

Athlete Maltreatment in Sport: A Scoping Review

Authors: Amy Nesbitt (University of Toronto), David Brown (University of Toronto), Isabella Tremonte (University of Toronto), Michael Jorgensen (University of Toronto), Zaharaa Mahjed (University of Toronto), Sasha Gollish (University of Toronto), Tara-Leigh McHugh (University of Calgary), & Catherine M. Sabiston (University of Toronto)

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Abstract

Research on maltreatment in sport demonstrates the detrimental effects it has on athletes' well-being, and athlete maltreatment is pervasive. However, inconsistencies in how athlete maltreatment is defined and operationalized have resulted in a lack of conceptual clarity that limits current research, practice, and monitoring within and across sport sectors. This scoping review aimed to synthesize the breadth and depth of research on this topic and identify current knowledge gaps to inform the development of a novel athlete maltreatment measure for improving prevalence and outcome assessments in sport. The review objectives are to: (1) map how maltreatment has been conceptualized and operationalized in the literature; (2) identify and describe the types of athlete maltreatment that have been investigated; and (3) explore current trends in research approaches and methods applied to the study of athlete maltreatment (e.g., study designs, athlete characteristics). An established six-stage scoping review methodology was applied, as well as field-specific guidelines for community advisory group consultations. The protocol was conducted over a one-year time frame and has been registered in advance. Relevant sources were identified using a systematic search strategy across six electronic databases. Study screening procedures occurred in duplicate using pre-determined eligibility criteria. For inclusion, articles were required to address the concept of maltreatment among athletes (of any age, sport, or competition level), and contain original peer-reviewed research. Extracted data will be analyzed using qualitative content analysis and descriptive statistics. This protocol received institutional research ethics board approval to conduct virtual focus group consultations with community advisors (e.g., athletes, coaches, sport administrators, clinicians, policy writers, researchers). Results will be published in a peer-reviewed journal and presented at academic conferences for sport leaders and researchers.

Athlete Maltreatment in Sport: A Scoping Review

Full Report

Introduction

Sport participation has the potential to significantly improve psychosocial and physical health and well-being of athletes.¹⁻³ Recently, several sports organizations from around the world have faced increased scrutiny for the presence of maltreatment within their respective sports.⁴⁻¹⁰ Athlete maltreatment encompasses relational (e.g., neglect, psychological, sexual, and physical abuse) and nonrelational (e.g., harassment, bullying, discrimination) forms, which largely depend on the relationship between the athlete and the transgressor.¹¹⁻¹² Of particular concern is the significant threat that maltreatment has on the psychological and physical health, safety, and overall well-being of athletes. For instance, athletes who have experienced maltreatment report high levels of body dissatisfaction, disordered eating patterns (e.g., self-induced vomiting, laxative use), self-harming behaviors, and low self-worth and self-esteem as well as prolonged physical injuries from excessive exercise and training.¹³⁻¹⁸ Athletes who experience maltreatment are at risk of developing psychological disorders, such as depression, eating disorders, and post-traumatic stress disorder.^{14,15,18,19} In a survey of Canadian National Team Athletes, 75% of participants reported experiencing at least one form of maltreatment.¹⁰ A comprehensive understanding of athlete maltreatment is essential for guiding future research and developing effective safe sport initiatives.

Since the mid-1990's there has been a surge of research on athlete maltreatment within the field of sport psychology, aligning with contemporary frameworks of maltreatment, and greater

attention on national and international policy initiatives to prevent maltreatment.^{11,12,20-23} While research has begun to elucidate the prevalence, impact, and consequences of maltreatment in sport, several challenges and limitations remain.^{15,18,24} First, existing studies have often focused mainly on relational maltreatment among specific groups of athletes (e.g., elite level athletes), limiting our understanding of the full scope of the maltreatment issues across all sport levels and domains.²⁵ Second, a wide range of theoretical frameworks, conceptualizations of maltreatment, and assessment tools have been employed in the study of maltreatment in sport; resulting in significant variability and inconsistencies in how the concept of maltreatment is defined and operationalized both within and across studies.^{11,23} Third, while qualitative approaches provide unique insight into the experiences of athletes who have experienced maltreatment, advancements in quantitative investigations have been limited due, in part, to the current lack of validated measures of maltreatment appropriate for use within sport contexts.²⁶ Conceptual clarity and psychometrically validated questionnaires are required to capture the prevalence of maltreatment in sport and identify areas for intervention.²⁶

In sum, the study of maltreatment in sport is a critical area of focus with a potential to promote not only athlete safety but create thriving athlete environments that actualize sport benefits.^{11, 27} Currently, there is no consensus on the definition, application, and measurement of athlete maltreatment in sport. This is important to address as discrepancies in conceptualizations and measures of maltreatment pose a major limitation to current research, study comparisons, policy formation, and surveillance or monitoring systems within and across different sport types, organizations, competition levels, and countries. Despite the growing amount of research on the

topic of maltreatment in sport, the literature remains fragmented, lacking a comprehensive synthesis to identify gaps, guide future research, and to help inform policy.

A scoping review is necessary to systematically map the breadth and depth of the literature, identifying various forms of maltreatment, affected populations, and contexts in which these behaviors have been investigated. Specifically, a scoping review design offers a more comprehensive exploration of maltreatment within sports, elucidating various dimensions of this issue. Unlike traditional meta-analyses and systematic reviews, which often maintain a narrow focus, a scoping review allows for a broader exploration and synthesis of the extant literature.²⁸ Moreover, a scoping review will help identify key constructs for the development of a measure to help standardize the process for identifying trends, testing naturally occurring experiments, and exploring the impacts of policies and programs over time.^{26,29}

Study Purpose and Objectives

The overall purpose of this scoping review is to synthesize the breadth and depth of scientific research on athlete maltreatment in sport, identify current gaps in knowledge, and inform future research priorities and safe sport initiatives. Specifically, this review aims to: (1) map how maltreatment has been conceptualized and operationalized in the literature (e.g., definitions, theoretical frameworks); (2) identify and describe the types of athlete maltreatment that have been investigated; and (3) explore current trends in research approaches and methods applied to the study of athlete maltreatment (e.g., study designs, measures, athlete characteristics).

This scoping review is an important first step to understand how athlete maltreatment in sport has been studied, with a particular focus on current trends and challenges in the conceptualization and operationalization of maltreatment. The findings from this review will provide valuable insights for improving the methodologies and practices in athlete maltreatment research, directly contributing to the development of a novel measure that will enhance the accuracy of prevalence and outcome assessments.

Materials and Methods

Study Design

A scoping review is a type of knowledge synthesis, inclusive of broad study objectives and methodologies.³⁰ A scoping review design was selected due to the key strengths of this approach, namely (i) enhancing conceptual clarity, (ii) mapping conceptual and methodological trends in emerging areas of research, and (iii) identifying knowledge gaps and future research directions.²⁹⁻
³¹ Further, a scoping review design has been recommended within sport psychology to summarize highly heterogeneous bodies of literature, as is seen in the study of maltreatment in sport.²⁹

The scoping review protocol followed standard methodological procedures, and includes six stages: (1) identifying the research question(s), (2) identifying relevant studies, (3) study selection, (4) charting the data, (5) collating, summarising and reporting the results, and (6) advisory group consultation.^{28,32,33} Aligning with recent field-specific scoping review guidelines, this review will also be conducted in consultation with an advisory group consisting of researchers, clinicians, sport administrators, coaches, and athletes, prioritizing engagement and feedback from those who identify as survivors of maltreatment.²⁹ An iterative and reflexive approach will be

applied throughout the review process in order to apply feedback from consultations to maximize the relevance and applicability of the results. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses - Extension for Scoping Reviews (PRISMA-ScR) outlines the best practices for conducting and reporting scoping reviews and will also be applied to promote methodological rigour and transparency.³⁴ The PRISMA protocol checklist is presented in Appendix A.

The current protocol was been registered through Open Science Framework. The database search was run on November 20, 2024 following in-depth formal and informal meetings with librarians, sport stakeholders, and leaders and athletes. While the funding is complete, the project will continue to completion. We anticipate participant recruitment for stage 6 (see below) advisory group consultations will take place in May 2025, after article data extraction and analysis. This delayed timeline is a result of the thorough steps taken to involve experts and athletes with lived experience early in the process, the extensive inclusion criteria, and the extensive number of resources identified in the screening process. Steps 1 to 4 are complete as of April 2, 2025. The remaining steps are planned to take place for the next several months, with a final paper completed by Fall 2025.

Stage 1: Identifying the Research Question

This scoping review synthesizes the breadth and depth of research on athlete maltreatment in sport. Three specific research questions are addressed: (1) How has athlete maltreatment been conceptualized and operationalized (e.g., defined) in research within the context of sport?; (2) What types of maltreatment have been investigated among athletes and in what sport contexts

and/or settings?; (3) How has athlete maltreatment been studied, including any trends in the research purpose, conduct, approaches and methods applied (e.g., study designs, athlete characteristics; measurements used)? To frame the review research questions, and inform the study selection process, the population, concept and context of interest are clearly defined below.³¹

Population. While maltreatment can occur to anyone in the sport setting (including athletes, caregivers, coaches, referees, etc.), the current review focuses specifically on experiences of maltreatment among athlete populations. Current and former athletes with experience in any sport context, during any developmental period, were included. This scoping review did not limit studies based on the participants' age, gender, sport type, or competition level.

Concept. Broadly, maltreatment refers to “volitional acts that result in or have the potential to result in physical injuries and/or psychological harm”.³⁵ Athlete maltreatment is a global construct that can be divided into two subdomains: relational and non-relational maltreatment.¹² Relational maltreatment is subdivided into sexual, emotional, and physical abuse, and neglect; non-relational maltreatment is subdivided into institutional maltreatment, child labour, harassment, and bullying (see Appendix B for specific definitions of each type of maltreatment). For this study, forms of maltreatment perpetuated online (e.g., via social media) were also included where appropriate (e.g., online emotional bullying by teammates).³⁶

Context. In this review, sport is defined as any organized competitive or recreational form of physical activity, with clear rules of play, that facilitates the formation of social relationships of any kind and is aimed at improving the physical health and mental well-being of those involved.³⁷ Although sports may be further contextualized (e.g., team-based vs. individual; aesthetic vs. non-

aesthetic, recreational vs. elite), studies focused on athlete maltreatment in any sport setting, and at any time along the sport journey, were considered relevant for this review.¹¹

Stage 2: Identifying Relevant Literature

Information source. Six electronic databases in fields related to sport, psychology, and health were used: (1) MEDLINE, (2) EMBASE, (3) PsycINFO via Ovid, (4) CINAHL, (5) Sport Discus via EBSCO, and (6) ProQuest Dissertations and Theses Global. Peer-reviewed articles containing original research (e.g., empirical studies), as well as theses/dissertations will be included in the current scoping review. Relevant journals (e.g., Journal of Interpersonal Violence; Psychology of Sport and Exercise) and reference lists of included sources were manually searched for relevant articles missed in the initial search to enhance the comprehensiveness of the search on athlete maltreatment in sport. Note, the decision to include theses/dissertations impacted the timeline for completion of this work. The decision to include these sources was based on the premise that this work is challenging and at times contentious, and some results may not be published beyond a thesis or dissertation.

Search strategy. A systematic search strategy was developed and was conducted in consultation with a health sciences librarian. Search terms were explored within subject headings, titles, abstracts, and keywords. Terms for the population, concept and context were combined using appropriate Boolean logic and operators (e.g., ‘and’, ‘or’, ‘not’). See Appendix C for the MEDLINE search strategy and list of keywords. All databases were searched November 20, 2024.

Given the known challenges and inconsistencies in how athlete maltreatment has been defined and operationalized as this research area has evolved over time, the search strategy was

peer reviewed by topic experts who are not on the review team. The peer review step provides valuable feedback on the specified search terms and limits to improve the overall rigor, integrity, and appropriate translation of the search strategy across all databases (e.g., CADTH Peer Review Checklist for Search Strategies).³⁸ The search strategy was also piloted using a multi-step process testing the sensitivity and precision of the search to ensure relevant sources were not missed before being translated to all databases.

Stage 3: Study Selection

All identified sources were uploaded in Covidence and collaboratively screened by a multidisciplinary research team using predetermined eligibility criteria.^{28,32} Following data de-duplication, at least two reviewers screened articles in two stages: (1) titles and abstracts and (2) full-text review. Ten sample studies were used as a calibration exercise and decisions (i.e., included, excluded, uncertain) were compared between reviewers. The research team then met to clarify the criteria as needed. Interrater reliability was assessed and a score of 80% consistency was required before formal title and abstract screening takes place. Once completed, two reviewers independently screened the full-text articles. Disagreements throughout this process were resolved by consensus between the reviewers or the decision of a third reviewer.

Eligibility Criteria. For inclusion in this scoping review, sources addressed the concept of maltreatment among athletes within any sport context. Peer-reviewed research written in English that was published between 1993 and 2024 were included. Language restrictions were necessary due to time and resource constraints. In the case that a full-text/English language copy was not found, the corresponding author contacted the article/source corresponding author via email to obtain the article. For the purpose of the present scoping review, the date range was limited to

reflect the time period where there has been a significant rise in athlete maltreatment research. Particularly, increased research attention to athlete maltreatment first emerged following several high-profile cases of athlete abuse in the 1990s, which was followed by several conceptual papers that gave rise to much of the research landscape today.^{11,20,26,39} This timeline ensured that the review had broad enough in scope to capture how the study of athlete maltreatment has evolved over the past 30 years, while also synthesizing current evidence that can inform the development of a new measure of athlete maltreatment.

Specific inclusion/exclusion criteria are detailed in Table 1 and Table 2 below, to reflect the study selection process at each screening stage. Throughout the review process, it is expected that the present draft of the eligibility criteria will undergo slight revisions. Any modifications were documented and will be transparently reported in the final published review.

Table 1. Eligibility for Stage 1 Title/Abstract Review

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> a) Population: Refers to current or former athletes of any age, sex, gender, competition level, or sport type. b) Concept: Athlete maltreatment is identified as a key focus within the purpose/objectives/research question, outcome measures, and/or findings. This includes relational (i.e., emotional/psychological abuse, sexual abuse, physical abuse, neglect), non-relational (i.e., bullying, harassment), and/or online maltreatment. c) Context: Is set in any sport setting. d) Type of source: Papers containing original research (e.g., quantitative, qualitative, or 	<ul style="list-style-type: none"> a) Population: Refers to non-athlete populations within sport (e.g., coaches, parents/caregivers, administrators, etc.). b) Concept: Athlete maltreatment is not a clear and explicit focus of the study. c) Context: Is not set in a sport setting. d) Type of source: Study protocols, review articles, commentaries, opinions, position statements, clinical guidelines, books/book chapters, grey literature, conference proceedings, articles solely focused on the development/psychometric testing of measures or assessments.

mixed method empirical studies), including peer-reviewed articles as well as theses / dissertations. e) Publication language/date: Written in English and published between 1993 and 2024.	e) Publication language/date: Written in a language other than English and was published prior to January 1 st , 1993.
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Table 2. Eligibility for Stage 2 Full-Text Review

Inclusion Criteria	Exclusion Criteria
a) Population: Refers to a clearly defined athlete population with current or former sport participation, of any age, gender, competition level or sport type. b) Concept: Athlete maltreatment (including relational, non-relational, and/or other form) is clearly defined, operationalized, measured, and/or discussed as a key concept. c) Context: Is set in any sport setting.	a) Population: Refers to mixed/convenience samples that encompass non-athlete populations (e.g., coaches, parents/caregivers, administrators, students, general community samples) without stratifying results for interpretation. b) Concept: Broadly focused on similar constructs (e.g., childhood maltreatment, adverse childhood experiences) or related issues in sport (e.g., injury, athlete mental health). c) Context: Sport context is not clearly stated or emphasized.

Stage 4: Data Extraction

In accordance with recommended data charting methods, a standardised and systematic charting form was used to organise, display, and interpret specific details from the included studies.^{28,32} Data extraction was completed by at least two reviewers using Excel. The charting form was first piloted using a small sample of included sources (i.e., 5-10 articles) to ensure consistency among reviewers. A draft charting form is shown in Table 3. Each section of the data

charting form directly aligns with the three review objectives and will be central to the next steps in this project and to finalize the scoping review analyses described in Stage 5 of this protocol. Any challenges or disagreements during the data extraction process were brought to the rest of the research team until a unanimous solution was reached.

Table 3. Draft charting form

General document details	
APA citation	Full author, date and journal details.
Country	Country of publication.
Academic discipline	Broad field of research or practice (e.g., kinesiology, psychology, sociology), based on the author affiliations and publication journal.
Conceptualization and operationalization of maltreatment in sport	
Conceptualization	How was maltreatment described within the context of sport?
Definition of maltreatment	Definition or operationalization of athlete maltreatment.
Theoretical framework/model	Any theories, conceptual model(s) or framework(s) applied.
Seminal papers referenced	Seminal conceptual papers that have informed the research (if applicable).
Research approaches and methods applied	
Purpose	The study purpose, research question(s), aim(s), and/or objective(s).
Population	Geographical location, sport and competition level, relevant demographic characteristics (e.g., age, sex, gender, racial and ethnic background, disability), and number of participants.
Study design	Quantitative, qualitative, or mixed methods.

Specific methodological approaches	Brief description of main experimental, intervention, observational or qualitative methods used.
	Intervention (if applicable): Description of key characteristics (e.g., intervention purpose/target, type, main components, duration)
	Intersectional approaches (if applicable): Description of how equity, diversity, inclusion, and accessibility were addressed. Specific methods (e.g., sampling, SGBA+) and/or theoretical frameworks applied to address diversity and identity factors among participants.
	Collaborative and participatory research approaches: Does the study involve people with lived experience of athlete maltreatment through consultation or partnerships? Description of any collaborative or participatory methods applied engaging athletes (or other knowledge users) as advisors or partners to draw on their lived experience expertise during the research process.
Instruments used to measure maltreatment	Specific measures/surveys employed (if applicable).
Context	The setting of the research, if provided.
Types of athlete maltreatment investigated	
Type	Any specific types of athlete maltreatment identified in the article. Informed by Stirling's framework (and recent iteration by Kavanagh et al.), athlete maltreatment includes relational and non-relational domains which may encompass the following: emotional/psychological abuse, sexual abuse, physical abuse, neglect, assault, bullying, harassment, exploitation, institutional maltreatment, child labor, and discrimination. ^{12,36}
How / where did the maltreatment occur?	Perpetrated either in physical (in-person) or virtual (online, social media) setting?
Summary of outcomes / results	
Main outcomes	Any outcomes that were measured or described. Description of the consequences of maltreatment (if applicable).

Key messages / important results	Description of main findings, take home messages, notable strengths and limitations, and implications (e.g., theoretical, methodological, practical).
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*****NOTE: Stage 5 and 6 of the project are in progress at the time of this final report.**

Stage 5: Collating, Summarizing, and Reporting the Results

The final report will adhere to the PRISMA-ScR checklist, including a flow diagram detailing the explicit decision-making process involved in study selection. Data from the included articles will be analyzed using qualitative content analysis and descriptive statistics (e.g., counts, frequencies).⁴⁰ Findings will be written as a narrative summary, with the inclusion of tables and figures. The final presentation of results will be determined in consultation with community advisory groups, and will likely involve a combination of written summaries, tables, and figures. Findings will be synthesized and discussed with respect to the three research questions outlined, along with considerations for future research, education, policy initiatives, and application/utility of the results to inform a measure of athlete maltreatment.

Qualitative content analysis will be used to identify key patterns within and across the included articles.^{41,42} Specifically, data analysis will be performed by one member of the review team using NVivo software. The analysis will start with a familiarization process involving the reading and re-reading of the included articles. Next, initial codes will be developed inductively by reading and highlighting the article's key information from the data charting form. Codes will be combined or split to create more descriptive and representative codes, and then organized into

categories based on relationships and linkages between them. To address objectives 1 and 3, the open-coding and abstraction process will involve primarily inductive analyses of the definitions, measures, and methods applied to the study of athlete maltreatment (detailed in the data charting form). For example, categories and subcategories may be developed based on theoretical, conceptual, and methodological similarities. To address objective 2, types of athlete maltreatment identified in the charting form will be analyzed through the same process of open-coding. Analyses will be informed by Stirling's framework – allowing for the grouping of codes into relational and non-relational types of maltreatment, as well as the emergence of new categories and subcategories that reflect athlete experiences within the current literature.¹² In this way, we are not seeking to confirm or explore the framework. Rather, we intend to use the sensitizing framework to orient our thinking towards identifying distinct established and emergent forms of athlete maltreatment in the literature.

A second reviewer will act as a critical friend by assisting with refining the analysis and interpretation.⁴³ Specifically, they will challenge the primary researcher's initial analysis and offer alternative perspectives as needed to ensure robust and nuanced understanding and presentation of the data. Results will then be thoroughly discussed among all members of the review team. Overall, this analytic approach can be especially useful in identifying current gaps and trends in how a complex and transdisciplinary concept, such as athlete maltreatment, has been conceptualized and operationalized in research, and how understandings have evolved over time.^{29,44}

Lastly, this scoping review will include a quality appraisal of included studies using the mixed methods appraisal tool (MMAT).⁴⁵ The MMAT includes specific criteria for qualitative, quantitative, and mixed-methods studies. Data will be displayed in a table. Importantly, no studies

will be excluded due to low quality. Rather, the purpose of this appraisal is to provide insight into any strengths and challenges in the quality of current athlete maltreatment research.²⁹

Stage 6: Community Advisory Group Consultations

The multidisciplinary review team has been purposefully formed to ensure that the scoping review protocol has been developed collaboratively among researchers with content and methodological expertise in sport psychology, mental health and rehabilitation, and participatory research approaches/co-production. Importantly, each member of the review team also brings lived experience expertise from engaging in a variety of sport contexts and roles, from the perspective of an elite athlete, clinician, coach, referee, and sport/exercise psychology researcher.

Following Levac et al.'s recommendations and recent field-specific guidelines proposed by Sabiston et al., this scoping review will also consult with community advisory groups (including athletes, coaches, researchers, clinicians, sport administrators, policy writers) to integrate the lived experience expertise of end-users.^{29,32} Community advisory group consultations will: (1) validate and present the findings of the scoping review, (2) highlight additional knowledge gaps and research priorities not identified by the review team, (3) inform how results can be applied to a measure of athlete maltreatment, and (4) identify knowledge translation and dissemination efforts needed to reach diverse and broad groups of individuals in sport. This consultation stage of the review process is recommended to enhance the relevance and applicability of the findings.⁴⁶

Consultative meetings will occur following stage 5 of the scoping review process (e.g., once preliminary analyses and syntheses have been carried out) using a qualitative focus group design. Based on the review team's experience engaging community advisors as part of a scoping review process, as well as current evidence-based guidelines, the estimated total sample size is

between $N = 18-30$.^{29,47} This will allow for up to 3 focus groups ($n = 6-10$ participants each) to be conducted, which is considered feasible and appropriate. To be eligible to participate, advisory group members must: (i) be aged 18 years old or older, (ii) be able to speak and understand English, and (iii) self-identify as a current/former athlete, or an expert/professional within the field of athlete welfare, well-being, and maltreatment in sport (e.g., researcher, clinician, coach, sport administrator, policy writer). Participants will be recruited through the research team's current networks, and using newsletters and social media advertisements.

Participants will complete a digital consent form and brief demographic questionnaire before joining a consultative meeting. Two focus groups will be conducted with experts/professionals and one separate focus group will be conducted with current and former athletes. Consultative meetings will be co-facilitated by two members of the review team virtually using online teleconferencing and will be approximately 60-90 minutes in length. A semi-structured focus group interview guide will be used to guide discussions. Participants will be asked to discuss the following: (i) their overall impression of the scoping review findings and whether these results resonate with their own perspectives and experiences, (ii) additional gaps in knowledge that were missed / future research priorities, (iii) how the results can be applied to inform the development of an athlete maltreatment questionnaire and support safe sport initiatives (e.g., education and policy), and (iv) preferences and feedback regarding data presentation and knowledge dissemination strategies. Focus group transcripts will be analysed using qualitative content analysis, as described above (see Stage 5).^{41,42} The final report will include a detailed description of the community advisory group consultation methods and results.³²

The review team will engage in ongoing reflexive practice to address the potential impact of our own positionality in shaping study decisions, consultations, and the interpretation of results.^{48,49} Reflexivity will support the methodological rigor of this scoping review by challenging possible biases/assumptions on the topic of athlete maltreatment, and critically examining where positions of power and privilege influence research activities and how this can be addressed. The review team will also apply specific recommendations for enhancing the trustworthiness of qualitative content analysis and keep an audit trail detailing decision-making processes.^{42,50,51}

Patient and Public Involvement

The scoping review design and protocol development has not involved patients or members of the public outside of the review team. As part of Stage 6 of this protocol, current/former athletes (who may have witnessed or experienced maltreatment in sport), as well as other experts/professionals (coaches, clinicians, researchers, policy writers, administrators), will be engaged as community advisors. Their perspectives and feedback will shape the final interpretation and dissemination of review results, ensure that findings are relevant and applicable to the next stage of this research focused on developing a measure of athlete maltreatment, and identify future research priorities for protecting athlete welfare.

Ethics and Dissemination

The University of Toronto Research Ethics Board approved Stage 6 of this scoping review protocol, which involves the collection of primary data from community advisory groups. Results of the review will be disseminated through traditional approaches, including open-access peer-reviewed publication(s), presentations at national/international conferences, and via a plain-

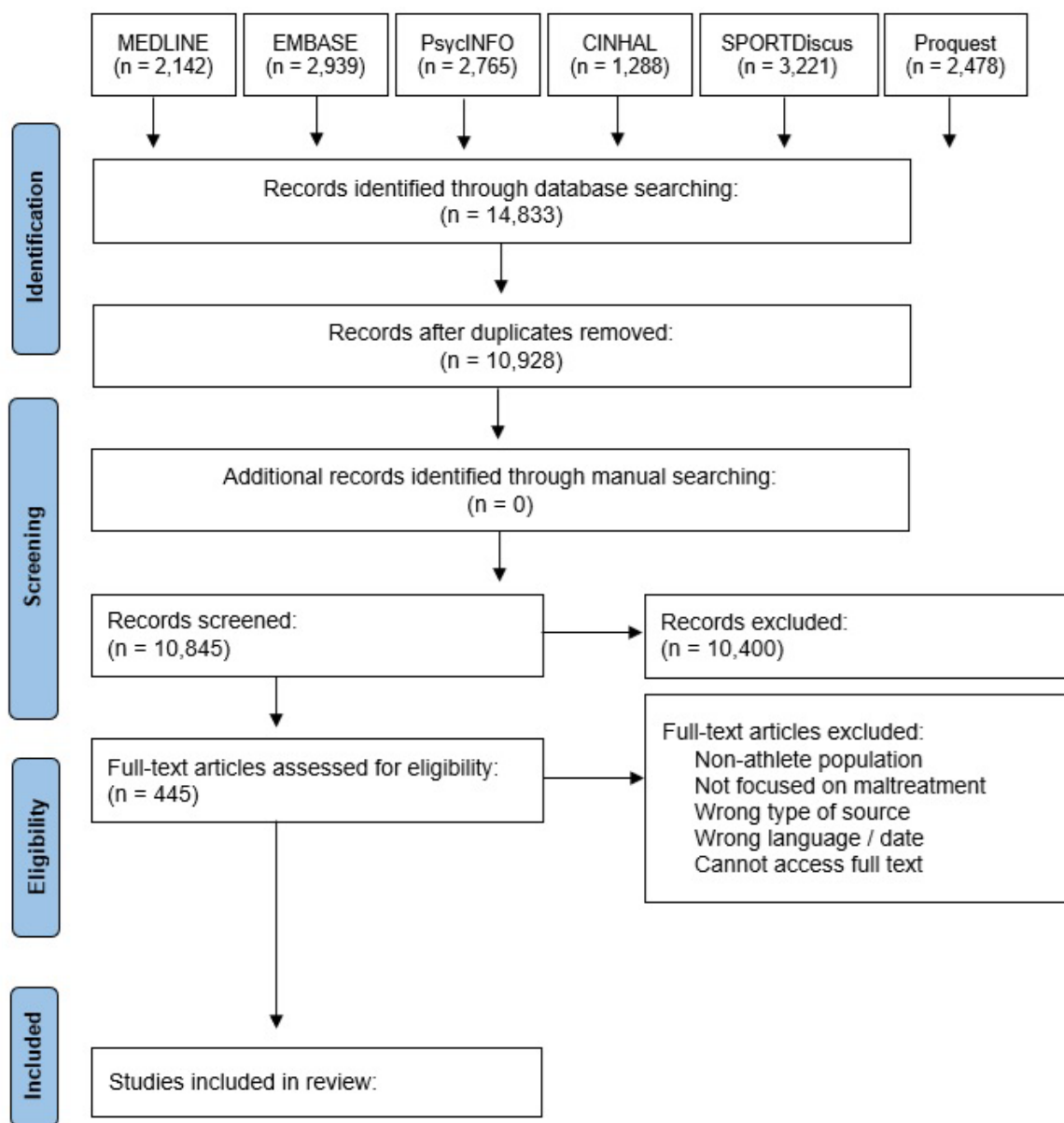
language summary report presented on the researchers' websites (e.g., infographics). Additional knowledge translation strategies will be developed based on community advisory group feedback and will aim to prioritize sharing review findings with coaches, athletes, and sport community members.

Results

In addition to working with stakeholder experts to identify the search strategy, we also conducted a pilot study to gather insights from Canadian sport organizations at the National and Provincial/Territorial Sport Organization levels. In this anonymous survey, 18% of the respondents had a definition of either safe sport (15%) or maltreatment (3%). Additionally, 46% of the respondents had definitions for both safe sport and maltreatment. As such, 36% of the sport leaders representing organizations in Canada reported that they did not have a definition of safe sport or maltreatment. Despite these results, 97% of the organizational leaders want a consistent definition and measure for maltreatment in sport. When asked how to engage with policies and practices specific to maltreatment in sport, 75% of the organizations suggested that they depend on volunteers to work within this portfolio. And, when asked how we could engage with them in developing a definition and measurement for maltreatment, most leaders identified websites, courses, and podcasts as direct opportunities to connect, inform, collaborate, and develop initiatives.

Following steps 1 through 4 of the scoping review process, the PRISMA flowchart for this study is presented in Figure 1.

Figure 1. PRISMA flowchart for scoping reviews at time of final report, April 2, 2025.



Preliminary trends in the scoping review documents are presented here in the absence of a final results section. In terms of study design and methods, most studies have employed qualitative or quantitative cross-sectional designs. Mixed-methods & participatory methods are promising

avenues for future work, especially given power differentials at the root of many experiences of maltreatment. Of the included studies, most research has focused on competitive sport context, limiting generalizability to recreational settings. And, there is an obvious missingness or limited research among diverse athlete populations and a lack of use of intersectional approaches during recruitment and analyses. Many studies also have poor participant characteristics reporting.

Most research investigating relational forms of maltreatment focused on athlete sexual, physical, and emotional abuse over athlete neglect. Thus, there is a need to further investigate how neglect occurs in sport, as well as how it impact athletes' well-being, health, and involvement in sport. Research investigating nonrelational forms of maltreatment focused on peer-to-peer bullying (e.g., name calling between teammates), experiences of hazing (e.g., use of alcohol for initiation rituals in college athletes), and gender and racial discrimination in sport (e.g., unequal access to sport, finances, and training facilities for women and non-white athletes). Other forms of discrimination in sport, such as those on the basis of sexual orientation, gender nonconformity, and body size and weight among others should be investigated further.

Specific information about the target for bullying and harassment behaviour (e.g., physical appearance, sport ability, race, gender, sexual orientation) should be elucidated in quantitative studies that investigate these behaviours as they are typically discussed in a broad/general way (e.g., prevalence of athletes who experience bullying in general). Furthermore, the location (e.g., online, in sport settings, involving athletes but outside of sport settings) of non-relational maltreatment, such as bullying and harassment, should be investigated in order to inform sport organizations, researchers, and parents of areas of risk and intervention opportunities.

Athlete exploitation was rarely investigated and warrants greater discussion beyond what has more recently been investigated with NCAA athletes (no evidence in Canada). Moreover, exploitation is rarely investigated in other contexts besides monetary motives/impacts. For example, coaches prioritizing sport results over athlete well-being and health to advance their own careers could be viewed as a form of exploitation.

The specific use of language is important to help identify, and in our case extract, research on athlete maltreatment. Using specific language to identify maltreatment in sport is sometimes avoided in studies. This may be because some athletes, particularly boys and men, do not want to use the language and be portrayed as victims, and thus researchers don't feel as though it is appropriate. The scoping review focused solely on athletes as a population, however, gathering an understanding of how others involved in sport (e.g., parents of athletes, coaches, and trainers and athletic staff) understand and potentially intervene in athlete maltreatment is important and lacking. Finally, inconsistencies in measurements makes comparisons across studies not possible. Thus, there remains a need for a standard measure of relational and non-relational forms of maltreatment contextualized to the sport environment and athletes.

Discussion and Conclusions

By encompassing a diverse range of study designs and methods (i.e., qualitative, quantitative, and mixed-methods), this scoping review will provide an inclusive summary of the research landscape focused on athlete maltreatment. Particularly, key trends in how maltreatment has been conceptualized and measured among athletes will be identified in consultation with advisory groups to enhance the relevance and applicability of the results. These findings will

inform future research and sport initiatives focused on safeguarding in sport. Athlete-centered and trauma-informed assessments are needed and the preliminary results from this review suggest that there is an important shift in research from “risk” to prevention and safeguarding. Given that there is a lack of athlete-engaged and athlete-led research initiatives, this scoping reviews fills a gap and prioritizes athletes’ lived experiences expertise throughout the research process.

Recommendations

This scoping review will culminate in recommendations for an appropriate measure of athlete maltreatment, should such recommendations be possible with the final analysis and interpretation of the scoping review contributions and decisive consultations with athletes and sport leaders, researchers, and clinicians.

We also share recommendations based on our review process:

1. We should remove the inclusion of dissertations in our review as well as future reviews.

This creates an overwhelming amount of studies to sort through as well as a large increase in time (especially in full text revisions), which is a major concern with scoping reviews due to when the search occurred. Moreover, there are issues with removing published studies AND their dissertation/thesis counterparts as names and authors can change and studies can be altered to fit journal needs and reviewer comments.

2. Dance should not be included in sport if it is in the absence of competition (e.g., ballet school vs. flamingo competition). It doesn’t make sense based on all definitions of sport that emphasize a set of rules for play and conduct during a match or competition, which doesn’t occur in ballet schools.

- a. A separate scoping review should focus on performing arts, such as dance, due to the prevalence of studies and the unique nature of these activities that are still based, in part, on athletic ability compared to other performative arts like musical theatre that doesn't require athletic ability in order to train and perform (and yes, we do have a study on musical theatre).
3. The scoping review should focus on athletes as victims/survivors of maltreatment. This will help us avoid issues surrounding the presentation of fake or hypothetical situations with the purpose of gaining people's perception on them. Actual experiences over perceptions and opinions from those speaking to something they know little about.
4. A separate scoping review should be conducted that focuses specifically on the development, implementation, and impacts of interventions whose goal is to ameliorate athlete maltreatment risk or consequences.

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Appendices

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Appendix A

PRISMA-P Checklist

			Page Number
Reporting Item			
Title			
Identification	#1a	Identify the report as a protocol of a systematic review	1
Update	#1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration			
	#2	If registered, provide the name of the registry (such as PROSPERO) and registration number	2, 6
Authors			
Contact	#3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contribution	#3b	Describe contributions of protocol authors and identify the guarantor of the review	18
Amendments			
	#4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	N/A
Support			
Sources	#5a	Indicate sources of financial or other support for the review	--
Sponsor	#5b	Provide name for the review funder and / or sponsor	--

Role of sponsor or funder	#5c	Describe roles of funder(s), sponsor(s), and / or institution(s), if any, in developing the protocol	--
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Introduction

Rationale	#6	Describe the rationale for the review in the context of what is already known	3-5
Objectives	#7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	6-8

Methods

Eligibility criteria	#8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	9-11
Information sources	#9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	8
Search strategy	#10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Appendix C
Study records - data management	#11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	9
Study records - selection process	#11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	9-11
Study records - data collection process	#11c	Describe planned method of extracting data from reports (such as piloting forms, done independently,	11-13

		in duplicate), any processes for obtaining and confirming data from investigators	
Data items	#12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	11-13, 15
Outcomes and prioritization	#13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	11-13
Risk of bias in individual studies	#14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	See note 1
Data synthesis	#15a	Describe criteria under which study data will be quantitatively synthesised	13-14
Data synthesis	#15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I ² , Kendall's τ)	N/A
Data synthesis	#15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
Data synthesis	#15d	If quantitative synthesis is not appropriate, describe the type of summary planned	13-14
Meta-bias(es)	#16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	See note 2
Confidence in cumulative evidence	#17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	See note 3

Author notes

1. N/A for scoping reviews
2. N/A for scoping reviews
3. N/A for scoping reviews

Citation: Moher D, Shamseer L, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart LA. Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) 2015 statement. Syst Rev. 2015;4(1):1.

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<p>Non-Relational</p>	<p>are exposed to lasting physical or psychological harm and can be divided into bonded (e.g., forcing child athletes to work against debt taken by their family) or non-bonded (e.g., financial rewards for child athletes for training or competing in hazardous conditions) child labour.</p> <ul style="list-style-type: none"> - Harassment is defined as any comment, conduct, or gesture directed towards an individual or group of individuals, which is insulting, intimidating, humiliating, malicious, or degrading or offensive. It can be subdivided into physical (e.g., pushing, threatening), sexual (e.g., lewd comments, inappropriate physical touching or fondling, repeated suggestion to engage in sexual conduct), emotional (e.g., telling embarrassing stories about athletes, put-down jokes), gender (e.g., exclusion based on gender), racial (e.g., referring to someone's race in a negative, vulgar, or derogatory terms), homophobia (e.g., exclusion based on sexual orientation). - Bullying is defined as repeated physical, verbal, or psychological attacks or intimidations, without provocation by the victim, that are intended to cause fear, distress, or harm to the victim. Bullying can be categorised as physical (e.g., theft, hitting), emotional (e.g., teasing, threatening), or social (e.g., hazing/initiation rituals).
<p>Context: Sport</p>	<p>Sport is defined as any organized competitive or recreational form of physical activity, with clear rules of play, that facilitates the formation of social relationships of any kind and is aimed at improving the physical health and mental well-being of those involved (Lagaert & Roose, 2016). This review will consider any sport context as relevant.</p>

Appendix C
Preliminary Medline (Ovid) Database Search Strategy

#	PCC conceptual term of interest	Search term entered into OVID-Medline
1	Concept (maltreatment)	Harassment, Non-Sexual/ or Sexual Harassment/ or Rape/ or Sex Offenses/ or Physical Abuse/ or Violence/ or Gender-Based Violence/ or Workplace Violence/ or Bullying/ or Cyberbullying/
2	Concept (maltreatment)	((mental* or physical or verbal or emotional or sexual or psychological or material) adj2 (harm or abus*)).tw,kf.
3	Concept (maltreatment)	(assault* or maltreat* or mistreat* or ill-treat* or harass* or rape or sexual misconduct or violence or bully* or exploitation or neglect or coerc* or extort* or “child labour” or “child labor” or stigmati* or ostraci* or hazing).tw,kf
4	Concept (maltreatment)	(discriminat* adj3 (gender or sex or sexual or race or racial or weight or athlete)).tw,kf.
5	Population (athletes)	exp Athletes/ or exp Para-Athletes/
6	Population (athletes)	(athlete* or para-athlete*).tw,kf.
7	Context (sports)	Sports/ or Recreation/ or Athletic Performance/ or Sports for Persons with Disabilities/ or Youth Sports/ or Team Sports/ or Gymnastics/ or Baseball/ or Basketball/ or Boxing/ or Cricket Sport/ or Football/ or Golf/ or Hockey/ or Martial Arts/ or Mountaineering/ or exp Racquet Sports/ or Rugby/ or Skating/ or exp Soccer/ or exp Snow Sports/ or “Track and Field”/ or Volleyball/ or Diving/ or Water Sports/ or Weight Lifting/ or Wrestling/
8	Context (sports)	(sport* or parasport* or para-sport* or physical recreation or athletics or athletic performance or archery or badminton or baseball or basketball or bobsleigh or boxing or bowling or caving or cheerleading or cricket or dance or dancing or diving or fencing or football or golf or gymnastics or handball or hockey or horseback riding or judo or karate or kickboxing or lacrosse or martial arts or mountaineering or rock climbing or sport climbing

		or rowing or rugby or skateboard* or skating or ski or skiing or snowboarding or soccer or softball or squash or tennis or “track and field” or triathlon or volleyball or weight lifting or wrestling).tw,kf.
9	Context (sports)	((running or runner or cycling or cyclist or swimming or swimmer) adj2 (professional or olympic or competitive or elite or recreational)).tw,kf.
10	Concept	1 or 2 or 3 or 4
11	Population and Context	5 or 6 or 7 or 8 or 9
12	Combine PCC	10 and 11
13	Limit by language and date	Limit 12 to (english language and yr=“1993-current”)