

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

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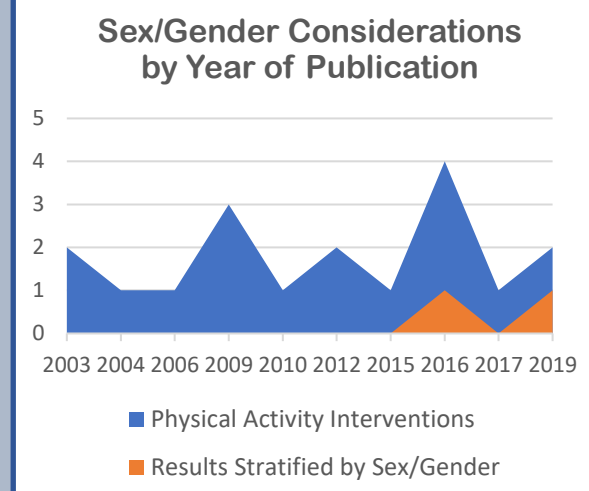
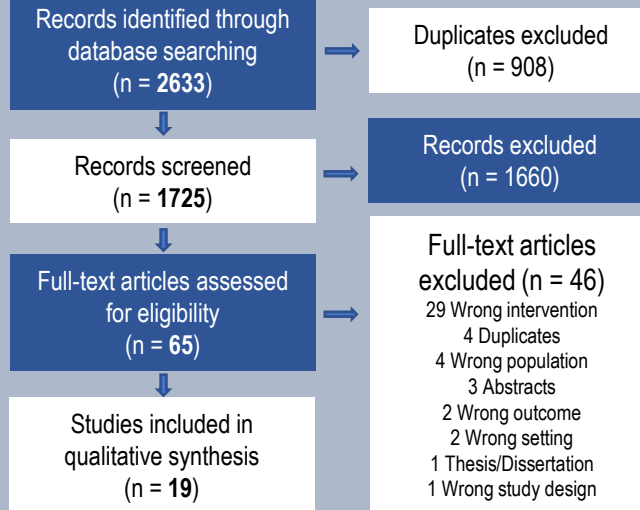
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Introduction: Moderate-Severe Traumatic Brain Injury (M-S TBI)
 - A leading cause of disability around the world¹
 - Cognitive/Psychosocial problems reduce employment, relationships, & activity²
 - Physical Activity & Sport improve community integration, mood, & quality of life after M-S-TBI^{3, 4}

Objectives: Map & Synthesize Evidence to Identify
 - Characteristics of PA Programs
 - Health-Reported Outcomes & Tools
 - Sex and/or Gender Considerations

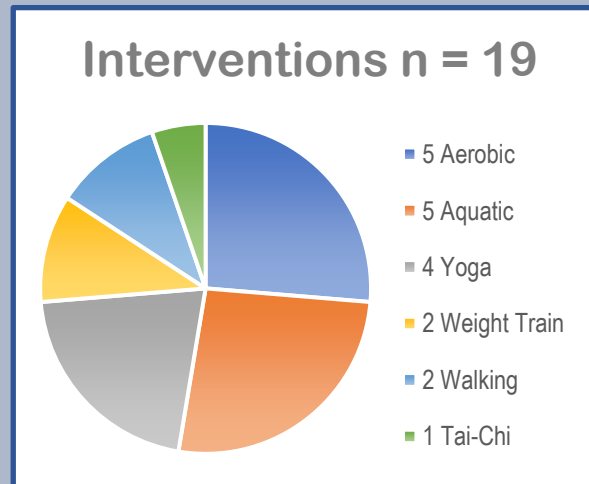
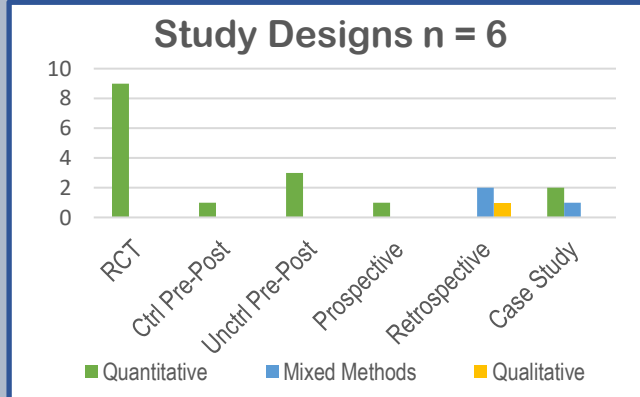
Methods: Framework for Scoping Reviews^{5, 6}
 1- Research Question: Study title?
 2- Identified Relevant Studies: Six academic databases (Medline; Embase; Cochrane; CINAHL; Sport DISCUS; & PEDRO)
 3- Study Selection: Screened by two independent reviewers (EQ & CA), then validated by AC
 4- Data Charting: Modified extraction form based on the 16-Item Consensus on Exercise Reporting Template (CERT)⁷ Checklist
 5- Summarizing Results: Summary reports provided in graphs, tables, & qualitative synthesis
 6- Consultation: Community partners (YMCAs of Quebec & Quebec TBI Association)

Inclusion Flow Chart



Results:
 - Average score of all studies⁸⁻²⁶ according to CERT Checklist (n = 19): **M = 12.37, SD = 4.00**
 - All studies included more than one sex/gender, but **only 2 provided sex/gender stratified data** (without consideration in multivariate analyses)
 - Largest number of interventions were **aerobic (n = 5); aquatic (n = 5); & yoga (n = 4)**

Preliminary Conclusions & Next Steps:
 - Poor CERT scores limit clinical uptake & intervention replication;
 - Pressing need for more sex/gender considerations in PA research after M-S TBI;
 - Evidence from aquatic/yoga interventions may warrant future critical appraisal & synthesis



References: ¹Dewan et al., 2018; ²Wise et al., 2010; ³Wise et al., 2012; ⁴Perry et al., 2020; ⁵Arksey & O'Malley, 2005; ⁶Levac et al., 2010; ⁷Slade et al., 2016; ⁸Bellon et al., 2016; ⁹Blake et al., 2009; ¹⁰Charette et al., 2016; ¹¹Devine et al., 2016; ¹²Donnelly et al., 2019a; ¹³Donnelly et al., 2019b; ¹⁴Donnelly et al., 2017; ¹⁵Driver et al., 2009; ¹⁶Driver et al., 2003a; ¹⁷Driver et al., 2004; ¹⁸Driver et al., 2003b; ¹⁹Driver et al., 2006; ²⁰Hassett et al., 2009; ²¹Hoffman et al., 2010; ²²Kolakowsky-Hayner et al., 2017; ²³Morris et al., 2009; ²⁴Schmid et al., 2016; ²⁵Schwandt et al., 2012; ²⁶Wise et al., 2012