

12-2016

# Sports and Recreation for Children with Disabilities

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**Sports and Recreation for Children with Disabilities**

by

Rebecca Wenner

A Starred Paper

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree

Master of Science in

Child and Family Studies

December, 2016

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### **Dedication**

This paper is dedicated to several people, as I am truly blessed to have the ongoing and tremendous amount of support from each and every one of them. First, I would like to dedicate this paper to my son, Shane, for showing me the true meaning of life, for opening my eyes to the wondrous and glorious world of being a special needs parent, for teaching me all about your abilities, and for always having a smile, brave face, and the best attitude possible. You are my rock and the reason I love life as much as I do. Thank you for being the greatest blessing in my life and for teaching me more than I thought possible! Secondly, I would like to dedicate this paper to Adam, for being a great boyfriend and the best partner in taking care of our amazing son and for allowing me to complete my Master's Degree by providing support and patience throughout the process and for never complaining once. Third, I would like to dedicate this paper to my wonderful parents who have supported me since day one and have always believed in my ability to finish my paper and have continued to love me unconditionally every single day. Fourth, I would like to dedicate this paper to my great friend, Jess, who helped me through every step of college, graduate school, and completing our Master's Degree. Without you, I would never have imagined getting this far and for that, I am truly grateful for your friendship and support.

I would also like to genuinely thank my committee members for serving on my committee and assisting in the completion of my project. I would especially like to thank my advisor, Dr. Jane Minnema, for her continuous support and for allowing me to "quit" more times than allowed. Thank you for believing in me, providing advice and support, and for encouraging me every step of the way.

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## Chapter 1: Introduction

“Every child deserves a chance to play baseball” (Miracle League, 2016).

### Overview

Having a child with a disability has been a journey that has opened my eyes to amazing opportunities, organizations, tremendous family support, and life-long supportive friendships that have developed over the years. It has been a journey that I did not intentionally plan on—but it is a journey that I am blessed to be involved in as a parent.

Part of my son and our family’s journey has been to have him involved in sports and recreational activities. These experiences have shown us how important and beneficial these opportunities are not only for my son, but for our family as a whole. Being involved in these sports have opened doors to a larger community that I was unaware existed.

When my son was diagnosed, his neurologist first told us that he was going to have a compromised life. Hearing that sentence lit a fire inside of me and I knew I was not going to let him live a life that was anything but incredible. As a young toddler, we had him involved in school, adapted physical education, and outside therapy. As he has gotten older, we have continued to have him involved in those activities but we have also had the opportunity to add community sports and recreational activities. Some of the activities that my son is now involved in, and has had the opportunity to be a part of, are adapted baseball, adapted swimming, adapted skating, and horseback riding therapy. I could not be happier and more proud to have my son involved in these sports and recreational activities. Seeing his face light up as he hits the baseball, trots on the horse, or has someone push him fast while skating is one of the greatest

joys in my life. Giving him the chance to participate in these activities and having him a part of this sport community is something that I will be grateful for always.

The opportunities that my son and our family have to be involved in sports and recreational activities sparked my curiosity to research more in-depth about the benefits that individuals, families, and others gain from having a child with disabilities participate in sports and recreational activities. Therefore, through my Starred Paper project, I will research this topic more so that I am able to gain more understanding of how beneficial sports and recreational activities are for children with disabilities. I would also like to gain more information on this topic so that I can better advocate for incorporating more sports in communities so that all children with disabilities have the opportunity to participate in these experiences.

Community involvement has been an important role in our family's lives. We have felt the support and encouragement from our community and believe that everyone should be able to experience what we have. Miracle League is one organization that provides children with mental and/or physical challenges the opportunity to play baseball as a team member in an organized league (Miracle League, 2016). This organization has shown our family how important community activities and sports are for children with disabilities and their families.

Another program that is available within my own community of St. Cloud, Minnesota, is the ARISE (A Recreational Inclusion Support Endeavor) program. The mission of the ARISE Program is to support children with disabilities in accessing leisure activities and community recreation alongside their peers. ARISE serves children and young adults aged birth through 21 years. Through this community support, children with disabilities are able to participate in recreational activities from a young age while gaining skills, awareness, and the desire to be life-



long participants in recreational programs. By supporting children with disabilities to participate in community sports and activities, programs like ARISE help children gain activity-specific skills, group participation skills, self-esteem, increased independence, and opportunities to engage in positive peer interactions (*ARISE* [Brochure], (n.d.)). For more information regarding community programs and the support that they provide children with disabilities and their families, please refer to Appendix A for parents' personal perspectives given on their children's access to the ARISE program.

Castaneda and Sherrill (1999) stated that sports are the right of all children and families and that schools and communities should share resources in creating sport options for them. The ARISE program allows children with disabilities to participate in sports and recreational activities, and shifts the focus from their disability to their ability. It allows children to be involved in sports without feeling isolated due to their physical, cognitive, or social disability (*ARISE* [Brochure], (n.d.)). To conclude, Li and Wang (2013) stated that it is important for policy-makers, social workers, and physical educators to create interaction opportunities between people with and without intellectual disabilities for better promoting social inclusion in the future.

### **Importance and Purpose of Study**

In 2011, our family was introduced to the Miracle League of Central Minnesota. As a family who loves baseball, we were overjoyed with the thought of our 6-year-old son participating in a sport that would bring as much joy to him as it did to us. We jumped on the chance to get him involved in an incredible organization that opened our world to a community that we did not know even existed.

Miracle League was one of the very first organizations in which our son participated. As parents, we knew nothing about this organization other than that it was a chance for children with disabilities to play baseball. Given our love for baseball, we registered our son, Shane, immediately. Showing up to the first game, we knew within minutes that this was an extraordinary organization—actually community—to join. We were welcomed with open arms and greeted with smiles from children, their family members, and other community members. We learned quickly how the game was played; every child bats and every child plays in the field. Some children hit singles while others hit the ball all the way to the fence. Children can hit the ball that is pitched to them or hit the ball that is sat on a tee (i.e., tee ball). Some children run to the bases on their own, some children use their walker for assistance to take a base, and some children are pushed in their wheelchair by a buddy to a base. Despite the differences in how each child plays the same game, every child has a smile on their face throughout the game. Every child receives immense cheers from the crowd. As a parent, I was caught off guard by the support and love that each child receives during this sporting activity. It did not matter how long it took the child to hit the ball or run to the base. All that mattered was that each child was having fun.

### **Statement of the Project Problem**

As a parent of a child with a significant disability, I have been privileged to experience how important sports, recreation, and leisure activities are for a child with a disability. While I have seen the joy and happiness that adapted sports bring to my son, I have also discovered that there are limited opportunities, as seen in my own community, for participation for many children with disabilities.

It is my intent, through this paper, to research the benefits of sports and recreation for children with disabilities. I hope to discover first, how research views adapted sports and second, what benefits the research describes for children with disabilities and all others involved from their participation in these recreational activities. I believe that learning the benefits will not only help children and their families but it could also aid community members in creating more sport and recreational opportunities for children with disabilities.

Since the research is limited in this area, especially pertaining to young children with disabilities, I will also include an action research study to help me gain more information regarding how sports and recreational activities are viewed by individuals, their family members, and other community members. By using information gained through a local research approach, I will be able to better conclude how sports, recreation, and leisure activities are viewed through the eyes of individuals personally involved in these opportunities.

### **Importance of the Research Project**

From the experiences on the first day of joining Miracle League, I became personally aware of how important community activities and sports are for children with disabilities and their families. These activities not only provide opportunities for children with disabilities to participate in community events but they also provide all participants with a sense of being with other families. As a parent of a child with a significant disability, it has been difficult for me to find ways to get my son involved in meaningful activities where he can connect with peers socially. I have also had difficulties in meeting parents and other families who are on a journey similar to ours who understand how beneficial recreational activities are for our children. Therefore, the importance of my paper is to share how research views sports and recreation for

children with disabilities and how families view these activities and the benefits that they and their child receive from them. This paper is also important as the information can help promote more activities in communities so that more children are able to participate.

### **Research Question**

As a parent of a child with a disability, I have been privileged to experience firsthand how important community sports and recreation are for my son, myself, and our extended family and friends. It would be interesting to me to know if the literature base for adaptive recreational activities reflects our family's experience. Therefore, I have developed the following research question:

*What are the benefits of sports and recreational activities for children with disabilities and their families?*

After pondering this topic more, I also determined that I would like to research how peers and other community members are affected by children with disabilities being involved in sports and recreational activities. While having my son in Miracle League baseball has been an opportunity that I will always be grateful for, I have discovered that his participating in this activity not only involves and impacts our own family but it also impacts peers, with disabilities and without disabilities, other families, and many community members. Therefore, I would also like to review the literature to determine how peers and other community members are influenced when children with disabilities are involved in sports, recreation, and other leisure activities. My second research question is:

*How are peers, adults, and other community members influenced and impacted by having children with disabilities involved in sports and recreational activities?*

While using the literature was my main means of gaining more information to address this topic, I also incorporated an action research to expand the conclusions from this Starred Paper. The purpose of this action research study was to survey individuals with disabilities, siblings, parents, other family members, and community members to determine their viewpoints on having children with disabilities involved in sports and recreational activities. In addition, I want to know how these activities benefit and impact the children who participate. I also hope to gain more insight into the recreational opportunities that are available in my own community and the surrounding areas for children with disabilities.

### **Literature Search Description**

During my literature search, I used Academic Search Premier, PSYCHInfo, and ERIC search databases. I started by using the search terms “children with disabilities and sports,” “children with disabilities and recreation,” and “children with disabilities, sports, and benefits.” From my own experiences in adapted sport activities, I determined that having children with disabilities in sports not only benefits the child but that it also benefits their own family, peers, and other community members. I then decided that I needed to expand my search terms and included “family,” “peers,” “benefits,” “participation,” and “social engagement.

### **Definition of Terms**

Adapted: something that is modified, changed, or altered (Kalyvas & Reid, 2003).

Developmental Disabilities: a severe, chronic disability that is attributable to a physical or mental impairment that is likely to continue throughout the person’s life and results in functional limitation in three or more areas of life activities (Johnson, 2009).

Formal Activities: structured activities that involve rules or goals and have a formally designated coach, leader, or instructor (Solish, Perry, & Minnes, 2010).

Informal Activities: Involves little or no prior planning and are often, but not always, initiated by the child (e.g., reading or playing) (Solish et al., 2010).

Social Participation: an operational definition would be doing an activity with friends or other non-family members such as instructors, coaches, and other individuals (Palisano, Kang, Chiarello, Orlin, Oefflinger, & Maggs, 2009).

Community Participation: an operational definition would be doing an activity outside the home or a relative's home. "Outside the home" includes in the neighborhood, at school (but not doing classes), in the community, and outside the community (Palisano et al., 2009).

Inclusion: the integration of students with disabilities into mainstream schools while social inclusion is including people with disabilities into community activities (Li & Wang, 2013).

Disability Sport: a sport designed for or specifically practiced by athletes with disabilities (Martin & Smith, 2002).

Friendship Quality: the degree to which friendship with a best friend in sport provides psycho-social benefits such as self-esteem enhancement (Martin & Smith, 2002).

Neurodevelopmental Disorder: an impairment of the growth and development of the central nervous system, emerging in early development and impacting various domains of functioning such as ambulation, self-regulation, communication, and information processing (Arim, Findlay, & Kohen, 2012).

**Closing**

In the next chapter, I discuss, in a literature review, how research views sports, recreation, and leisure activities for children with disabilities and the impacts that these activities have on the child, their family, peers, and other community members. I also discuss a variety of sports, programs, and activities that are available for children with disabilities and how communities can incorporate more opportunities for children with disabilities to participate in sports programs. I believe that the information that I gain from my action research survey that is described following Chapter 2, will help assist in widening my knowledge on what opportunities are available for children with disabilities in my community as well as give me insights into the benefits that individuals, family members, and community members gain from also being a part of these opportunities.

## **Chapter 2: Literature Review**

The purpose of this chapter was to review the literature that examines and discusses the importance and benefits of sports and recreation for children and their families. It became very apparent to me that research involving the benefits that families receive from having their child with a disability involved in sports and recreational activities was very limited. Due to this, I then expanded my research review focus so that I could not only learn how families are impacted but how peers, other community members, and communities in general are influenced. The overall content of this literature review then can be organized by four topic areas.

First, one topic that was discussed often in the literature pertained to the health benefits that children with disabilities could gain when participating in these activities on a regular basis. It became clear through my review of the research that children's health is not only impacted physically through sports and recreation but mentally and emotionally as well.

Second, gaining and improving social skills through sports and recreation was a topic that also occurred frequently throughout the research. When participating in sports and recreational activities, peers are able to model social skills and relationships, which can assist in prompting improved social skills development and increased self-esteem for children with disabilities. I therefore thought that social skills and relationships for children with disabilities is an important topic to discuss when considering participation in sports and recreational activities.

Third, I also felt that researching some of the different types of sports and recreational activities that are available for children with disabilities is an important topic to include in this paper. Often children are not involved in sports due to lack of unawareness of the opportunities that exist in their communities. I feel that if children and their families have a better knowledge



of the available sports and recreational activities, more children will then participate in these activities and be able to gain many benefits through them.

While the purpose of this paper was to focus on the benefits that children, families, peers, and other community members gain from adapted sports and recreation, it became evident that many barriers exist and often impact children's abilities to participate in sports. Therefore, as a fourth topic of literature to review, I felt that it would also be important to discuss the barriers and challenges that exist to better understand what limits children from participating in sports and recreation. I feel that if these barriers are identified, families and communities can work together to make sports and recreation more available for children with disabilities.

Overall, some of the most important and recurring topics that I discovered in the literature involved benefits that children with disabilities and families receive from sports, recreation, and leisure activities, how peers are impacted by having children with disabilities participate in sports, social skills, and friendships that are gained through sports and recreation for individuals with and without disabilities, health benefits that children with disabilities may gain, and how communities and community members view adapted sports and recreational activities. Challenges and barriers that impact sports and recreation for children with disabilities is another topic that occurred often in the literature. I feel that it is imperative to discuss some of the different adapted sports that are available so that children and individuals with disabilities, families, and communities are aware of these sports so that involvement in them for children with disabilities can occur more often.

Therefore, while my original topic was to solely discuss the benefits of sports and recreation for children with disabilities and their families, I soon realized that there is limited

research in that area. Due to this, I will expand my literature review by discussing a variety of benefits that children with disabilities gain along with the challenges and barriers that currently prevent full participation in sports and recreation activities.

### **Benefits for Individuals with Disabilities**

Therapeutic recreation programs provide opportunities for individuals with disabilities to gain new recreation skills that will enhance their overall well-being and improve their quality of life (King et al., 2007). For centuries, recreation, leisure, and play have been thought to have some sort of therapeutic value for persons with disabilities (Mactavish & Schleien, 2004). Studies have shown that rehabilitation facilities with strong recreation programs have a tremendous impact on the population they serve and individuals who specifically participate in wheelchair sports as part of their rehabilitation process often continue some connection with the sport upon discharge (Mactavish & Schleien, 2004). Therefore, involvement in sport and exercise is one venue that may afford individuals with cerebral palsy and other disabilities an opportunity to develop and maintain mental and physical health (Groff, Lundberg, & Zabriskie, 2009).

A. Health Benefits. Health benefits have been observed for individuals who participate in physical activities. These health benefits can be psychological, emotional, or physical when individuals with disabilities engage in physical activity. Unfortunately, people with disabilities are often less likely to engage in physical activities, are less likely to be physically fit compared to peers, and are more sedentary. Lack of access, lack of information on appropriate physical activity, lack of support in the community, and the nature of one's disabilities are often reasons why individuals with disabilities are unable to engage in physical activities on a regular basis.

Other health concerns that may arise when individuals do not participate in physical activities include poor self-concept, decreased independence, and decreased circulation. Declines in strength and balance have also been experienced and at times, can result in more negative effects than the disability itself (Johnson, 2009). Therefore, in order to best encourage others to engage in activities to avoid possible health concerns, it is extremely important to analyze the benefits that individuals receive when they participate in sports and recreational activities.

In a systematic review to analyze fourteen studies which focused on children and adolescents with developmental disabilities, Johnson (2009) determined what evidence supported the benefits of participation in a variety of sports and recreational activities, which included aquatic therapy, horseback riding/hippotherapy, and therapeutic group fitness interventions. Individuals with disabilities gained improved respiratory function through aquatic therapeutic activities. Improved range of motion, fine and gross motor skills, gait, gross motor function, swimming ability, and bimanual coordination were also noted through aquatic exercise (Johnson, 2009).

Horseback riding therapy, hippotherapy, and therapeutic riding were also determined to provide positive health benefits. Individuals with disabilities who participated in these recreational sports gained improved trunk and hip muscle symmetry to help with sitting balance, improved gross motor function, and improved functional performance in their home and community (Johnson, 2009).

Group fitness interventions for children and adolescents was the last form of recreational activity that was analyzed in this study. Fitness programs incorporated warm-up, strengthening, aerobic activity, structured gross motor games, and cool downs. Results of these activities

included improved cardiovascular function, strength, gait speed, improved self-perception, functional mobility, and higher levels of overall personal satisfaction. Children and adolescents with disabilities also obtained social benefits through this activity when their peers motivated them (Johnson, 2009).

Participation in adapted sports have also resulted in improved health and overall quality of life (Martin & Smith, 2002). Researchers Groff et al. (2009) identified that through these sports, individuals with disabilities who are physically active are better adjusted, more satisfied with life, experience reduced days of pain, depression, anxiety, and sleeplessness, increase their life expectancy, endure more strength and stamina, improve their cardiovascular health and fitness, experience fewer and less severe secondary health conditions, and have higher positive athletic identities.

Groff et al. (2009) defined athletic identity as the degree to which an individual identifies with the role of an athlete and look to others to confirm this role. Although the way an “athlete” is conceptualized may vary from individual to individual, athletic identity generally relates to one’s view of self in relation to physical activity and involvement in sports. Increased time in sports is likely to increase one’s exposure to various identity alternatives and allows individuals the opportunity to change their self-perceptions. Groff, et al. (2009) indicated that athletes with disabilities followed a different path in life in developing their athletic identity, often developing a strong identity more quickly. Otherwise, they have fewer options to express themselves physically.

Through participation in adapted sports, individuals with disabilities developed an athletic identity and gained an overall well-being and empowerment. Being physically active

also led to feelings of accomplishment that in turn fostered a sense of empowerment. These feelings are then often associated with psychological well-being such as increased self-efficacy, self-confidence, improved physical self-concept, and self-esteem. In this way, adapted sports positively influences an individual's perception of their overall health and well-being (Groff et al., 2009).

B. Peer Relationships. Social skills are an essential component for adjusting to life by initiating and maintaining social relationships with people such as family members, peers, teachers, and co-workers. These skills also allow people to participate in daily routines that promote independence, increase social acceptability, and improve the person's quality of life. Unfortunately, some individuals with disabilities have difficulty sustaining social networks, expressing and interchanging emotions, and asking about another person's interests. Difficulties with social skills were cited as one of the primary reasons students with disabilities may be unsuccessful in transitioning from school to employment and independent living (Alexander, Smeltzer, Dummer, & Denton, 2011). Because of this, it is especially crucial that children with disabilities have optimal opportunities to practice social skills with peers and adults in activities such as sports and recreational activities (Alexander et al., 2011).

Peer-group interactions are important to all children, especially children with disabilities. Because individuals with disabilities are often socially isolated, opportunities to be with peers to develop even one or two best friends is crucial. One way that children develop friendships and social skills is through sports and recreation. Activities such as the Special Olympics have provided children with disabilities with overall better fitness, social competence, and self-esteem when compared to peers who did not participate in sports and exercise. Not only do sports and

recreational activities provide health benefits for individuals with disabilities, but they also received improved their social skills and stronger relationships with others (Cowart, Saylor, Dingle & Mainor, 2004).

One way that children can development relationships and social skills is through peer modeling. Inclusive, peer-mediated programs were shown to have a positive effect on social competence for children with disabilities. Recreational activities that included both children with and without disabilities showed increased social skills for children with disabilities. It is therefore crucial that children with disabilities are given opportunities to participate in inclusive sports and recreational activities with peers to enhance their social skills development (Cowart et al., 2004).

C. Social Skills. Early peer interactions are important experiences for children to develop social skills and pro-social behaviors. Through these experiences, children learn how to engage with peers by first observing and then participating in peer interactions. When children fail to acquire effective social skills, they are at risk for social isolation and are, therefore, unable to enhance their social development.

Alexander et al. (2011) created a 14-week Social Skills and Sports Program that combined classroom instruction with soccer performance data. The purpose of this study was to determine if young adult Special Olympics participants could develop and refine target social skills, generalize the social skills to other environments including home, school, and the community, and maintain specific social skills (eye contact, contributing relevant information to a conversation, and turn-taking) 5 weeks after the completion of the program (Alexander et al., 2011). Data were collected for this study through the use of direct observations during soccer

practice, parent interviews, and parent rating forms. Four males aged 14 to 24 years participated in this study. One female was initially enrolled in the program but she did not complete the program. All participants in this study were enrolled in special education classroom programming, were verbal to some degree, and demonstrated a lack of general social skills before entering the program (Alexander et al., 2011).

For this study, individuals participated in a 14-week program that met for 90 minutes twice a week at an indoor soccer facility. Six phases of this program and data collection were conducted: introduction, baseline, classroom, soccer, party, and baseline/retention. During session one (introduction phase), participants were introduced to the staff and other participants, participated in team-building activities, and participated in soccer activities. For this phase, no social skills instruction was given. Sessions two through five (baseline phase) were used to determine the participants' current levels of social skills. For this phase, participants were engaged in soccer drills and activities but the staff did not encourage or reward them for socializing with each other. The classroom phase was conducted for sessions six through thirteen. During this time, direct instruction was provided on specific social skills for half of the session time before allowing them to practice the skills in the soccer environment for the other half of the session. This phase design was based on research that indicated that individuals with disabilities must receive social skills training before being asked to demonstrate targeted skills in the mainstream setting (Alexander et al., 2011). Research has also demonstrated that positive social interactions with peers, who have well-developed social skills, need to be taught prior to generalization to other settings (Alexander et al., 2011). Therefore, four high school aged soccer players without a disability were included in this phase. These four high school students served

as buddies for the participants, helped redirect participants attention when needed, provided positive reinforcement, and modeled appropriate social skills (Alexander et al., 2011).

The next phase implemented was the soccer phase. Alexander et al. (2011) indicated that practicing newly acquired skills in a natural environment leads to a greater level of skill development, generalization, and maintenance. Because of the naturally occurring social interactions and enjoyable setting, physical education and sports have been identified as ideal natural environments to practice newly learned social skills. In some occurrences, it has been noted that game experiences have helped individuals with disabilities become more capable of interacting socially. During this phase, participants were instructed on soccer skills and were then able to engage in structured activities, which naturally fostered social interactions with other participants and individuals involved in this program. Naturally occurring conversations were observed during stretching, practicing soccer skills, and structured activities (Alexander et al., 2011).

The next phase was called the party phase. During this time, participants were recognized for their accomplishments. They also participated in soccer activity scrimmages against other families, in an award ceremony, and completed the program with a pizza party (Alexander et al., 2011).

Throughout this 14-week program, parents completed interviews during the pre-baseline, post-classroom, post-soccer phases, and 5 weeks after the program was completed (post-retention). Researchers invited parents to reflect on their child's interactions with family members, familiar community members, individuals from their school, and strangers. Parents were also asked to complete the Baker's Skill Rating Form before each interview as a way to rate



their child's use of eye contact, turn taking, and contribution of relevant information during a conversation on a specific topic (Alexander et al., 2011).

Results of this study demonstrated many positive social skill outcomes that are gained through sports and recreation. Findings suggested that social skills can be taught in an interactive environment where participants are having fun. Since sports occur in a natural setting, individuals choose when they would like to interact with others. Due to this, sports appear to be an excellent venue to help individuals develop social skills that they then can use in other settings. This study also concluded that social skills could be taught to individuals who have varying disabilities and initial levels of social skills. Even so, all participants made gains in social skill development. Finally, this study found that the friendly and skilled coaches and staff combined with this program's safe environment contributed to the participants' comfort in engaging socially without fear of ridicule (Alexander et al., 2011).

In summary, this study indicated that individuals with disabilities are able to learn social skills through sports and recreation and are able to maintain and generalize these skills to other settings.

D. Friendship. Childhood friendships were demonstrated to contribute to quality of life by providing opportunities for social and emotional development, companionship, intellectual growth, and social support while serving as a buffer for stressful life events. Typically developing children create friendships more easily than children with disabilities and often have more same-aged friends. Unfortunately, children with disabilities often have a limited number of same-aged peer friends. Instead, children with disabilities participated in social activities with

family members and other familiar adults such as parents, caregivers, nurses, or personal care attendants (Minnes et al., 2010).

To promote friendships for children with disabilities, opportunities for social interactions are essential. Social interactions through formal and informal activities can support friendship development for children with disabilities. Solish et al. (2010) described formal activities as structured activities that have rules and goals with a formally designated coach, leader, or instructor as in sports or recreational activities whereas informal activities involved little or no prior planning and are often, but not always, initiated by the child such as reading or playing (Solish et al., 2010).

Yet, children with disabilities often do not have the same opportunities as typically developing children. Barriers such as few friends to attend activities with, impaired cognitive abilities, deficits in overall skills including social skills and independence impacted the child's ability to join activities and develop meaningful friendships. Due to these difficulties, children with disabilities often spend more time with adults and choose informal and solitary activities more frequently than typically developing peers. While solitary activities are important for all individuals at times, developing friendships and becoming involved in social and recreational activities are extremely beneficial for all children with and without disabilities (Solish et al., 2010).

Solish et al. (2010) implemented a study to compare typically developing children (defined as children who did not have any known diagnoses), children with a diagnosis of an autism spectrum disorder (ASD), and children with a diagnosis of an intellectual disability in terms of their number of mutual friendships, their involvement in various types of activities, and

with whom their activity participation occurred. Social activities were described as activities in which the child engaged formally with peers such as playing at friend's house or going to the movies, recreational activities that were more formally organized activities such as playing hockey or taking music lessons, and leisure activities that were referred to as more passive activities such playing the computer or watching television. Results demonstrated that typically developing children participated in significantly more social and recreational activities than children with ASD or an intellectual disability. Children with disabilities also tended to engage in leisure activities that are often home-based or more passive and solitary (Solish et al., 2010).

The findings from this study also demonstrated that children with disabilities and children without often participated in activities with a variety of different individuals. Children with intellectual disabilities, ASD, or other disabilities often participated in fewer social activities that involved peers and instead, participated in social events with adults. Even when participating in social activities that are beneficial for children with disabilities, it is important to note that they are not always participating in social activities to the same extent as typically developing children (Solish et al., 2010).

### **Benefits for Family**

Sports and recreational activities are opportunities that allow families to connect with one another and to be part of a community event. Often children with disabilities and their families are limited in the availability that they have to actively participate in sports due to lack of organizations and resources. Fortunately, some communities have established organizations and adapted sporting activities where families can enjoy their child's developmentally appropriate level of participation.

Special Olympics, Unified Sports, Miracle League Baseball, and other adapted sports are just a few of the organizations that are established for children with disabilities. While these sports and recreational activities are geared toward helping children and individuals with disabilities gain positive experiences, families also benefit from these experiences.

Castaneda and Sherrill (1999) conducted a longitudinal study over 24 months to analyze the social construction of the organization, Challenger baseball, and the impacts that it had on children with disabilities and their families. This study included 15 families who had children with mental and/or physical disabilities and was conducted over a 24-month period (Castaneda & Sherrill, 1999). Individuals and families involved in this study helped to establish a Challenger baseball league in their community of Arlington, Texas.

Challenger baseball, also known as Miracle League in some communities, is a division of Little League baseball and is established for individuals with disabilities who are between the ages of 5 to 21 years old. This organization is designed so that individuals with disabilities are able to participate in a traditional sport that is more inclusive and fair for all involved. Challenger baseball was created, not as a replacement for regular baseball, but rather as a choice for children and families who prefer to use buddies and rule adaptations to the traditional baseball game. Adapted rules such as not keeping scores, batting with a batting tee, pitching the ball to the player, remaining on bases and running all bases whether or not an individual is tagged or thrown out, and having buddies available to assist players who need cognitive or physical assistance are used in Challenger baseball (Castaneda & Sherrill, 1999).

Parents indicated that one of their main reasons for creating this sporting organization was to enrich the lives of all of the families involved. They also pointed out that many children

who are in special education often do not meet the eligibility criteria to be a part of Special Olympics and are thus often underserved when their communities lack organized sport opportunities. In addition, families advocated that children with disabilities should have the same opportunities as their peers without disabilities such as competing on community diamonds at peak hours, enjoying fan support, wearing standard team uniforms, and experiencing the rich tradition of American baseball. In summary, this study described the benefits that families experience by establishing organized sports for children with disabilities and the impacts that these sports have on their family as a whole (Castaneda & Sherrill, 1999).

Data in this study were collected through home interviews, observations of participants, and field notes. More specifically, a combination of informal conversations, participant observations, and semi-structured home interviews were used to collect data over this 24-month period. Field notes were collected during participant observations and informal conversations. Home interviews were also conducted and provided the most beneficial findings about the Challenger baseball program outcomes. All family members were present during these interviews including the child with a disability (Castaneda & Sherrill, 1999).

Data analysis yielded five themes of findings that emerged as the most common aspects as well as the most important to the families involved. The five themes established through interviews with families were (1) fun and enjoyment, (2) positive affect related to equal opportunities and feelings of “normalcy,” (3) social networking/emotional support for families facing common challenges, (4) acquisition of baseball knowledge and skills, and (5) increased interactions of children with peers (Castaneda & Sherrill, 1999).

“Fun and enjoyment” was the most common theme that included eight factors that were most important to families. Those factors were not keeping score during games, publishing teams standings during the baseball season, each game always ended in a tied score, rules and the equipment modifications that promoted feelings of success, game performance was not stressful to anyone involved, families cheered for all children and not just their own child, players wore baseball uniforms that included caps, pants, and jerseys with baseball logos, games occurred on actual baseball fields, playing baseball was a welcomed change of pace from therapy and academic environments, and finally—individuals’ smiles and positive body language indicated happy states of emotions. Participants stated that the satisfaction they obtained was from watching their child/sibling participate in an enjoyable activity, having a break from daily therapy to participate in something enjoyable, not having to stress that their child would be eliminated by either striking out or tagged out, and having modified rules. For all of these reasons, parents believe that Challenger baseball is an enjoyable sport for individuals with disabilities (Castaneda & Sherrill, 1999).

The second most frequent outcome that emerged was the positive feelings that occurred from the participation in an activity that was previously only available to children without disabilities. Parents in the interviews repeatedly used phrases “like normal kids” or “like regular kids” when stating how Challenger baseball helped their child with disabilities perceive themselves as well as how others perceived them. Parents also indicated that sports allow the children to switch from a spectator who typically watches a parent or sibling participate in a sport to the role of an active sports player as part of an active team. As a final aspect of this

thematic finding, it was revealed that all family members felt good about this sport when anticipating a scheduled weekend game (Castaneda & Sherrill, 1999).

“The third most prominent theme that emerged centered around the observation that Challenger baseball was a support group for parents and family members” (Castaneda & Sherrill, 1999, p. 383). Families involved in this sport explained that the games and practices often provided opportunities to discuss various topics such as raising their child with disabilities. Having other community members understand how important it was not only for their child, but their family as a whole, to participate in a “normal” activity was an extremely important and welcomed benefit from this sporting activity. Parents also expressed that this organization allowed families to connect on a more personal level because all of them were in the same situation; some more severe than others but still a commonality amongst them all (Castaneda & Sherrill, 1999).

The fourth most common theme was acquiring baseball knowledge and skills. When interviewed, several family members indicated noticeable progress in their child’s baseball skills. Skills such as learning how to hold a bat, following the rules, running the bases, being a part of a team were achieved through participation in this sport. Children learned baseball skills and knowledge as their developmental needs were addressed by the game’s adapted equipment and rules (Castaneda & Sherrill, 1999).

The fifth, and last, most common theme was the opportunity to interact and socialize with peers. Many family members mentioned the difficulty that children with disabilities have socializing and developing friendships outside of the school setting. Challenger baseball provided individuals with opportunities to develop friendships in an environment where being

different did not matter. While Challenger baseball is an organization designed solely for children with disabilities, parents stated in their interviews that facilitating interactions of any kind and with anyone (coaches, spectators, buddies, team members) were beneficial for their child. This finding points to another reason why sports and recreation are essential for individuals with disabilities (Castaneda & Sherrill, 1999).

In summary, Challenger baseball, along with other adapted sports, provides individuals with disabilities and their families an opportunity to participate in a sport that is meaningful to all involved. Children are able to participate in a sport at a level that can be adapted to support their developmental needs as well as provide them an opportunity to increase their social interactions and develop friendships. It also allows families to be a part of a community where being “different” does not exist. This organization, and others like it, support families and their child to be a part of a normal sporting activity. It is therefore extremely crucial that children with disabilities be provided opportunities where they can be fully included in sports so that the individual with disabilities and their family are able to gain positive experiences. When families are able to be a part of a community and organization where their child with disabilities is able to succeed, they are then able to embrace those positive outcomes that mitigate some of the challenges of having a disability.

### **Benefits for Communities**

Sports and recreational activities are important aspects of life for children and youth with similar participation benefits that are similar for children without and with disabilities. Research has suggested that children who do not participate in sports, experience limited community engagement, which can impact and lower their overall quality of life (Ryan, Karsiyannis,



Cadorete, Hodge, & Markham, 2014). By participating in sports and recreation, children are able to gain strong health benefits as well as support their mental health by helping to reduce levels of stress, anxiety, and depression. Participation in adapted sporting activities are designed to help promote friendships, community involvement, improve self-esteem and confidence, and increase social integration that leads to more successful post-school outcomes for children with disabilities (Ryan et al., 2014).

Many different sporting programs are available today for children with disabilities across the United States. Some of those sports are individualized while others are team sports. Even though many sporting programs exist for children with disabilities across many communities, many families are unaware of these programs and often, children with disabilities miss out on these opportunities. It is thus extremely important for teachers, coaches, and other community members to help families become aware of adapted sports so that children with disabilities can be a part of these experiences (Ryan et al., 2014).

Many different sports have been discussed throughout the literature base. While not all adapted sport programs are available in all communities, it is important for families, teachers, coaches, and community members to be aware of different sports so that all opportunities are considered for children with disabilities. Communities also need to be made aware of the variety of sports so that more programs can be developed in their community to support all children's participation (Ryan et al., 2014).

Listed below are adapted sports programs that are available for children and individuals with disabilities.

## **Adaptive Baseball**

Challenger baseball and Miracle League are two well-known organizations that provide adaptive baseball for children and adolescents with disabilities. In this sport, emphasis is placed more on participation, development of skills, and fun rather than the score or competition. In this adapted game, “no score is kept, each player bats every inning, and everyone plays the entire game which usually consists of three innings” (Ryan et al., 2014). Each athlete is given a buddy who ensures the individual’s safety on and off the field and helps the player bat and complete plays out in the field. Accommodations are made for each child depending on their skill level and participants are encouraged to participate in a way that they feel most comfortable. The game of baseball is not substantially modified from its original format so that children and youth with disabilities are able to participate in a similar game compared to their peers without disabilities (Ryan et al., 2014).

This program and sport not only provides opportunities for children with disabilities to participate in the game of baseball but it also allows them to learn the rules of baseball, work together and be a part of a team, increase their self-confidence, and increase their gross and fine motor skills. Having children and families involved in adapted baseball organizations also allows them to be a part of a popular sport while increasing their social skills, motor skills, and self-esteem as a member of a team (Ryan et al., 2014).

## **Adaptive Soccer**

Soccer is another team sport that is easily adapted so children with disabilities can participate. Adaptive soccer programs such as TOPSoccer and Complete Soccer Academy Adaptive Soccer are designed to meet the needs of children, adolescents, and young adults who

have physical and/or intellectual disabilities. Similar to adaptive baseball and other adapted team sports, the primary goal of adaptive soccer is to provide athletes with disabilities the opportunity to develop skills and play a sport at their own pace. Individuals involved in these programs often participate in practice and scrimmage activities so that they are able to learn basic skills and rules of the game. Athletes are given optimal time to practice these skills individually or with a buddy with a coach's support. Buddies are also available for individuals who need additional support such as physical assistance to participate in this sport (Ryan et al., 2014).

### **Therapeutic Horseback Riding**

Animal-assisted therapy is one type of recreational program that is available for children and adolescents with disabilities. A popular form of animal-assisted therapy that has increased in the last forty years is therapeutic horseback riding (Ward, Whalen, Rusnak, Wendell, & Paschall, 2013). Therapeutic riding is a program that is designed to provide a multisensory experience for children with disabilities by giving them the opportunity to have contact with animals, usually horses. Through this contact, physiological, psychological, and social responses are stimulated in children and adolescents, which then help to assist children who experience difficulties with joint attention, appropriate social responses, communication, and management of sensory input and responses (Ward et al., 2013).

Through this recreational activity, children participate in a variety of activities while riding a horse. Often times, children will start with quiet riding time that allows them to acclimate to the sights, smells, and motion. Children then move on to a progression of riding skills such as posture and balance on the horse with the assistance of a specially trained instructor, a trained horse leader, two trained side walkers, and a riding partner. Children then

move on to riding while participating in games and activities that incorporate educational concepts. Through these activities, children develop fine and gross motor skills, verbal and nonverbal communication skills, additional balance coordination, and continued comfort while riding a horse (Ward et al., 2013).

Overall, therapeutic riding has been proven to be an effective intervention and recreational activity for children with disabilities (Ward et al., 2013). Through this activity, children not only gain experience with riding a horse but they also improve their social communication while increasing their attention, tolerance, and reactions to sensory input in their homes, classrooms, and environments (Ward et al., 2013).

### **Adaptive Water-Skiing**

Another therapeutic recreation program that is becoming increasingly more popular for individuals with disabilities is adaptive water-skiing. A program that was developed in Boulder, Colorado provides a unique and safe opportunity for individuals with varying degrees of abilities and disabilities to engage in a recreational activity that would otherwise not be possible.

Individuals with spinal-cord injuries, amputations, brain injuries, multiple sclerosis, muscular dystrophy, cerebral palsy, or visual impairments are just some of the participants in this program (Ofstedahl, 2013).

Individuals with physical disabilities, no matter their capability level, are included in adaptive water skiing. Each participants' ability, past experience and individual needs, are taken into consideration before a participant enters the water. Once the individual is fitted for a custom water-ski or wakeboard, the skier is carefully placed in the water and assisted by at least one volunteer in the water at all times. A "starter" supports the skier in the water and drags behind as

the skier is towed out to ensure he or she gets a clean start. Two volunteers on personal watercraft are within a few feet of the skier during takeoff. One is a rescue volunteer who is ready to jump in and support the skier at the first sign of a fall. The other is the starter volunteer, who after launch, gets into the chase boat and follows behind to repeat the process should the skier fall a second time during their rides in the water (Ofstedahl, 2013).

As a result of this therapeutic recreation program, individuals with disabilities are able to enjoy the freedom and thrill of water-skiing when many sit in a wheelchair the majority of the time. This program is not offered in all areas where individuals with disabilities reside, yet it is an extremely beneficial program that should be considered. Individuals with disabilities, especially those who use a wheelchair for all of their mobility needs, are able to experience a recreational activity that is not usually available to them.

### **Downhill Skiing**

Another outdoor therapeutic recreation sport that is available for individuals with disabilities is downhill skiing. Through this program, individuals are first provided lessons to teach them basic techniques of downhill skiing that help them feel more comfortable while on the slopes. The techniques taught are similar to techniques that able-bodied individuals use while skiing although a person with a disability may require different equipment in order to implement these techniques (Mactavish & Schleien, 2004).

Some adapted equipment that is used during this sport is beneficial in assisting individuals in learning downhill skiing techniques. The first type of equipment that may be used is called tall triggers. Tall triggers are devices that resemble a crutch with a small ski attached at the base. With this equipment, individuals are assisted with their balance while progressing

down the slope. Another piece of adaptive equipment that is sometimes used is called a ski stabilizer. This device can be used to hold the front of the skies in a safe and manageable distance apart. Often, this equipment is used when a skier does not possess the necessary leg strength or balance to keep the skis together. The last piece of adapted equipment that may be used is called a mono-ski. This type of equipment has a bucket seat positioned on a single ski using a suspension system and allows an able-bodied skier to ski behind the mono-ski for extra assistance in balancing or maneuvering the ski (Mactavish & Schleien, 2004).

Overall, this recreational sport provides gains in physical and mental strength, build self-esteem, and enhance their social skills. This sport also provides the chance to use less supportive equipment as their balance and strength increases, which in part, supports their overall well-being and satisfaction.

## **Hockey**

Sledge hockey has become a fan favorite ever since it was first introduced as a medal sport in the 1994 Paralympic Games in Lillehammer, France. More commonly known as sled hockey in the United States, the sport has been played in the country since the late 1980s (2006 U.S. Paralympic Sled Hockey Team).

Like conventional hockey, sled hockey is played with six players on the ice for each team. Sled hockey players propel themselves on their sledge by using the spikes on the ends of two three-foot long sticks, enabling a player to push himself, as well as shoot and pass using both right and left hands. Sled hockey is played on a standard ice rink with standard size nets and the same size puck. Individuals with locomotor disabilities in the lower part of the body, including such physical disabilities as an amputation, spinal cord injury, cerebral palsy, brain injury, or

stroke, would all benefit from being involved in this sport. Through this sport, individuals with disabilities are able to maintain cardiovascular conditioning as well as gain strength, endurance, and team building skills (2006 U.S. Paralympic Sled Hockey Team).

### **Wheelchair Basketball**

Wheelchair basketball represents one of the most popular sports for individuals with disabilities. It is designed for individuals who have a permanent physical impairment resulting in lower limb physical limitations as in a spinal cord injury, amputations, or joint and musculoskeletal conditions. For these types of disabilities, running, jumping, and pivoting at speeds with the control, safety, stability and endurance of an able-bodied individual are challenging. Wheelchair basketball retains most major rules and scoring of running basketball, but introduces some adaptations for individuals with different impairments as well as the use of a wheelchair throughout the game (Cavedon, Zancanaro, & Milanese, 2015).

While participating in this sport, individuals with disabilities are given the opportunity to display several skills such as wheelchair maneuvering which involves changing directions and starting and stopping as well as ball handling skills which involves shooting, passing, dribbling, or rebounding. The main aim of this sport is to create opportunities for individuals with disabilities to participate in a recreational sport that also encourages socialization and team-building (Cavedon et al., 2015).

### **Adapted Aquatics**

Another popular recreational activity that children with disabilities can participate in is adapted aquatics. Nessel (1995) stated that rehabilitative needs of children with cerebral palsy and many other disabilities can be met through the use of adapted aquatics. Water also provides

a place where physical inequities are minimized and persons with disabling conditions can participate (Nessel, 1995).

An important aspect of adapted aquatics is to have individuals with disabilities participate in this therapeutic activity in warm water. Water that is warmed to above 88 degrees Fahrenheit reduces the hypertonic effect of a disability and the warmth of the water causes the muscles to relax to a level of almost normal muscle tone. While individuals with disabilities often experience discomfort on a daily basis due to their medical condition or disability, everyday living such as using a wheelchair and needing continual repositioning can also create additional tension for these individuals. Adapted aquatics can help alleviate these discomforts. Adapted aquatics also allow individuals to enjoy a break from structured physical skill learning (Nessel, 1995).

Another important aspect of adapted aquatics is the ease of physical functions that it provides. Due to the lack of gravity when in the water, individuals with disabilities often can achieve an improved self-image when the difficulties of their disability are relieved. This improved self-image can be directly related to improved quality of life, which has been noted to be a benefit of this recreational activity. Nessel (1995) also stated that individuals with a disability gain self-confidence and a better self-image due to the freedom of independent movement acquired in the water. At times, those individuals are able to feel the same sensations as any person without a disability (Nessel, 1995).

Overall, water is a place that provides an environment for individuals with disabilities to forget their physical limitations and have fun. Water also provides a place for children with cerebral palsy and other disabilities a chance to play and receive the same emotional benefits of



recreation as any other child. It is therefore crucial that individuals with disabilities are given an opportunity to participate in this therapeutic sports so that they are able to play, splash, laugh, and learn.

### **Special Olympics**

One of the most popular and well-known organizations that encourages individuals with disabilities to be involved in sport is the Special Olympics. Special Olympics is a global organization that changes lives by promoting acceptance, understanding, and inclusion among people with and without intellectual disabilities. Founded in 1968 by Eunice Kennedy Shriver, Special Olympics was developed to provide individuals with intellectual disabilities the opportunities to realize their full potential, demonstrate courage, develop physical fitness, and experience joy and friendship. Through this organization, individuals with intellectual disabilities are able to transform their lives through the joy of sport. Currently, Special Olympics is the world's largest sports organization for people with intellectual disabilities and touches the lives of 4.7 million athletes in over 169 countries (Special Olympics, 2015).

Athletes involved in this organization are children and adults, ages 8 and older, with intellectual disabilities. Through this organization, athletes are taught to see themselves for their abilities rather than disabilities. With this mindset, individuals with intellectual disabilities become more confident and feel empowered by their accomplishments. Individuals are also making new friends while they are teaching the world to be more accepting and understanding of all people (Special Olympics, 2015).

Currently, the Special Olympics offer 30-plus Olympic-style individual and team sports that provide meaningful training and competition opportunities for persons with intellectual

disabilities (Special Olympics, 2015). Through these sports, individuals with intellectual disabilities are able to gain confidence, determination, and strength (Special Olympics, 2015).

### **Participation Barriers and Challenges**

Children's participation in leisure and recreational activities is often associated with their development and well-being. Participation in sports not only decreases individual health risks but they also support emotional, physical, and personal development for individuals with disabilities (Ryan et al., 2014). Unfortunately, while many adapted sports programs have been developed and promoted in communities for children with disabilities, barriers and challenges are still very evident and impact children with disabilities and their families in participating in these programs.

Shields and Synnot (2014) explored barriers to participating as frequently in physical activities and community sports as their typically developing peers participate. Participants were asked to complete a brief questionnaire that asked for a list of five factors that allows children with disabilities to participate in physical activity and community sports. The second question asked the participants to list the five factors that they believed prevented children with disabilities from participating in physical activity and community sports (Shields & Synnot, 2014).

Results of the questionnaire indicated 20 perceived barriers that influence the participation in community sports and programs for children with disabilities. From those barriers, five broader categories were identified, which were personal, social, environmental, programmatic, and policy. In the category of personal, the barriers that were identified most often involved the child's fear or lack of confidence and the child's lack of skills. Ideas that the

sport is too hard or not possible for the child often contributed to children with disabilities not participating in a sport or program (Shields & Synnot, 2014).

The second category that was identified was social. In this category, identified barriers involved how sports are perceived by families and others. Family identified barriers included a lack of parental interest or support in a sport, parental fear, family pressure, and lack of awareness of the opportunities. In regard to barriers involving others, poor societal attitudes towards a disability, competitiveness, and social isolation were identified most often (Shields & Synnot, 2014).

Environmental barriers were also identified as the greatest challenges, which included inaccessible facilities and transportation to and from activities (Shields & Synnot, 2014). Lack of accessible and reliable transportation to accommodate a wheelchair, whether it be family transportation or public transportation, are barriers that make it difficult for children with disabilities and their families to participate in sports and recreational activities. Restricted use of powered mobility and durability of a wheelchair when used outdoors are other issues that impact children's involvement in sports (Palisano et al., 2009).

Barriers in regarding a program as a whole were identified as staff perceptions and attitudes, knowledge of training, program features, and economics. Those barriers involving staff perceptions and attitudes pertained to having non-inclusive providers who had negative attitudes toward disabilities. These providers were either not willing to assist or change the program to accommodate for disabilities. The lack of staff and volunteer skills that included a lack of understanding of disabilities were rated highest in this category. Lack of choices, lack of local opportunities, and lack of adaptive equipment were most prevalent in regard to program

barriers. Participants in the study also indicated that many families did not know where or how to engage in these activities due to lack of advertising or promotion in their communities.

Economic barriers included cost and unavailable funds to buy adaptive equipment. Entry fees and upfront costs of buying equipment contributed to challenges that participants and families often faced (Shields & Synnot, 2014).

Policy was the last category that was identified as a barrier for participation in sports for children with disabilities. Support, flexibility, inclusiveness, and accessibility of programs contributed to the challenges that were faced in getting children with disabilities involved in sports (Shields & Synnot, 2014).

Overall, this study indicated that while opportunities are available for children with disabilities to participate in sports and recreational activities, many barriers and challenges continue to exist. Shields and Synnot (2014) noted that in order to diminish barriers, attitudes toward children and individuals with disabilities needed to be promoted positively and firsthand so that volunteers, coaches, and other community members are able to see the benefits from adaptive sports. Professional learning opportunities and experiential learning could assist with barriers such as staff perceptions, attitudes, knowledge, and trainings could foster positive experiences for all involved. Training and educational classes for recreational staff would also promote a sense of understanding for the staff as well as promote comfort for the families in knowing that staff is well-trained to work with their child. Therefore, in order to encourage the participation of children with disabilities in sports, barriers and challenges need to be acknowledged, identified, and understood. Once this happens, barriers can be reduced so that children with disabilities are provided similar opportunities to participate in sports and

recreational activities on a routine basis just as their typically developing peers do (Shields & Synnot, 2014).

In addition, Palisano et al. (2009) have indicated that relationships between social participation and mobility have also been documented as a challenge for children and youth with disabilities. They stated that efficiency of walking, reduced speed, and endurance are factors that limit the ability of children with disabilities to keep up with their peers outdoors and in the community. Children who are challenged by mobility were often not participating in activities with friends for months at a time due to lack of mobility. It was also noted that children who use wheelchairs have difficulties participating spontaneously with their friends and peers, as transportation may need to be scheduled in advance. Further, visiting friends is often compromised when their homes are not accessible to accommodating their wheelchairs (Palisano et al., 2009).

Palisano et al. (2009) also stated that recreation for children with disabilities often occurred at home and less frequently in their neighborhoods or communities. Difficulty getting children involved in activities, lack of sport and recreational options, and transportation all contribute to their limited engagement.

Solish et al. (2010) stated that children with disabilities often have similar desires as their peers without disabilities but that they do not have the same opportunities to participate in activities and sports. Fewer friends to participate in activities with, impaired cognitive skills, deficits in skills and independence, and social skills are barriers that impacted children with disabilities and their engagement in activities. It has also been observed that children with disabilities often take part in more passive and solitary activities that require less social

interactions. Participating in activities with adults, particularly family members, is also most common for children with disabilities (Solish et al., 2010).

## **Chapter 3: Action Research Study**

### **Overview**

As stated in Chapter 1, the purpose of this study was to research the benefits of sports and recreation for children with disabilities and their families. After reviewing the literature on this topic more in-depth, I realized that not only do children with disabilities and their families gain benefits from sports and recreational activities but that peers and other community member who participate benefit too. I also discovered that the studies completed that look at the benefits that children with disabilities and others receive from participating in sports and recreations are quite limited. Due to this, I then decided that part of my Starred Paper would be to conduct an action research study to gain more information regarding the benefits of sports and recreation for children with disabilities. Through this action research, my hope was to gain more information regarding sports and recreation through individuals, family members, and other community members in my geographic location so that I am better able to understand local views on adapted sports and recreational activities.

In order to better answer my research question, I conducted an action research study by emailing a questionnaire for participants to provide their perceptions, experiences, and opinions regarding sports and recreational activities for children with disabilities. I especially wanted participants to identify the benefits gained and the challenges experienced from having children participate in these opportunities.

### **Research Question**

What are the benefits of sports and recreational activities for children with disabilities and their families?

How are peers, adults, and other community members influenced and impacted by having children with disabilities involved in sports and recreational activities?

### **Research Design**

The method of action research design that I have chosen is a survey design.

### **Instrument**

To help answer my two research questions, I conducted an action research study by sending out a researcher-developed electronic survey for participants to complete about the benefits and the challenges that are gained from having children with disabilities participate in adapted sports and recreational activities.

Two surveys, one for families and one for community members, were developed to better understand: 1) what families gained from sports and recreational activities for their child with disabilities and, 2) how these sports programs impacted community members either through direct involvement in the activity or strictly as a spectator. Participants were screened to determine what survey was most appropriate for them to complete, and were only allowed to answer one of the two surveys.

The survey contained closed and open items, which was pilot tested to ensure clarity of the questions and ease of completing the survey for all participants.

### **Procedure**

The survey was delivered via email marked as an important status and included a date by which the survey should be returned. If a response was not received within one week of delivery, a follow-up telephone call was placed to the participant to ensure survey completion.



## **Participants**

A convenience sample of 11 participants who had some form of involvement in adapted sports received my survey. Five parents who had a child with a disability completed the survey designed for family members and six community members who were affiliated with adapted sports completed the survey designed for them. Four mothers and one father completed the family survey while three early childhood special education (ECSE) teachers, one speech-language pathologist, one physical therapist, and one president of the board for Miracle League of Minnesota filled out the community member survey. Of the community members, four were females and two were male. One of the male community members who filled out the survey identified himself currently as an ECSE teacher but also has the background of a physical education teacher and Developmental/Adapted Physical Education (DAPE) teacher.

## **Results**

To gain a better understanding of how families and community members perceive the benefits and challenges of participating in adapted sports for children with disabilities, two surveys were created and completed by 11 individuals; five participants for the family survey and six participants for the community member survey. All participants returned the electronic surveys for a return rate of 100%.

### **Family Survey Results**

The first question in the family members' survey asked participants to state what they feel are the benefits for a child with a disability to participate in adapted recreational sports and activities. The most prevalent and similar response across all five participants indicated that having children with disabilities involved in adapted sports is the focus on what the child can do

and not on their disability. Social interaction was another theme that this survey item yielded. When children with disabilities are part of a team in an atmosphere that is different from typical sports, they are able to fit in with their peers and make friends. This gives them a chance to get out of the house more often so they can interact with peers and other people besides their parents, caregivers, or nurses. Other responses that this question generated were adding a happy and fun part to a child's day while gaining self-esteem, developing life-long leisure skills and interests, exercising, actively participating in the sport, and simply doing the right thing for children with disabilities.

The second question on this survey requested the benefits that families gained from having a child with a disability participate in adapted recreational sports and activities. The most prevalent theme that was discovered from this question pertained to support. Responses such as no matter the disability, you all have a common understanding of the joys and struggles of having a child with special needs and you feel you are not alone because there is a great support system where you become one big family were generated. When families created relationships with other families who have children with special needs, families offered support and guidance to one another, and developed relationships with parents whose journeys were similar. In addition, families saw their child do what other children get to do, saw their child's happiness as they had a good time, was a great opportunity for families to get out of the house, parents were able to provide their child with an opportunity to participate in a sport regardless of their limitations, "normalization" occurred, felt pleasure in seeing their children participate, and the support you felt in seeing others interact with your child.

The third question in my survey for family members asked participants to list the different adapted sports and recreational activities in which their child with disabilities participated. The two most popular sports that children participated in were baseball (n=5) and bowling (n=4). Other adapted sports that children with disabilities have been a part of were horseback riding, swimming, ice skating, soccer, sled hockey, skiing, and Pageant Hope. One participant indicated that their child was also involved in inclusive activities as well as activities strictly designed for individuals with disabilities. This participant stated that when her child was participating in inclusive events, having the support of an ARISE member (previously discussed in my paper) allowed her child to be successful. Inclusive activities that her child was involved in were community education classes, swim lessons, drama, track, cross country skiing, residential camping, and Project Challenge events.

The second portion of this question asked participants to indicate how long their child participated in each adapted sport or recreational activity. Length of participation ranged from 2 months to 8 years with baseball and bowling being the two sports that participation was the longest for children with disabilities.

Challenges that impacted the participation in adapted sports and recreational activities for children with disabilities was the next question in the survey. The participants provided a variety of responses to this question with there being no overall theme emerging as most prevalent. One challenge that was stated was the difficulty of transportation, which impacted the family's ability to get their child to a sporting event or activity consistently. Another challenge identified was that many families did not realize that these opportunities existed and often, many adapted sports are not offered in all communities. Further, family members identified additional challenges for

participating in adaptive sports and recreational activities as in having access to supporters who know and understand your child's needs, the cost of the sport, ensuring that adaptations and modifications met the specific needs of those children participating, having care for other children in the family while helping my child with disabilities, and heat and high temperatures for outdoor summer sports.

The final question in the survey for family members asked for them to identify any additional sports or recreational activities that they wished were offered in their community for children with disabilities. Activities mentioned ranged from sports to leisure activities, and from active activities to more passive activities. Sports such as karate, basketball, swimming (in addition to those offered through their school districts), gymnastics, soccer, and sled hockey were active sports that participants wished were offered in their immediate community. Passive participation program suggestions included casual leisure activities such as walking in the park, picnics, eating out, and bike riding in groups. Boating, camping, religious activities, art, theater, singing, and dance were also mentioned as needed activities for our immediate community. One participant also stated that wheelchair accessible playgrounds with wheelchair accessible swings are another recreational activity that is needed in our community to better support children with disabilities.

### **Community Members' Survey Results**

The first question in the survey designed for community members, asked them to list the roles that they currently serve or have served in adapted sports and recreational activities for children with disabilities. While six participants completed this survey, all of them indicated two or more roles that included teacher, cheerleader, Developmental/Adapted Physical Education

(DAPE) teacher, coach, one to one paraprofessional, volunteer, spectator, president of Miracle League of Minnesota, and community member. Miracle League baseball, biking, power soccer, swimming, and adapted floor hockey were the sports reported where the participants served in these roles.

The second question asked community members to list the benefits of adapted sports and recreational activities for children with disabilities. Themes of socialization, inclusion, and health/overall well-being were the most prevalent responses. Regarding socialization, responses included being a great place for social interaction with peers, connecting with a group to work together to achieve a goal, a fun activity where they can be successful, and a place to create friendships. Having a sense of belonging, allowing children with disabilities more social opportunities, experiencing being part of a team, and having the opportunity to be exposed to activities that typically developing peers have access to were responses that fell under the theme of inclusion. Pertaining to health and overall well-being, responses included increasing mental health, having a sense of pride and accomplishment, staying physically active, keeping good health, having the opportunity to try things they otherwise would not try, and showing off all of their abilities were also generated. Finally, for sports such as waterskiing, downhill skiing, and horseback riding, participants responded that experiencing the thrill and excitement of speed releases adrenaline so that brain development and attitudes improve.

Benefits that families gain from having their child with disabilities participate in adapted sports and recreational activities was the next question posed to community members. Two themes emerged from this question; that of support and pride. In terms of support, community members' responses were that adapted sports provided social interaction between parents that are

experiencing the same challenges, additional support and friendships occur, a shared sense of normalcy, a feeling like every other family when involved in their children's sports, meeting other families who have similar parenting experiences, opportunities to learn about other children's disabilities, creating support groups with other families, and a place for families to help and influence one another. Regarding the theme of pride, responses were that adapted sports gave family members pride in their children, a feeling that their child is included in a team or activity, seeing their child be successful, pure joy in seeing their child play a sport, seeing their child have fun, seeing their child participate in things they might not have thought they would be able to do, and an opportunity for families to see their child interacting with peers.

The fourth question in the survey for community members asked them to indicate challenges that occur. Participants in the survey provided responses in regards to health, availability of sports, cost, and volunteers. Exposure to germs which could potentially interfere with the child's health and impact their ability to participate consistently in the sport as well as not understanding fully what players go through on a daily basis were health-related responses. Knowing what activities are available to individuals in one's community and significant travel time to participant in sports in larger cities were responses that were related to the availability of sports. In regard to cost, participants indicated that the cost of necessary adaptive equipment, knowing which funding resources help pay for equipment costs and entry fees, and having appropriate playing surfaces all fell under the category of cost. Finding volunteers and having volunteers who understand the needs of the children who participate in adapted sports was another challenge that community members identified.

The final question in the survey asked community members to list any additional sports or recreational activities that they wished were offered in their community for children with disabilities. Like family member responses, community participants indicated a variety of both active and passive activities. Active sports that they wished were offered included archery, power soccer, and wheelchair basketball. More passive activities that participants hoped for were book clubs and painting. One participant wished it was easier to develop Special Olympic teams but due to funding, it is hard to find volunteers and school districts to support it. Another participant stated that they wished more sports and activities were developed in their community that were organized for children with mental and behavioral needs. For children with behavioral needs, this participant pointed out that often these children have typical cognitive and motor skills so truly adapted sport programs such as Miracle League are not designed to meet their developmental needs. This participant also stated that often community-based programs become too intense and competitive so that children with mental and behavioral needs cannot tolerate this sport atmosphere.

### **Action Research Study Discussion**

Overall, the results of my action research study were extremely positive. Participants shared that the survey was easy to complete and the questions were neither too intrusive nor too personal. They also answered all survey questions in the survey as well as providing multiple responses for each open ended questions. I was initially apprehensive to include a question regarding the challenges of adapted sports in my survey but after receiving my completed surveys, I quickly realized that all participants' identified challenges were stated in a manner that did not reduce the benefits of adapted sports.

While participants shared that the survey was easy to complete, it was discouraging when surveys were not returned to me in a timely manner. All surveys were emailed to participants on the same day, but when only four surveys were returned, I followed up with each participant by placing telephone calls to remind them to complete the survey.

Since four community members returned their surveys first, I wondered if parents of children with disabilities were possibly occupied taking care of their child with disabilities. Participants who had not yet responded were most apologetic and completed the survey within that same day.

Thinking about my specific questions, there was one question that I felt should have been asked on both surveys. For community members, I asked them to list their occupation for the last question on the survey and for my family member survey, I asked them to list their family role. It would have been interesting to know the family members' occupations as well so that I could see the difference in responses between those that worked with children or adults with disabilities and those parenting a child with a disability.

In general, the responses that I received through my surveys were extremely useful in for my Starred Paper. Many of my survey responses validated my findings from my review of the literature. It was interesting to find these similarities between the literature and a local community standpoint.

### **Study Limitations**

The survey that I conducted provided highly beneficial information that assisted in gaining a better understanding of the importance of sports and recreational activities for children with disabilities in my community. Even so, there are some limitations to my study.



The first limitation was that I only used parents for my family survey and did not include siblings, grandparents, or other family members in my sample. If I had included family members other than parents, I may have gathered viewpoints that differ from a parent's point of view.

A second limitation to my study was that I did not have children with disabilities participate in my survey. Many of the children who participate in adapted sports such as Miracle League have limited verbal communication skills. There are older children who played Miracle League baseball when they were younger and now volunteer in the program. Given their well-developed communication skills, they could have shared their opinions with me. I do believe that parents, and other family members, are credible reporters who understand their child and know when they are genuinely enjoying an activity. Yet, it would have been interesting to learn how children with disabilities truly feel about adapted sports based on their own experience.

The final limitation in my study was that I only distributed my survey to individuals in my immediate community. I believe it would have been helpful to include individuals from larger communities as many cities have more opportunities for adapted sports programming for children with disabilities.

## **Chapter 4: Conclusion and Summary**

The primary purpose of this research paper was to explore the benefits of sports and recreational activities for children with disabilities and their families as well as to learn how peers, adults, and other community members are impacted when children with disabilities are involved in sports and recreational activities. Through my review of the literature and action research study, I was able to answer both of my research questions.

The overall conclusion that I was able to gain through my literature review is that adapted sports and recreational activities are extremely beneficial for children with disabilities. Through sports, children with disabilities are able to increase their skills in a variety of areas such as health, peer relationships, social skills, and friendships.

First, many children improve their health and overall well-being by participating in sports and recreational activities. Individuals with disabilities who are physically active and participate in sports have been noted to be better adjusted and more satisfied with life, report having fewer days of pain, depression, anxiety, and sleeplessness, substantially increased their life expectancy, are stronger and have more stamina, have improved cardiovascular health and fitness, experience fewer and less severe secondary health conditions, and develop a positive athletic identity (Groff et al., 2009).

Peer relationships are also gained through the participation in sports and recreational activities for children with disabilities. Opportunities to interact with others, with and without disabilities, in a social environment such as through sports, impacts a child's overall development and also provides them an opportunity to learn from their non-disabled peers through these programs (Cowart et al., 2004). Sports also provide an interactive environment

where children with disabilities are able to practice their social skills while having fun (Alexander et al., 2011).

Developing friendships was the last benefit discussed in my literature review that children with disabilities gain through sports and recreational activities. Sport, exercise, and physical activity settings provide opportunities for children with and without disabilities to interact and develop friendships. Through these opportunities, children with disabilities are able learn how to play a variety of sports and activities but are also able to practice their social skills while developing friendships with their peers. Once friendships are created, children with disabilities are able to expand their social skills, peer relationships, personal well-being, and begin to influence one another on multiple levels (Seymour et al., 2009).

Overall, sports and recreational activities provide children with disability opportunities to increase their health and expand their social skills, peer relationships, and friendships. While children with disabilities often do not participate in sports as frequently as children without disabilities, it is crucial that they are encouraged to do so as participation provides many benefits. The benefits that they gain are also lifelong skills that can be used in a variety of settings outside of sports and recreational programs.

The next portion of my literature review discussed the benefits that families gain from having their child with disabilities involved in sports and recreational activities. While literature is extremely scarce regarding this topic, Castaneda and Sherrill (1999) conducted a combination of informal conversations, participant observations, and semi-structured home interviews with 15 families who had a child with a disability participating in Challenger baseball. Through their observations and interviews, they were able to identify five themes that families identified as the

most important gains from having their child with a disability participate in the Challenger baseball league. The five themes identified were (1) fun and enjoyment, (2) positive affect related to equal opportunities and feelings of “normalcy,” (3) social networking/emotional support for families facing common challenges, (4) acquisition of baseball knowledge and skills, and (5) increased interactions of children with peers (Castaneda & Sherrill, 1999). Challenger baseball, along with other adapted sports, provides individuals with disabilities and their families an opportunity to participate in a sport that is meaningful for all involved. Children are able to participate in a sport that can be adapted to support their development and needs while their families are able to be a part of a community where being “different” does not exist. It is important that children and their families are able to be involved in organizations, like Challenger baseball, which support children with disabilities and their family as a whole. Not only do children gain benefits from this sporting opportunity, but families are able to connect and develop supportive relationships with other families.

The last portion of my literature review focused on communities and the opportunities that they provide for children with disabilities. While many communities provide sporting programs for children with disabilities, many families are unaware of these opportunities and often, children with disabilities miss out on participating in them. I therefore, felt it was imperative to discuss a variety of adapted sports so that families, community members, and communities as a whole are aware of opportunities that exist for children with disabilities.

To summarize, some of the most important and recurring topics that I discovered throughout the literature involved benefits that children with disabilities and families receive from sports, recreation, and leisure activities, how peers relationships are developed and

expanded by having children with disabilities participate in recreational activities, social skills and friendships that are gained for individuals with and without disabilities, the variety of adapted sports and how communities view them, and the health benefits that children may gain. While the literature focused on these topics is very limited, the overall consensus is that sports and recreational activities are extremely beneficial for children with disabilities by fostering skills that can be used in all areas of their life. Adapted sports also impact families and provide them with opportunities to connect with other families and community members and provide them with additional support systems that can be beneficial for their family as a whole.

While participation in sports and recreational activities is extremely important for children with disabilities, often challenges and barriers make it difficult for them to achieve full participation. It initially was my intent to only discuss benefits that are gained for children, families, and others but after reviewing literature, I realized that discussing these barriers is important in making adapted sports more available for more children with disabilities. Shields and Synnot (2014) identified barriers of personal, social, environmental, programmatic, and policy to why children with disabilities do not participate in sports and recreational activities as often as their peers without disabilities. Other barriers identified by Solish, Perry, and Minnes (2010) were the challenging relationship between social participation and mobility, limited opportunities, and the lack of same-aged peers to participate with in sports. While it is extremely disheartening that children with disabilities have more barriers and challenges to participation in sports and recreation than children without disabilities, it is important to be aware of these difficulties so that changes can be made. With this awareness, families, community members,

and communities as a whole can work together to reduce these challenges so that participation in sports can be made more readily available for children with disabilities.

My action research data collection was the final portion of my paper that helped to identify the benefits that children with disabilities, their families, and other community members receive from sports and recreational activities. In order to gain a better understanding of how families perceive sports and recreational activities and how community members perceive them, two separate surveys were distributed. Information gathered through these surveys was extremely beneficial and further supported the need for adapted sports in communities for children with disabilities and their families because of the benefits provided. Similar questions were asked on both surveys and information obtained was also similar.

In regard to the benefits that children gain from sports and recreational activities, the most prevalent themes that families identified were that the focus was on the child and not their disability and that their child gained social interactions. Community members identified themes such as socialization, inclusion, and health benefits as gains and benefits for children with disabilities. The second question asked was in regards to what families gain from having their child participate in sports and recreational activities. Families identified the theme of support as the most prevalent. Community members also identified the idea of support as the most important aspect that they believed families gain as well as having a sense of pride in seeing their child participate in a sport.

The next question in the survey asked participants, both family and community members, what challenges exist that impact the participation of children with disabilities in sports. Again, similar responses were given amongst the two groups. Ideas such as transportation, unaware of

existing sports and opportunities, knowledgeable coaches and volunteers, and health and other related factors such as the outside temperature were identified by family members and community members as potential challenges, barriers, and reasons why children with disabilities have a difficult time participating in sports and recreational activities.

The last question in the survey asked family members and community members to identify other sports and activities that they wished were available in their immediate community. A variety of ideas were generated and both groups indicated the need for more active opportunities like sports as well as more passive opportunities and activities in their community for children with disabilities.

Overall, in comparison with the literature review and the findings from my action research study, similar ideas and beliefs were obtained from both research strategies. While literature is very limited on this topic, research has demonstrated that children with disabilities and their families gain multiple benefits from participating in adapted sports and recreational activities. It is interesting to note that findings generated a more local, community aspect in my action research study and validated the peer reviewed published literature.

Therefore, through my literature review and action research, I was able to answer my research questions by discovering a variety of benefits that children with disabilities and their families gain through participation in sports and recreational activities. I was also able to discuss how peers, adults, and other community members are influenced and impacted by having children with disabilities involved in sports and recreational activities.

## **Chapter 5: Position Statement**

As a parent to a child with significant disabilities, finding meaningful opportunities for him to participate in are sometimes difficult. Fortunately, Miracle League baseball was the first program that we became involved in outside of school opportunities. Through this program, he was able to interact with peers and make new friends, learn about and gain skills related to baseball, and be part of a team and as a family, we were able to be a part of a community that offered nothing but compassion, support, and a sense of belonging. Without this program, I would not have been aware of the opportunities that sports and recreational programs provide for children with disabilities and their families. Thinking about that, I could not help but wonder how many more children with disabilities and their families are missing out on programs like this due to not being aware of their existence. It therefore became extremely important to me to research this topic more in-depth so that I could learn more about the benefits and positive viewpoints that others gain through adapted sports. Being personally involved in adapted sports, through my son, I know firsthand how important these activities are to him and our family. I now want to share this awareness among other families and community members so that more children with disabilities and their families can experience the benefits of sports and recreational activities. The information that I learned through completing this research project not only supports my belief and opinion on sports and recreational activities for children with disabilities but the research, while limited, also supports this position.

When I initially became interested in this topic, I had the mindset that only benefits existed for children with disabilities and their families from participating in sports and recreational activities. Due to the immense positivity that our family gained immediately from



Miracle League baseball, I was under the impression that no challenges or barriers could exist. I was initially very opposed to researching challenges that are present in adapted sports and recreational activities. I did not want to minimize the greatness of these opportunities for children with disabilities by identifying issues and barriers that could possibly detract from the overall importance. However, after pondering the thought of digging deeper into identifying possible challenges, I came to the realization that in order to make sure sports and recreational activities are made available for all children with disabilities, barriers need to be identified. Only then can these barriers be reduced and completely diminished. Through my literature review and my action research study, I was able to learn that challenges do exist but, with community support and enhanced relationships with families, these barriers that can be minimized. Even though the results of my action research study identified challenges and barriers to participating in adapted sports and recreational activities, parents and community members both identified gains that far outweigh anything that could reduce the appeal of these opportunities. Through this new recognition, I am now even more passionate about the importance of sports and recreational activities for children with disabilities and their families.

I also learned through this research project that more promotional information needs to be provided in communities, schools, and other public environments. As an early childhood special education teacher and mother to a child with a significant disability, I now realize even more intensely how important it is to “spread the word” about sports and recreational opportunities for children with disabilities. While many benefits are gained through participation in these programs, I feel that the most important aspect is realized in a program that maximizes a child’s ability and does not focus on their disability. I truly believe that all children can participate in

sports and recreational activities despite how significant their disability may be, and it is my job to continue to advocate for these important opportunities so that more families experience the joys from seeing their child participate in adapted sports.

After researching this topic, I now feel confident in sharing my beliefs about these adapted sports and recreational programs. I am prepared to answer questions with research-based information as well as through personal experiences from my son, Shane, and our family. Now, with the information gained from families who responded to my survey in my action research study, my position has been further strengthened. It is my hope and dream for the future that all children with disabilities are able to participate in sports and recreational activities. I will continue to share my information to advocate for these programs so that other children with disabilities and their families can experience what my son and our family have experienced when we first walked on the Miracle League baseball field 5 years ago.

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## **Appendix A: Parents' Personal Perspectives**

### **This story was submitted to ARISE by Pam S, Kyle's mother:**

An update to the story... Kyle was awarded the Sportsmanship Award and the Most Escape Award at the team banquet at the end of the wrestling season in 2013.

Kyle S. was born to wrestle and play golf. His dad, Troy, is a 20+ year wrestling coach and dreams of the day he will join the senior PGA. So we knew that our boys would wrestle and of course, play golf. Kyle's older brother, Spencer, went to his first wrestling practice at three years of age and has never looked back. Spencer also got his first pair of "real" golf clubs that same year. When Kyle came along, we had those same wrestling and golf hopes and dreams. Kyle, however, was born with Down syndrome. We thought the dreams would have to change. Boy, were we wrong. Kyle had some medical issues early on in life so he did not walk until he was about three. As soon as he could hold a club and hit the ball, his love of golf was born. What he may lack in distance, he makes up for in accuracy. He can hit a ball as straight as an arrow! Kyle went out for his first season of junior high golf last year. Enter ARISE! With the support of Kyle's "Golf Buddy," Tiffany, Kyle hit the course every day after school March through May. The highlight of the golf season for this proud mom was at the golf meet at Pierz when one of the golfers remarked, "Wow! Kyle has Down syndrome and he can keep up with us!" Kyle's score beat four "typical-kid-golfers" that day! So what about wrestling? Kyle was dragged to hundreds of his brother's wrestling matches until he got his first taste of wrestling with his friends in 6<sup>th</sup> grade. We took him to our hometown tournament, the Foley Open, and that was when he decided he too was going to be a wrestler. We just did not know how it would be possible for him to join the junior high team. Again, ARISE, enters the scene! In 7<sup>th</sup> grade, Kyle went to his first junior high wrestling practice with the support of his ARISE worker, Heather. Just like his big brother, he too has never looked back! Kyle just completed his 8<sup>th</sup> grade wrestling season with the support of his ARISE worker, Michael, and can hardly wait for the junior high golf season to begin!

**This ARISE story was submitted by Brianna, Kaya's mother:**

Dance, swimming, and now golf. Over the past 11 years, our daughter, Kaya, has grown up with ARISE. Now a freshman, Kaya was able to complete her first ever high school sport with her mentor, golf teacher, friend, and most important ARISE staffer, Riley. The doors of accessibility and “normalcy” open with ARISE.

Kaya, a twin, suffered a stroke and has numerous medical challenges that threaten her ability to be able to keep up with her peers. Daily medical needs and very serious chronic conditions of failing systems burden her to be able to experience sports and other activities that we take for granted. When Deb J, and I met many years ago to discuss how we can best meet Kaya's physical and emotional needs through an activity, she approached Kaya with the idea of golf. A life-long activity that can be enjoyed with easy adaptations, golf was a perfect fit. Now four summers and one high school season later, golf is now a part of her life with the help of ARISE. Riley, Kaya's ARISE staffer, not only provides assistance on how to adapt the golf skills, he more importantly gives her confidence and is so patient.

With ARISE; activities, sports, and outings are possible. However, gaining confidence, independence, self-esteem, and being a part of our community has taken it to the next level for our daughter. Without ARISE, that just would not be possible!

**Appendix B: Action Research Survey:  
Understanding Sports and Recreation for Children with Disabilities**

**Please answer the following survey items to the best of your ability. This survey will be used as part of a class requirement to complete my Master's Degree program.**

**Survey for Parents / Friends**

1. What are the benefits of participating in adapted recreational sports and activities for a child with disabilities?
2. What are the benefits of participating in adapted recreational sports and activities for the family of a child with disabilities?
3. Please list all adapted sports and recreational activities that your child with disabilities has played.

How long did/has your child participated in each adapted sport or recreational activity?

4. What are the challenges to participating in adapted sports and recreational activities?
5. Are there any additional sports or recreational activities that you wish were offered in your community for children with disabilities?
6. Please check all that apply:  
 Parent  Friend  Sibling  Other \_\_\_\_\_



**Action Research Survey:  
Understanding Sports and Recreation for Children with Disabilities**

**Please answer the following survey items to the best of your ability. This survey will be used as part of a class requirement to complete my Master's Degree program.**

**Survey for Teachers/Coaches/Community & Organizational Leaders**

1. What role did you serve in adapted sports or recreational activities for children with disabilities?  
  
For which adapted sports or recreational activities?
2. What are the benefits of participating in adapted recreational sports and activities for a child with disabilities?
3. What are the benefits of participating in adapted recreational sports and activities for the family of a child with disabilities?
4. What are the challenges of participating in adapted recreational sports and activities?
5. Are there any additional sports or recreational activities that you wish were offered in your community for children with disabilities?
6. What is your occupation?

**Appendix C: Draft Email**

To Whom It May Concern,

You are receiving this email because you have agreed to participate in an action research study as partial fulfillment of a class I am enrolled in through St. Cloud State University. Please take the time to answer the following questions and return to me as soon as possible. To respect your privacy, names will not be used when I use the information to report on the findings. If I have not received a response within seven days, I will follow up with a phone call to you.

Thank you, and I look forward to receiving your responses.

Sincerely,

Becky