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Quality of Health, Physical Activity, and Exercise in Former College Athletes Post-Sport:

A Systematic Review

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Abstract

A surplus of modern research in the field of sports science has yielded that, despite their immense athletic and physically active background, former college athletes tend to be less well off in aspects of fitness, and exercise than their non-athlete counterparts. These previous findings have led to further exploration of the question: what is the quality of health, physical activity, and exercise in former college athletes post-sport? Using a systematic approach based on the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines, this review explored three online databases (PubMed, SportDiscus, and PsycInfo) to collect peer-reviewed articles regarding this question. The original search began in the Fall of 2023 using combinations of eight key terms (e.g., “athlete”, “sport”) and 13 secondary terms (e.g., “retirement”, “graduation”). The initial search yielded a total of 14,664 articles. Following the removal of duplicate articles, title and abstract screenings, and initial read-throughs of articles, 32 articles are currently being examined in full. Upon further analysis, the final results will be presented at CURCA 2024. Results from this review will be utilized to further understand the field in this topic and guide future directions of behavioral intervention development for retiring college athletes.

Methods

Data Collection: A systematic search was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher et al., 2009), and conducted between September, 2023 and April, 2024 (Figure 1). Peer-reviewed articles were retrieved from PubMed, SportDiscus, and PsychInfo were gathered through Hope College and The University of Tennessee, Knoxville’s library databases. A total of eight key terms in reference to college athletes (e.g., “athlete”, “NCAA”) were combined with 13 secondary terms relating to their career completion (e.g., “former”, “graduation”). Initial searches yielded an article count of 14,894; upon duplicate title removal, the total decreased to 8,737. Title and abstract screening followed by full reads of the remaining articles led to final article count of 15 titles.

Data Analysis: Analysis is ongoing, with included articles being categorized based on their discussion of health outcomes, exercise/physical activity behavior, and quality of life in former college athletes.

Results

Table 1. Data analyzing fitness, exercise, and quality of health in each article

Author	Population	Fitness measures	Mental/ Physical Health	Exercise Behavior
Reifsteck et al., 2015	Student-athletes from universities in the Midwest and NE.	x	Exercise and athletic identity, both of which independently predict exercise behavior.	Exercise identity is the major factor contributing to former athletes' exercise habits.
Snyder et al., 1979	Graduates of a medium midwestern university from '65-'75.	x	Athletes had higher satisfaction with health and physical condition.	Former athletes are more likely to participate in leisure-time activities.
Warehime et al., 2017	Former athletes from a midwest D1 university.	x	Personally reported physical activity levels and nutrition	Former athletes reported they are doing well in these realms.
Simon and Docherty, 2013	Former athletes and non-athletes from a large midwest D1 university.	x	HRQoL survey, scores were worse for the former Division I athletes than for the nonathletes in 5/7 scales	x
Plateau et al., 2017	Retired female collegiate athletes, six years after the baseline study.	x	Exercise motives and behaviors	Findings indicated that exercise behaviors and reasons for exercise did not vary according to years since retirement.
Ferrara et al., 2021	Former D1 athletes.	x	Using Consensual Qualitative Research and a semistructured interview athletes were asked about their habits and transition.	Domains from interviews: transitional lifestyle shifts that affected PA, Behavior barriers affecting PA, choices and behavior post-sport, Enablers affecting PA choices and behavior post-sport.
Simon and Docherty,	Athletes and non-athletes from a D1 university's alumni database.	Participants completed a physical fitness assessment with seven functional measures: cardiorespiratory fitness, arm and leg strength, endurance, flexibility, and body composition	Overall, the former Division I athletes performed worse on five of the seven physical fitness assessment measures.	x
DeFosse et al., 2021	Varsity and non-varsity athlete graduates from a large, Southeast, power five, public university.	x	HRQoL, social support, perceived stress, life satisfaction. - No major differences other than former athletes reported significantly higher life satisfaction and lower social roles difficulty than non-athletes.	x
Reifsteck et al. 2022	Current or former NCAA student athletes; completed or participating in the Moving Out! or PLATES transition programs.	x	Major theme: Journey from control to liberation Subthemes: - navigating PA choices - valuing PA - redefining the purpose of PA	x
Plateau et al., 2022	Retired female swimmers/divers.	x	intuitive eating. Themes: 1. permission to eat 2. recognizing internal hunger and satiety signals 3. eating to meet physical and nutritional needs.	x
Sorenson et al., 2015	Current and former varsity student athletes and nonathletes from university of Southern California.	x	HRQoL, health inventory (joint, bone and muscle, cardiopulmonary, neurological, other clinical, and psychological), previous week's exercise, and perceptions of exercise and health.	SA alumni had a large decrease in exercise volume and guideline compliance than current SA and reported less PA than US adults in general.
Reifsteck et al., 2020	Former athletes recruited through the NCAA "former student-athlete research panel"	x	Most former student-athlete participants in this study reported physical activity levels that meet or exceed minimum guidelines for health promotion.	
Weigand et al., 2013	Athletes from current and archived public online college athletic rosters at 9 D1 universities.	x	Depression levels, the findings of this study indicated higher depression levels in current student athletes than in retired graduated athletes.	x
Shander et al., 2021	Former NCAA D1 female collegiate swimmers and gymnasts from 26 different universities.	x	psychosocial dimensions related to adjustment to sport retirement, body satisfaction, depressive symptomatology, life satisfaction. Retired athlete (RA) who reported having focused on other areas of life while in sport, remained involved in sport-related activities, and developed a new focus after ending their sport careers were more satisfied with their bodies, lower levels of depressive symptomatology.	x
Hardie et al., 2022	Post-career NCAA female athletes.	x	Athlete identity, comparison points when evaluating their bodies, resources that were/would be helpful for sport transition.	x

Background

College athletes develop a lifestyle scheduled around hours of physical activity through sports training. These athletes spend an extensive amount of time training for sport (sometimes >20 hours/week; Berkowitz, 2016) that ultimately comes to an end upon retirement. Less than 2% of college athletes go on to compete professionally (National Collegiate Athletic Association [NCAA], 2020), therefore it is not unreasonable that athletes may report difficulties as they transition to post-college/post-sport life.

In particular, anecdotally, it is expected that former athletes would follow healthy exercise habits long after their retirement. However, emerging literature shows that former athletes exhibit decreased physical and mental health than their non-athlete counterparts (Kerr et al., 2014; Simon & Docherty, 2013; 2014), which may be attributed to decreases in exercise following retirement from sport. Posited reasons for these consequences include, but are not limited to, effects of injury (Simon & Docherty, 2014) and complex fluctuations in athlete identity (Tracey & Elcombe; 2004).

Considering that regular physical activity aids in maintaining physical and mental health, researchers are calling for its promotion in this population (Refisteck & Brooks, 2018; Ferrara et al., 2023; 2024). However, first a deeper understanding regarding how exercise and health change and relate to one another in former college athletes post-sport is needed to adequately improve this population’s long-term wellness.

Purpose

The purpose of this study is to determine the quality of health, physical activity, and exercise in former college athletes post-sport.

Results

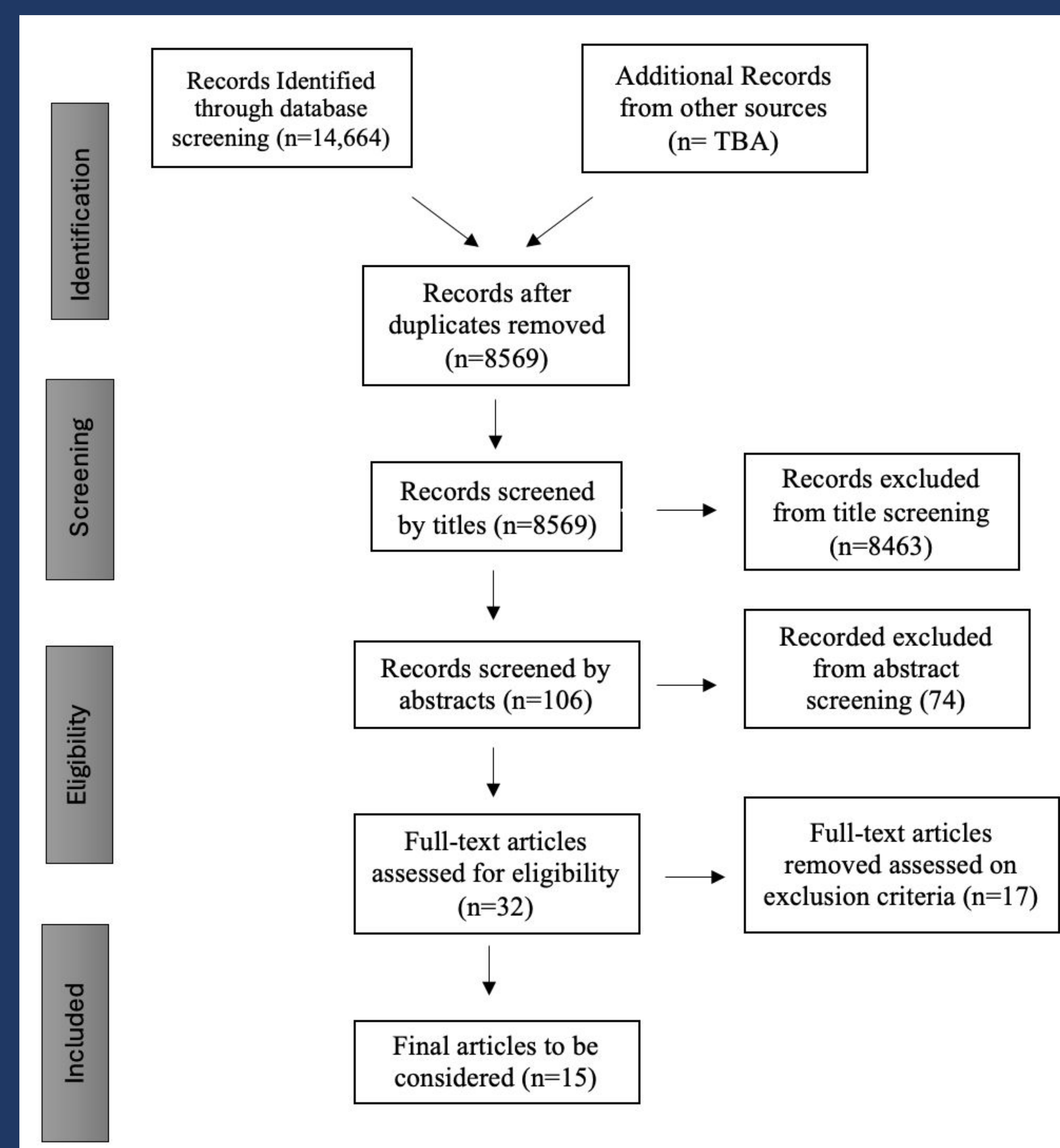


Figure 1. Flowchart of literature search per PRISMA guidelines

Discussion

This review addresses the large gap in knowledge surrounding athletes and their quality of health, exercise, and physical activity post-sport. Most of the literature revolves around qualitative interview and survey-based data collection methods focusing on NCAA Division I athletes, with inconclusive and conflicting results regarding former athletes’ overall health and well-being. Quantitative methods should be conducted in this population to empirically determine measures of health and exercise, with more studies needed in general to further understand how these individuals can be aided in their transition out of sports following retirement.