The Benefits and Barriers of Sport for Children From Low-Income Settings: An Integrative Literature Review

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Abstract
The purpose of this integrative review was to examine the existing literature about the emotional and social benefits, as well as barriers and facilitators to sport participation for children from low-income settings. Thematic analysis was performed yielding three major themes: (1) emotional benefits of sport participation; (2) social benefits of sport participation; and (3) barriers and facilitators to sport participation. Overall, the thirteen studies showed positive emotional and social benefits for sport participation; however, one study found decreased mental health and one reported no significant findings. Facilitators such as psychological safety and social support are needed to encourage sport participation as significant barriers to sport participation continue to exist for children from low-income settings. Future areas of research include more longitudinal studies related to the role of sport, the environment, coaching style, and investigation into why participation rates continue to be decreased for children from low-income settings despite added social supports.

Keywords
low-income, children, sport, social health benefits, emotional health benefits, barriers

Introduction
In Canada, 12.1% of children live in low-income settings which leads to a variety of challenges (Statistics Canada, 2019). Children who grow up in low-income settings have poor living standards, learn fewer work place skills, and often lack the support needed to thrive (UNICEF, 2022). Children from low-income settings report lower life satisfaction and increased mental health disorders than their peers (Jonsson et al., 2017; Kimiecik, 2018; Richards et al., 2014). Additionally, children from low-income settings are more likely to be exposed to violence, crime, and substance abuse which challenges their emotional and social health (McDavid et al., 2017). Living in families with low-income can cause increased challenges to a child’s emotional and social health which can potentially be mitigated by sport involvement (Carter, 2017; Jonsson et al., 2017; Kimiecik, 2018; McDavid et al., 2017; Riley & Anderson-Butcher, 2012; Ullrich-French et al., 2012). For example, sport has been shown to improve individuals’ mental and physical health; however, children from low-income settings face barriers to participation in sport (Super et al., 2018). To date, few studies have focused on sport involvement and the potential influence on the health of this unique population of children from low-income settings. To address the gap in knowledge regarding the impact of sport participation on children in low-income settings, the purpose of this integrative review (Whittemore & Knafl, 2005) was to identify, summarize, and synthesize primary findings related to sport and the social and emotional benefits, as well as the barriers and facilitators to sport participation for children from low-income settings. The research question guiding this study was: What is the current state of literature regarding the emotional and social health benefits, barriers, and facilitators to sport participation for youth from low-income settings?

Several studies have examined the role of sport in emotional and social health (Carter, 2017; Jonsson et al., 2017; Kimiecik, 2018; McDavid et al., 2017; Riley & Anderson-Butcher, 2012; Ullrich-French et al., 2012). To date, few studies have focused on sport involvement and the potential influence on the health of this unique population of children from low-income settings. To address the gap in knowledge regarding the impact of sport participation on children in low-income settings, the purpose of this integrative review (Whittemore & Knafl, 2005) was to identify, summarize, and synthesize primary findings related to sport and the social and emotional benefits, as well as the barriers and facilitators to sport participation for children from low-income settings. The research question guiding this study was: What is the current state of literature regarding the emotional and social health benefits, barriers, and facilitators to sport participation for youth from low-income settings?

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Background

This integrative review examined the literature on the widely-held belief that sport improves emotional and social health (Richards et al., 2014), and will focus on children from low-income settings as their needs are unique due to less opportunity to participate in sport and being higher risk for negative social and health outcomes (Carter, 2017; Super et al., 2018). While sport has been studied for many years, primary studies and literature reviews specifically examining children from low-income settings are limited (Brinkley et al., 2017; Laukkanen, 2018). Evidence indicates that sport participation is essential as they are more likely to have unstructured play and spend increased time unsupervised (McDavid et al., 2017). A recent study conducted in the Czech Republic, found that solely participating in unstructured activities was associated with increased rates of smoking, drinking, early sexual intercourse, and low academic achievement in 13 to 15 year olds (Badura et al., 2018). Additionally, Riley and Anderson-Butcher (2012) reported that parents were concerned that significant unsupervised time led to their children wandering the neighborhood and potentially getting into trouble. Sport provides structure outside of school that many children from low-income settings may lack. Furthermore, it is recommended in Canada that children aged 5 to 17 participate in 60 minutes of moderate-to-vigorous physical activity per day and sport is a way to ensure this level of physical activity which is not always present in unstructured play (Canadian Society for Exercise Physiology, 2021). In addition, evidence indicates that participation in structured sport has numerous benefits including building healthy habits, self-discipline, social skills and teamwork, improved mental health, and sportsmanship (SickKids Staff, 2021). A recent systematic review examined the life skill development of socially vulnerable youth through school sport activities and found a positive relationship between sport participation and life skills (Hermens et al. 2017). Lubans et al. (2012) also completed a systematic review of quantitative studies examining the impact of physical activity programs (outdoor adventure programs, sport and skill-based programs, and physical fitness) on social and mental well-being and found that, due to the high risk of bias in the included studies, the efficacy of the interventions was inconclusive. Despite the increased interest into the influence of sport on children, a paucity of knowledge remains about the benefits, as well as the barriers and facilitators of sport participation on a child’s social and emotional wellness. This integrative review (Whittemore & Knafl, 2005) was the first study to examine the influence of sport solely offered outside of school, which explored the emotional and social health benefits with children from low-income families, and considered the barriers and facilitators to sports participation.

Methods

Guided by the Whittemore and Knafl’s (2005) methodology for integrative reviews, this study implemented a five-stage process: problem identification; literature search; data evaluation; data analysis; and presentation to ensure a standard methodology was used throughout (Whittemore & Knafl, 2005).

Problem Identification

The research from which this integrative review stemmed, was patient-oriented, and designed to incorporate persons with lived experience and stakeholders as part of the research team (Canadian Institute of Health Research, 2011). Patient-oriented research allows researchers to co-develop topics and questions with participants to ensure they are important, and the results and recommendations benefit the end users (Canadian Institute of Health Research, 2011). In addition, by incorporating stakeholders throughout the research process, recommendations are put into practice in a shorter time frame than traditional research (Canadian Institute of Health Research, 2011). In this integrative review, parents of children and stakeholders who participated in charitably funded sport participated in the idea generation and initial planning phases of the research. As patient-oriented research, parents whose children participated in sport funded by charitable organizations, along with stakeholders, were asked about their perceptions and beliefs related to the benefits, facilitators, and barriers to sport. The group spoke extensively of the social benefits and emotional benefits of sport including bullying prevention, making friends, and improved behavior. The parents also discussed the barriers of transportation, funding, and childcare. In addition to the parent’s views, a review of the literature found several studies on the benefits of sport; however, far less work has been done on the outcome of emotional and social benefits and barriers, and facilitators with the population of children from low-income settings. With this knowledge, it was clear that a review to examine the current state of literature regarding the emotional and social health benefits as well as the facilitators and barriers to sport participation for youth from low-income settings was needed. The findings may inform future research aimed at exploring emotional and social benefits of long-term sport participation, the role of sport program environment, and identifying facilitators and barriers to participation in sport. Sport and unstructured physical activity have different benefits, and each require different approaches for program development. Therefore, at the request of the children and their parents, and stakeholders of this patient-orientated research, the focus of this integrative literature review (Whittemore & Knafl, 2005) is the promotion of sport.
Table 1. Search String.

| Databases          | Search Term                                                                 |
|--------------------|-----------------------------------------------------------------------------|
| CINAHL and APA Psych Articles | ([MH “Psychological Well-Being"] OR [MH “Health+”] OR [MH “Child Health”] OR [MH “Adolescent Health”] OR [MH “Mental Health”] OR [MH “Wellness”] OR [MH “Quality of Life+”]) AND ([MH “Adolescence+”]) AND ([MH “Physical Activity”] OR [MH “Sports+”] OR [MH “Exercise+”]) AND (MH “Special Populations”) OR (MH “Poverty+”) OR (Poverty or vulnerable or “low-income” or “low-income”)) |
| Medline            | ([MH “Psychological Well-Being”] OR [MH “Health+”] OR [MH “Child Health”] OR [MH “Adolescent Health”] OR [MH “Mental Health”] OR [MH “Quality of Life+”] OR well-being or “well being” or “social health” AND (MH “Sports+” OR MH “Exercise+” OR MH “Physical Activity”) AND (MH “Special Populations”) OR (MH “Poverty+”) OR (MH “Child+” OR MH “Adolescence+”)) |
| Academic search complete | SU (sport or exercise or “physical activity” or fitness) AND SU (wellness or wellbeing or well-being or “well being” or “mental health”) AND SU (poverty or vulnerable or poor or low-income or disadvantaged) AND SU (child or adolescent) |
| Psych info         | ("Sport” or “Physical Activity”) and [“Adolescence” or “Youth” or “Children”] and [“poverty” or “low-income” or “Vulnerable”] and [“wellness” or “wellbeing” or “Mental health” or Quality of life”)) |
| Google scholar     | (sport or “physical activity” or exercise) and (“low-income” or poverty or vulnerable) and (youth or adolescent or child) and (Wellness or wellbeing or “mental health” or “Quality of Life”)) |

Note. Search terms varied with different data bases as subject headings were used and these differed by search engine.

Literature Search

The search strategy was developed with the support of an experienced librarian. In order for preliminary inclusion in the literature review, the articles met the following criteria: sport outside of school, school-aged children (including age ranging between 3 and 25 with the majority of participants 6–18 years), low-income, emotional health, social health, or barriers to sport participation, primary study, English, and 2010 to 2020 publication date (see Table 1).

This review was contextualized by defining each element that was included:

School-aged children—There are various definitions for children, such as the World Health Organization’s (2013) definition of individuals 19 years of age and under. Within the literature set for this study, the definition included individuals from 3 to 25; but the majority of children were within the age range of 6 to 18 which is the group considered for this review (Carter, 2017; Finkelstein et al., 2017).

Sport—Sport is a term commonly used but not clearly defined in the literature. Cambridge Dictionary (2020) refers to sports as “a game, competition, or activity needing physical effort and skill that is played or done according to rules for enjoyment and/or as a job.” Hermens et al. (2017) refer to children’s sport as a structured program that follow rules and has an adult present. While physical activity is an aspect of sport, all physical activities are not sport. For the purposes of this review, sport was defined as an organized physical activity that has rules and is coached. Sport offers many of the benefits and barriers that exist for all physical activity however, other benefits and barriers occur as well. For example, walking is a physical activity with health benefits and few barriers but it does not provide the same benefits as a sport with coaching and peers. This review focused specifically on coached sport outside of school.

Low-income—The definition of Low-income varies by country, community, and even funders. In Canada, low-income is defined by using the low-income cut-off which is measured by the percentage of income used for basic necessities (Statistics Canada, 2015). Studies conducted in the United States of America (USA) used a measure of distance from the poverty line and/or receiving free/reduced cost lunch programs (Kimiecik, 2018; Riley & Anderson-Butcher, 2012).

The initial full search identified 261 potential articles. A limited number of articles were found due to the exclusion of school-based sport programs, physical health related studies, and studies with participants who were not low-income. Searches were completed using the following electronic databases: CINAHL, MedLine, APA Psych Articles, APA Psych Info, and Academic Search Complete resulting in 161 articles (see Table 1). Additionally, a Google Scholar search was conducted and led to approximately 100 titles that were included. After removal of duplicates and irrelevant articles based on title, 63 articles remained for review at this stage. An additional 12 articles were located by searching reference lists of available articles which resulted in 75 articles being identified for initial review (see Figure 1). Reviewing abstracts led to a removal of 50 articles that did not meet inclusion criteria. Additional articles were removed for the following reasons: non-primary studies (n = 9), not accessible (n = 3), unrelated (n = 12), focused on physical health outcomes (n = 14), on academic outcomes (n = 1), and did not meet population requirements (age or income conditions; n = 11). Twenty-five articles were read in full and 12 more were excluded due to inappropriate population (n = 7) and unrelated study outcomes (n = 5). Thirteen articles were included in this integrative review (see Figure 1).

Data Evaluation Stage

After the inclusion assessment was completed, 13 articles remained; 9 articles on the social and mental health sport benefits, and 4 on the barriers and facilitators to sport participation.
participation (see Table 2). Data evaluation was conducted in order to better understand the nature of the studies and to facilitate interpretation of the findings.

To evaluate the quality of the articles, the Critical Appraisal Skills Program (CASP, 2018) checklists were used. The appraisal tool examined three areas including validity of study results, actual results, and the usefulness of the results (CASP, 2018). Two separate checklists were used including one for qualitative studies and one for randomized control trials (RCT). The RCT checklist was used for all quantitative studies with modifications including the exclusion of two questions; one on randomization and the other on blinding (CASP, 2020). Mixed method studies were evaluated using both tools. Articles were reviewed based on the CASP program in the areas, relevance, clear methodology, appropriateness of study design, recruitment strategy, attrition, and ethical considerations. Due to the low number of available research articles in the last 10 years and the need to include studies globally, no studies were excluded due to the CASP appraisal. All studies were relevant and, therefore, were included in the study. After completing the CASP tool assessment, it was clear that the major weaknesses in the articles were related to a lack of clear methodologies, and ethical issues including lack of information on the relationship with participants, ethical procedures, and consent procedures. Only one article discussed any ethical issues with regards to the research (Kimiecik, 2018), and only two of the qualitative articles and two quantitative article clearly defined the methodologies that were used (Haudenhuyse et al., 2012; Jonsson et al., 2017, McDavid et al., 2017, Super et al., 2018). Two of the studies included outlier results (Richards et al., 2014; Silvey, 2019) and both of these studies had significant methodological and design challenges. Table 3 outlines the results from the CASP evaluation.

Thematic Analysis

Braun and Clarke’s (2006) six step process for thematic analysis was followed including becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. As directed by Braun and Clarke’s (2006) process, articles were read, and initial ideas were generated. Then, articles were reread multiple times and data related to the problem were coded. The coding was grouped into themes and the themes were renamed into the three overarching themes including: Social Benefits of Sport, Emotional Benefits of Sport, and Barriers and Facilitators to Sport Participation. Outcome measures such as weight, or physical fitness were measured in some of the studies, but were not included in this review. Lastly, a report was written in the form of this article to summarize and analyze the findings.

Findings

Thirteen articles were included in this integrative literature review. There were six qualitative studies: one case study (Haudenhuyse et al., 2012); one interpretive approach (Jonsson et al., 2017); and, four with unspecified methodologies. The five quantitative studies included two randomized control trials (McDavid et al., 2017; Richards et al., 2014), one cross-sectional design (Super et al., 2018), and two used a correlational design (Kottyan et al., 2013; Ullrich-French et al., 2012). There were also two mixed method studies (Carter, 2017; Silvey, 2019). The studies were conducted in various countries across the world including United States of America (USA; n=7), Canada (n=2), Western Europe (Sweden, The Netherlands, and Belgium; n=3), and Africa (Uganda) (n=1). Sample size in each of the articles varied from 9 to 1,931. Four studies did not involve any interventions (Finkelstein et al., 2017; Jonsson et al., 2017; Kottyan et al., 2013; Palmer-Keenan & Bair, 2009), three evaluated the effects of an ongoing intervention (Carter, 2017; Haudenhuyse et al., 2012; Super et al., 2018), and six involved interventions varying from 19 days to 10 weeks (Kimiecik, 2018; McDavid et al., 2017; Richards et al., 2014; Riley et al. 2012; Silvey, 2019; Ullrich-French et al., 2012). The methodology, location, sample size, length of intervention, type of intervention, and theoretical framework are outlined in Table 2.

Braun and Clark’s (2006) thematic analysis resulted in three broad themes including Social Benefits of Sport, Emotional Benefits of Sport, and Barriers and Facilitators to Sport Participation. In the following section, each of the themes and their subthemes will be discussed in detail.
Social Benefits of Sport

Social benefits were divided into two categories including fun and friends and improved social skills.

Fun and friends. The most frequent theme referenced in the articles was fun and friends (four qualitative and one mixed methods; Carter, 2017; Jonsson et al., 2017; Kimiecik, 2018; Palmer-Keenan & Bair, 2019; Riley & Anderson-Butcher, 2012). Fun was an outcome as well as a promoter of sport and the authors identified that if children did not perceive the sport as fun they would not participate (Jonsson et al., 2017; Palmer-Keenan & Bair, 2019). Similarly, having friends in a sporting program was identified as a reason for joining a sport as well as a reason for continuing to participate (Jonsson et al., 2017; Kimiecik, 2018). Fun was also examined as an outcome of doing a sport that participants enjoyed (Carter, 2017; Jonsson et al., 2017;}

Table 2. Summary Table.

| Citation | Methodology | Location | Sample size | Length of intervention | Study context | Theoretical framework |
|----------|-------------|----------|-------------|------------------------|---------------|-----------------------|
| Carter (2017) | Mixed methods | British Columbia, Canada | N= 12 | Ongoing program | Boxing program in low Socio-economic area | Positive youth development Social determinants of health |
| Finkelstein et al. (2017) | Exploratory qualitative – descriptive study | Colorado, USA | N= 178 | No intervention | Barriers to sport participation in low-income communities | None listed |
| Haudenhuyse et al. (2012) | Qualitative case study | Belgium | N= 59 may be overlap of participants between groups | Ongoing program | Boxing program for socially vulnerable children including low-income | Social Vulnerability Theory |
| Jonsson et al. (2017) | Qualitative content analysis | Sweden | N= 54 | No intervention | Low-income teens and reasons for physical activity | Self-determination theory |
| Kimiecik (2018) | Exploratory qualitative descriptive study | Ohio, USA | N= 9 | 19 days | Sports based summer day camp for socially vulnerable youth | Positive youth development-teaching physical and social responsibility |
| Kottyan et al. (2013) | Quantitative-randomized control trial | Ohio, USA | N= 3340 | No intervention | Barriers to childhood sport participation | None listed |
| McDavid et al. (2017) | Quantitative-randomized control trial | USA | N= 403 | 20 days | Summer sports day program for low-income | Positive youth development-psychological needs theory |
| Palmer-Keenan and Bair (2019) | Qualitative thematic analysis | New Jersey, USA | N= 13 | No intervention | Low-income teens not participating in sport | None listed |
| Richards et al. (2014) | Qualitative-randomized control trial nested in an observational trial | Gulu, Uganda | N= 1931 | 11 weeks | Competitive football program measuring anxiety and depression | None listed |
| Riley and Anderson-Butcher (2012) | Qualitative exploratory study | Ohio, USA | N= 10 | 19 days | Summer sports camp for children from low-income contexts | Positive youth development |
| Silvey (2019) | Mixed methods | Nfld, Canada | N= 31 | 10 weeks | Introduced an Olympic wrestling program to an Indigenous community | Social determinants of health |
| Super et al. (2018) | Quantitative—cross sectional study | Netherlands | N= 283 | Ongoing intervention | Community based children’s sport programs | None listed |
| Ullrich-French et al. (2012) | Quantitative—Correlational study | Midwestern, USA | N= 197 | 4 weeks | Summer sports camp | Positive youth development |
Kimiecik, 2018; Riley & Anderson-Butcher, 2012). Not surprisingly, children who perceived themselves to be more skilled at sport had more fun (Jonsson et al., 2017). Fun and friends are closely related in the studies. “I have fun with my friends here” was the highest scoring statement in a mixed method study regarding basketball (Carter, 2017). In an additional study, parents found making friends was a significant social outcome of the sport programs for their children (Riley & Anderson-Butcher, 2012). Parents considered their children developing friendships with children that lived in different areas and meeting new people a positive outcome of sport participation (Riley & Anderson-Butcher, 2012).

Improved social skills. Five studies found social relationships were a positive outcome of sport (Carter, 2017; Kimiecik, 2018; Riley & Anderson-Butcher, 2012; Super et al., 2018; Ulrich-French et al., 2012). A quantitative study in the Netherlands discovered that children who participated in a high level of sport were much more likely to exhibit prosocial behaviors (such as helping others) than children who did not participate (Super et al., 2018). Additionally, being more outgoing socially and demonstrating improved overall social skills were found in two studies (Carter, 2017; Kimiecik, 2018). This finding was echoed by Riley and Anderson-Butcher (2012) who noted that social skills acquisition was an outcome of their study and that participants made more friends, were more social, and continued friendships outside of the sport programs. Social competence was similar to prosocial behavior as it included the ability to make friends easily. Social competence related to sport participation was modestly significant in a study by Ulrich-French et al. (2012). Social competence was also related to psychological wellbeing as discussed below.

### Emotional Health Benefits of Sport

Six studies examined the emotional benefits of sport participation for children from low-income settings, situations (Carter, 2017; Jonsson et al., 2017; Kimiecik, 2018; McDavid et al., 2017; Riley & Anderson-Butcher, 2012; Ulrich-French et al., 2012). The emotional health benefits found in the studies were divided into two categories including confidence and improving negative emotional symptoms.

#### Confidence

Six studies (two qualitative, one mixed methods, and two quantitative) listed confidence as a significant outcome of sport participation (Carter, 2017; Kimiecik, 2018; Jonsson et al., 2017; McDavid et al., 2017; Riley & Anderson-Butcher, 2012; Ulrich-French et al., 2012). Participants in a sport summer camp experienced pride in their accomplishments and five of nine participants stated improved confidence during camp activities (Kimiecik, 2018). In another study, learning new skills and developing athletic abilities built feelings of competence which seemed to lead to an overall increase in confidence (Jonsson et al., 2017). Carter (2017) found confidence extended beyond pride in sport accomplishment, with 90% of respondents being more confident in general, whilst 7% found increased confidence in their ability to make decisions. Another study reaffirmed sport participation increased confidence, competence in athletic pursuit, and improved self-esteem (Riley & Anderson-Butcher, 2012). Furthermore, confidence was increased by children completing tasks that they did not think were possible (Riley & Anderson-Butcher, 2012). Global self-worth and physical self-worth were modestly positively correlated with attendance at a sport camp (Ulrich-French et al., 2012). McDavid et al. (2017) found a correlation between sport participation,
self-worth, and hope; however, they were not able to prove their hypothesis that the control sport group and intervention sport group did not show a significant difference in levels of hope and self-worth. Ullrich-French et al. (2012) found a correlation between sport competence and hope.

**Improved negative emotional symptoms.** Four articles studied the reduction of negative emotional symptoms including anger, anxiety, and depression through children’s involvement in sport (Carter, 2017; Richards et al., 2014; Silvey, 2019; Super et al., 2018). In a Canadian study focused on boxing, 83% of participants found a reduction in their symptoms of anger and stress (Carter, 2017). Super et al. (2018) examined coherence, which is a measure of coping with stress, and found that moderate sport participation had a significant correlation to coherence as compared to non-sport participants (Super et al., 2018). Not all studies showed a positive correlation between sport and improved emotional wellness. In a study that examined a competitive football program in Uganda, anxiety and depression increased in the participant group (Richards et al., 2014). In fact, depression and anxiety scores improved in the control group while decreasing in the intervention group (Richards et al., 2014). Similar findings were found in a Canadian study using the Kutcher Adolescent Depression Scale. These results showed no significant change in scores during participation in a sport program although they had a small sample size of eight (Silvey, 2019). This evidence is counter to widely held beliefs that sport decreases negative emotional symptoms. Similarly, McDavid et al. (2017) were unable to prove their hypothesis regarding the link of autonomy as a causal factor for hope and self-worth. The inability to find significant quantitative findings on the emotional benefits of sport contradicts much of the qualitative results that found emotional benefits. These conflicting results beg the question whether the findings were due to the researchers’ study design including their approach to measuring emotional benefits or, more generally, is there an accurate method to quantify emotional benefits to sport.

**Barriers and Facilitators to Sport Participation**

Three studies exclusively examined barriers and facilitators to physical activity and sport participation in children from low-income settings (Finkelstein et al., 2017; Kottyan et al., 2013; Palmer-Keenan & Bair, 2019). Along with emotional and social benefits of sport participation described, seven articles addressed factors that are facilitators/barriers of sport participation (Carter, 2017; Finkelstein et al., 2017; Haudenhuyse et al., 2012; Jonsson et al., 2017; Kimiecik, 2018; Kottyan et al., 2013; Ullrich-French et al., 2012).

**Facilitators of Sport Participation**

Facilitators to sport participation were found in eight studies (Carter, 2017; Finkelstein et al., 2017; Haudenhuyse et al., 2012; Jonsson et al., 2017; Kimiecik, 2018; Palmer-Keenan & Bair, 2019; Silvey, 2019; Ullrich-French et al., 2012). These facilitators were divided into two categories including psychological safety and social support.

**Psychological safety.** Six studies (four qualitative, one quantitative, one mixed) examined the role of supportive environment (Carter, 2017; Haudenhuyse et al., 2012; Jonsson et al., 2017; Kimiecik, 2018; Palmer-Keenan & Bair, 2019; Ullrich-French et al., 2012). Findings that promoted sport participation included psychosocial safety that was created through the environment and having friends to increase comfort level (Carter, 2017; Jonsson et al., 2017). Similarly, a study with inactive teens stated that children needed to feel comfortable with the activities and the social context (Palmer-Keenan & Bair, 2019). In one study, coaches expressed that it was their job to ensure that children were comfortable and felt at home (Haudenhuyse et al., 2012). Additionally, creating an environment where vulnerable children could feel success was important (Carter, 2017).

In addition to being comfortable, evidence suggests that competition can increase psychological safety (Haudenhuyse et al., 2012). The coaches’ approach during competition was found to be important and psychological safety was promoted when the “competition” was secondary to having fun (Haudenhuyse et al., 2012; Jonsson et al., 2017). Participating in a provincial level competition through team cohesion and motivation was shown to increase self-confidence in one study conducted with Indigenous adolescents who were competing in wrestling (Silvey, 2019). However, Finkelstein et al. (2017) found that sport should focus on social and emotional development rather than on competition. These studies confirmed that creating a safe environment during competition was a facilitator for the children to participate in sport.

**Social Supports**

Parents, coaches, and friends are essential supports to promote a child’s ability to participate in sport (Jonsson et al., 2017; Carter, 2017). This was evident in one study which reported that adolescents believed that it would be very difficult to participate in sport without parental support (Jonsson et al., 2017). Furthermore, Jonsson et al. (2017) described that sport participation was difficult in some families where girls were asked to stay home to do household chores instead of participating in sport (Jonsson et al., 2017). In addition, having supportive coaches was listed as high importance in children building relationships with adults, growing children’s social capacity, and encouraging children to put in effort (Carter, 2017; Haudenhuyse et al., 2012; Kimiecik, 2018). However, the need to find coaches for sport programs in low-income neighborhoods was an ongoing challenge; having coaches present was not enough, and coaching approach was significant (Silvey, 2019). Quality of coaching including support was an important factor as the adolescents...
in one study identified that the coaches needed to be cool and young (Palmer-Keenan & Bair, 2019). On the other hand, coaches did not perceive these same qualities as important and identified the need for coaches to put the children first and give equal attention to all children (Haudenhuyse et al., 2012). The social support of friends was another facilitator with two studies reporting increased participation in children who had a friend who was also participating in a sporting program (Jonsson et al., 2017; Kimiečik, 2018). Adequate social supports including family, coaches, and friends are social structures that act as facilitators to sport participation.

**Barriers to Sport Participation**

Children from low-income settings have lower rates of sport participation. Four articles (two qualitative, one mixed methods, and one quantitative) discussed the barriers to participation (Finkelstein et al., 2017; Haudenhuyse et al., 2012; Kottyan et al., 2013; Silvey 2019). Barriers were divided into the following subthemes: Competing Priorities, Availability of Activities and Facilities, and Economic Challenges.

**Competing Priorities**

In order for children to participate in sport, both children and parents need to prioritize sport. Families from low-income settings are often single and/or have both parents working multiple jobs and are forced to choose safety and finances over children’s activities (Kottyan et al., 2013). Additionally, parents from low-income families reported that transportation to sporting activities was a challenge due to cost, time spent driving, and conflicts with work (Finkelstein et al., 2017). Furthermore, activities were often not possible due to conflicts such as homework, care of siblings, and family obligations (Finkelstein et al., 2017). Lastly, some children did not always prioritize sport and preferred screen time to active time (Finkelstein et al., 2017).

**Availability of activities and facilities.** Lack of available activities and appropriate facilities in the neighborhood were a barrier to participation (Finkelstein et al., 2017; Kottyan et al., 2013). Facilities in low-income neighborhoods were found to be in need of repairs and open for less hours (Kottyan et al., 2013). In addition, the number of available activities was limited for children from low-income settings and this challenge was reported more frequently for older children and girls (Kottyan et al., 2013). The number of available activities also limits the range or types of activities and those that are available may not of interest to the participants (Finkelstein et al., 2017). The communities where low-income families live often have barriers to participation in the larger community. For example, neighborhood safety was a concern that prevented children from playing outside or in local parks (Finkelstein et al., 2017; Kottyan et al., 2013). There were also reports that recreational facilities in low-income neighborhoods were limited, and were underfunded or poorer quality compared to facilities in more affluent neighborhoods (Finkelstein et al., 2017; Kottyan et al., 2013). Parents expressed the concern that the recreation facilities in their neighborhoods were also the site of violence and drugs (Finkelstein et al., 2017). Having to drive to another neighborhood to access high-quality facilities was found to be an additional barrier (Finkelstein et al., 2017). In addition, facilities that were greater than 1 mile from the family home were considered a significant barrier for participation (Kottyan et al., 2013). Availability of activities and facilities placed limitations on an individual’s ability to participate in sport, whereas free and close community facilities and safe neighborhoods facilitated sport participation.

**Economic Challenges**

Families from low-income settings have difficulty paying for the additional cost of sport. Specifically, the high cost of sport entry fees and equipment was a deterrent for many families from low-income settings (Finkelstein et al., 2017; Kottyan et al., 2013; McDavid et al. 2017; Riley & Anderson-Butcher, 2012; Silvey, 2019). This was partially remedied in all nine of the available studies which provided sport at a lower cost or free, which removed significant economic structural barriers. (Carter, 2017; Haudenhuyse et al., 2012; Kimiečik, 2018; McDavid et al., 2017; Richards et al., 2014; Riley et al. 2012; Silvey, 2019; Super et al., 2018; Ullrich-French et al., 2012). Having low fees or free access changed the economic structure and allowed children from low-income settings to participate. Some programs also provided transportation and food (Ullrich-French et al., 2012; Riley & Butcher-Anderson, 2012). For example, in a study involving a summer camp, meals and snacks were provided (Ullrich-French et al., 2012). In another study, parents were relieved that the children were provided meals and transportation (Riley & Anderson-Butcher, 2012).

In addition to direct costs for sport, the realities of being low-income created additional structural barriers. Parents cited their work schedules as a barrier for their children’s sport participation (Finkelstein et al., 2017). Additionally, the cost and time to transport children to and from sporting activities was a barrier (Finkelstein et al., 2017). Providing free activities, transportation, and meals removed this barrier for the child to participate but there are often other barriers such as facilities, availability of activities, parents work schedule, and childcare issues for children from low-income settings. However, evidence suggests that removing structural barriers can improve the likelihood of sport participation (Finkelstein et al., 2017).

**Discussion**

The data from 13 studies were extracted and analyzed to examine barriers and facilitators, as well as emotional and social benefits of sport for children from low-income
settings. Despite the increased interest in the effects of sports on children, there are few studies examining this phenomenon in this unique population. There remains an urgent need for more research as children from low-income settings have higher risk of emotional and social challenges and are less likely to participate in sport (Super et al., 2018).

The social (fun and friends and improved social skills) and emotional benefits (confidence and improved negative emotional symptoms) were identified as important to sports participation and these findings are applicable to children from all income settings. However, our results are particularly important for children from low-income settings as evidence illustrates that this population is more likely to suffer from low mood and mental health challenges (Jonsson et al., 2017; Kimiecik, 2018). To further compound this issue, children from low-income settings may have few, if any, opportunities to participate in sport. Therefore, this population has less prospects to gain valuable social skills and improved confidence and emotional well-being than other children. These data illustrate the urgent need to promote equity in sport participation among all children.

Along with the importance of the social and emotional benefits of sport participation for children from low-income settings, evidence indicates that certain facilitators need to be present including psychological safe and having good social supports (Carter, 2017; Jonsson et al., 2017). Data indicates that only 44% of children from low-income settings participate in sport, therefore, providing an environment where they feel psychologically safe is particularly important (Clark, 2014). In addition, as many low-income children have limited exposure and opportunity to participate in sport, a safe and welcoming environment coupled with coaching and parental supports may encourage the child to participate.

In spite of the known benefits and facilitators of sport participation, there were many barriers that emerged in this literature review including competing priorities, availability of activities and facilities, and economic challenges. Although these barriers to sport participation are commonly known, children from low-income settings have unique obstacles. Our findings show that parents from low-income settings are more likely to be single and have to work during scheduled sport activities, may need children to take care of younger siblings, and may have to prioritize safety and finances over children’s activities (Finkelstein et al., 2017; Kottyan et al., 2013). These children often live in low-income neighborhoods which frequently have poorly maintained facilities and fewer activity options (Finkelstein et al., 2017; Kottyan et al., 2013). This problem is compounded by families with low income having difficulties with transportation and being unable to participate outside of their community (Kottyan et al., 2013). These findings illustrate the need to consider the availability and quality of both the facilities and activities for people in low-income neighborhoods along with the multiple other unique barriers that children and families from low-income settings experience. For example, it is well known that sports are expensive and this is particularly challenging for children from low-income settings. Although there are charitable programs that provide funding for sport, this may not include funding for uniforms, equipment, and transportation. Providing equity in sport participation is going to require a comprehensive plan that considers the many unique challenges for children from low-income settings.

**Concept Definition Challenge**

One challenge identified in this integrative review was that the concepts of sport, low-income, and social and emotional wellness were defined differently or not at all. In the current analysis, sport was defined as an organized physical activity that has rules and is coached. This definition was a modification from Cambridge Dictionary (2020) and Hermens et al. (2017). In four studies, the term sport was not defined or was referred to by type, such as football, wrestling, and boxing (Carter, 2017; Haudenhuyse et al., 2012; Richards et al., 2014; Silvey, 2019). The challenge of lacking a definition for “sport” is that this concept can be described by a wide range of individual, team, competitive, and recreational activities, and each sport has its own culture and context. The type of sport and its implementation would affect the results of this literature review, therefore, making comparisons difficult. Four of the studies from the United States were evaluations of outcomes of positive youth development (PYD) summer camp programs and used sport as a means for youth development (Kimiecik, 2018; McDavid et al., 2017; Riley & Butcher-Anderson, 2012; Ullrich-French et al., 2012). Low-income was also defined differently in each study. In a Canadian study, low-income was defined as the low-income cut-off (Carter, 2017), whereas most of the American studies had populations selected based on their use of lunch programs (Kimiecik, 2018; McDavid et al., 2017). In a study conducted in Uganda, there was no description of the term low-income cut-off, but was simply regarded as a population that was low-income (Richards et al., 2014). This lack of definition was similar to other studies which stated that children were low-income areas or schools (Carter, 2017; Finkelstein et al., 2017; Jonsson et al., 2017). There is also not a universal measure of emotional or social wellbeing, with some studies measuring depression and anxiety or measures of prosocial behavior (Carter, 2017; McDavid et al., 2017; Super et al., 2018; Ullrich-French et al., 2012). On the other hand, in the qualitative studies, participants offered up stories and statements as evidence of social and emotional well-being. The large variation in the definitions of concepts made comparing studies of sport for children from low-income settings challenging, if not impossible. Furthermore, the inability to compare the studies adds to the difficulties of creating and carrying out a research-based comprehensive plan to reduce inequities in sport.
participation. Future studies examining this phenomenon should clearly define the concepts being explored.

Confounding Variables

Length of the studies was a confounding variable. Six studies provided short term interventions lasting 19 days to 11 weeks (Kimiecik, 2018; McDavid et al., 2017; Richards et al., 2014; Riley & Butcher-Anderson, 2012; Silvey, 2019; Ullrich-French et al., 2012). Four of the short duration studies reported mixed results on mental and social health outcomes; however, these results could be due to the short timeframe for the intervention and the possibility that more time is required to find evidence of social and emotional health improvements. Additionally, it may take longer for children to develop relationships with their coaches and comfort in the program than a short-term program which could affect a child’s social and mental health development. Although three of the studies measured social and mental wellbeing in participants of ongoing programs (Carter, 2017; Haudenhuyse et al., 2012; Super et al., 2018), it is important to recognize that social and emotional wellbeing is influenced by multiple factors including supports, socio-economic status, and social groups which can influence study results. When planning future research and activities for children from low-income settings, it is important to consider the length of the program and the underlying challenges that children might encounter accessing the program. Program planning needs to incorporate strategies that aim for long-term sport participation.

Participant selection in research is challenging and prone to bias. Of the quantitative studies, only two studies described a control group and recognized the lack of researcher control on whether participants partake in alternative sports or physical activities outside of the study (McDavid et al., 2017; Richards et al., 2014). Also, in all studies that examined the benefits of a sport program, the children self-selected into the sport groups or their parents encouraged their participation. This lack of control group and self-selection can potentially create a bias towards participants who already wanted to participate in the sport or to parents who valued sport. It is important to note that studies have shown that children with emotional or behavioral problems are less likely to participate in sport (Super et al., 2018). Richards at al. (2014) also found that healthier individuals were more likely to participate in research. The potential bias in many of the included studies made it difficult to fully assess barriers to participating in sport. Considering that children from low-income settings are more likely to suffer mental health issues (Jonsson et al., 2017; Kimiecik, 2018; Richards et al., 2014), unique approaches to engage these children in future research is essential in order to get a complete picture of sport participation for children from low-income settings.

Cultural context influenced the studies’ results. Of the 14 studies, 9 of the studies were from North America (Carter, 2017; Finkelstein et al., 2017; Kimiecik, 2018; Kottyan et al., 2013; McDavid et al., 2017; Palmer-Keenan & Bair, 2019; Riley et al., 2012; Silvey, 2019; Ullrich-French et al., 2012), 3 were from Europe (Jonsson et al., 2017; Haudenhuyse et al., 2012; Super et al., 2018), and 1 from Africa (Richards et al., 2014). At the time of one study, Uganda had just emerged from a 20-year civil war and these participants had very different life experiences than their North American counterparts. Richards et al. (2014) hypothesized that adding an element of competition to their study may have led to increasing depression and anxiety in their Ugandan participants that were already challenged. In contrast, in the Canadian study, competition was found to be a goal to work towards (Carter, 2017). Hence, one must consider how such disparate life experiences of children from low-income settings may influence study outcomes. The role of differing life experiences on children’s experience with sport is an important consideration when examining children’s experiences internationally. For example, in Richard et al.’s (2014) study examined children in a post conflict zone where participants had experienced violence and abduction these experiences could significantly affect the outcome of a study. Examining studies across multiple countries was a strength of this integrative review as the diverse findings led to a more in-depth understanding of the role of sport on a child’s sense of emotional and social wellness.

Limitations

Although a thorough literature search was undertaken, additional search terms may have revealed additional articles. Inconsistency in defining key concepts used in studies included low-income, sport, and age range of children made it challenging to locate all appropriate articles. Also, different terms were used to describe social and emotional development including life skills development, positive youth development, and wellness. Additionally, many articles were excluded because they did not match all inclusion criteria, most frequently the criteria of low-income settings. However, the review included a comprehensive search and analysis of social and emotional benefits as well as the facilitators and barriers of sport participation for a population of children from low-income settings, making these new and unique findings. Although there were limitations to this study, the current study adds new knowledge regarding the role of sport in low-income settings and contributes valuable insight into practical applications for sporting organizations, as well as areas for future study.

Areas for Future Research

Although studies have examined the barriers and facilitators along with the benefits of sport for children from low-income settings, future longitudinal research is needed to examine the benefits of sport participation including topics such as emotional and social benefits of long-term sport participation, the role of sport program environment (physical and social aspects), and the role of coaching style. Despite
attempts to provide sport programs for children from low-income settings, rates of participation continue to be lower for this population. Therefore, future research regarding barriers and mitigating these barriers is imperative.

Another challenge of traditional research is the design. Unfortunately, many researchers have little to no experience being from a low-income setting and have little power to institute change. In order to ensure that the research is focused on the needs of the participants, researchers need to take a community-based participatory action research approach or a patient-oriented approach commonly found in health care. Stakeholders, parents, and children need to be involved in the design of the research project, data collection and analysis, and provide recommendations in order to ensure that the projects are the most relevant to the population under study and the recommendations are taken up by stakeholders who can initiate change.

Conclusion

This integrative review identified 13 articles which examined barriers and facilitators to sport participation and the emotional and social benefits for children from low-income settings. The studies occurred in a variety of cultural contexts, with different sport interventions, varying time frames, and unique methodologies. This variance made it challenging to compare study findings. Common themes emerged including Social Benefits of Sport, Emotional Benefits of Sport, and Barriers and Facilitators to Sport Participation. The combination of studying sport outside of a school setting, with children from low-income settings, and examining social and mental health made the findings from this literature review unique. Specifically, these findings provide a deeper understanding of the lower participation rates and the impact of sports on children from low-income settings and will serve as the foundation for future studies on long-term sport programs and the role of environment and coaching in positive sport experiences. Future research is needed to provide evidence-based recommendations to create a comprehensive plan to reduce inequities in sport participation.

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