Supplementary Material

Table S1: A Posteriori Changes to Scoping Review Protocol

Date	*Description of Change*	*Reason for Change*
	Research Questions narrowed into two questions intent on capturing existing focus areas and methodology of health disparities research in SEM	Based on systematic searches with the librarian, too many articles would be identified to complete project in appropriate timeline
	Decision made to only include articles related to organized sport	Project would be infeasible if general physical activity articles were included due to large volume of articles identified

Table S2: Database Search Strategies

PubMed

("Athletes"[mesh] OR "Athletic Injuries"[mesh] OR "Sports"[mesh] OR "Sports Medicine"[Mesh] OR athlet*[tw] OR sport*[tw]) AND ("Health Services Accessibility"[mesh] OR "Health Equity"[mesh] OR "Healthcare Disparities"[Mesh] OR "Health Inequities"[Mesh] OR "Health Status Disparities"[mesh] OR "Culturally Competent Care"[mesh] OR "Social Determinants of Health"[mesh] OR culturally-competen*[tw] OR culture-competen*[tw] OR ((health*[tw] OR medical[tw] OR medicine[tw]) AND (disparit*[tw] OR inequit*[tw] OR equit*[tw] OR equalit*[tw] OR inequalit*[tw] OR barrier*[tw] OR facilitator*[tw] OR access[tw] OR accessibilit*[tw] OR stereotyp*[tw] OR prejudice*[tw] OR determinant*[tw] OR advantaged[tw] OR disadvantaged[tw])))

Scopus

(TITLE-ABS-KEY(athlet* OR sport*)) AND (TITLE-ABS-KEY((cultur*) W/3 (competen*)) OR TITLE-ABS-KEY((health* OR medical OR medicine) W/15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)))

SPORTDiscus

(SU (athlet* OR sport*) OR TI (athlet* OR sport*) OR AB (athlet* OR sport*) OR KW (athlet* OR sport*)) AND (SU ((cultur*) N3 (competen*)) OR TI ((cultur*) N3 (competen*)) OR AB ((cultur*) N3 (competen*) OR KW ((cultur*) N3 (competen*))) OR SU ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)) OR TI ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)) OR AB ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)) OR KW ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)))

CINAHLPlus with Full Text

(MH ("Athletes+" OR "Athletic Injuries+" OR "Sports+" OR "Sports Medicine+") OR TI (athlet* OR sport*) OR AB (athlet* OR sport*) OR SU (athlet* OR sport*)) AND (MH("Health Services Accessibility+" OR "Healthcare Disparities" OR "Health Inequities" OR "Health Status Disparities" OR "Cultural Competence" OR "Cultural Safety" OR "Social Determinants of Health") OR TI ((cultur*) N3 (competen*)) OR AB ((cultur*) N3 (competen*)) OR SU ((cultur*) N3 (competen*)) OR TI ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)) OR AB ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)) OR SU ((health* OR medical OR medicine) N15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)))

Science Citation Index-Expanded, Social Sciences Index, Emerging Sources Index (Web of Science)

(TS=(athlet* OR sport*)) AND (TS=((cultur*) NEAR/3 (competen*)) OR TS=((health* OR medical OR medicine) NEAR/15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)))

CENTRAL

((athlet* OR sport*) AND (((cultur*) NEAR/3 (competen*)) OR ((health* OR medical OR medicine) NEAR/15 (disparit* OR inequit* OR equit* OR equalit* OR inequalit* OR barrier* OR facilitator* OR access OR accessibilit* OR stereotyp* OR prejudice* OR determinant* OR advantaged OR disadvantaged)))):ti,ab,kw

Table S3: Databases searched

Database searched	**Date searched**	**Results**
PubMed	06/06/2022	**6,739**
Scopus (Elsevier)	06/06/2022	**2,638**
SPORTDiscus (EBSCO)	06/06/2022	**971**
CINAHLPlus with Full-Text (EBSCO)	06/06/2022	**1,441**
Web of Science Core Collection (Clarivate): Science Citation Index-Expanded, Social Sciences Index, Emerging Sources Index	06/06/2022	**2,051**
Cochrane CENTRAL (Wiley)	06/06/2022	**134**
Total		**13,974**
Total after librarian de-duplication		**9,360**
Total after Covidence de-duplication		**9,355**

Table S4 Primary Domain and Possible Causes of Health Disparities Assessed in Included Studies

Study	**Primary Domain**	**Possible Causes of Health Disparities***
Allahabadi 2022	Access to SEM Care	Insurance; Race/Ethnicity; Sex
Attia 2021	Provider representation in SEM	Sex
Austin 2022	Heath-related outcomes in SEM	Race/Ethnicity
Ballesteros 2020	Access to SEM Care	Race/Ethnicity
Baraga 2012	Access to SEM Care	Age; Insurance
Barfield 2013	Access to and participation in Sport	Ability(P)
Baria 2015	Access to and participation in Sport	Ability(P)
Barter 2023	Access to SEM Care	SES
Beck 2020	Access to SEM Care	Age; Insurance; Language; Location; Sex
Bopp 2017	Access to and participation in Sport	Race/Ethnicity

Bram 2020	Heath-related outcomes in SEM	Insurance; Race/Ethnicity
Braza 2018	Access to and participation in Sport	Ability(P); Race/Ethnicity
Brown 2022	Heath-related outcomes in SEM	Race/Ethnicity; SES
Brown 2018	Access to and participation in Sport	Race/Ethnicity; Sex
Brown 2023	Heath-related outcomes in SEM	Insurance; Race/Ethnicity
Budavari 2022	Access to and participation in Sport	Ability(I); SES
Calzo 2014	Access to and participation in Sport	Sexual Orientation; Sex
Cohen 2007	Access to and participation in Sport	Education; SES
Copley 2020	Access to SEM Care	Insurance; Language; Nationality
Côté-Leclerc 2017	Heath-related outcomes in SEM	Ability(P)
Couch 2023	Heath-related outcomes in SEM	Athletic Identity; Race/Ethnicity; Sex
Crissey 2006	Access to and participation in Sport	Body Composition; Race/Ethnicity
Day 2021	Provider representation in SEM	Race/Ethnicity; Sex
Deaner 2012	Access to and participation in Sport	Sex
Donohue 2022	Access to SEM Care	Race/Ethnicity; SES
Drake 2015	Access to and participation in Sport	Sex
Eberman 2021	Access to SEM Care	Gender Identity; Sexual Orientation
Foley 2014	Heath-related outcomes in SEM	Ability(I); Body Composition
Greenley 2018	Access to and participation in Sport	Ability(P)
Hannon 2006	Access to and participation in Sport	SES
Harrington 2017	Access to and participation in Sport	SES
Heinze 2018	Access to and participation in Sport	SES
Holmes 2016	Heath-related outcomes in SEM	Age; Race/Ethnicity; SES; Sex
Hyde 2020	Access to and participation in Sport	Age; Race/Ethnicity; SES; Sex
Iverson 2021	Access to and participation in Sport	Ability(I)
Johnson 2022	Access to and participation in Sport	SES; Sex
Johnston 2019	Access to and participation in Sport	Race/Ethnicity; SES; Sex
Kellstedt 2021	Access to and participation in Sport	Age; SES; Sex
Kopka 2021	Access to SEM Care	Age; Sex
Kroshus 2017	Access to SEM Care	Location; SES
Kroshus 2019 A	Access to and participation in Sport	SES
Kroshus 2019 B	Access to SEM Care	Nationality
Kurc 2009	Access to and participation in Sport	Body Composition; Sex
Lape 2018	Access to and participation in Sport	Ability(P)
Lawler 2012	Heath-related outcomes in SEM	Race/Ethnicity
Lawrence 2017	Access to and participation in Sport	Race/Ethnicity; SES
Lemez 2018	Heath-related outcomes in SEM	Age; Body Composition; Occupational Characteristics; Race/Ethnicity

Long 2017	Access to SEM Care	Location; SES
Marquis 2015	Access to and participation in Sport	Ability(I)
Mason 2019	Access to and participation in Sport	Nationality
Matar 2021	Access to SEM Care	Insurance; Location
McGuine 2021	Heath-related outcomes in SEM	SES; Sex
McLoughlin 2017	Access to and participation in Sport	Ability(P)
McMillan 2016	Access to and participation in Sport	Family Structure; SES
Mereish 2015	Access to and participation in Sport	Sexual Orientation
Moore 2021	Provider representation in SEM	Age; Race/Ethnicity; Sex
Munson 2021	Access to SEM Care	Gender Identity
Naar 2017	Access to and participation in Sport	Age
Ness 2012	Access to and participation in Sport	Body Composition; Race/Ethnicity; SES
Nye 2019	Access to SEM Care	Gender Identity; Sexual Orientation
Okamoto 2013	Access to and participation in Sport	Nationality; SES
Olson 2021	Access to SEM care	Insurance
Patel 2021	Access to SEM care	Insurance
Pharr 2020	Access to and participation in Sport	Age; Education; Race/Ethnicity; SES
Pike 2017	Provider representation in SEM	Sex
Post 2019 A	Access to SEM Care	SES
Post 2019 B	Access to SEM Care	SES
Ramey 2020	Access to SEM Care	Ability(P)
Ramkumar 2019	Methodology	Age; Education Level; Sex
Roberts 2020	Heath-related outcomes in SEM	Race/Ethnicity
Rogers 2018	Access to SEM Care	Insurance; SES
Ross 2020	Access to and participation in Sport	Ability(I); Ability(P)
Ross 2021	Access to and participation in Sport	Ability(I); Ability(P)
Saint Onge 2011	Access to and participation in Sport	Education; Race/Ethnicity
SayedAhmed 2018	Access to and participation in Sport	Ability(P)
Schinke 2010	Access to and participation in Sport	Nationality
Schober 2015	Access to and participation in Sport	Race/Ethnicity
Shi 2020	Access to SEM Care	Insurance
Shirazipour 2015	Access to and participation in Sport	Ability(P)
Simpson 2005	Heath-related outcomes in SEM	SES
Singh 2008	Access to and participation in Sport	Nationality; Race/Ethnicity
Siple 2018	Provider representation in SEM	Race/Ethnicity; Sex
Sirard 2006	Access to and participation in Sport	Sex
Stanish 2015	Access to and participation in Sport	Ability(I)
Su 2019	Health related outcomes in SEM	Age; Education; Insurance; Race/Ethnicity; Sex
Thomas 2019	Access to and participation in Sport	Sex

Tran 2021	Health related outcomes in SEM	Race/Ethnicity
Tran 2022	Heath-related outcomes in SEM	Age; Race/Ethnicity; SES; Sex
Tran 2023	Heath-related outcomes in SEM	Race/Ethnicity
Walen 2020	Access to SEM Care	Gender Identity; Sexual Orientation
Wallace 2017	Access to SEM Care	Location
Wallace 2018 A	Heath-related outcomes in SEM	Race/Ethnicity
Wallace 2018 B	Heath-related outcomes in SEM	Race/Ethnicity
Wallace 2021 A	Health-related outcomes in SEM	Race/Ethnicity; Sex
Wallace 2021 B	Heath-related outcomes in SEM	Race/Ethnicity
Wallace 2022 A	Health-related outcomes in SEM	Race/Ethnicity
Wallace 2022 B	Access to SEM Care	Race/Ethnicity
Wallace 2023	Heath-related outcomes in SEM	Race/Ethnicity; Sex
West 2019	Access to and participation in Sport	Age
Wilkerson 2020	Access to SEM Care	Race/Ethnicity
Williams 2017	Access to SEM Care	Insurance
Wiznia 2017	Access to SEM Care	Insurance
Yengo-Kahn 2021	Heath-related outcomes in SEM	Race/Ethnicity

SEM=Sports Medicine; SES=socioeconomic status; Ability(P)=physical ability; Ability(I)= Intellectual ability; Location represents urban/suburban/rural

Table S5: Methodological Characteristics of Included Studies

Study ID	Study design	Population description	Num. of participants	Measurement Instrument Used for Possible Causes of Health Disparities	Other Standardized Instruments or National Databases Used	Primary Outcome
Allahabadi 2022	Cross sectional	Pediatric/adolescent patients with patellar instability	78	Insurance Status	n/a	delays in care
Attia 2021	Cross sectional	Executive directors of US Orthopedic Societies	14	Self-report	n/a	Representation of women in orthopedic societies
Austin 2022	Cohort	High school and club basketball players	60	n/a	National Center for Catastrophic Sports Injury Research (NCCSIR)	survival to hospital discharge
Ballesteros 2020	Cross sectional	racial ethnic minority student athletes	241	Self-report	Fall 2015 American College Health Assessment (ACHA) - National College Health Assessment (NCHA)-II data set	access to mental health services
Baraga 2012	Cross sectional	Patients with ACL tears	80	Self-report	n/a	Treatment delays, number of visits
Barfield 2013	Cross sectional	National power wheelchair soccer competitors	25	Self-report	Exercise Benefits and Barriers Scale (EBBS)	Perceived benefits and barriers of exercising
Baria 2015	Cross sectional	youth wrestlers with limb deficiencies	16	Self-report	n/a	Benefits and barriers to wrestling
Barter 2023	Cross sectional	Public high schools	3482 (schools)	Free and Reduced Lunch - National Center for Educational Statistics; Census Data	Athletic Training Location and Services (ATLAS) 115 database, the U.S. Census Bureau, and the National Center for Education Statistics (NCES) in the Spring of 2020	Access to athletic training services

Beck 2020	Cross sectional	Pediatric sports medicine patients	168	Insurance Status	Electronic Medical Record	Time to MRI; MRI results
Bopp 2017	Cross sectional	Undergraduate students in sport management classes	676	Self-report	n/a	perceived level of welcomeness
Bram 2020	Cross sectional	Pediatric ACLR patients	915	Insurance Status	Electronic Medical Record	days to surgery, outcomes of meniscectomy from delay to surgery, strength and range of motion disparities at long term follow-up
Braza 2018	Cross sectional	Individuals with disabilities; caretakers; community members without disability	76	Self-report	n/a	Awareness and perceived barriers of adaptive sports and recreating opportunities
Brown 2018	Qualitative	Black women triathletes	12	Self-report	n/a	motives for triathlon participation
Brown 2021	Cross sectional	NCAA Division III athletes	728	Self-report	United States Department of Agriculture (USDA) 6-item food insecurity survey	prevalence of food security
Brown 2022	Cross sectional	Orthopedic patients with hip-related concerns	2789	Insurance Status; Self-report	Electronic Medical Record	patients seen with hip disabilities; number of MRIs performed; surgery recommendations
Budavari 2021	Cross sectional	Children with autism spectrum disorder	1302	Self-report	National Survey of Children's Health (NSCH 2016, 2017, and 2018; Child and Adolescent Health Measurement Initiative (CAHMI), 2017,	participation in extracurricular activities (sport)

					2019, 2021)	
Calzo 2014	Cross sectional	Adolescents and young adults	12,779	Self-report	n/a	Team sport participation
Cohen 2007	Cross sectional	LA County public high schools	175 (schools)	Free and Reduced Lunch (FARL) - California Department of Education	n/a	Opportunities for participation in high school extracurricular sports
Copley 2020	Cross sectional	Youth with concussion or fracture	25,294	Insurance Status	Electronic Medical Record	youth being seeing for concussion or fracture
Côté-Leclerc 2017	Mixed Methods	adult wheelchair users	34	Self-report	n/a	Quality of Life
Couch 2023	Qualitative	US Olympic African American female track athletes	10	Self-report	n/a	Lived experiences of Olympic level athletes
Crissey 2006	Cross sectional	Adolescent students	7214	Self-report	n/a	perceptions of weight and weight loss
Day 2021	Cross sectional	NCAA-associated Athletic Trainers	5168	NCAA Database	NCAA Minority Opportunities and Interests Committee's Demographic Database of NCAA Member Institutions' Athletics Personnel	Prevalence of BIPOC athletic trainers
Deaner 2012	Cross sectional	youth and collegiate individuals participating in sport and exercise	112,000 (study 1); 2,879 (study 2)	Self-report	n/a	individual and team sport participation
Donohue 2022	Cohort	African American youth athletes	13	Self-report	The Optimum Performance Program in Sports (TOPPS) was formally adapted from	Efficacy of mental health intervention

					Family Behavior Therapy (FBT)	
Drake 2015	Cohort	Elementary & High School Students	1244	Self-report	n/a	High school team sport participation
Eberman 2021	Mixed Methods	NCAA and NAIA athletic trainers	15	Self-report	n/a	Athletic trainer knowledge and experience regarding health care needs of transgender athletes
Foley 2014	Cross sectional	Youth Special Olympics athletes	2541	Self-report	Healthy Athletes Database	BMI
Greenley 2018	Cohort	Youth with inflammatory bowel disease	450	Self-report	n/a	perceived sport participation impairment
Hannon 2006	Cross sectional	Boston youth involved in after school physical activity programs	n/a	Play Across Boston Program Census	n/a	ratio of youth to facilities; ratio of youth to programs
Harrington 2017	Cross sectional	parents of children <18	3206	Self-report	Postal Code Conversion File (PCCF); Ontario Marginalization index (On-Marg); Canadian Marginalization Index (CAN-Marg)	access to facilities in sports and recreation
Heinze 2018	Qualitative	School boards in Midwest City	24	School District Data (median household income)	n/a	Initiation of pay-to-pay and decision to discontinue for sport participation
Holmes 2016	Cross sectional	children diagnosed with sports-related concussion	1429	Self-report	Electronic Medical Record	cognitive related symptoms of sport related concussion

Hyde 2020	Cross sectional	youth athletes	36,779	Self-report	2017-2018 National Survey of Children's Health (NSCH)	youth sport participation
Iverson 2021	Mixed Methods	adults with a disability and parents of children with a disability	344	Self-report	n/a	barriers and facilitators of participation in adaptive sport
Johnson 2022	Cross sectional	youth ages 6-17 in the united states	30,029	Metropolitan Statistical Area Status	2018–2019 National Survey of Children's Health (NSCH)	sport participation
Johnston 2019	Qualitative	urban girls who participated in REACH	12	Self-report	n/a	girls' experiences in the REACH program (sport based physical activity)
Kellstedt 2021	Cross sectional	3rd-6th grade children in rural communities	418	Self-report	n/a	youth sport participation
Kopka 2021	Cross sectional	Orthopedic surgery patients	313	Self-report	n/a	access to pre or post-operative sports medicine resources, physical and emotional health
Kroshus 2017	Cross sectional	football and soccer coaches at state of Washington public high schools	270	Free and Reduced Lunch (FARL) - Washington State Report Card	Office of Superintendent of Public Instruction Washington State Report Card	presence (access to) of athletic trainer; number of diagnosed concussions
Kroshus 2019 A	Cross sectional	youth flag football athletes	372 (football organizations)	Census Data; Rural-Urban Commuting Areas (RUCA) Codes	2015 American Community Survey (ACS) 5-year estimates, the 2010 US Census and the Rural-Urban Commuting Areas (RUCA) database	flag football participation
Kroshus 2019 B	Cross sectional	US high school athletic associations and other organizations associated with youth sport	76 (organizations)	n/a	n/a	readability, accessibility, and completeness of Spanish

						translations for concussion education
Kurc 2009	Cross sectional	High School students	22,398	Self-report	n/a	school and community based sport participation
Lape 2018	Qualitative	Adults participating in community based adaptive sport	17	Self-report	n/a	participant-reported facilitators or barriers to participation in a community-based adaptive sports program
Lawler 2012	Cross sectional	Retired professional male basketball players	3366	n/a	National Basketball Association (NBA) database including the other 2 previous leagues; Center for Disease Control (CDC)	Survival
Lawrence 2017	Cross sectional	Olympic athletes	2,211	Race Access Index(RAI); Socio-economic Access Index (SAI); Combined Race Socio-economic Access Index (CAI) were developed, modified from the College Access Index	n/a	Sociodemographic characteristic of Olympic athletes
Lemez 2018	Cross sectional	deceased National Basketball Association and American Basketball Association players	787	n/a	National Basketball Association (NBA) database and American Basketball Association (ABA)	Mortality outcomes
Long 2017	Cross sectional	North Carolina High School Athletic Association Schools	393 (schools)	Self-report	North Carolina High School Athletic Association (NCHSAA) database	access to athletic training services

Marquis 2015	Cross sectional	Youth with and without developmental delays	161	Child Behavior Check list for ages 6-18 (CBCL); Bayley Scales of Infant Development-II (BSID-II); Stanford-Binet Intelligence Scale: 4th edition	n/a	sport participation
Mason 2019	Community-based participatory research	indigenous youth	41	Self-report	n/a	participation in organized sport
Matar 2021	Cross sectional	Sports medicine patients seeking care in outpatient orthopedic clinic	88 (clinics)	n/a	Ohio Orthopaedic Society (OOS) and American Orthopaedic Society for Sports Medicine (AOSSM) directories	Access to care
McGuine 2021	Cross sectional	High school aged athletes	13,002	Census Data (% individuals <18 in poverty); Self-report	n/a	mental health, Physical Activity and Quality of Life
McLoughlin 2017	Qualitative	elite athletes with a physical disability	23	Self-report	Self-Determination Theory (SDT); Social Model of Disability	Motivations, barriers and facilitators of sport participation
McMillan 2016	Cross sectional	Canadian youth grades 6-10	21,201	Self-report	2009–10 Canadian Health Behaviour in School-aged Children Survey (HBSC)	Sport participation
Mereish 2015	Cross sectional	Wisconsin high school students	13,933	Self-report	2012 Dane County Youth Assessment	sport participation
Moore 2021	Cross sectional	orthopaedic sports medicine fellowship directors	88	Self-report	The American Orthopaedic Society for Sports Medicine (AOSSM) Orthopaedic Sports Medicine Fellowship Listing for 2020 to 2021; SF Match 2020 fellowship listing	characteristics of orthopaedic sports medicine fellowship directors
Munson 2021	Qualitative	LGBT athletes who list their gender identity differently from their sex assigned at birth	9	Self-report	n/a	Experiences with athletic trainers and barriers to

						seeking care
Naar 2017	Qualitative	Mid- to late- adulthood women	64	self-report	n/a	factors influencing older women's participation in competitive softball.
Ness 2012	Cross sectional	Non-Hispanic White and AI/AN youth	5,342	Self-report	2007 National Survey of Children's Health (NSCH)	sports participation
Nye 2019	Cross sectional	collegiate & university athletic trainers	1077	Self-report	n/a	Perceptions of care for LBGTQ student-athletes
Okamoto 2013	Cross sectional	US high school students	14,139	Self-report	National Longitudinal Study of Adolescent Health (Add Health)	extracurricular (i.e. sport) participation
Olson 2021	Cohort	pediatric patients with meniscus injury	49	Insurance Status	Electronic Medical Record	Access to care and treatment delays
Patel 2021	Cross sectional	Youth with tibial spine fractures	434	Insurance Status	Electronic Medical Record	MRI imaging, time to surgery, post-operative care
Pharr 2020	Cross sectional	adult women	164,948	Self-report	2017 Behavioral Risk Factor Surveillance System (BRFSS)	Sport participation
Pike 2017	Qualitative	NCAA D1 female athletic trainers	15	Self-report	n/a	factors influencing obtaining job caring for male sport teams
Post 2019 A	Cross sectional	California High Schools	1270 (schools)	Self-report	2017–2018 California Interscholastic Federation (CIF) Participation Census	Athletic Training employment
Post 2019 B	Cross sectional	High school athletic directors	402 (schools)	Self-report	Median household Income & %Free lunches taken from Wisconsin Department of Public Instruction	access to Athletic training services

Ramey 2020	Cross sectional study	adult athletes	125	Self-report	Short-Form Patient Satisfaction Questionnaire (PSQ-18)	health care access and satisfaction scores
Ramkumar 2019	Cohort	patients undergoing unilateral primary or revision ACLR	3202	Self-report	n/a	loss to follow-up
Roberts 2020	Cross sectional	Former professional football players	3747	Self-report	Pro Football Reference (PFR) data set	Physical and mental health
Rogers 2018	Cross sectional	Physical therapy locations	139	Census Data (% households living in poverty)	2015 US Census data	Access to PT; Time to Initial Appointment
Ross 2020	Cross sectional	children and adolescents age 6-17	49518	DSQ (Disability Standard Question)	2016–2017 National Survey of Children's Health (NSCH)	sport participation
Ross 2021	Cross sectional	children and adolescents aged 6-17 years	33,093	DSQ (Disability Standard Question)	2016–2017 National Survey of Children's Health (NSCH)	sport participation
Saint Onge 2011	Cross sectional	Nationally representative sample of adults	17,455	Self-report	1998 National Health Interview Survey–Sample Adult Prevention Module (NHIS-SAPM)	Team sport or facility based sport (e.g. golf, tennis) participation
SayedAhmed 2018	Qualitative	children with limb absence	11	Self-report	The International Classification of Functioning, Disability, and Health	sport participation
Schinke 2010	Qualitative	Canadian aboriginal youth	n/a	Self-report	n/a	sport participation
Schober 2015	Community-based participatory research	Community based youth soccer programs	n/a	Self-report	Centers for Disease Control and Prevention's (CDC) Youth Risk Behavioral Surveillance System (one question); US Census (one question)	satisfaction and participation in community-based soccer program
Shi 2020	Cross sectional	orthopedic practices	194 (clinics)	Insurance Status	n/a	access to care
Shirazipour 2015	Qualitative	parents of youth with mobility impairments	20	Self-report	Health Action Process Approach (HAPA)	Parental support behaviors for

						sport participation
Simpson 2005	Cross sectional	Canadian students grades 6-10	7235	Self-report	2001-2002 Health behaviour in school aged children survey (HBSC)	Sport related injury
Singh 2008	Cross sectional	immigrant children	68288	Self-report	2003-2004 National Survey of Children's Health (NSCH)	sports participation
Siple 2018	Qualitative	Black women certified athletic trainers	10	Self-report	n/a	barriers and facilitators of retention and credentialing of black women athletic trainers
Sirard 2006	Cross sectional	Middle school students	1692	Self-report	modified Participation Motivation Questionnaire (mod-PMQ); Youth Risk Behavior Surveillance System (YRBSS)	sport participation
Stanish 2015	Cross sectional	Adolescents with ASD and typically developing	95	Self-report	Interactive Autism Network (IAN) database	Sport participation
Su 2019	Cross sectional	Pediatric patients receiving treatment for a sports-related musculoskeletal injury	268 (patients) ; 251 (guardians)	Self-report	n/a	health literacy
Thomas 2019	Cohort	First year Canadian college students	301	Self-report	Block Physical Activity Questionnaire (BPAQ); Physical Activity Questionnaire for Adolescents (PAQ-A); Determinants of Physical Activity Behaviors Questionnaire (DPABQ)	sport participation
Tran 2021	Cross sectional	collegiate student-athletes	39,840	Self-report	2010-2015 American College of Health Association National College Health Assessment (ACHANCHA-II)	mental health

Tran 2022	Cross sectional	Collegiate student athletes	4089 (weighted)	Self-report	2015-2018 Healthy Minds Study (HMS); Patient Health Questionnaire (PHQ-9)	mental health psychotherapy utilization
Tran 2023	Cross sectional	Collegiate student-athletes and their peers (non-student athletes)	502 (study 1); 108,654 (study 2)	Self-report	2010-2015 American College of Health Association National College Health Assessment (ACHANCHA-II); 2015-2018 Healthy Minds Study (HMS)	perception of mental-health needs
Walen 2020	Cross sectional	collegiate and university athletic trainers	667	Self-report	n/a	comfort, confidence and perceptions in working with transgender student-athletes
Wallace 2017	Cross sectional	high school athletes	715	n/a	n/a	Knowledge of concussion signs and symptoms and reporting behaviors
Wallace 2018 A	Cross sectional	collegiate athletes	543	Self-report	Immediate Post-Concussion Assessment and Cognitive Test (ImPACT)	Neurocognitive performance and concussion symptom scores
Wallace 2018 B	Cross sectional	adolescent athletes	577	Self-report	Centers for Disease Control and Prevention (CDC) Heads Up Education materials	Concussion knowledge and symptom recognition
Wallace 2021 A	Cross sectional	collegiate athletes	768	Self-report	Post-Concussion Symptom Scale (PCSS)	concussion symptom knowledge
Wallace 2021 B	Cross sectional	high school athletes	577	Self-report	n/a	concussion reporting
Wallace 2022 A	Cross sectional	collegiate athletes	735	Self-report	n/a	Concussion non-disclosure

Wallace 2022 B	Cross sectional	adolescent athletes diagnosed with SRC	582	Self-report	Vanderbilt Sports Concussion Center (VSCC) registry	Care pathway for sports related concussion
Wallace 2023	Cohort	concussed collegiate athletes	235	Self-report	Immediate Post-Concussion Assessment and Cognitive Test (ImPACT); Post Concussion Symptom Scale (PCSS)	neurocognitive test performance
West 2019	Qualitative	older female softball players	64	Self-report	n/a	sport participation
Wilkerson 2020	Qualitative	Black Division I football student-athletes	9	Self-report	n/a	barriers to seeking mental health treatment
Williams 2017	Cross sectional	adolescents with an ACL or meniscal tear	119	Insurance Status	Current Procedural Terminology (CPT) codes; International Knee Documentation Committee (IKDC) scores	time to presentation for injury
Wiznia 2017	Cohort	orthopaedic surgery sports medicine specialists	n/a	Insurance Status	Medicaid Reimbursement rates from Current Procedural Terminology (CPT) code 29882	access to specialty care
Yengo-Kahn 2021	Cross sectional	athletes who had been treated for SRC	247	Self-report	Vanderbilt Sports Concussion Center (VSCC) registry	Recovery and experiences after sport related concussion

Table S6 Location, Aim, Setting and Conclusion of Included Studies

Study ID	Country	Study Aim	Study Setting	Study Conclusion
Allahabadi 2022	United States	Assess association between insurance status and delays in care for pediatric patients with patellar instability surgery	Clinic	Significant delay in care was associated with individuals with public insurance
Attia 2021	United States	Assess female representation in national orthopedic society membership	professional orthopedic society directors	Despite growing numbers, females continue to be underrepresented in society membership; committee participation; leadership positions; at annual meetings; and in receipt of grants, fellowships, and scholarships
Austin 2022	United States	Assess racial disparities in sudden cardiac death in basketball players	Club; Community; High School/ Middle School	Survival was lower in black and other race compared with whites; Survival was higher in school sponsored events compared with club or community.
Ballesteros 2020	United States	Investigate racial-ethnic minority student-athletes' mental health need, mental health use, and factors that influence mental health usage.	College/University	Mental health services were underutilized by racial-ethnic minority student-athletes
Baraga 2012	United States	Examine access to care on the basis of insurance type for ACL injuries in South Florida	Clinic	Insurance type influenced time to diagnosis and time care for ACL tears.
Barfield 2013	United States	To determine factors influencing exercise in power wheelchair soccer players	National competition	Physical exertion and access to facilities were the primary barriers to exercise.
Baria 2015	United States	To determine if wrestling is a safe, positive athletic option for limb-deficient individuals.	Online survey sent from National Wrestling Coaches Association	Wrestling is a safe, positive sport for limb-deficient individuals; It fosters competitive equality between impaired and non-impaired participants, and it has a positive impact on health and quality-of-life.
Barter 2023	United States	Identify differences in access to athletic training services in public secondary school based on school socio-economic status	Database of high schools	Socio-economic status disparities were present in access to athletic training services in public secondary schools.
Beck 2020	United States	Assess how insurance type impacted access to knee MRI in pediatric sports medicine patients	Clinic	Pediatric patients with public insurance had delays in ordering, completion, and follow-up of knee MRI studies in comparison to those with commercial plans.
Bopp 2017	United States	To examine the determinants of sport participation, as it relates to race, socialization and perceived welcomeness.	College/University	Racially diverse sport participants may perceive to be unwelcome in certain sports due in part to stereotypes and other culturally based considerations.
Bram 2020	United States	To assess outcomes of care for ACL injuries in a pediatric population at a large, academic institution based on race and insurance status.	Clinic	After ACL rupture, black/Hispanic children and publicly insured children experience a greater delay to surgery. Black/Hispanic patients have more irreparable meniscus tears and less PT visits and greater residual hamstrings and quadriceps weakness 9 months after surgery.

Braza 2018	United States	Initiate community and academic partnerships in adaptive sports and recreation and understand local opportunities and how they are used by individuals with disabilities.	Community	Preliminary data emphasize the need to engage individuals with disabilities regarding participation in adaptive sports. Additionally, the study identified a need to increase engagement among individuals of color.
Brown 2018	United States	Assess female, black triathletes' reasons for being involved in physical activity as well as barriers and motivations.	Club	Four culturally based themes were identified: (1) improving body composition to become leaner, physical attractiveness, triathlete family and camaraderie.
Brown 2021	United States	Assess food insecurity in NCAA DIII student-athletes	College/University	Food insecurity was higher among Black (31%) and Hispanic students (18.3%) compared with White (13.3%) students
Brown 2022	United States	Assess whether differences exist between African American and non-Hispanic White patients evaluated for hip disabilities.	Clinic; College/University	Race-based differences in patients evaluated by a hip arthroscopy specialist were identified – the number of evaluations were lower among African Americans and they had a lower proportion of MRIs; No differences were noted in surgery recommendations.
Budavari 2021	United States	Examine disparities in extracurricular participation among adolescents with Autism Spectrum Disorder (ASD)	national survey database identified subject caregivers	Among adolescents with ASD, participation in extracurricular and community activities (i.e. sport) involvement is lower among specific groups, based on sex, household income, and caregiver education.
Calzo 2014	United States	Examine adolescent and young adult team sports participation by sexual orientation and assess contributions of gender nonconformity and low athletic self-esteem to possible sexual orientation differences.	national survey	Sexual minority adolescents were 46-76% less likely to participate in team sports than same-gender heterosexuals. Gender nonconformity and athletic self-esteem played a role in differences.
Cohen 2007	United States	Identify the number of extracurricular sports offered, who is participating, and assess how participation is related to high-risk behaviors.	High School	The average school offered 14 sport programs with 39% of boys and 30% of girls participating. Smaller schools and schools with more disadvantaged students offered fewer sports.
Copley 2020	United States	Assess disparities in subspecialty concussion care related to ethnicity, limited English proficiency, and insurance status.	Clinic	Youth seen at a tertiary care clinic for concussion were less likely to be Hispanic than youth who were seen with facture. Youth with concussion were more likely to have private insurance compared to youth with fracture and greater odds of not using an interpreter. Disparities in subspecialty concussion care exist for Hispanic youth, those with limited English proficiency and non-private insurance.
Côté-Leclerc 2017	Canada	Compare the quality of life of adults with mobility limitations playing a wheelchair adapted sport to those reporting no mobility limitations, and explore the influence of playing an adapted sport on the quality of life of adults with mobility limitations.	Community	People with mobility limitations playing adapted sports and people without limitations have a similar quality of life. Participation in adapted sports had a positive effects on self-esteem, self-efficacy, sense of belonging, participation in meaningful activities, society's attitude towards people with mobility limitations, and physical well-being. However, participants stated that this involvement, especially at higher levels, had a negative impact on their social life.

Couch 2023	United States	To elucidate US African American female Olympians' lived experiences of selected identity components (i.e., race, gender, athletic identity) as they navigated transitions during their competitive careers.	Community	Participants indicated that each level of track experience had significant implications on their racialized and gendered athletic identity as well as on their performance. Though the intersections of race, gender, and athlete identities in sport were experienced differently among these athletes.
Crissey 2006	United States	Examine the relationship between sport participation and perceptions of body size and weight-loss strategies among adolescent girls.	High School, middle school and in-home visits	Girls participating in stereotypically feminine sports are more likely to report feeling overweight, attempt to lose weight and use multiple weight loss strategies compared with non-athletes. Associations for weight loss are generally weaker for non-white girls. This association was not found for traditionally masculine sports.
Day 2021	United States	Assess differences in racial and ethnic frequencies across division, calendar year and gender for athletic trainers in the NCAA	College/University	BIPOC athletic trainers represent a small part of the profession currently working in the NCAA. A majority of NCAA athletic trainers and assistant athletic trainers were categorized as white and male.
Deaner 2012	United States	Assess whether organized school sport participation underestimates sex differences in sport participation.	College/University; Community	Males have a greater predisposition to sport than females which may contribute to participation differences.
Donohue 2022	United States	Adapt evidence-based cognitive behavior therapies with sport participation with a goal of reducing the healthcare disparities in youth from ethnic/racial minority and low income neighborhoods.	Workshops	The proposed intervention showed promise for optimizing mental health and sport performance for youth from ethnic/racial minority and low-income neighborhoods.
Drake 2015	United States	Evaluate the characteristics of high school athletic programs and determine the extent to which these characteristics influenced boy's and girls' sports team participation.	Telephone surveys	High School sport opportunities differentially affect boys and girls sports participation. The variety of choice of sports offered predicted girls' sports participation whereas the percent of unrestricted sports (access) predicted boys' participations.
Eberman 2021	United States	To gain more in-depth information about athletic trainer knowledge and experiences regarding the health care needs of transgender student-athletes.	College/University	Athletic trainers identified 4 areas of concern with care - perceived deficiencies (inadequate care, lack of awareness of regulations, not competent in counseling), misconceptions (unable to accurately articulate definitions of transgender, transitioning, effects of hormone replacement therapy), concerns (transgender athlete mental health, self-image, cost of transition care) and creating safety (more inclusive environment, creating trusting relationships).
Foley 2014	United States	Compare the BMI of children and youth with and without intellectual disabilities and assess the influence of age and gender on obesity in children with intellectual disabilities.	Community	An obesity disparity exists for children and youth with intellectual disabilities, particularly as they get older.
Greenley 2018	United States	Examine the role of inflammatory bowel disease (IBD) in youth sport participation.	Registry	Two-thirds of participants felt IBD impaired their sports participation - the most salient correlates of impairment were fatigue, pain and past IBD-related surgery.

Hannon 2006	United States	Identify ways in which local stakeholders can work academic partners to improve opportunities for youth physical activity using censuses of facilities and programs.	Community	Compared with the three suburban comparison communities, Boston overall had the lowest ratio of participants to youths (1.02), and Boston's median income was closest to the median income of the low-income comparison community. The high-income community had the greatest ratio of participants to youths (2.00). Lower participation rates among girls than boys in each community indicated a consistent sex disparity.
Harrington 2017	Canada	Understand parents' perceived barriers to accessing sports and recreation facilities	Community	Parents faced access issues and there was considerable variation in access between communities. Parents living in different types of communities (e.g., rural, more deprived) were found to face barriers more often than others, and face different types of barriers.
Heinze 2018	United States	Improve understanding of why and how school districts eliminate pay-to-play for sports	School districts	In districts with strong local identities, histories and traditions; school boards look within the community, rather than to the institutional environment, when making decisions. Culture and social relationships may have a stronger influence on board decision-making than systematic data collection and analysis.
Holmes 2016	United States	Characterize cognitive related symptoms in sport related concussion and examine relationship with race, ethnicity, age, insurance, and sex in a pediatric population	Clinic	Although boys sustained more concussions, girls were more likely to present with cognitive related symptoms. Black/African American children were more likely to suffer cognitive related symptoms than white children.
Hyde 2020	United States	Examine the difference in prevalence of US youth sport participation by age group and selected demographic conditions	Community	Participation in youth sport is highest among youth age 10-13, males, and white non-Hispanic youth. Participation also increased with increasing parent/caregiver education and household income.
Iverson 2021	United States	Gain understanding of the resources, barriers, and facilitators of participation in adaptive sport and recreational activities as a means of achieving physical activity recommendations in individuals with disability and understand preferences for a patient navigator service to help mitigate the barriers.	Community	Adaptive sport should be designed to offer people with disabilities opportunities to build social networks and strengthen social support. A patient navigator service could help increase participation in adaptive sport within the community.
Johnson 2022	United States	Examine the association between metropolitan statistical area (MSA) status and sports participation among American youth.	Community	The relationship between MSA status and sports participation may be largely driven by factors that affect youth's ability to participate in sports. Sports participation was higher among females versus males overall. In the models adjusted for demographics, non-MSA youth ages 12-17 were more likely to participate, particularly males. Efforts promoting youth sports should consider differences in socio-demographic factors between MSA versus non-MSA areas to help increase participation.
Johnston 2019	United States	Examine girls' experiences in one after-school positive youth development program called REACH (Reflective	Elementary school	Girls' experiences shape relational dimensions of the positive youth development model, particularly through sport and should be

		Educational Approach to Character and Health)		considered when developing these programs.
Kellstedt 2021	United States	Examine the influence of grade, sex, and family income on youth sport participation and youth sport participation on moderate-to-vigorous physical activity of children in rural communities.	Elementary school	While a fairly high percentage of children participate in youth sports, there are disparities in rural communities on youth sport participation and physical activity outcomes based on age, sex, and family income.
Kopka 2021	Canada	Determine whether sex or age influence whether COVID-19-related health care closures affect the health, recovery, and access to resources of preoperative and postoperative orthopedic sports medicine patients.	Clinic	Significant sex- and age-specific differences in health and recovery among orthopedic sport medicine patients as a result of the COVID-19 health care closures were identified. Females reported significantly more pain, anxiety, and delay in their rehabilitation, while younger patients reported greater negative impacts and worse overall health.
Kroshus 2017	United States	Assess whether teams at schools with an athletic trainer on staff had a higher number of diagnosed concussions than teams without medical personnel present and assess whether the variability in employment of a certified Athletic trainer by Washington state high schools is patterned by socioeconomic and demographic characteristics.	High School	Football and boys soccer teams at schools with an athletic trainer had a significantly greater number of athletes with diagnosed concussions. Schools with an athletic trainer were more likely to be in an urban location, to have an enrollment of 1000 students or more, and to have a smaller proportion of students eligible for school lunch.
Kroshus 2019 A	United States	Assess whether flag football would be more accessible in communities characterized by higher socioeconomic status residents	Community	Youth in communities characterized by less educational attainment have less access to flag football.
Kroshus 2019 B	United States	Quantify the extent to which preseason information sheets requiring a parent signature are translated into Spanish; describe Spanish-language concussion information on the websites of US public high school athletic associations, leading youth sport organizations and leading US children's hospitals.	Websites	Only 25% of websites examined contained concussion information in Spanish and none offered mirrored Spanish translation. The readability of concussion information in both English and Spanish was higher than recommended guidelines. Non-English speaking parents may be inadequately informed about concussion guidelines
Kurc 2009	Canada	Identify association between social support, participation in intramurals, varsity and community sports with physical activity in Ontario high school students, and assess gender differences in the prevalence of physical activity and participation in school- and community-based sports.	High School	Males and females were more likely to be active if they participated in intramural activities, varsity sports or community sports. Students with low social support for physical activity are less likely to be active.
Lape 2018	United States	Identify novel factors that influence participation in a community-based adaptive sports program	Community	Participants felt participation was beneficial for physical well-being and transformative in terms of how they viewed themselves. Focus group participants reported that involvement in an adaptive sports program provided physical, social, and attitudinal benefits. Yet, these athletes often had to expend limited personal resources to

				access programs.
Lawler 2012	United States	Determine if mortality and survival in basketball players is related to race	NBA	White, retired NBA basketball players outlive their African-American counterparts by 1.5 years. Both African-American and white retired NBA players outlive their non-NBA male counterparts from the general population.
Lawrence 2017	Canada, US, Great Britain, and Australia	Document the distribution of sociodemographic markers (race and relative access to wealth) in athletes participating at the summer and Winter Olympic Games.	Olympic athlete registries	Racial and socio-economic biases were identified in both summer and winter Olympic sports; predominantly favoring white and privately educated Olympic athletes.
Lemez 2018	US, Canada, and UK	Critically examine the mortality outcomes of deceased National Basketball Association and American Basketball Association players	Online	Deceased NBA/ABA players had similar causes of death to the general population, yet questions remain.
Long 2017	United States	To investigate the availability of athletic training services to North Carolina High School Athletic Association member student-athletes and assess whether the county's economic health or the percentage of low-income students was a predictor of the presence of a full-time licensed athletic trainer.	High School	Economically healthy counties are more likely to use licensed athletic trainers in HS athletics, but federal Title I school designation did not predict usage of an athletic trainer.
Marquis 2015	United States	Assess for differences in sports participation between young children with developmental delay and typically developing children, and identify variables that are associated with sport participation.	Community	Typically developing children participated in a higher number of sports and had higher relational sport scores at ages 6 & 8, as well as having a greater number of consistent sports.
Mason 2019	Canada	Identify barriers to sports participation among Canadian Indigenous youth	Community	identified barriers include (1) socio-economic status, access to resources and underserved communities; (2) experiences of racism and discrimination; (3) perceived self-confidence and sense of belonging and (4) kinship and supportive networks
Matar 2021	United States	Evaluate the impact of insurance type on obtaining an appointment in an outpatient orthopedic clinic and determine association with waiting periods, population metrics and access to care.	Clinic	Patients with Medicaid are less likely to receive orthopedic care for multiple sports medicine injuries, are more likely to encounter barriers and endure longer waiting periods. Medicaid patients were more readily scheduled in rural communities, whereas private patients were accepted at all community types.
McGuine 2021	United States	Describe the health of athletes during COVID-19 related school closures and sport cancellations.	High School	Females reported higher prevalence of moderate or severe anxiety symptoms compared to males; Quality of life was lowest (worst) for athletes with the highest poverty levels
McLoughlin 2017	United States	Identify motivations, facilitators, and barriers to sports participation of elite athletes with a physical disability.	Community	Facilitators to athletes' experiences include competition, achieving goals, social support and coaches. Barriers include time constraints,

				cost, lack of awareness and overuse injuries.
McMillan 2016	Canada	Determine whether non-traditional family structure and physical custody arrangements are associated with organized sport participation in youth, and if so whether this relationship is mediated by SES.	High School; Middle school	youth living in both single-parent and reconstituted families experienced significant disparities in organized sport participation that was partially mediated by perceived family wealth
Mereish 2015	United States	to evaluate the physical activity and sports participation of sexual minority adolescents; to determine if there is an association between the physical activity and the weight status of sexual minority adolescents	High School	Sexual minority females were less likely to participate in team sports and more likely to be overweight than heterosexual females. Sexual minority males were less likely to be physically active or to participate in team sports than heterosexual males, but they did not differ in risk for obesity
Moore 2021	United States	To determine the objective characteristics of fellowship directors in orthopaedic sports medicine	website	Orthopeadic sports medicine fellowship directors of accrediated sports medicine fellowship programs in the US have a level of research productivity, tend to come from a handful of orthopaedic residency and sports medicine fellowship programs and are primarily white male.
Munson 2021	United States	To describe common experiences transgender athletes have had with ATs and to identify barriers transgender athletes may encounter when seeking care	College/University	Athletic trainers can improve their care of transgender patients by (1) including education about transgender people in professional athletic training curriculums, (2) seeking continuing education on trans-gender topics, (3) promoting the values of receptiveness and open mindedness, (4) using gender-inclusive language, (5) visually signaling that athletic training facilities are safe for all people, (6) understanding the importance of a transgender patient's privacy, and (7)being aware of local resources for transgender patients and athletes.
Naar 2017	United States	Identify the factors that influence older women's participation in competitive softball teams	Community	Barriers to participation include issues with recruitment, access to resources, and breaking age-related cultural stereotypes
Ness 2012	United States	To increase the understanding of risk factors for childhood overweight and obesity among American Indian/Alaska Native communities, which can then be used to develop effective prevention and treatment strategies	Community	Lack of sports team participation was significantly associated with overweight/obesity only among American Indian and Alaska Native children.
Nye 2019	United States	Explore perceptions of ATs treating LGBTQ+ student-athlete patients	College/University	Approach, quality of care and comfort differed by AT sexual orientation, gender, religion and interpersonal contact with LGBTQ friends/family. ATs wanted more training and education on the specific needs of this population
Okamoto 2013	United States	To assess patterns of participation in sports for immigrant and racial groups	High School; Middle school	Most youth have higher probabilities of sports in high-SES schools, but participation is contingent on the presence of minority and immigrant students

Olson 2021	United States	To investigate the impact of insurance status on access to care and severity of meniscal injury in the pediatric population.	Clinic	Patients with public insurance and meniscus injury experience significant delays in care at several time points (time to initial evaluation, time to MRI, overall time from initial evaluation to surgery) compared to privately insured patients with the same injury. Despite these delays there was no increase in severity of meniscus injuries in the public insurance cohort.
Patel 2021	United States	To assess the effect of insurance status on the evaluation and treatment of tibial spine fractures in adolescents	Clinic	Children with public insurance and a tibial spine fracture were more likely to experience delays with MRI and surgical treatment than those with private insurance. Additionally, patients with public insurance were more likely to undergo postoperative casting rather than bracing.
Pharr 2020	United States	Examine sociodemographic determinants among subcategories of physically active women in the US	Community	Women who participated in sport were more likely to be in the younger age groups, were more diverse, likely to be employed, and college graduates.
Pike 2017	United States	Investigate the experiences of female ATs when seeking employment with male sport teams within DI settings	College/University	Female ATs believed job access was not an issue - familiarity with the university and staff as well as career goals helped them obtain their positions. Desire to work in male sport was not a primary contributor to their decision making process.
Post 2019 A	United States	To describe the availability of ATs certified by the Board of Certification in California secondary schools and to examine potential factors influencing access to AT services in California secondary schools.	High School	More than half (55%) of schools did not employ ATs (48%) or employed unqualified health personnel (UHP) in an AT role. Nearly 30% of student-athletes in California participated in athletics at a school that did not employ ATs and 8% of student-athletes participated at a school that employed UHP in the role of AT. Schools that reported employing ATs had a lower proportion of students eligible for free or reduced-price lunch than schools that did not employ ATs and schools that employed UHP (both p<001).
Post 2019 B	United States	To determine if (1) access to Athletic training services or (2) the level of access (Athletic training hours per week and athletes per Athletic training hour) differed based on the socioeconomic characteristics of secondary schools.	High School	Nearly 95% of Wisconsin secondary schools had an athletic trainer on site. The schools who did not have access to an athletic trainer were in the lower third median household income and in the upper third of students who qualified for free lunch.
Ramey 2020	United States	To identify differences in healthcare access, satisfaction, and unmet needs between recreational adaptive and able-bodied athletes in all sports and within a single sport (hockey).	Community	No differences were seen between groups in healthcare access or satisfaction scores. Adaptive athletes of the same sport reported a higher rate of unmet sports-related healthcare needs but with few doctor's visits in the preceding year, suggesting discrepancies in expectations and healthcare-seeking behavior
Ramkumar 2019	United States	To identify independent risk factors associated with failure to complete (ie, loss to follow-up) patient-reported outcome measures (PROMs) at 2 years after	Clinic	Patient sex and race were predictors of 2-year loss to follow-up of PROMs (Males more likely to be lost to follow-up as well as Black and non-white race).

		ACLR in a prospective longitudinal cohort.		
Roberts 2020	United States	To examine the association of race with health outcomes (e.g., physical and cognitive function, pain, depression, and anxiety) in former American football athletes.	Community	Black players had increased risk of adverse health outcomes versus white players. Native Hawaiians and men of other races had greater risk of all health outcomes except impaired physical functioning, compared with white players. No clear patterns were observed by era of play.
Rogers 2018	United States	To determine access to PT services for privately insured patients versus those with Medicaid who underwent anterior cruciate ligament (ACL) reconstruction.	Community	43% fewer PT clinics accept Medicaid as compared with private insurance for post-op ACLR rehabilitation. Medicaid patients waited significantly longer for an initial appointment. Access to PT care is still limited despite the expansion of Medicaid insurance coverage to all patients in the state.
Ross 2020	United States	To estimate the population-level PA disparities experienced (including sport participation) and the association between disability status and PA engagement.	Community	Children and adolescents with disabilities were significantly less likely to participate in sports compared with peers
Ross 2021	United States	Identify the relative importance of disability status in predicting participation in sports	Community	Disability status was a second-level predictor for sport participation. Household education level was the primary predictor followed by activity limitations, household income, and having a neighborhood park. Highest level of participation among disabled children/adolescents was in females from higher education households. Disabled males from households with less than or equal to a high school education were least likely to participate in sports teams or lessons.
Saint Onge 2011	United States	To (1) assess relationship between education and participation in different types of exercise, (2) examine exercise differences among Whites, Blacks and Mexican Americans, (3) Examine whether racial-ethnic differences in exercise close or widen with increasing education	Survey	Whites were more likely to participate in sports that require facility-based exercise, while Blacks gravitated toward team sports and fitness activities. Mexican Americans gravitated toward team sports.
SayedAhmed 2018	Canada	To identify the perceived factors impacting participation in sports according to children with limb absence and their parents.	Clinic	Six themes having an influence on sport participation were identified: (1) functionality of prosthesis, plan in advance, know what I can do (understanding capabilities), stigma and the social environment, love for the sport and the investment involved. Children with limb absence present with unique barriers and facilitators in regards to sport participation, thus, what may be a facilitator or barrier for one child may not for another.
Schinke 2010	Canada	To assess the role of family in relation to the sport	High School	Family was considered important for youth involvement in

		engagement of Canadian Aboriginal youth		Aboriginal community sport programs. Parents were expected to support their children by managing schedules and priorities, providing transportation, financial support, encouragement, and being committed to the child's activity. The family as a whole (including extended family) were seen as sharing the responsibility to retain youth in sport.
Schober 2015	United States	To examine the development and implementation of community-based soccer sessions for Latino youth via an academic and community partner	Community	Eight weekly soccer sessions were implemented, attracting Latino youth who were overweight or obese. These soccer sessions were perceived as enjoyable by youth and were appreciated by their parents.
Shi 2020	United States	Explore Medicaid patients' access to sports medicine orthopaedic care	Clinic	Access to care remains a significant burden for the Medicaid population, given a rate of Medicaid refusal of 32.2% across regular-sized orthopedic practices. Time until appointment was significantly longer for Medicaid patients when compared with private insurance.
Shirazipour 2015	Canada	To determine the utility of the Health Action Process Approach (HAPA) for understanding parental support for youth with a mobility impairment's (MI) sport participation	Community	The following constructs are important to parental decisions to support sport participation: (1) positive outcome expectations (2) risk perceptions (3) task self-efficacy (4) intentions (5) planning, (6) maintenance self-efficacy and (7) recovery self-efficacy. Differences between groups were noted in these constructs.
Simpson 2005	Canada	To determine the contribution of individual and area level measures of socioeconomic status to the occurrence of various injury types among Canadian adolescents.	High School; middle school	Higher SES was associated with higher risk for sport/recreational injury
Singh 2008	United States	Examine prevalence and correlates of physical inactivity and sedentary behavior among immigrant and US born children	Community	Immigrant children in each ethnic minority group had higher physical inactivity and lower sports participation levels than native children.
Siple 2018	United States	Identify impeding barriers and promoting factors affecting the retention and credentialing of black women ATs	Community	Impeding barriers include a lack of support, sexism, and racism. Factors that promote include personal characteristics; experience with white culture; faculty, preceptor, and peer support; and the clinical education experience.
Sirard 2006	United States	Identify, in middle school students, gender-specific sports program participation and attrition factors and the relationship between sports program participation and physical activity	Middle school	78% of girls recently participated in sports compared to 83% of boys. 11% of girls never participated in sport compared to 8% of boys. Gender-specific motivational factors exists for middle school youth - boys are more attracted to the competitive aspects of sports whereas girls are more motivated by the social opportunities that sports provide. Boys and girls who participate in sports are more physically active, so it is important to develop programs that children want to participate in and maximize retention

Stanish 2015	United States	To assess physical activity enjoyment, perceived barriers, beliefs, and self-efficacy among adolescents with autism spectrum disorder (ASD) and to determine whether these factors differ from those in typically developing (TD) adolescents	Community	Enjoyment of participating in individual sports did not differ between TD adolescents and adolescents with ASD. Adolescents with ASD were more likely to indicate a dislike for team sports. When asked what they'd like to do in their free time, 25% of adolescents with ASD selected "sports" compared to 58% of TD adolescents.
Su 2019	United States	To evaluate the extent of health literacy disparities in pediatric sports medicine populations.	Clinic	In self-reported general health literacy scores for guardians, literacy scores were associated with higher education, use of English as the primary language at home, private insurance, and female guardians. In contrast, age was the only factor affecting scores in the patient population. Among self-reported musculoskeletal health literacy and directly measured musculoskeletal literacy scores, there were significant differences in groups by age, primary language, and level of education.
Thomas 2019	Canada	To (1) to examine the changes in the total amount, frequency, and type of PA and sport participation among Canadian first-year male and female university students (2) to examine the factors that promote or dissuade PA and sport engagement among these students.	College/University	PA and sports participation declined over the course of the year. Males engaged in more vigorous activity minutes, more strength training, and more organized sports than females. Females participated in more fitness activities than males. Intramural (noncompetitive and school organized) sport participation remained constant throughout the year. Significant intrapersonal barriers to PA engagement included stress and perceived self-skill; significant interpersonal barriers included lack of friends and peer influence; and significant structural barriers included homework, class schedule, and overcrowded facilities.
Tran 2021	United States	To examine trends in functionally impairing depression, significant anxiety, suicidal ideation, and suicide attempts among college student-athletes across time, racial/ethnic group, and student-athlete standing.	College/University	Racial/ethnic comparisons pointed to relatively consistent heightened risks for depression and suicide concerns among Asian/Pacific Islander and Multiracial student-athletes compared to White student-athletes. Student-athlete status appeared most consistently to benefit White student-athletes, whereas there was evidence of potential liability of student-athlete status for Asian/Pacific Islander student-athletes.
Tran 2022	United States	To examine racial/ethnic variations in mental health stigma in relation to mental health psychotherapy utilization for student-athletes	College/University	MH utilization was similar between white and racial/ethnic minority student-athletes; however racial/ethnic minority athletes reported higher levels of personal and perceived public mental health stigma. Racial/ethnic minority student-athletes indicated greater financial stress, more depression symptomatology and lower perceived helpfulness of psychotherapy. Higher financial stress was associated with lower mental health utilization.

Tran 2023	United States	To examine if peer perceptions of stereotyped student groups' mental health needs varied by target race and student-athlete status	Clinic	Black non-student athletes (BNSA) perceived to have less problematic levels of anxiety and addiction; yet significantly lower ratings of depression, suicidal ideation and insomnia were observed in this group compared to the Black student athlete and white student-athlete (WSA) groups. Similarly ADHD was perceived as less problematic in the BNSA group compared to WSA and WNSA. Study II: WSA demonstrated risk for anxiety, substance use, ADHD and learning disability. BSA reported higher rates of learning disability than BNSA. WSA reported higher rates of overwhelming anxiety compared to BSA Non-athletes reported higher average number of depressive symptoms than athletes. BSA reported higher mean number of nights with sleep disturbance than WSA.
Walen 2020	United States	To measure ATs' (1) perceived definition of transgender, (2) comfort and competence working with transgender student-athletes, (3) sources of education, (4) perceived legal concerns, and (5) perception of competitive advantage.	College/University	48% of participants believed they were competent in treating transgender patients, 46% felt competent in using appropriate terminology relating to transgender patients. ATs learned most frequently from media outlets (35%) or personal experiences (34%), and 35% received no education. 41% of ATs believed transgender female student-athletes had a competitive advantage
Wallace 2017	United States	To determine differences in knowledge of concussion and reporting behaviors of high school athletes attending urban and suburban high schools and whether a relationship exists between underreporting and access to an athletic trainer in urban schools	High School	Athletes attending urban schools have less concussion knowledge than athletes attending suburban schools. No relationship was identified between reporting percentage and school type
Wallace 2018 A	United States	To investigate differences between Black and White collegiate athletes on baseline neurocognitive performance and self-reported symptoms.	College/University	White athletes performed better than Black athletes on baseline visual motor processing speed and reaction time. Black athletes reported higher baseline symptom scores compared to Whites. There was no statistical difference between race on verbal memory or visual memory.
Wallace 2018 B	United States	identify if knowledge of concussion differences exists between communities that service underserved, African-American athletes compared to white athletes, and to explore differences in concussion knowledge between African-American and white athletes with and without access to an athletic trainer	High School	White athletes had more concussion knowledge than African-American athletes; however, African-Americans that had access to an athletic trainer were more likely to identify the signs and symptoms of concussion compared to African-Americans that did not have access to an athletic trainer.

Wallace 2021 A	United States	To examine how Black and White collegiate-athletes differed in knowledge of concussion symptoms and use of concussion information sources.	College/University	Black athletes were more likely to have lower concussion symptom knowledge scores than White athletes. White athletes more likely to report school-based professional, online medical sources and the NCAA as sources for concussion information; this is compared to referees among black student athletes
Wallace 2021 B	United States	To examine racial differences in concussion reporting behaviors between Black and White high school athletes.	High School	White athletes were more likely to recall experiencing a bell-ringer in games compared with Black athletes. They were also more likely to report a bell-ringer or concussion that occurred in a game. There was a significantly higher proportion of Black athletes compared with White athletes that did not report their bell-ringer experienced in games and concussions experienced in practices. White athletes were more likely than Black athletes to disclose a concussion because they thought they had a concussion, while there were no racial differences in the reasons for not reporting.
Wallace 2022 A	United States	To investigate whether concussion nondisclosure disparities existed by (1) race, (2) SES, or (3) AT health care access before college and understand the differential reasons for concussion nondisclosure between White and Black collegiate athletes.	College/University	Among the White and Black athletes, 15.6% and17.7%, respectively, reported a history of concussion nondisclosure. No differences were found by race for distributions of history of concussion nondisclosure.
Wallace 2022 B	United States	To determine whether racial differences exist in the care pathway from injury to SRC clinic within adolescent athletes.	Clinic	No observed racial disparities in how athletes were initially managed and/or ultimately presented to an established SRC clinic (despite racial differences in school type and insurance coverage) were noted.
Wallace 2023	United States	To examine neurocognitive performance and symptoms between concussed Black and White collegiate athletes at baseline, post-injury, and change from baseline to post-injury.	College/University	At baseline, black male and female athletes scored lower on reaction time, white females scored higher on verbal memory, black females scored lower on visual motor processing speed. Post injury, black males scored lower on visual memory and VMS.
West 2019	United States	To identify programmatic strategies that parks and recreation (P&R) agencies might pursue for promoting and facilitating team sports as a means of encouraging older women to remain physically active	Community	P&R professionals can facilitate sport participation for older women by (1) tailored rules, (2) team organization and development, (3) player recruitment (4) promotion outlets, (5) facilities and resources available, (6) community and organizational support
Wilkerson 2020	United States	To examine the perceived barriers Black Division I football student-athletes face in seeking professional mental health services.	College/University	Two major themes were identified: (1) weakness- participant's views on stigma, toughness and time-constraints as a student-athlete and (2) Silence -awareness, community and relationships with family and coaches
Williams 2017	United States	To compare adolescents with private and public insurance undergoing surgery for anterior cruciate ligament (ACL) and/or meniscal tears.	Clinic	Patients with public insurance had a more delayed presentation than those with private insurance. They also tended to have more moderate-to-severe chondral injuries and meniscal tears that required debridement rather than repair

Wiznia 2017	United States	To assess the effect of insurance type (Medicaid and private) on patient access to orthopaedic surgery sports medicine specialists for a semi-urgent evaluation of a likely operative bucket-handle meniscus tear	Clinic	Medicaid patients were significantly more likely to be denied an appointment due to lack of referral compared with private patients, and Medicaid patients were more likely to experience longer wait times for an appointment. Medicaid reimbursement for knee arthroscopy with meniscus repair was not significantly correlated with appointment success rate or patient waiting periods
Yengo-Kahn 2021	United States	To compare White and Black athletes' recovery and subjective experiences after sport-related concussion (SRC).	Clinic	Racial differences appear to exist in the outcomes and experience of SRC for young athletes, as Black athletes reached symptom resolution and return to school sooner than White athletes.