

Michaud, Mathieu

McGill University

William J. Harvey

Doctoral 2022

Physical Activity Facilitators and Barriers for Children with ASD: Scoping Review of Methods and Findings

Most school-age children with autism spectrum disorder (ASD) do not meet national daily physical activity (PA) guidelines. They face barriers limiting their participation in PA such as insufficient access to instructional and community programs, delays in motor skill development, low levels of self-confidence and body image as well as social impairments and emotional regulation difficulties. Some researchers have delved into the facilitators and barriers to the PA participation of children with ASD with the use of various methods of inquiry. However, an account of these PA participation factors, that combine facilitators and barriers, is lacking. Also, the research methods used and the effectiveness of providing a comprehensive understanding of the topic have seldom been analyzed and discussed. Consequently, the purpose of this scoping review was to identify facilitators and barriers to the PA participation of children with ASD as well as the associated research designs and methods used.

This review was based on the Arksey and O'Malley framework and included a six-database search with keywords associated to PA, facilitators, barriers, ASD, children, and adolescents. Twenty-nine studies were identified and analyzed using descriptive numerical summaries and thematic analyses. The facilitators and barriers identified were coded and organized based, in part, on a socio-ecological model (McLeroy et al., 1988).

Preliminary results identified facilitators and barriers related to six domains of the model (i.e., intrapersonal, interpersonal, physical, institutional, community, public policies). In relation to the intrapersonal domain, a lack of self-esteem and confidence as well as feelings of insecurity, shyness, and anxiety are barriers that discourage children with ASD from participating in PA. Feelings of confidence, enjoyment, and success may facilitate involvement in PA. Easy and familiar activities, in the form of games and related to the child's interests, with people and in an environment familiar to the child may foster such positive feelings. Further, interpersonal barriers related to parents, such as a lack of energy, time, and patience, may reduce the support provided by parents. However, support from parents, siblings, friends, and neighbours, as well as recommendations and resources from professionals, can play an important role in promoting PA. Also, the accessibility of suitable PA equipment, facilities, and environments represents a considerable physical facilitator that may have an influence on PA participation. Next, most institutional facilitators identified were related to the shared responsibility with schools of teaching PA skills. Further, the accessibility of a variety of affordable, adapted, inclusive, and individualized PA opportunities and programs constitutes a community facilitator essential to support PA participation. The presence of knowledgeable

staff, experienced in working with children with ASD, may also increase parental trust in programs. Lastly, public policies seem to have ignored the PA needs of children with ASD. Hence, the development of new policies that increase the importance of disability may facilitate access to PA for children with ASD.

Studies investigating the factors influencing the PA participation of children with ASD included diverse quantitative, qualitative, and mixed-method designs. Various participants were involved in the studies including children with ASD, parents, and siblings. Yet, the facilitators and barriers to PA participation have been mostly studied from the point of view of parents. In fact, children provided data regarding their own perceptions of PA participation in only four studies. Thus, the perspectives of children have rarely been sought and their perceptions regarding the factors affecting their PA participation may still be misunderstood.

The factors that impact the PA participation of children with ASD were identified, organized, and presented in this review. We have also obtained a better understanding of the PA participation of children with ASD. Further, the review has helped to identify research methods that have seldom been utilized by researchers and encouraged their future use to potentially acquire a holistic and comprehensive understanding of factors affecting the PA participation of children with ASD.

Publication tags: *Disability; Diversity and Inclusion; Participation; Youth*