in the RTP definition.	10.1177/2325967124126195 7
FIFA football nurse – A task sharing approach in sports and exercise medicine practice in grassroots women's football in low- and middle-income settings. A study prot	The primary objective of this study will be to compare sports medicine practices; injury prevention behaviours; injury risk parameters; incidence and prevalence of injuries and illnesses in teams with and without a Football Nurse during one competitive season in Malawi's Women's football league.	Malawi		We expect to develop a low cost, sustainable and context rele- vant solution to manage the treatment gap of football injuries/illnesses in underserved com- munities such as women's football. Through the study, we also anticipate the development and maintenance of player health, injury and illness monitoring databases for Malawian women football players in club football, which can be replicated in grassroots women's football leagues in LMICs. This will	https://doi.org/ 10.1371/journal.pone.0278428

				allow the monitoring of trends and development of relevant preventive or management strategies in these settings. Additionally, we expect this study to lead to the devel-opment of a flagship model which can inform implementation of similar task sharing approaches to SEM practice in other LMICs in Africa and globally.	

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