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Scoping Review of the Characteristics, Outcomes, and Sex/Gender Considerations of Community-Based Physical Activity Interventions for Individuals with Moderate to Severe Traumatic Brain Injury

Long-term physical, cognitive, and psychosocial problems resulting from moderate-severe traumatic brain injury (TBI) can prevent individuals from returning to pre-injury lifestyles due to significant challenges with work, participation, leisure, and relationships. While physical activity (PA) is proposed as a cost-effective method to alleviate problems after moderate-severe TBI, there is currently no review that synthesizes evidence for PA in the community. Further, although sex and gender considerations in research are considered requisite to good science, there is no review on PA and TBI that has included this explicit focus.

The purpose of this review is to map and synthesize the current evidence identified through a systematic search of community-based PA interventions for individuals with moderate-severe TBI and to respond to the following questions: what are the characteristics of these PA programs; what are the reported health-related outcomes and measurement tools used to evaluate them; and what considerations have been given to sex and/or gender?

Searches were conducted through eight academic databases for peer-reviewed articles. Two reviewers independently screened the abstracts and articles for inclusion and extracted data for the analysis. The extracted data was coded with the Consensus on Exercise Reporting Template and the Template for Intervention Description and Replication. A qualitative synthesis and description of community-based PA interventions for individuals with moderate-severe TBI is provided.

The findings are relevant because a qualitative description of evidence-based recommendations about using PA after moderate-severe TBI in the community for the improvement of health-related outcomes, as well as any considerations for sex and/or gender will inform research and practice. Future directions, as well as potential limitations, and the possible need for conducting a systematic review will be discussed.